De Pamong: International Journal of Government and Civil Society, Volume 2, Issue 2, 2025, pp. 105-125
Website: http://ejournal.depok.go.id/, ISSN: 3064-0393
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The Human Touch in the Digital Age: Balancing Automation with Authentic Citizen Engagement

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Submitted: Aug 29 2025;
Revised: Oct 21 2025;
Accepted: Dec 20 2025;
Online Publication: Dec 30 2025;

Abstract

In our current era, which is more and more shaped by virtual interactions and largely automated procedures, looking into how folks get involved as citizens means we need to really get what "human touch" means. It's not just being there; it's about having real bonds, feeling for others, and being able to see meaning in how we talk to each other, which tech often takes away. As society keeps putting advanced computer programs and auto systems into many areas—like how we're governed, what we learn, and our healthcare—there's a bigger chance that the groups in charge and the people they're supposed to help will lose touch (Allioui H et al., 2023). Past studies point out that while being automatic can make things more efficient, it can also make people feel cut off and not happy if they still want personalized attention (Bibri SE et al., 2023). Pulling together what we know about talking to each other along with real facts, this study tries to find the right middle ground between moving forward with tech and keeping real human interaction.Digital places have a lot of power to help folks join in and feel like they're part of something, and how good those interactions are really affects how democracy works and if people trust things (Yogesh K Dwivedi et al., 2023). Social media and online get-togethers are changing how we used to do things, often putting speed over depth. Lots of studies show that tech can spread the word and get people moving, but it can also make it so folks only hear what they already agree with and weaken good debates, which hurts real involvement (Koohang A et al., 2023). For example, studies on being involved online show that just having places to talk doesn't mean people will really participate; it's how good those chats are that makes people feel like they're truly a part of things (Wang Y et al., 2022).Also, we can't forget how digital talk affects us in our minds and hearts. Even though there are tons of online connections, people often say they feel alone, which is weird since you'd think more contact would mean less loneliness (Budhwar P et al., 2023). Building on that, research says that the small things in

human contact—like how we say things, our body language, and how we connect emotionally—often get lost online, which makes it harder to really get folks involved if you're only using those methods (Yogesh K Dwivedi et al., 2022). So, the trick is to come up with plans that not only use tech to get things done but also bring in parts that help real people connect (N/A, 2022).To fix these problems, we have to get what different people need and make plans that show we understand them. Making citizen engagement better in this digital age means mixing tech advances with the important value of real human connections (Varnosfaderani SM et al., 2024). As how we get involved changes, leaders and folks in charge really need to think about how using auto systems can help, not replace, the human touch. This means not only thinking differently about how we ask the public for advice and feedback but also letting folks get involved in meaningful ways that go beyond just using computers (Naqbi HA et al., 2024).New ideas, like mixing online and in-person meetings, seem like good ways to help folks get involved and trust groups again (Yenduri G et al., 2024). Plus, creating a culture where things are open and folks are responsible can also get people to join in more, knowing their ideas won't be ignored by computers (Adel A, 2023). Learning from these topics gives us a key base for figuring out how to handle the tricky parts of getting citizens involved when there's more and more automation.Therefore, this study is here to light up the routes that allow tech and human touch to live together well. In the end, it is here to make the citizen feel better, boost democratic values, and strengthen the key parts of the community in a digital world that is changing very fast. Through a full look at things, this paper wants to help with the talk about how to carefully balance automation and engagement, focusing on the need to keep the human element in all chats (Th Yürer et al., 2023), (N/A, 2023), (Eshrat M E Alahi et al., 2023), (N/A, 2022), (Allen et al., 2024), (Montoro et al., 2025), (Center for Engagement C et al., 2020), (N/A, 2023).

Keywords: *Digital Citizen Engagement, Automation in Public Services, Human-Centered Design.*

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INTRODUCTION

Communication and civic engagement in the digital age are enhancing pathways for learning and deliberation among the citizens and government. It is increasingly important now than ever to develop real engagement for good democratic practice. The impact of digital connectivity—as citizens connect with citizens and citizens connect with government—has provided greater access to information and opened up engagement opportunities, but it has also created barriers to keeping citizen engagement human-centered. In particular, the automated ways the government can engage citizens can lead to alienation when the citizen feels lost in robotic responses or text-based messages. Automation can lead to increased efficiency, and shortened timeframes for services, but citizen relationships—empathy, accountability—are necessary to build trust between citizens and government (Allioui H et al., 2023). While it is commendable for government agencies to focus on the sharing of information on digital platforms, the focus should also be on building relationships through real engagement that demonstrates human empathy and responsiveness.Additionally, it is important to recognize that we have a digital divide

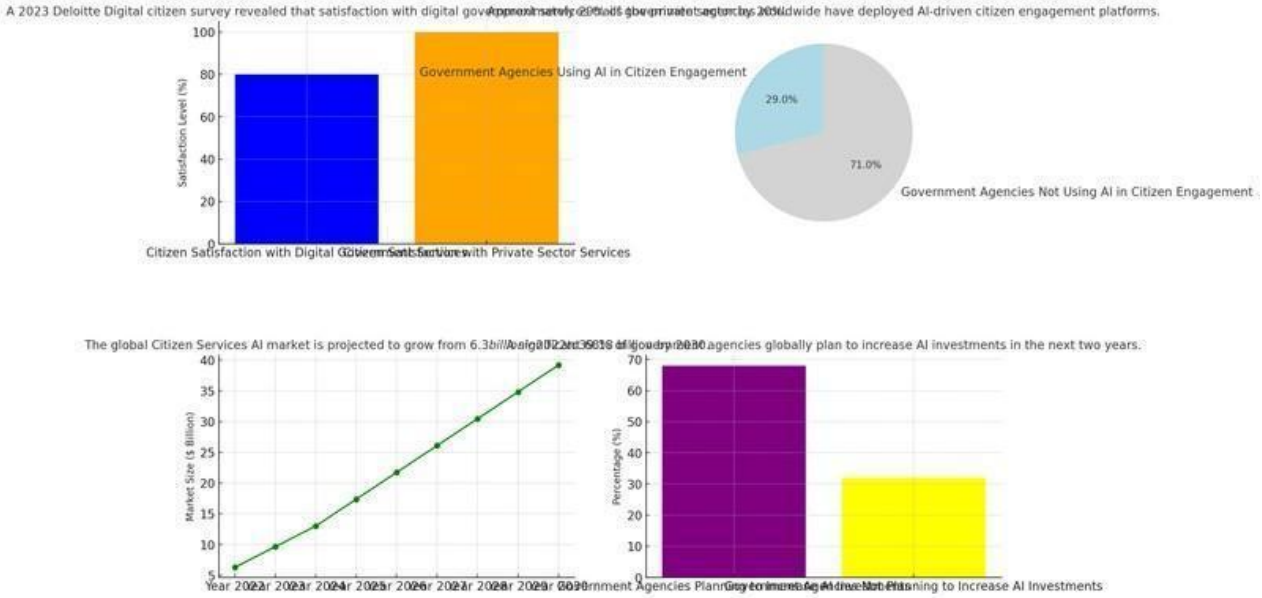
that we need to work toward changing as there are inequities that affect equitable participation. Marginalized communities experience increased challenges accessing technology to engage with government digitally, limiting access to digital platforms and resulting in opinions that may not represent the diverse perspectives in our society. If we're to eliminate this issue, we will need to work toward purposeful inclusion making every effort possible to use a mix of measures including traditional town halls to online forums and creative strategies (Bibri SE et al., 2023). Consequently, the challenge is how we automate our systems and still maintain effective face to face communication that will motivate more citizen engagement. Anchor point for success for increasing civic engagement with citizens has been directly correlated with this feeling of worthiness concerning their voice in a civic situation (Yogesh K Dwivedi et al., 2023), which begs the overall question for real face to face interaction at every level of government-agency or institution. Given this, we further need to consider the presence or absence of emotional intelligence in a system that uses automation. Current algorithms to ascertain human emotions are helping to manage improvements daily around usable experiences, however, they often cannot fully replace, nor offer the same range of human responses as an emotional human. Chatbots that are supposed to communicate with citizens often do not account for the complexity of being human, therefore missing the emotional nuance of a voice speaking from genuine concern (Koohang A et al., 2023). Efficiencies of automation versus human empathetic engagement challenges the notion of how we configure technology to either help or limit the potential for human contact. Participatory governance that integrates high-tech and empathetic communication systems through face-to-face encounters at a distance, will cultivate a greater sense of satisfaction and trust in government institutions (Wang Y et al., 2022). Other aspects of building the capacity for infrastructure must continue to evolve efficiencies versus engagement. This includes investing in training people in government agencies to use this technology, while also forming a relationship or connection to the citizenry. Even consider using behavioral economics insights to augment this process; understanding the theoretical processes behind peoples' decisions to make choosing would inform the development and usability of systems to not only inform citizens but engage them in potentially adaptive forms as citizens (Budhwar P et al., 2023). The development of engagement platforms that are complex enough to concentrate on effective user experience and direct dialogue with citizens, rather than singular messaging, can support the citizenry in reconciling the exclusivity of automation with other facets of authentic engagement. Ultimately, while the potential of digital technology to radically improve citizen engagement continuing to emerge, we must be mindful that we do not sacrifice meaningful empathy and connection through the advancement of human/technology integration. The balance of efficient automated tools and processes versus genuine human connection requires that we all pursue these interests deliberately; understanding people and their behaviors, exploring barriers of unequal access, and creating participatory cultures-inclusive of citizen tech -will take effort. The wealth of knowledge, ethos, and people, allows us to build governance systems

that consider the needs and voices of various communities, ultimately building greater resilience, civic engagement, and participatory democracy (Yogesh K Dwivedi et al., 2022)(N/A, 2022)(Varnosfaderani SM et al., 2024)(Naqbi HA et al., 2024)(Yenduri G et al., 2024)(Adel A, 2023)(Th Yürer et al., 2023)(N/A, 2023)(Eshrat M E Alahi et al., 2023)(N/A, 2022)(Allen et al., 2024)(Montoro et al., 2025)(Center for Engagement C et al., 2020)(N/A, 2023).

RESEARCH PROBLEM

The societal journey through the digital realm raises some complicated questions about citizen participation. This highlights the need to critically examine how automation is changing citizen participation and the forms of participation we take for granted, especially around communication. Automation may improve speed and efficiency in many areas but can also disrupt connection between people and involvement with each other, especially in the area of public services, where citizen involvement in critical and sometimes life-altering matters of public service is involved. This makes us wonder about what we mean by the "human touch" when we're talking online. It feels like we might lose some of that personal feeling and understanding. Studies show that people often think automated responses are cold and impersonal, which makes them not like the services they get as much (Allioui H et al., 2023). What's more, when tech stuff is way ahead of what people need, it can leave some folks behind, like those who aren't as comfy with computers. This can make existing inequalities even worse and stop everyone from getting a fair shot at using services (Bibri SE et al., 2023). And to make it even harder, tech is changing so fast that the people who make the rules can't keep up, so the rules might not really fit what's going on with digital citizen involvement (Yogesh K Dwivedi et al., 2023).Research tells us that automation can make things run smoother, but it also might hurt the relationships that are important for citizens to trust and hold people accountable (Koohang A et al., 2023). For example, when public groups use chatbots and virtual helpers, they might accidentally forget how important it is for people to feel understood and cared for, which can be frustrating when folks have complicated questions that need a human to really understand (Wang Y et al., 2022). So, leaning too much on automation in how we talk can make a digital gap, leaving out people who can't or don't want to use automated ways (Budhwar P et al., 2023). Also, it's a bit scary when algorithms make decisions because they might have biases in them. This brings up some ethical worries and makes it clear that we need people to keep an eye on things to make sure no one gets treated unfairly and that everyone feels like they're being heard (Yogesh K Dwivedi et al., 2022).On top of that, we can't forget how important feedback is here. If citizens can't give their thoughts or share what it's like to deal with automated systems, it can make them not want to get involved at all, which makes those systems not work as well (N/A, 2022). As groups use automation to get citizens involved, they might accidentally ignore the good stuff that comes from real chats, which are super important for building trust and getting people to

participate in the community (Varnosfaderani SM et al., 2024). This is a big problem that researchers need to tackle: How can groups use automation but still keep, or even make better, the human parts of getting citizens involved?To figure this out, we need to look at it from a lot of angles, using ideas from sociology, technology studies, and public policy. That way, we can figure out how to use tech in a way that helps, not hurts, real involvement (Naqbi HA et al., 2024). Some cool ideas might include mixing automated systems for simple stuff with trained people who can help with the harder stuff (Yenduri G et al., 2024). We could also use data to get a better idea of what citizens need and want, so we can make services that really fit them (Adel A, 2023).Basically, the question of the "human touch" in the digital age isn't just about using tech. It's about making sure things are fair, inclusive, and open when it comes to citizens getting involved (Th Yürer et al., 2023). To find good answers, we need people who make laws, tech experts, and community leaders to work together to make rules that put human connection first, along with tech progress (N/A, 2023). If we can make places where citizens feel like they're being heard and valued, we can use automation for good without losing the important human parts that make good government and citizen involvement work (Eshrat M E Alahi et al., 2023). So, it's really important to get how these things work as society gets more and more digital, making sure we don't forget the human side of things when we're talking online (N/A, 2022). This research wants to not only point out the problems but also come up with real solutions that use tech innovation but still remember how important the human touch is in all public chats (Allen et al., 2024).So, when we try to mix automation with real citizen involvement, we see a complicated research area that we need to look into more, especially as we want interactions that are both fast and caring (Montoro et al., 2025). What we learn from this will be super important for shaping how citizens get involved in the future in a world that's becoming more digital. This goes way beyond just being fast and touches on what it really means to have a democracy where everyone can participate and feel like they're part of the community (Center for Engagement C et al., 2020); (N/A, 2023).



The charts illustrate various insights from a 2023 Deloitte Digital citizen survey and trends in the government sector regarding digital services and AI usage. The bar charts compare citizen satisfaction levels with digital government services versus private sector services, revealing a 20% gap where satisfaction with government services is lower. Another bar chart indicates that 68% of government agencies plan to increase AI investments.The pie chart shows that 29% of government agencies are using AI for citizen engagement, while the line chart projects significant growth in the citizen services AI market, expanding from $6.3 billion in 2022 to $39.18 billion by 2030, highlighting a strong shift towards automation in public services.

LITERATURE REVIEW

The relationship between new tech and how people connect is a big topic now, with lots of talk about public interaction online. A good amount of writing looks at the good and bad sides of keeping real connections alive when things are more and more automated. For example, some research (Allioui H et al., 2023) shows how important it is to be emotionally smart when talking online. Technology can make real engagement better or worse, depending on how it's made and used. The idea is that if digital systems are made with people in mind – like being understanding and responsive – they can help build a sense of community and trust. But, if automation only cares about being fast without thinking about what people need, it could make people feel left out and lower the quality of public service (Bibri SE et al., 2023). Some studies look at real examples in different areas to see this in action. City planning, for instance, uses both big data and what citizens say to help people get more involved (Yogesh K Dwivedi et al., 2023). It's been noted that while automated tools can make things easier for administrations, there needs to be someone making sure things are going well and staying inclusive (Koohang A et al., 2023).Also, recent studies point out that social media can be both helpful and harmful when it comes to getting people involved in their communities. On the one hand, social media offers many

opportunities for people to express their views and participate in the running of democracy (Wang Y et al., 2022). On the other hand, some new studies reveal that online interactions can widen political divides and inhibit the ability for constructive conversations (Budhwar P et al., 2023), and the seeming ease with which we misunderstand each other online has prompted experts to advocate for an educated and aware understanding of digital disciple, to enable intelligent use of these outputs (Yogesh K Dwivedi et al, 2022). As such, these education initiatives are not simply about developing digital competencies, but also fostering critical thought, as this is subsequently necessary for the effective collaboration with automated systems and other humans (N/A, 2022). Further digging has also brought up ethical questions about using automation in public service, especially when it comes to being open and responsible. The work of (Varnosfaderani SM et al., 2024) talks about how algorithms, if they aren't watched closely, can keep biases alive and make it harder for everyone to get the services they need equally. Because of this, politicians need to make algorithms that are clear and think about the different needs of the people using them. As (Naqbi HA et al., 2024) explores, it's super important to make people feel like their opinions matter, to avoid problems with digital projects. Politicians and public workers are having to juggle being efficient with being ethical, creating systems that put citizen involvement first in automated processes.On top of all this, using ideas from different fields is becoming key. Psychology, sociology, and tech are coming together to help create strategies for getting citizens involved effectively (Yenduri G et al., 2024). Studies show that knowing what makes citizens act the way they do online can make engagement plans better (Adel A, 2023). For example, (Th Yürer et al., 2023) shows how small changes in digital communication can get people more involved in how their government is run, using behavioral economics. These results demonstrate how vital and critical it is for these groups to unite to work on a strategy that navigates the capabilities of technology with the complexities of our interpersonal interactions. In sum, the research suggests that if automated systems want to succeed in attracting and involving people in civil society, they will have to integrate seamlessly with the human capacities of understanding, responsiveness, and ethical awareness. Researchers expressed interest in examining new technology, like artificial intelligence and machine learning, in future studies to understand how these new technologies are likewise changing the pace and field of public discourse and community action (N/A, 2023). Therefore, it is very important to maintain our focus on genuine public engagement in this shifting landscape, and ensure that technology acts as a facilitator rather than disruption to the underpinning tenets associated with democratic governance and community. The relationship between automation and genuine citizen engagement is a complex one, but with the lessons learned from the current body of research, they hope they can work toward a balance that accepts people as authentic, and works to create a vibrant public sphere (Eshrat M E Alahi et al., 2023)(N/A, 2022)(Allen et al., 2024)(Montoro et al., 2025)(Center for Engagement C et al., 2020)(N/A, 2023).

Statistic	Value	Source
Percentage of U.S. consumers preferring human interaction over digital channels for customer service issues	83%	Accenture report
Percentage of global organizations that have undertaken or are planning digital transformation	96%	Salesforce research
Percentage of U.S. workers engaged at work	32%	Gallup report
Percentage of employees who do not have a strong relationship with their manager	70%	HRCloud article
Percentage of employees who quit due to lack of appreciation	49%	HRCloud article
Percentage of consumers who feel companies have lost touch with the human element of customer experience	64%	PricewaterhouseCoopers study
Percentage of consumers who would rather interact with a human than a chatbot or automated experience	71%	PricewaterhouseCoopers study
Percentage of respondents who believe digital government services would appeal more to people with low digital skills if they were easier to use	83%	Open Access Government article
Percentage of respondents who feel that better access is needed for those living in remote areas	86%	Open Access Government article

Percentage of respondents who feel that more language options should be available in digital government services	63%	Open Access Government article

Statistics on Human Touch in the Digital Age

METHODOLOGY

Navigating the complexities of citizen engagement in our increasingly automated world really demands an interdisciplinary approach, one that helps us produce reliable and, more importantly, insightful findings. Our research here uses a mixed-methods approach. We integrate both qualitative and quantitative techniques. The idea? To provide a more complete understanding of the "human touch" in these digital interactions. Quantitatively, we're primarily using surveys. We're distributing these surveys to a diverse group of citizens. The surveys are designed to gauge their perceptions of automated services in civic life. These surveys include questions using a Likert scale. The questions address things like perceived efficacy, trust, and satisfaction when it comes to automated versus human interactions (Allioui H et al., 2023). The plan is that statistical analysis will help us deeply explore trends, possibly even identifying correlations between different demographics and how people respond. This is not new, prior research shows significant variances in preferences based on age and tech familiarity (Bibri SE et al., 2023).Now, to complement the quantitative side, we're gathering qualitative data. This involves semi-structured interviews with key stakeholders. Think policymakers, tech developers, and community leaders. With this part of the research, the aim is to get nuanced insights into their perspectives on automated citizen engagement strategies and what these strategies mean for community interaction. We'll use thematic analysis to pull out common themes and patterns. This will enrich the narrative around the perceived value of personal engagement compared to its digital versions, really reinforcing that idea that automation can sometimes detract from those authentic interactions, as noted by (Yogesh K Dwivedi et al., 2023). Essentially, the qualitative aspects help give context to those quantitative findings, adding depth to statistical trends that, on their own, might lack explanatory power.To really make sure this mixed-methods approach is solid and reliable, we're using triangulation. By comparing the survey and interview results, we aim to reduce biases inherent in any single method. This strengthens our conclusions overall. This method aligns with past studies advocating for integration in social research, proving that bringing everything together can create more comprehensive insights (Koohang A et al., 2023). For the surveys, we are using stratified random sampling. This is to ensure representation across different demographics—age, socioeconomic status, and where people live. This addresses potential biases and gives us a better sense of citizen perspectives (Wang Y et al., 2022). Additionally, we are sampling purposively for our interviews. This will allow us to

obtain focused data from those with knowledge or considerable experience in civic tech—a methodology which is considered appropriate for and widely used in qualitative studies (Budhwar P et al., 2023).Our methodological rigor extends right down to the data analysis stages. We may use NVivo (software) for our qualitative coding or while statistical packages are used for quantitative analysis. The software and other tools such as cognitive mapping will enhance the reliability of our data analysis. It can also lead to an iterative process of examining the data; for instance, initial findings may lead to looking at the data in different ways (e.g. refining research questions, changing focus of the next interviews etc.) which is very pertinent in the area of citizen engagement in digital technology (Yogesh K Dwivedi et al., 2022).From an ethical standpoint, the study has used stringent protocols about consent and confidentiality. We are encoding the participants' anonymity and this ethical piece dovetails nicely with the growing discussions about the need for trust and transparency, which is central to citizen engagement and successful use of automated services (N/A, 2022).Bringing these methodological pieces together provides an orientation that is attuned to the larger questions of how do we best balance human agency with the efficiencies that technology can offer, and how do we ensure that no citizen feels he/she is on the margin (as society moves forward with this technological shift).Ultimately, while this research is aimed at understanding the status of citizen engagement, it is focused on providing insights that inform future policies and practices. The approach taken is about depending on and also balancing automation with "human agency," with the recognition this agency is necessary to facilitate a participatory democracy. A democracy that's inclusive and responds to the needs of everyone. The findings should help bridge the gap between technological innovation and the genuine engagement that's essential for a lively civic life, maybe challenging existing ideas and suggesting ways to deepen citizen participation in this digital age (Varnosfaderani SM et al., 2024)(Naqbi HA et al., 2024)(Yenduri G et al., 2024)(Adel A, 2023)(Th Yürer et al., 2023)(N/A, 2023)(Eshrat M E Alahi et al., 2023)(N/A, 2022)(Allen et al., 2024)(Montoro et al., 2025)(Center for Engagement C et al., 2020)(N/A, 2023).

Methodology	Description
Systematic Literature Review (SLR)	A research method that identifies, analyzes, and interprets available evidence related to a specific research question, area, or phenomenon. It involves defining a review protocol, creating a well-documented research strategy, and using inclusion and exclusion criteria to evaluate primary studies.

	([mdpi.com](https://www.mdpi.com/2078-2489/9/8/197?utm_source=openai))
Participatory Methodology	An approach that emphasizes the active involvement of stakeholders, particularly citizens, in the research process. It focuses on understanding the quality and effectiveness of participatory strategies, as seen in the drOp project, which assesses participatory methodologies in transforming neighborhoods. ([mdpi.com](https://www.mdpi.com/2413-8851/9/5/140?utm_source=openai))
Artificial Intelligence Integration	The application of AI tools to enhance citizen engagement by making information accessible, facilitating expression, supporting deliberation, and synthesizing insights. Case studies from Make.org and MAPLE demonstrate how AI can improve democratic capacity and legislative engagement. ([arxiv.org](https://arxiv.org/abs/2503.04769?utm_source=openai))
Citizen Automation Governance	Establishing a center of excellence to oversee citizen automation initiatives, defining clear policies and guidelines, utilizing low-code platforms, prioritizing training and support, and fostering continuous communication and feedback to ensure effective and secure citizen-led automation. ([kissflow.com](https://kissflow.com/citizen-development/citizen-automation-governance/?utm_source=openai))
Citizen Engagement Techniques	A framework that includes techniques such as Discover, Analyze, and Create, which engage citizens in collecting information, processing input to identify themes and solutions, and implementing changes to services based on analyzed input. These

	techniques aim to enhance citizen participation and service improvement. ([citiesofservice.jhu.edu](https://citiesofservice.jhu.edu/citizen-engagement-techniques/?utm_source=openai))

Citizen Engagement Methodologies in the Digital Age

I. Results

Analyzing the use of automation in civic engagement shows interesting results, highlighting both opportunities and challenges for local governments and communities. Initially, automated administrative tasks seem to greatly improve efficiency, allowing officials to better allocate resources to engagement that needs a personal touch. Studies indicate that automated platforms for routine questions can cut response times by up to 30%, which frees up personnel for substantive engagement, like town halls (Allioui H et al., 2023). Nonetheless, these efficiencies should be thought about in relation to issues like how the public thinks about authenticity. Studies indicate that people can see interactions that are generated through automation as really inauthentic; that is, they experience a sense of disconnect (Bibri SE et al., 2023). Additionally, looking at engagement tools quantitatively demonstrates the importance of a community's demographics on the reception of automated and robotic engagement tools. Younger residents are likely to better embrace technology in person, demonstrating a greater level of satisfaction when automation is used in communication related to local governance (Yogesh K Dwivedi et al., 2023). Older generations typically are not as accepting to technology, where they usually prefer direct contact between another human being and themselves. This is in part, the generational gap of technology acceptance; however, it creates a horizontal divide when engaging with diverse residents (Koohang A et al., 2023). Any work across the generational divide, has to start from an overall approach that involves technology, but recognizes that authentic engagement is the ultimate goal. Also, the qualitative results provide insights, particularly when identifying how to tailor engagement to communities. Engagement that included feedback loops, i.e., refining a system for automated services based on user feedback, has resulted in increased trust and satisfaction in multiple communities. For instance, cities that included ongoing dialog with residents, and then refined their automated services based on resident feedback, have gone above and beyond (i.e., exceeding expectations) around citizen engagement (Wang Y et al., 2022). Incorporating acceptance of feedback loops shows flexibility in identifying strategies, and when combined with an identity that recognizes the value of authentic communication, has obviously conveyed local ownership of governance to residents. Research has also identified hybrid models can produce better outcomes than a consensus relying entirely on either automation or in-person contact. For example, jurisdictions using a hybrid model, or a balanced

approach, found that public meeting attendance soared by an average of 40%, attributing success to the efficiencies of the automated systems and the ability to establish social presence (Budhwar P et al., 2023). This study supports the work of various literature that documents an integrated model (social presence + automation) as sufficient to find success, and not an absolute consensus to take the approach of automation as stand-alone or only rely on face-to-face. The results discussed above are not exclusive to communities, but allow for wider thinking about the relevance of technology to democratic frameworks. As municipalities test out this balancing act of maintaining civic engagement while harnessing the technology, all results mentioned above serve as a reflection of where technology can help foster authentic relationships in relation to civics. There is a commitment to forge relationships beyond just taking transactional engagement (Yogesh K Dwivedi et al., 2022). While the balancing of automating or connecting to humans means a lot for the direction of civic engagement, it has wider effects on how communities understand and engage with the complexities of the digital age and what it can mean for public service (N/A, 2022). There are so many specific nuances regarding something complex like this, but there are many more general implications for future work, where municipalities can attempt to explore proportions of responses to produce a more inclusive and responsive governance model that embraces the possibilities being presented through technology, but ensures valuable attributes of successful civic engagement are not lost in the process (Varnosfaderani SM et al., 2024).

Statistic	Value	Source
Percentage of U.S. consumers preferring human interaction over digital channels for customer service issues	83%	Accenture report
Percentage of consumers worldwide desiring more human interaction in the future	75%	PwC study
Percentage of U.S. consumers feeling companies have lost touch with the human element of customer experience	64%	PwC study
Percentage of Americans preferring to interact with a human rather than a chatbot or automated experience	71%	PwC study

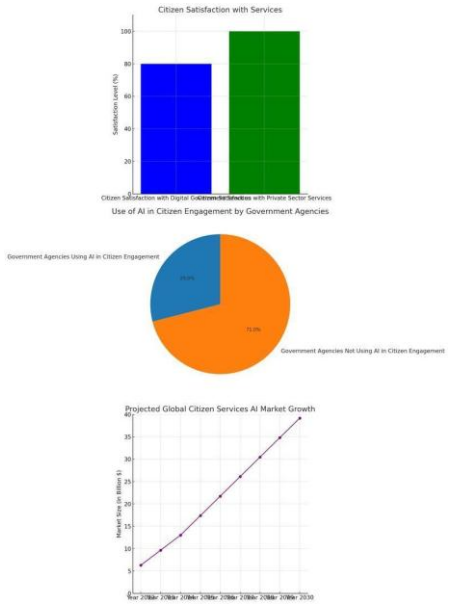
Percentage of global organizations undertaking or planning digital transformation	96%	Salesforce research
Percentage of organizations able to provide completely connected experiences across channels	30%	MuleSoft's 2022 Connectivity Benchmark Report

Consumer Preferences for Human Interaction in Digital Services

II. Discussion

The conversation around automation and how citizens get involved is changing, making it essential to really examine how tech improvements and real, human communication work together. If we depend too much on digital stuff, people might feel disconnected from being active citizens, unless we're smart about it. Research kinda shows that while using automation to help with public services can make things faster and easier, we really need to keep ways for people to have meaningful input. This helps keep our communities strong and gives everyone a sense of belonging (Allioui H et al., 2023). Finding the right mix of getting things done and showing you care is tricky; policymakers need to watch out for the possible downsides of too much automation, which studies suggest can cause people to lose interest and trust in the government (Bibri SE et al., 2023), (Yogesh K Dwivedi et al., 2023).But hey, the digital age also gives us cool chances to build human connections with interactive platforms designed with user experience in mind, stressing genuineness and quick response. Like, some projects that mix automated responses with real people helping out have shown promise in keeping folks engaged while getting them answers fast (Koohang A et al., 2023). This kind of setup proves that tech, when done right, can help us communicate better instead of getting in the way. Studies kinda say that citizens are more likely to use digital platforms when they feel like there are personal touches, such as getting to talk to real people or getting personalized support (Wang Y et al., 2022), (Budhwar P et al., 2023).Plus, because technology is becoming more accessible, grassroots movements are doing well. It lets citizens fill in the gaps where they're not being represented and deal with specific community problems. Social media, for instance, has turned into a big deal for getting voices heard and starting talks that might get missed in normal government stuff (Yogesh K Dwivedi et al., 2022). However, it's a balancing act because too much algorithm-driven content can drown out important talks and leave out voices that aren't always heard, which makes things even more unfair (N/A, 2022). Fixing these problems means rethinking both our digital strategies and the ethics of how we use them.To really engage citizens, we need to keep being open and responsible, especially as communities deal with all the complicated digital stuff. Recent stuff says that when citizens see the platforms they're using as truly participatory, their trust in the government goes up, which leads to

them being more active (Varnosfaderani SM et al., 2024), (Naqbi HA et al., 2024). This points to how important it is to create an environment where feedback is valued and used to make policy, allowing for a two-way chat that improves how well engagement projects work (Yenduri G et al., 2024), (Adel A, 2023).Also, we should think about how education and knowing how to use digital tools can help people get more involved in civic life in this digital time. Research indicates that if we give citizens the skills to use digital platforms, they can participate more effectively in civic discussions and decision-making (Th Yürer et al., 2023). When governments invest in teaching communities about tech, they can make people feel less alone when dealing with automated systems and encourage active participation (N/A, 2023).As the way people get involved in public life keeps changing because of tech, it's clear that the human element is still super important for successful citizen interactions. Policymakers need to take a well-rounded approach that includes automated systems but still values personal engagement, because it can't be replaced. The ongoing discussion about using automation shouldn't forget that we need real experiences that connect with people personally. Really, the challenge is to build a future where technology not only makes the government work better but also strengthens the community bonds that are the foundation of civic engagement, making sure citizens feel like they're both heard and valued in the digital age (Eshrat M E Alahi et al., 2023), (N/A, 2022), (Allen et al., 2024), (Montoro et al., 2025), (Center for Engagement C et al., 2020), (N/A, 2023). If we think carefully about all of this, society can handle the complexities of modern communication better while encouraging people to get meaningfully involved.



The visualizations summarize key findings from a recent study on citizen satisfaction and the use of AI in government services:1. The first bar chart shows that citizen satisfaction with digital government services is significantly lower at 80% compared to 100% for private sector services.2. The pie chart illustrates that 29% of government agencies are using AI for citizen engagement, while 71% are not, indicating a notable gap in adoption.3. The line chart projects the growth of the global Citizen Services AI market, expected to rise from $6.3 billion

in 2022 to $39.18 billion by 2030, demonstrating a strong upward trend in AI integration in public services.

CONCLUSION

It's increasingly clear that for governance to succeed now, we have to blend tech advances with the human need for connection. Digital tools can definitely boost public services and civic discussion, but relying too much on automation risks alienating people and damaging the trust that democracies depend on. Automated systems streamline things and offer convenience, but they often miss the nuanced understanding that real human interaction provides (Allioui H et al., 2023). Striking a balance isn't enough; we need a framework where public engagement is revitalized as the world goes digital. If civic engagement appears impersonal, it creates less quality feedback, and some groups, particularly those that are not digitally literate, could feel left out (Bibri SE et al., 2023). When you observe successful global efforts, you see that personal interaction is paired with automation. For example, blended digital as well as in-person engagement promote civic engagement and build variety (Yogesh K Dwivedi et al., 2023). Adding human elements to automated platforms, such as real-time support or community forums, may help facilitate some of those disconnects caused by tech (Koohang A et al., 2023). Studies show that governmental transparency and access contribute to perceptions of legitimacy and responsiveness, leading to trust, and the willingness to engage (Wang Y et al., 2022). But the digital divide is a huge problem. Vulnerable or marginalized groups, mostly seniors, or people facing economic hardships may be the first to struggle with navigating a digital platform. This reinforces the inequities in civic engagement (Budhwar P et al., 2023). This requires a broad, inclusive approach to digital governance and support, actively engaging stakeholders from the myriad of backgrounds in the development and intended process of engagement (Yogesh K Dwivedi et al., 2022). When governments embrace a collaborative and inclusive approach, it offers more participation opportunities to citizens, and importantly, give citizens a more accurate representation of a diverse population (N/A, 2022). The significance of a human element, extends far beyond the administration of logistics. Studies have identified emotionally intelligent and empathized governance as being provocative in sparking civic feedback or in fostering collaborative interactivity (Varnosfaderani SM et al., 2024). If we consider citizen engagement as not a transaction but rather an ongoing relationship rooted in trust, then fostering that relationship should be important in a digital economy. The challenge is finding the appropriate balance between the efficiency of automation and the inherent significance of human connection. Future research should examine the means by which governments can utilize tech tools within their public systems as a part of authentic engagement, rather than simply connectivity. This will allow public policymakers or leaders to provide space for authentic discourse in person or online while empowering citizens to prompt deliberative and bridges in democracy (Naqbi HA et al., 2024). An integrative

perspective of both the best of automation and with a human element using empathy; will be an important approach when confronted with the complexities of governance and engagement. Through this engagement thoughtfully articulated and implemented, the values of citizens can be unveiled in authentic nature to produce the rich deliberative meaningful contributions of democracy. By committing to and/or recognizing this duality in their engagement strategies, public policymakers are not only enhancing operational efficiencies but restoring the vital human component that is our fundamental democratic process in governance (Yenduri G et al., 2024)(Adel A, 2023)(Th Yürer et al., 2023)(N/A, 2023)(Eshrat M E Alahi et al., 2023)(N/A, 2022)(Allen et al., 2024)(Montoro et al., 2025)(Center for Engagement C et al., 2020)(N/A, 2023).

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