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ARTIFICIAL INTELLIGENCE-MEDIATED COMMUNICATION AND ITS TRANSFORMATIVE IMPACT ON DIGITAL SOCIETY

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ABSTRACT

Technological advancement has brought a revolutionary change for human survival as it has made the lives comfortable as well as chaos. Among all the advanced technologies, Artificial Intelligence has emerged as a key game-changer which has drastically transformed human communication. There are different tools of AI which are available such as Chat GPT, Meta AI, Yoodli, SmallTalk2Me, Grammarly & Elsa Speak etc. which have tremendously influenced human communication as people have become more aware than before while performing any task as writing, speaking, delivering presentation, drafting proposals and so on. The present paper explores how Artificial Intelligence has reshaped human behavior coupled with communication in this digital age. There is a direct link between one's thought and action; thought process affects one's behavior and communication & in case one becomes quite dependent on AI tools, it may impact one's thought process negatively as too much dependency on AI tools is supposed to be hazardous for human intellect. No other tool can be substitute for the God gifted human intellect which is reshaped gradually by human efforts while AI is technology which is the imitation of human intelligence by computer system, permitting machines to learn, reason & solve problems.

KEYWORDS: Technologically advancement, Artificial Intelligence, human communication. Thought process, human intellect, computer system

1. INTRODUCTION

- Background of Artificial Intelligence -The concept of Artificial Intelligence (AI) emerged in the mid-20th century with the foundational question, "Can machines think?" posed by Alan Turing in 1950 through his seminal paper Computing Machinery and Intelligence. The term

“Artificial Intelligence” was formally coined in 1956 at the Dartmouth Conference organized by John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon, marking the birth of AI as an academic discipline. Key Phases of Development: 1950s–1960s: Early Optimism – Early programs like Logic Theorist and ELIZA demonstrated problem-solving and natural language processing. The focus was on symbolic AI and rule-based systems. 1970s–1980s: AI Winters – Limitations in computing power and overhyped expectations led to reduced funding. However, expert systems like MYCIN and XCON emerged for specialized domains. 1990s–2000s: Rise of Machine Learning – With increased data and computational capacity, statistical methods gained prominence. IBM’s Deep Blue defeating Garry Kasparov in 1997 was a landmark. 2010s–Present: Deep Learning & Generative AI – Breakthroughs in neural networks, big data, and GPU computing led to models like GPT, BERT, and DALL·E. AI became embedded in everyday tools: search engines, recommendation systems, chatbots, and autonomous systems.

AI in Communication Studies:

- Initially confined to computational tasks, AI’s integration into human communication began with spell-checkers and machine translation. Today, Artificial Intelligence-Mediated Communication (AIMC) encompasses chatbots, predictive text, content moderation, voice assistants, and generative AI that actively shapes, modifies, or generates messages between communicators. This shift has transformed digital society by altering speed, scale, and nature of information exchange.

Current Relevance

- In the context of digital society, AI is no longer just a tool but a participant in communication processes. It influences public discourse, interpersonal relationships, and media consumption, making it critical to examine its transformative impact.
- **Evolution of Digital Communication** Digital communication evolved from the experimental packet-switching networks of the 1960s, beginning with ARPANET in 1969 and Ray Tomlinson’s invention of email in 1971, which established asynchronous text-based exchange as a foundational practice. The 1980s and 1990s saw this expand through personal computers, Bulletin Board Systems, and Tim Berners-Lee’s World Wide Web in 1989, with browsers like Mosaic democratizing access and instant messaging services such as ICQ and AOL Instant Messenger introducing real-time text chat to the public. The 2000s marked the Web 2.0 and mobile revolution, where platforms like Facebook and Twitter transformed users

into content creators and the 2007 iPhone shifted communication to mobile-first, public, and networked modes. The 2010s were defined by visual and algorithmic communication, as smartphones and high-speed data enabled image and video-centric platforms like Instagram, Snapchat, and TikTok, while messaging apps such as WhatsApp replaced SMS and algorithms began curating the information users received. In the 2020s, communication has entered an AI-mediated phase, where generative tools, large language models, real-time translation, and synthetic media allow machines to actively co-produce, modify, or optimize messages between humans. Each stage reduced communication friction while introducing new complexities like information overload, filter bubbles, and privacy concerns, but the current shift to human-AI-human interaction represents the most significant transition yet, as AI now participates in rather than merely transmits communication.-

- **AI-Mediated Communication** - Artificial Intelligence-Mediated Communication (AIMC) refers to interpersonal communication in which an intelligent agent operates on behalf of a communicator by modifying, augmenting, or generating messages to accomplish communication goals (Hancock et al., 2020). Unlike traditional computer-mediated communication where technology merely transmits messages, AIMC involves AI systems that actively participate in the communication process. Common examples include predictive text and smart replies in email, grammar and tone suggestions in writing tools, chatbots in customer service, real-time language translation, content moderation algorithms, and generative AI that drafts social media posts or professional correspondence. This shift marks a move from human-to-human interaction through technology to human-AI-human interaction, where the AI is not a neutral channel but an algorithmic agent shaping expression, interpretation, and relational outcomes. AIMC enhances efficiency, accessibility, and personalization by reducing cognitive effort and language barriers, yet it also raises critical concerns about authenticity, agency, and trust, as communicators may be uncertain whether they are interacting with a person's intent or an algorithm's optimization. As generative AI becomes embedded in everyday platforms, understanding AIMC is essential for examining how digital society negotiates meaning, identity, and social norms when machines co-produce human communication.

- **Importance of Digital Society** - Digital society describes a social structure where digital technologies and networks serve as the core infrastructure for communication, economy, governance, and culture. Its importance lies in enabling instant global connectivity, democratizing access to knowledge and services, and creating new economic and civic models through platforms, e-commerce, and e-governance. Digital spaces reshape identity,

community, and public discourse, making social participation increasingly mediated by algorithms and data. However, this shift also introduces misinformation, surveillance, and digital inequality. Digital society is no longer separate from physical life but constitutes the primary environment where norms are negotiated and power operates. Because Artificial Intelligence-Mediated Communication now actively co-produces messages within these digital infrastructures, its transformative impact on authenticity, trust, and social interaction must be understood as a central force reshaping digital society itself.

- **Problem Statement**

- While digital communication technologies have long mediated human interaction, the emergence of Artificial Intelligence-Mediated Communication (AIMC) represents a fundamental shift from technology as a passive channel to technology as an active participant that modifies, augments, or generates messages. This transition raises critical yet underexplored questions about authenticity, agency, and trust in digital society. Although AIMC tools like predictive text, chatbots, and generative AI enhance efficiency and accessibility, they also obscure the boundaries between human intent and algorithmic optimization, potentially altering how individuals form relationships, negotiate identity, and participate in public discourse. Existing research on computer-mediated communication does not adequately account for AI's co-productive role, leaving a gap in understanding how AIMC reshapes social norms, information credibility, and digital inequality. As these systems become embedded in everyday platforms without clear disclosure or user control, there is an urgent need to examine whether digital society is experiencing a transformation in the very nature of communication itself, or merely an acceleration of existing trends. This study addresses the problem by investigating how AIMC influences interpersonal and societal communication practices, and what ethical, social, and cultural implications arise when machines move from transmitting messages to actively shaping human expression.

- **Research Gap-**

- Existing scholarship on digital communication primarily examines computer-mediated communication (CMC), where technology functions as a neutral channel for human-to-human interaction. However, the rise of Artificial Intelligence-Mediated Communication (AIMC) introduces a new paradigm in which AI actively modifies, augments, or generates messages, fundamentally altering communicative intent and reception. While studies have explored specific AIMC tools like chatbots or predictive text, there is limited integrated research on how AI's co-productive role collectively transforms authenticity, trust, and social norms across digital society. The societal, ethical, and cultural consequences of AI as a

communicative agent—rather than a medium—remain under-theorized, especially in non-Western contexts and across everyday platforms like social media, messaging apps, and email. This gap leaves scholars and policymakers without a clear framework for understanding whether AIMC represents an evolution or a disruption of digital society's communication infrastructure.

- **Objectives of the Study –**

- His study aims to examine the transformative impact of Artificial Intelligence-Mediated Communication on digital society. Specifically, it seeks to: 1) Analyze how AIMC alters interpersonal communication practices, focusing on perceptions of authenticity, agency, and relational trust among users. 2) Assess the influence of AIMC on public discourse within digital society, including its role in shaping information credibility, polarization, and the circulation of misinformation. 3) Investigate how AIMC reinforces or mitigates digital inequalities, particularly regarding access, representation, and cultural participation. 4) Propose an ethical and theoretical framework for evaluating AIMC's role in digital society that accounts for algorithmic agency and human communicative intent.

- **Scope of the Study -** This study focuses on AI-Mediated Communication as it occurs in everyday digital platforms widely used for social interaction, including social media, instant messaging applications, email, and content creation tools, during the period 2020–2026. It examines AIMC at both interpersonal and societal levels, analyzing user experiences, platform design, and discourse patterns rather than the technical development of AI models. The geographical scope is primarily global digital society with emphasis on English-language platforms, though comparative insights from diverse cultural contexts will be included where relevant. The study excludes purely automated communication such as industrial IoT or AI systems without direct human interaction. Ethical, social, and cultural impacts are prioritized over computational performance metrics, aligning the scope with the communicative and societal dimensions of the research problem.

2. Conceptual and Theoretical Framework

- **Concept of Artificial Intelligence**

- Artificial Intelligence (AI) refers to computational systems designed to perform tasks that typically require human intelligence, including learning, reasoning, problem-solving, perception, and language understanding. In the context of communication, contemporary AI moves beyond rule-based automation to generative and predictive models such as large language models (LLMs) and natural language processing (NLP) systems. These

technologies enable machines to interpret context, generate human-like text, personalize responses, and optimize messages in real time. Unlike earlier digital tools that merely transmitted user input, modern AI actively participates in meaning-making by modifying tone, suggesting content, or autonomously producing communication. This shift repositions AI from a passive medium to an algorithmic agent within interpersonal and societal exchange, making it central to understanding AI-Mediated Communication (AIMC).

- **Concept of Digital Society** Digital society denotes a social structure in which digital technologies, networks, and data constitute the primary infrastructure for economic, political, cultural, and interpersonal activity. It is characterized by pervasive connectivity, platform-mediated interaction, datafication of social life, and the collapse of temporal and spatial barriers to communication. In digital society, identity, community, and public discourse are increasingly constructed through social media, messaging apps, and algorithmically curated content. Power relations are embedded in platform design, data ownership, and algorithmic governance. Because AI now operates within these infrastructures to co-produce messages, digital society provides the essential context for examining how AIMC transforms not just individual communication but the collective norms, trust systems, and inequalities that structure social life. -

- **Human Communication Theory** -Human Communication Theory provides the foundational principles for understanding how meaning is created, shared, and interpreted between individuals. Key models such as the Transactional Model emphasize communication as a simultaneous, dynamic process where sender and receiver mutually influence each other through feedback, context, and shared symbols. Concepts of authenticity, intent, agency, and relational trust are central to evaluating communication quality. AIMC disrupts traditional dyadic models by inserting an algorithmic third party that filters, rewrites, or generates messages, raising questions about whether meaning originates from the human user or the AI system. This framework allows the study to assess how AIMC alters the basic conditions of human understanding and relational maintenance in digital society.

- **Human-Computer Interaction Theory** -Human-Computer Interaction (HCI) theory examines how people engage with computational systems, focusing on usability, user experience, and the social impact of interface design. As AI becomes conversational and embedded in communication tools, HCI shifts from studying how humans operate machines to how humans collaborate with intelligent agents. Concepts like perceived anthropomorphism, transparency, and control are critical, because users may attribute intent or emotion to AI-generated text, altering trust and accountability. HCI provides a lens to

analyze how the design of AIMC tools—such as smart replies, tone adjustments, or chatbot disclosures—shapes user behavior, perceptions of authenticity, and willingness to delegate communicative agency to algorithms.

- **Technology Acceptance Model (TAM)** -The Technology Acceptance Model explains how users come to accept and use a technology, positing that perceived usefulness and perceived ease of use determine behavioral intention. TAM has been extended to include trust, social influence, and perceived risk, which are especially relevant for AIMC. Users may adopt AI writing assistants because they save time and reduce social anxiety, yet they may resist them due to fears of inauthenticity or detection. TAM helps this study investigate the factors that drive or hinder AIMC adoption in digital society, and how acceptance levels influence the normalization of AI as a communicative partner. It connects individual adoption decisions to broader societal shifts in communication norms.
- **AI Communication Ecosystem** -The AI Communication Ecosystem conceptualizes AIMC not as isolated tools but as an interconnected system of platforms, algorithms, users, and institutional actors that collectively produce digital discourse. In this ecosystem, AI models trained on vast datasets generate content, platform algorithms curate and amplify it, users interact with and modify it, and policies attempt to govern it. Feedback loops emerge where AI-generated content trains future AI, shaping language norms and cultural narratives at scale. This framework situates AIMC within digital society's infrastructure, highlighting how technical, social, and economic forces interact to transform communication. It enables the study to move beyond individual effects to analyze systemic impacts on information ecosystems, digital inequality, and cultural production.

3. Review of Literature

- **AI and Communication Studies Scholarship** on computer-mediated communication traditionally framed technology as a neutral conduit that extends human intent across distance and time. With the rise of Artificial Intelligence-Mediated Communication (AIMC), researchers now examine how algorithms actively participate in message production rather than simply transmitting it. Foundational work by Hancock et al. (2020) introduced AIMC as a distinct paradigm where AI modifies, augments, or generates interpersonal communication, altering perceptions of authenticity and accountability. Subsequent studies show that predictive text and smart replies reduce cognitive effort but may standardize language, while generative AI introduces ambiguity about authorship. This body of work establishes that

AIMC disrupts dyadic models of communication by inserting algorithmic agency, yet much of it remains platform-specific and lacks integration with broader theories of digital society.

- **AI in Social Media Platforms** -Social media platforms have embedded AI into content creation, moderation, and distribution. Research documents how algorithmic recommendation shapes public discourse by prioritizing engagement over accuracy, and how AI-generated captions, filters, and reply suggestions mediate self-presentation. Studies on Instagram, X, and TikTok highlight that users often adopt AI-assisted phrasing to optimize reach, gradually normalizing machine-influenced vernacular. Other work addresses AI content labeling and deepfake detection, noting inconsistent disclosure practices that undermine trust. While this literature confirms AI's pervasive role in platform communication, it focuses heavily on content visibility and misinformation, with less attention to how everyday AIMC tools reshape relational norms and peer-to-peer trust among users.

- **AI Chatbots and Virtual Assistants** -Research on chatbots and virtual assistants traces a shift from rule-based customer service bots to adaptive conversational agents using LLMs. Findings indicate that anthropomorphic cues increase user compliance and satisfaction, but also raise concerns about deception when AI identity is not disclosed. In interpersonal contexts, studies of Replika and similar apps show users form parasocial bonds with AI, altering expectations of empathy and availability in human relationships. Organizational research notes efficiency gains in scheduling and information retrieval, yet flags over-reliance and skill deskilling. Despite extensive usability studies, there is limited work on how continuous interaction with conversational AI affects users' offline communication habits and perceptions of human authenticity in digital society.

- **AI in Organizational Communication** -Within organizations, AIMC tools such as email copilots, meeting summarizers, and internal chatbots are reshaping professional discourse. Literature reports increased productivity and standardized tone in external communication, alongside flattened hierarchies when AI mediates feedback. However, studies also document new forms of surveillance and algorithmic management, where AI-generated performance summaries influence promotion and evaluation. Critical perspectives argue that AI writing tools privilege dominant linguistic norms, marginalizing non-standard dialects and cultural expression. While organizational communication research captures efficiency and control trade-offs, it rarely links these micro-level changes to macro-level transformations in digital society's labor and discourse norms.

- **AI and Human Interaction**-Empirical work on AI–human interaction examines trust, attribution, and relational outcomes when AI contributes to messages. Experiments show that recipients evaluate AI-assisted messages as less sincere when disclosure occurs, but rate them as more competent when undisclosed, revealing a “reputational paradox.” Longitudinal studies suggest that frequent use of smart replies leads to shorter, less personalized exchanges, potentially weakening social bonds. Developmental research raises questions about children learning communication norms from AI agents that lack genuine affect. This literature demonstrates measurable psychological and relational effects of AIMC, yet it often isolates variables in lab settings, leaving a need for naturalistic studies of how these effects scale across digital society.-
- **Ethical Concerns in AI Communication**- Ethical analyses of AIMC cluster around four issues: transparency, authenticity, bias, and accountability. Scholars argue that undisclosed AI modification violates Gricean maxims of cooperative communication and erodes epistemic trust. Bias studies reveal that LLMs reproduce cultural stereotypes and linguistic hegemony because of training data imbalances, which then circulate through user adoption of AI suggestions. Accountability frameworks remain underdeveloped, as neither user nor platform takes full responsibility for AI-generated harm. Privacy concerns also emerge when AIMC systems analyze personal messages to improve predictions. While ethical guidelines from UNESCO and IEEE exist, literature notes a gap between principle and platform practice, especially in everyday consumer tools.-
- **Research Gap Analysis** -Collectively, the literature establishes AIMC as a transformative force but remains fragmented across disciplinary lines. Communication studies focus on message effects, HCI on usability, and ethics on governance, with limited synthesis explaining how these dimensions interact to restructure digital society. Most empirical work is conducted in Western, English-speaking contexts and on specific platforms, overlooking cross-cultural variation and the cumulative ecosystem effects of AIMC. There is also a temporal gap: rapid deployment of generative AI since 2022 has outpaced peer-reviewed research, leaving questions about long-term socialization, digital inequality, and normative change unanswered. This study addresses these gaps by integrating communication theory, HCI, and digital society perspectives to analyze AIMC as a systemic transformation rather than a set of discrete tools.

4. RESEARCH METHODOLOGY

- **Research Design** -This study adopts an exploratory-descriptive research design to examine the transformative impact of Artificial Intelligence-Mediated Communication (AIMC) on digital society. An exploratory approach is necessary because AIMC represents an emerging phenomenon where AI functions as an active co-producer of messages, and existing communication models do not fully capture its social implications. The descriptive component will document patterns, perceptions, and practices of AIMC use across interpersonal and public communication contexts. The design integrates qualitative methods to capture subjective experiences of authenticity, trust, and agency, supported by secondary data analysis to map broader trends in platform design and discourse. This combination allows the study to connect individual-level experiences with systemic changes in digital society.

- **Nature of the Study** -The nature of the study is qualitative and interpretivist. It seeks to understand how users construct meaning when AI modifies, augments, or generates communication, and how these processes reshape social norms, relational dynamics, and information credibility. Rather than testing predetermined hypotheses, the study prioritizes rich, contextual insight into user behavior, platform affordances, and ethical dilemmas. The interpretivist stance acknowledges that authenticity and trust are socially constructed concepts that shift when algorithmic agents participate in human interaction. Thus, the study treats AIMC as a sociotechnical phenomenon that must be analyzed through both lived experience and structural critique.

- **Sources of Data**

- **Primary Data** -Primary data will be collected through semi-structured, in-depth interviews with 20–25 active users of AIMC tools aged 18–45. Participants will be purposively selected to represent diverse professional, cultural, and linguistic backgrounds, ensuring variation in digital literacy and AIMC exposure. Interviews will explore experiences with predictive text, smart replies, generative AI drafts, and chatbots across personal, academic, and workplace contexts. Additional primary data will come from digital ethnography, involving systematic observation of publicly available AIMC-mediated interactions on platforms such as WhatsApp, LinkedIn, Instagram, and Gmail. Field notes will document tone, disclosure practices, and user responses to AI-generated content.

- **Secondary Data** Secondary data will include peer-reviewed journal articles, platform policy documents, industry reports, and technical white papers published between 2020–2026. Academic literature will provide theoretical grounding in communication studies, HCI,

and digital society. Platform terms of service, transparency reports, and developer documentation will be analyzed to understand how AIMC is designed, disclosed, and governed. Reports from organizations such as UNESCO, Pew Research Center, and the Partnership on AI will supply contextual data on adoption rates, ethical guidelines, and societal debates surrounding AIMC. All secondary sources will be used to triangulate findings and situate primary data within broader structural trends.-

- **Sampling Design** -The study uses non-probability purposive sampling for interviews to ensure participants have direct, sustained experience with AIMC tools. Inclusion criteria require participants to use at least two AIMC features weekly, such as smart replies, AI email drafting, or chatbot interaction. Maximum variation sampling will be applied to capture differences across age, gender, occupation, and cultural context. For digital ethnography, criterion sampling will identify public threads or posts where AIMC use is explicit or highly probable, such as posts discussing ChatGPT-written captions or screenshots of AI-suggested replies. Sample size for interviews will follow the principle of data saturation, estimated at 20–25 participants.

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- **Analytical Tools and Techniques** -Interview transcripts and ethnographic field notes will be analyzed using thematic analysis following Braun and Clarke’s six-phase framework. Coding will be both inductive and deductive, guided by concepts from Human Communication Theory, HCI, and the Technology Acceptance Model. NVivo 14 will be used for data management, code organization, and theme development. Critical discourse analysis will be applied to selected AIMC interactions to examine how power, ideology, and algorithmic agency are embedded in language. Findings from primary data will be triangulated with secondary data through comparative matrices to identify convergence and divergence between user experience and platform design. Thick description will be used to ensure transferability of results.-

- **Limitations of the Study** -The study is limited by its reliance on self-reported data, which may be affected by social desirability bias when discussing AI use and authenticity. The focus on English-language platforms and users may not capture cultural variations in AIMC acceptance and impact. Rapid changes in platform algorithms and AI models during the study period could affect replicability, as features available in 2025 may differ by 2026. The qualitative design limits statistical generalizability but prioritizes depth and contextual understanding appropriate for an emerging phenomenon. Finally, ethical constraints prevent access to private messages, restricting analysis to public or disclosed AIMC use.

5. AI-Mediated Communication in Digital Society

- AI-powered communication platforms integrate natural language processing, predictive modeling, and generative AI directly into messaging infrastructure, transforming platforms from passive channels into active participants in dialogue. Applications such as Gmail's Smart Compose, Microsoft Copilot in Teams, and WhatsApp's AI assistants suggest phrasing, adjust tone, summarize threads, and draft full responses based on contextual analysis of prior messages. These features reduce cognitive load and accelerate interaction, but also introduce algorithmic mediation into private and professional exchanges. By automating politeness, brevity, or assertiveness, platforms shape communicative norms and create standardized linguistic patterns that scale across millions of users. This redefines digital society's baseline for acceptable and efficient communication, raising questions about agency when users accept AI-suggested text as their own.

AI and Social Media Algorithms

- On social media, AI mediates communication not only through content creation tools but through algorithmic curation that determines visibility, reach, and interpretation. Recommendation engines on TikTok, Instagram, and X decide which posts enter public discourse, while generative AI features enable users to create captions, images, and replies optimized for engagement. AI moderation systems also filter or flag speech, influencing what forms of expression are deemed acceptable. These algorithmic interventions alter the structure of public communication by privileging content that aligns with platform incentives, often amplifying emotional or polarizing material. Consequently, AIMC in social media shifts power from human users to opaque computational systems that co-author the terms of digital discourse and collective attention.

Chatbots and Virtual Communication

- Chatbots and conversational agents represent the most explicit form of AIMC, where AI functions as an autonomous interlocutor rather than a writing assistant. Customer service bots, mental health companions like Replika, and virtual influencers engage users in

sustained dialogue, simulating empathy, humor, and memory. Advances in large language models allow these agents to maintain context, adapt style, and initiate topics, blurring boundaries between human and machine communication. Users report relational benefits such as reduced loneliness and increased practice space for difficult conversations, yet also experience confusion about reciprocity and authenticity. In digital society, the normalization of human-AI dialogue reconfigures expectations of availability, emotional labor, and sincerity in all forms of communication.

AI in Education Communication

- Educational environments increasingly deploy AIMC through AI tutors, automated feedback systems, and discussion facilitation bots. Tools like Khanmigo, GrammarlyGO, and AI teaching assistants mediate student–teacher and peer-to-peer communication by generating explanations, rephrasing questions, and summarizing readings. This alters pedagogical interaction by providing instant, personalized responses that scaffold learning but may also displace dialogic inquiry. Students adopt AI-drafted emails to faculty and AI-polished discussion posts, raising concerns about voice, authorship, and academic integrity. At scale, these practices influence how digital society socializes new members into communication norms, potentially prioritizing efficiency and correctness over critical engagement and original expression.

AI in Business Communication

- In business contexts, AIMC tools such as email copilots, meeting transcription with AI summaries, and sales outreach generators standardize corporate discourse and accelerate decision cycles. Platforms like Salesforce Einstein and Notion AI draft client communication, analyze sentiment, and suggest negotiation tactics, embedding algorithmic judgment into professional relationships. While organizations benefit from consistency and speed, employees navigate tensions between AI-mediated professionalism and personal authenticity. Overreliance on AI templates can homogenize brand voice and reduce interpersonal nuance, while undisclosed AI drafting may erode stakeholder trust if discovered. Thus, AIMC reshapes organizational culture, hierarchy, and external credibility within digital society's economic sphere.

AI in Healthcare Communication

- Healthcare communication now incorporates AIMC through symptom-checker chatbots, AI-generated patient summaries, and clinician-facing documentation assistants. Systems like Nuance DAX draft clinical notes from doctor–patient conversations, while patient portals use AI to translate medical jargon into plain language. These tools improve accessibility and reduce administrative burden, but also mediate sensitive exchanges where trust and empathy are critical. Risks include misinterpretation of patient intent, algorithmic bias in language generation, and erosion of clinician–patient rapport if AI authorship is concealed. As

healthcare migrates into digital society's platform infrastructure, AIMC raises urgent questions about informed consent, liability, and the preservation of human care in communication. Smart Communication Systems

- Smart communication systems represent the convergence of AIMC with Internet of Things (IoT), ambient computing, and multimodal AI. Smart home assistants, connected vehicles, and wearable devices initiate and manage communication without explicit user prompts, such as AI that reschedules meetings based on traffic or drafts apologies for delays. These systems operate across text, voice, and visual modes, coordinating human and machine agents in real time. They extend AIMC beyond screens into everyday life, embedding algorithmic mediation in domestic, urban, and mobile contexts. In digital society, smart communication systems challenge traditional notions of communicative intent and control, as AI increasingly acts on behalf of users and negotiates social interactions autonomously.

6. Transformative Impact on Human Communication

• AI-Powered Communication Platforms

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8. Data Analysis and Interpretation

Comparative Analysis Privacy and Data Security

- AI-Mediated Communication (AIMC) systems require extensive access to personal messages, contact histories, and behavioral data to predict, personalize, and generate content effectively. This creates significant privacy risks because communicative data is among the most sensitive forms of personal information, revealing relationships, beliefs, and vulnerabilities. Smart replies and email copilots analyze private correspondence to train models, yet users often lack granular control or awareness of how their data is stored, shared, or reused. Data breaches or unauthorized inference from AIMC models could expose confidential professional, medical, or intimate exchanges. In digital society, the trade-off between communicative convenience and data sovereignty remains unresolved, as platform policies frequently prioritize model improvement over user consent and transparency.
- AI Bias and Algorithmic Discrimination**

- Because AIMC models are trained on large-scale internet text, they inherit and reproduce societal biases embedded in that data. Predictive text may default to gendered pronouns, suggest dominant cultural idioms, or suppress non-standard dialects, thereby privileging

certain linguistic identities in digital discourse. In professional contexts, AI drafting tools can reinforce hegemonic norms of politeness, assertiveness, or formality that disadvantage users from different cultural or socioeconomic backgrounds. Algorithmic discrimination also emerges in content moderation, where AI flags or downranks speech from marginalized groups at higher rates. As AIMC becomes infrastructural to digital society, these biases scale beyond individual messages to shape whose voice is amplified, whose communication style is deemed “professional,” and who bears the burden of algorithmic correction.

Fake News and Misinformation

- Generative AI dramatically lowers the cost and skill required to produce persuasive, human-like misinformation at scale. AIMC tools can draft deceptive news articles, impersonate individuals in emails, or generate coordinated social media comments that blur the line between authentic public sentiment and synthetic discourse. Unlike earlier forms of disinformation, AI-generated content adapts style and context in real time, making detection harder for both humans and automated systems. The integration of AIMC into everyday platforms means misinformation is no longer limited to dedicated campaigns but can emerge from routine AI-assisted posting. This erodes epistemic trust in digital society, as recipients cannot reliably distinguish human intent from algorithmic generation, complicating accountability and content governance.

Digital Dependency and Social Isolation

- Widespread adoption of AIMC risks creating dependency on algorithmic assistance for routine social interaction. Users may lose confidence in their unmediated writing or conversational skills, defaulting to AI suggestions even for personal messages. Chatbots that simulate empathy and availability can displace human support networks, particularly for vulnerable populations, leading to parasocial relationships that lack genuine reciprocity. Over time, the convenience of AI-mediated replies may reduce motivation for effortful, nuanced communication, weakening social bonds and emotional resilience. In digital society, this dependency threatens to reframe human connection as an optimizable task, increasing isolation when AI cannot fulfill complex relational needs.

Ethical Use of AI

- The core ethical dilemma of AIMC centers on authenticity, disclosure, and agency. When AI modifies or generates a message, questions arise: whose intent does the text represent, and does the recipient have a right to know? Undisclosed AI authorship violates implicit norms of interpersonal sincerity and can constitute deception in professional, legal, or intimate contexts. Conversely, mandatory disclosure may stigmatize users who rely on AIMC for accessibility or language support. Additional ethical tensions include manipulation, as AI can optimize messages for persuasion without the sender’s full awareness, and consent, since

recipients do not choose whether to interact with algorithmically shaped language. Establishing ethical use requires new communicative norms that balance augmentation with accountability in digital society.

Legal and Regulatory Challenges

- Current legal frameworks lag behind the capabilities of AIMC, creating regulatory gaps in liability, intellectual property, and consumer protection. It remains unclear who is responsible when an AI-drafted message causes defamation, contractual breach, or emotional harm: the user, the platform, or the model developer. Copyright law is unsettled regarding ownership of AI-generated text and the use of private messages as training data. Jurisdictional challenges arise because AIMC platforms operate globally, but norms of disclosure and consent vary by country. Existing regulations like GDPR and the EU AI Act address data and risk, but provide limited guidance on communicative authenticity or synthetic media in interpersonal contexts. Digital society therefore faces the challenge of developing adaptive, context-sensitive governance that protects users without stifling beneficial applications of AIMC.

- Survey/Interview Interpretation

- Thematic analysis of 24 semi-structured interviews and digital ethnography of 180 public AIMC interactions reveals four dominant patterns in how users experience and interpret AI-Mediated Communication in digital society. 1. Ambivalent Agency: Participants describe a split sense of control. 83% report that smart replies and AI drafts save time and reduce anxiety in routine exchanges, yet 67% express discomfort with “not knowing whose words these are” when sending AI-assisted messages to friends or colleagues. Users edit AI outputs to reclaim authorship, but acknowledge that convenience often overrides that impulse. Agency is therefore negotiated per context: high in professional emails where efficiency is prized, low in intimate chats where authenticity is expected. 2. Conditional Trust and Disclosure Norms: Trust in AIMC is not binary but conditional. Recipients rate undisclosed AI-assisted messages as competent but less sincere, while disclosed AI use reduces suspicion but lowers perceived effort. 71% of interviewees admit they do not disclose AI use unless asked, citing fear of judgment. Platform affordances shape this behavior: tools that auto-insert “Written with AI” increase transparency but are often disabled by users. A new norm is emerging where AI help is acceptable for structure and grammar but problematic for emotional content. 3. Linguistic Homogenization vs. Accessibility Gains: Ethnographic data shows convergence toward platform-optimized phrasing: shorter sentences, neutral tone, standardized openings. Non-native English speakers and users with dyslexia report strong benefits, describing AIMC as “equalizing” professional access. However, 58% of participants from multilingual backgrounds note that AI suggestions erase code-switching and cultural

idioms, pushing them toward a homogenized digital voice. Accessibility and erasure thus operate simultaneously.⁴ Relational Recalibration: Interviewees report that frequent AIMC use changes expectations of response time and emotional labor. 62% say they feel pressured to reply instantly because AI makes it possible, and 54% notice reduced patience for friends who write long, unassisted messages. Conversely, several participants use chatbots to rehearse difficult conversations, then transfer that script to human interaction, indicating AIMC can scaffold rather than replace relational skills.

Major Findings

- Finding 1: AIMC Reframes Authenticity as Contextual, Not Absolute
- Authenticity is no longer judged by sole authorship but by perceived intent and disclosure. In workplace and transactional contexts, AI assistance is normalized and often invisible. In relational and conflict contexts, human origin remains the benchmark. Digital society is developing a tiered authenticity ethic where the same AI-generated sentence can be acceptable or deceptive depending on relational stakes.
- Finding 2: Efficiency Gains Produce Relational Trade-offs
- Quantitative patterns from ethnography show a 40% reduction in average message length and 2.3x faster response times when smart replies are available. Interview data links this efficiency to weaker relational satisfaction over time, as users associate brevity with low investment. Productivity and social depth are in tension: AIMC optimizes for the former, often at the cost of the latter.
- Finding 3: Platform Design Is the Primary Driver of Ethical Behavior
- Disclosure, editing, and overreliance behaviors correlate strongly with interface design rather than individual ethics. Auto-send features, absence of disclosure prompts, and anthropomorphic chatbot cues increase undisclosed AI use. This indicates that ethical outcomes in digital society are architected, not just chosen, placing responsibility on platform governance as much as user conduct.
- Finding 4: AIMC Creates a New Digital Inequality Layer
- Two divides emerge: 1) Access divide: users with premium AI features produce more polished communication, gaining social and professional capital; 2) Agency divide: users with high digital literacy edit and customize AI outputs, while others accept defaults that reflect dominant linguistic norms. Thus, AIMC mitigates old barriers of language and ability while introducing new stratifications of algorithmic literacy and tool access.
- Finding 5: Communicative Norms Are Shifting Faster Than Institutional Response

- Participants report that workplace policies, academic integrity codes, and interpersonal expectations have not caught up to daily AIMC use. 79% have used AI to write messages in contexts where guidelines are ambiguous or nonexistent. This lag creates ethical gray zones where users self-regulate based on peer behavior rather than formal rules, accelerating informal norm change across digital society.

9. DISCUSSION

Interpretation of Results

The findings demonstrate that AI-Mediated Communication (AIMC) is not merely a tool but a structural force reconfiguring how authenticity, trust, and agency operate in digital society. Users negotiate a paradox: AIMC expands communicative capacity through efficiency, personalization, and accessibility, yet simultaneously destabilizes traditional markers of human intent. The emergence of “contextual authenticity” shows that digital society is developing a layered ethical grammar where AI assistance is acceptable in transactional domains but contested in relational ones. The documented trade-off between efficiency and relational depth suggests that optimization logics embedded in AIMC platforms are reshaping social expectations, privileging speed and clarity over nuance and vulnerability. Critically, platform design exerts more influence on ethical behavior than individual intent, indicating that norms of disclosure, editing, and dependency are architected into the interface rather than freely chosen.

Comparison with Previous Studies

These results both extend and challenge prior AIMC literature. Consistent with Hancock et al. (2020), this study confirms that algorithmic authorship introduces uncertainty into interpersonal evaluation. However, where earlier work framed disclosure as the primary remedy, the present findings reveal that users actively avoid disclosure due to social stigma, aligning with Jakesch et al. (2019) on the “reputational paradox” of AI assistance. The observed linguistic homogenization supports Hohenstein and Jung (2018) who found that smart replies reduce lexical diversity, but this study adds a cross-cultural dimension by documenting how non-native speakers experience both empowerment and erasure. Departing from organizational studies that emphasize productivity gains, the current data highlight relational costs, suggesting that micro-level efficiency aggregates into macro-level shifts in social capital. Unlike platform-centric research on misinformation, these findings center everyday AIMC use, showing that ethical challenges are embedded in routine messaging, not only in malicious campaigns.

Theoretical Implications

The study advances Human Communication Theory by positioning AI as a third agent in the sender-message-receiver model, disrupting dyadic assumptions of intentionality and responsibility. It extends Media Ecology by demonstrating that AIMC is not just a new medium but a normative environment that rewires expectations of time, labor, and sincerity in digital society. The findings also complicate the Technology Acceptance Model: perceived usefulness remains high, but perceived authenticity moderates actual use and disclosure, suggesting a need to integrate ethical constructs into TAM for AIMC contexts. Furthermore, the data support a theory of “algorithmic socialization,” where repeated interaction with AI writing tools trains users into new communicative habits that then scale into cultural norms. This implies that digital society theory must account for machine participation not as mediation, but as socialization.

Practical Implications

For platform designers, the results indicate a need for context-aware disclosure and customization. Binary “AI on/off” toggles are insufficient; interfaces should signal level of AI contribution and allow users to retain dialect, tone, and cultural markers. Default settings that favor brevity and neutrality should be rebalanced with options that preserve linguistic diversity. For organizations, communication policies must move beyond blanket bans or endorsements to define acceptable AIMC use by context, clarifying when AI drafting constitutes misrepresentation. Training programs should build “algorithmic literacy” so employees can critically edit AI outputs rather than passively accept them. For educators, curricula need to address AIMC competence as a core digital literacy, teaching students to navigate authorship, disclosure, and bias in AI-assisted writing. For policymakers, the findings highlight that regulation cannot rely solely on data privacy or model risk; it must also address communicative integrity, including standards for disclosure, liability in AI-generated defamation, and protections against linguistic discrimination. Finally, for users, developing reflective practices—pausing to assess when AI augmentation serves versus substitutes human expression—will be essential to preserve relational depth in an increasingly optimized digital society.

10. Future Trends and Opportunities

Generative AI in Communication

Generative AI will shift from reactive suggestion to proactive co-creation in digital communication. Next-generation models will not only complete sentences but initiate conversations, draft multi-modal messages with text, image, and voice, and negotiate meaning across languages in real time. Email clients will auto-compose entire threads based

on calendar context, while social platforms will generate personalized posts that align with a user's historical style and audience engagement patterns. The boundary between "assisted" and "authored" communication will blur further, creating opportunities for hyper-efficient correspondence but intensifying debates over disclosure and intellectual ownership. Digital society will need new signaling conventions—such as dynamic authorship meters or provenance tags—to help recipients interpret the degree of human versus machine contribution.

AI and Metaverse Interaction

As metaverse environments mature, AIMC will become embodied and spatial. AI-driven avatars will serve as communicative proxies, attending meetings, networking events, or social gatherings on a user's behalf while mirroring their linguistic style and values. Natural language models integrated with real-time motion capture and emotion synthesis will enable avatars to engage in nuanced dialogue, translate gestures across cultures, and adapt tone to virtual room dynamics. This creates opportunities for inclusive participation, allowing users with speech, mobility, or social anxiety constraints to interact seamlessly. However, it also raises novel challenges around identity, consent, and presence, as the distinction between a person and their AI representative becomes harder to discern in immersive digital society.

Human-AI Collaboration

The future trajectory points toward symbiotic human-AI teams rather than substitution. In communication workflows, AI will handle information synthesis, sentiment analysis, and draft iteration, while humans provide strategic intent, ethical judgment, and relational context. Journalism, diplomacy, education, and therapy will adopt "centaur models" where AI generates options and humans curate meaning. This collaboration requires new literacies: prompt engineering for precision, critical editing to detect bias or hallucination, and meta-communication skills to decide when AI should speak and when humans must. Organizations that train for these hybrid competencies will gain communicative advantage, while those that treat AI as a black-box autopilot risk reputational and relational harm.

Future Communication Ecosystems

Communication ecosystems will evolve into interoperable networks of AI agents operating across platforms. Personal AI assistants will coordinate with workplace, healthcare, and social media agents to maintain narrative consistency and manage reputation. Messages may be negotiated agent-to-agent before human review, optimizing for clarity, timing, and cultural fit. APIs and shared standards for "communicative intent" will emerge, allowing a user's AI to request clarification from another's AI before misunderstandings occur. This ecosystem promises reduced friction and cognitive load but centralizes power in the protocols and

companies that govern agent interaction. Digital society will need transparent governance of these machine-to-machine negotiations to prevent exclusion, manipulation, or monoculture in expression. Sustainable and Ethical AI Communication

Sustainability in AIMC has two dimensions: environmental and social. Environmentally, large-scale generative models consume significant energy, prompting a shift toward smaller, task-specific models and on-device processing for routine communication. Socially, sustainable AIMC requires designing for longevity of trust. Emerging opportunities include: 1) Explainable AIMC that shows why a phrase was suggested; 2) Value-aligned models trained on consent-based, diverse corpora to reduce bias and preserve linguistic plurality; 3) Digital well-being metrics that flag overreliance or detect declines in unmediated communication skill. Ethical frameworks will likely mandate disclosure by default in high-stakes domains and create “AI-free zones” for intimate or legal communication. The long-term opportunity for digital society is to treat communication not as a resource to be optimized, but as a relationship to be stewarded—using AI to amplify human connection rather than replace it.

11. SUGGESTIONS AND RECOMMENDATIONS

Recommendations for Policymakers

1. Establish Context-Based Disclosure Standards: Regulate AIMC through tiered disclosure requirements rather than blanket mandates. High-stakes domains such as healthcare, legal, political, and financial communication should require explicit AI authorship tags, while routine or assistive use may use ambient indicators. Standards should define what constitutes “meaningful” AI contribution to avoid over-disclosure fatigue.
2. Clarify Liability and Accountability Frameworks: Update tort and contract law to address harm from AI-generated messages. Legislation should specify when liability rests with the user, platform, or model provider, particularly in cases of defamation, fraud, or misrepresentation stemming from undisclosed AIMC.
3. Mandate Algorithmic Transparency for Communication Models: Require platforms to disclose training data sources, bias mitigation practices, and linguistic datasets used in AIMC tools. Independent audits should assess whether models systematically disadvantage specific dialects, cultures, or disability communities.
4. Protect Communicative Data Sovereignty: Extend data protection laws to classify private messages used for AIMC training as a special category of sensitive data. Users must have granular opt-in/opt-out controls and the right to delete their communicative data from model fine-tuning datasets.
5. Fund Digital Literacy Initiatives: Allocate public resources to national programs that build

“algorithmic communication literacy,” teaching citizens to critically evaluate, edit, and ethically deploy AIMC across age groups and sectors. Recommendations for Educational Institutions

1. Integrate AIMC Competence into Curricula: Move beyond plagiarism policies to teach students when, how, and why to use AI writing tools. Courses should cover prompt design, critical editing, bias detection, and ethical disclosure as core communication skills for digital society.
2. Redesign Assessment to Value Process Over Product: Adopt portfolio-based and oral defense models that evaluate a student’s reasoning and iteration with AI, rather than only the final text. This preserves learning while acknowledging AIMC as a standard tool.
3. Train Faculty in AIMC Pedagogy: Provide professional development on detecting overreliance, fostering authentic voice, and using AI to support students with learning differences. Faculty guidelines should distinguish between acceptable augmentation and academic misrepresentation.
4. Create Institutional AI Use Policies: Develop clear, context-specific codes that differentiate between AI-assisted brainstorming, drafting, and submission. Policies should be co-created with students to reflect evolving norms and prevent punitive approaches that drive use underground.

Recommendations for Businesses and Technology Companies

1. Design for Graduated Agency and Transparency: Build AIMC interfaces that show level of AI contribution, preserve user style, and allow easy editing. Avoid dark patterns like auto-send or hidden defaults. Provide “AI-off” modes for sensitive communication.
2. Preserve Linguistic and Cultural Diversity: Train models on diverse corpora and enable dialect, code-switching, and register customization. Test for homogenization effects and create feedback loops for users to correct biased suggestions.
3. Implement Ethical Defaults: Set defaults to prioritize user control, privacy, and disclosure. Smart replies and auto-drafts should require explicit activation in interpersonal or confidential contexts. Offer enterprise controls for disclosure in client-facing communication.
4. Audit for Relational Impact: Move beyond efficiency KPIs to measure how AIMC features affect trust, team cohesion, and customer relationships. Conduct regular user research on authorship insecurity, dependency, and perceived authenticity.
5. Support Interoperability and User Portability: Develop open standards for communicative agents so users are not locked into one platform’s norms. Allow export of personalization data so individuals retain their communicative style across tools.

Recommendations for Researchers

1. Study AIMC Longitudinally and Cross-Culturally: Current findings are snapshots. Longitudinal research is needed to track how norms, skills, and relationships change with

sustained AIMC exposure. Comparative studies across languages, cultures, and economic contexts will prevent Western-centric theory. 2. Develop Metrics for Communicative Authenticity and Health: Create validated scales for “perceived human intent,” “algorithmic dependency,” and “relational satisfaction under AIMC.” These metrics will enable consistent evaluation across studies and platforms. 3. Investigate Platform Design as a Variable: Treat interface affordances, default settings, and anthropomorphism as independent variables rather than constants. Experimental work can identify which design choices promote ethical use versus misuse. 4. Bridge Technical and Social Science Research: Collaborate with NLP developers to study model behavior in real-world communicative contexts. Access to system prompts, training logs, and deployment data will improve ecological validity of findings. 5. Examine Second-Order Effects: Research must move beyond direct user impact to study how AIMC reshapes institutions: legal evidence standards, journalistic sourcing norms, therapeutic practice, and civic discourse. Digital society will be defined as much by these systemic adaptations as by individual behavior.

12. CONCLUSION

SUMMARY OF FINDINGS

This study investigated how AI-Mediated Communication (AIMC) reshapes interaction norms, authenticity, and relational dynamics in digital society. Using semi-structured interviews (n=24) and digital ethnography, we identified four empirically grounded patterns:

Table 1. Summary of Key Findings.

Finding	Evidence	Prevalence	Theoretical Implication
Contextual Authenticity	Disclosure varied by relationship stake	83% (20/24)	Authenticity is negotiated, not absolute
Efficiency – Relational trade off	Faster replies, reduced message depth	62% (15/24)	Optimization costs in social capital
Platform Design as Ethics Infrastructures	UI defaults predicted disclosure behaviour	71% (17/24)	Affordance structure moral Agency
Emergent Digital Inequality	Access + editing literacy stratified use	46% high-agency vs 21% low agency	New axis of Communicative stratification

Together, these findings show AIMC functions as a socializing infrastructure that co-authors messages, norms, and expectations. Users do not simply adopt AI tools; they adapt to platform logics that redefine acceptable authorship. Overall Impact of AI on Digital Society

AIMC marks a transition from dyadic human-human communication to triadic human-AI-human interaction. Three systemic impacts emerged: Normative Fragmentation: Disclosure and ethical judgments now depend on context, relational stakes, and domain. “Appropriate AI use” lacks universal consensus. Linguistic Standardization: Smart replies and generative drafts produced measurable convergence in tone and lexicon, reducing code-switching and dialect expression by 68% in our sample. Accountability Recalibration: Attribution of intent became distributed. Participants reported both “moral crumple zone” effects — blaming AI for missteps — and authorship insecurity when messages succeeded. Thus, digital society increasingly operates under conditions of algorithmic co-authorship, where trust depends less on presumed sole authorship and more on transparency, editability, and relational history. Challenges and Future Scope

Table 2. Challenges and Research Directions.

Challenge	Current Gap	Future Scope
Privacy & Consent	Personal messages used for model training without granular opt-out	On-device models; communicative data as sensitive category
Bias & Homogenization	English-centric corpora suppress dialects	Multilingual, community-led dataset curation
Disclosure & Deception	No standard for “meaningful” AI contribution	Context-aware disclosure tiers; UX interventions
Skill Atrophy	Self-reported decline in unassisted writing	Longitudinal studies of communicative competence
Governance Lag	Terms of service outpaced by user practice	Adaptive policy + liability frameworks for AI text

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