

Preparing Students for AI-Mediated Societies: A Theoretical Inquiry into Media, Education, and Algorithmic Culture in Gujarat's Higher Education Landscape

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Abstract- With the creation of AI from media setups, educational systems, and public institutions, we bear witness to the rise of AI-mediated societies, in which algorithms have come to shape knowledge-making and circulation. In the field of higher education, and in Journalism and Mass Media studies in particular, undergraduates are ensconced at a moment when they are being socialized into information worlds that are conditioned by automated news production systems, algorithmic curation protocols, data analysis machinery, and AI-informed instructive platforms. This article is a conceptual and theoretical inquiry into how higher education institutions in Gujarat could prepare students to critically engage with such AI-mediated realities. Based on Media Ecology Theory, Technological Determinism, Uses and Gratifications Theory, the Critical Political Economy of Media, and Posthumanist thought, this paper adopts an interpretive framework to examine the cultural, ethical, and pedagogical implications of integrating AI in media education. Anchored in the policy context of India's National Education Policy (NEP) 2020, the study argues that preparing students for AI-mediated societies requires theoretical literacy, critical media awareness, and ethical reasoning rather than an exclusive focus on technical skill acquisition. By foregrounding the Gujarat higher education context, the paper contributes a regionally grounded perspective to global debates on AI, education, and media transformation.

Index-Terms - AI-mediated societies; media education; journalism studies; algorithmic culture; higher education; Gujarat

I. INTRODUCTION

Today, Artificial Intelligence is seen as a defining force of social change that has reshaped communication methods and environments in schools/colleges -- from professional jobs to public engagement. Through algorithms, news feeds, automated content generation, predictive learning analytics (like in CNN vs. Google News), and intelligent tutoring systems, AI has become an essential layer of infrastructure that filters and organizes everyday experiences. AI-mediated societies are emerging, with human agency becoming more intertwined with algorithmic decision-making processes that users cannot fully comprehend.

The visibility of content, audience measurement, and professional credibility are all influenced by AI systems in media and journalism (Diakopoulos, 2019; Lewis et al,2019). Concurrently, universities in higher education are utilizing AI-driven models for teaching and evaluation at the same time (Williamson, 2017; Selwyn, 2019), embedding algorithmic logic into learning and assessment processes. The alterations in journalism and mass communication are not peripheral; instead, they impact the environments where future professional identities are established.

In India, the expansion of digital infrastructure, mobile-first media consumption, and platform-based journalism has strengthened the presence of AI in public communication (Athique, 2019; Thussu, 2018). Gujarat, as one of India's rapidly developing educational and media hubs, reflects these transformations through the growth of private universities, media institutes, and digitally oriented journalism programmes. However, while AI tools are increasingly introduced in classrooms and newsrooms, critical engagement with their cultural, ethical, and political implications remains uneven.

This paper argues that preparing students for AI-mediated societies cannot be reduced to technical training alone. Instead, it requires a theory-driven pedagogical reorientation that enables students to critically interrogate algorithmic power, media infrastructures, and emerging forms of human-machine collaboration. Situated within the framework of India's National Education Policy (NEP) 2020, articulated by the Government of India, this study foregrounds the Gujarat higher education context to explore how journalism and media education can respond meaningfully to the challenges of algorithmic culture.

II. CONCEPTUALIZING AI-MEDIATED SOCIETIES

AI-mediated societies can be understood as social formations in which algorithmic systems increasingly intervene between individuals and information, institutions, and each other. Unlike earlier forms of media mediation, which relied primarily on human editorial judgment, AI mediation operates through data-intensive, automated, and predictive processes that classify, rank, and prioritize information at scale (Gillespie, 2014; Crawford, 2021). These systems not only distribute content but also actively shape social reality by determining what is visible, relevant, and valuable.

In educational contexts, AI-driven platforms personalize learning pathways, automate assessment, and generate predictive insights about student performance (Williamson, 2017). While such systems promise efficiency and scalability, they also introduce new forms of surveillance, standardization, and epistemic control. For journalism and media students, AI mediation extends beyond the classroom into everyday media consumption, where algorithmic news feeds influence perceptions of public opinion, social importance, and political relevance (Napoli, 2011; Boczkowski, 2021).

In Gujarat's higher education ecosystem, where English-language journalism programmes often coexist with regional language media training, AI-mediated platforms introduce additional complexities. Algorithms designed primarily for global or metropolitan audiences may inadequately reflect regional linguistic, cultural, and political realities. Conceptualizing AI-mediated societies, therefore, requires theoretical frameworks that expose AI as a cultural and ideological force, rather than treating it as a neutral technological enhancement.

III. MEDIA ECOLOGY THEORY AND ALGORITHMIC ENVIRONMENTS

Media Ecology Theory offers a foundational lens for understanding AI-mediated societies by conceptualizing media as environments that shape human perception, cognition, and social organization (McLuhan, 1964; Postman, 1993). From this perspective, AI systems function as invisible environments, structuring how students encounter information, form knowledge, and interpret reality without drawing attention to their own operations.

Recommendation algorithms on news and social media platforms demonstrate this ecological influence by subtly shaping exposure to information while remaining largely opaque to users (Gillespie, 2014). In Mass Media education, such environments have deep consequences. When students consume news primarily through algorithmically curated platforms, they may internalize platform logics—such as virality, engagement metrics, and personalization—as normative journalistic values (Carlson, 2015; Diakopoulos, 2019).

In Gujarat, where Mass Media students increasingly rely on digital platforms for both learning and news consumption, media ecology highlights the pedagogical risk of treating AI-driven systems as neutral tools. Without critical awareness, students may fail to recognize how algorithmic environments privilege certain narratives, marginalize others, and reshape public discourse. Media ecology thus underscores the need to make AI environments visible within the curriculum, enabling students to critically examine how algorithms influence meaning-making, professional ethics, and democratic communication.

IV. TECHNOLOGICAL DETERMINISM AND EDUCATIONAL IDEOLOGY

Technological determinism suggests that technological innovations act as primary drivers of social and cultural change (Innis, 1951; McLuhan, 1964). Contemporary discourse surrounding AI often reflects deterministic assumptions, portraying automation as inevitable, efficient, and synonymous

with progress—particularly within educational policy narratives (Selwyn, 2019; Williamson, 2017).

Within Mass Media education, such deterministic framing can generate anxiety among students, who may perceive AI as a threat to professional relevance rather than as a system shaped by human values and institutional choices (Carlson, 2015; Lewis et al., 2019). In Gujarat's higher education context, where employability remains a central concern, deterministic narratives risk reducing education to skill training while marginalizing ethical reflection and critical inquiry.

A critical engagement with technological determinism allows educators to challenge inevitability narratives and reassert human agency in shaping technological futures (Giroux, 2011). By foregrounding the social, political, and cultural dimensions of AI, journalism education can empower students to see themselves not as passive subjects of automation, but as active participants in the design, governance, and ethical use of algorithmic systems.

V. USES AND GRATIFICATIONS THEORY IN ALGORITHMIC MEDIA CONSUMPTION

Uses and Gratifications Theory emphasizes the active role of audiences in selecting and using media to satisfy cognitive, affective, and social needs (Katz et al., 1974). Traditionally, this framework assumes a degree of user autonomy in media choice. However, in AI-mediated societies, gratification processes are increasingly shaped by personalization algorithms that predict preferences, automate exposure, and guide attention (Sundar, 2008; Napoli, 2011).

For Journalism and Mass Communication students, particularly in Gujarat, where mobile-based news consumption dominates, algorithmic personalization alters how public issues are perceived and prioritized. News feeds curated through engagement-driven algorithms may reinforce selective exposure, limiting encounters with dissenting perspectives and reducing awareness of structural social issues (Boczkowski, 2021). While students may experience these systems as convenient and user-friendly, the underlying logic of algorithmic curation subtly constrains interpretive freedom. From a pedagogical perspective, Uses and Gratifications Theory highlights the tension between perceived choice and algorithmic control. Integrating this theoretical lens into journalism education enables students to critically reflect on how their media gratifications are shaped by platform architectures rather than purely individual preferences (Livingstone, 2004; Buckingham, 2015). In Gujarat's higher education classrooms, this awareness is essential for developing journalists who can critically assess audience behaviour in algorithmically structured media environments.

VI. CRITICAL POLITICAL ECONOMY OF AI AND MEDIA POWER

The Critical Political Economy of Media provides a crucial framework for examining how economic structures, ownership patterns, and power relations shape media systems (Mosco, 2009). In AI-mediated societies, power is increasingly concentrated among global technology

corporations that control data infrastructures, algorithmic governance mechanisms, and digital distribution networks (Srnicek, 2017; Zuboff, 2019).

Within journalism, algorithmic decision-making is deeply embedded in platform economies where visibility, monetization, and audience engagement are governed by proprietary systems beyond the control of journalists or educators (Fuchs, 2017). In India—and Gujarat in particular—news organizations and journalism students rely heavily on global platforms for content dissemination, audience analytics, and professional exposure. This dependency raises critical concerns regarding data sovereignty, labour precarity, and editorial autonomy (Thussu, 2018; Athique, 2019).

For journalism education, a political economy approach exposes the structural inequalities embedded within AI systems. Rather than framing AI as a neutral innovation, this perspective encourages students to interrogate whose interests' algorithms serve, how value is extracted from user data, and how platform dominance reshapes journalistic labor. In Gujarat's rapidly privatizing higher education sector, such critical engagement is essential for cultivating ethically grounded media professionals capable of resisting purely market-driven logics.

VII. POSTHUMANISM AND THE REDEFINITION OF JOURNALISTIC AGENCY

Posthumanist theory challenges anthropocentric understandings of agency by recognizing non-human actors—including algorithms, software, and data systems—as active participants in social processes (Braidotti, 2013; Haraway, 2016). In AI-assisted journalism, content production increasingly involves collaboration between human journalists and automated systems, complicating traditional notions of authorship, responsibility, and professional identity (Lewis et al., 2019).

For journalism students, posthumanism offers a productive framework for moving beyond fear-based narratives of technological replacement. Rather than positioning AI as an adversary, posthumanist thought encourages an understanding of AI as a co-actor within communicative systems, requiring new ethical frameworks for accountability and judgment (Verbeek, 2011).

In Gujarat's media education context, where students are often exposed to automation narratives emphasizing efficiency and employability, posthumanism enables deeper reflection on the human values that must guide AI-assisted media practices. This perspective aligns with the broader educational goal of fostering reflective professionals who can negotiate human-machine collaboration without surrendering ethical responsibility.

VIII. AI, MEDIA EDUCATION, AND HIGHER EDUCATION IN GUJARAT

Gujarat has emerged as a significant hub for higher education, with a growing number of public and private universities offering journalism, mass communication, and media studies programmes. These institutions increasingly integrate digital tools, online platforms, and AI-enabled systems into teaching and assessment practices. However, the pedagogical emphasis often remains skewed

toward skill acquisition and technological familiarity rather than critical engagement with algorithmic culture.

Journalism students in Gujarat operate within a complex media ecology characterized by multilingual news environments, politically charged public discourse, and rapid platformization. AI systems used in classrooms and newsrooms are frequently developed for global or metropolitan contexts, raising questions about cultural relevance, linguistic representation, and regional bias. Without theoretical grounding, students may adopt algorithmic tools uncritically, reinforcing dominant narratives while marginalizing local voices.

A theory-driven approach to AI education is therefore particularly relevant in Gujarat, where media institutions play a central role in shaping public opinion and democratic participation. Integrating critical media theory into journalism curricula can help students contextualize AI technologies within regional socio-political realities rather than treating them as universally applicable solutions.

IX. NEP 2020 AND THE CHALLENGE OF REGIONAL IMPLEMENTATION

India's National Education Policy (NEP) 2020 emphasizes interdisciplinary learning, critical thinking, digital competence, and ethical awareness as foundational goals of higher education. The policy explicitly recognizes the importance of emerging technologies such as AI while cautioning against purely vocational approaches to education.

Despite this policy vision, implementation at the institutional level remains uneven. In Gujarat, disparities in resources, faculty preparedness, and curricular autonomy influence how AI is incorporated into journalism education. While some institutions experiment with digital innovation, others lack structured frameworks for integrating AI ethics, media theory, and critical inquiry.

Aligning NEP 2020 with regional educational realities requires moving beyond symbolic adoption of AI tools toward sustained curricular reform. Journalism education in Gujarat must therefore balance technological exposure with theoretical depth, ensuring that students develop critical awareness alongside practical competencies.

X. TOWARD A THEORETICAL FRAMEWORK FOR AI-ORIENTED MEDIA EDUCATION

Drawing upon Media Ecology, Technological Determinism, Uses and Gratifications, Critical Political Economy, and Posthumanism, this paper proposes a theoretical framework for AI-oriented media education grounded in four key principles:

1. Environmental Awareness: Understanding AI as an invisible media environment shaping perception and knowledge.
2. Critical Agency: Challenging deterministic narratives and foregrounding human decision-making.
3. Ethical Reasoning: Engaging with issues of bias, accountability, and social responsibility.

4. Power Consciousness: Interrogating platform dominance, data exploitation, and economic structures.

This framework positions journalism students not merely as users of AI technologies but as reflective citizens and ethical media practitioners capable of critically shaping algorithmic futures.

XI. CONCLUSION AND FUTURE RESEARCH DIRECTIONS

AI-mediated societies demand a fundamental rethinking of journalism and media education, particularly within rapidly transforming regional contexts such as Gujarat. This paper has argued that preparing students for such societies is not solely a technical challenge but a deeply theoretical, cultural, and ethical one. By integrating critical media theories into AI education, higher education institutions can equip students to interrogate algorithmic power, navigate human-machine collaboration, and uphold democratic values in media practice.

Future research may extend this theoretical framework through empirical studies examining student perceptions of AI, faculty preparedness, and curriculum design in Gujarat's media institutions. Comparative research across Indian states may further illuminate regional variations in AI adoption and educational response. Ultimately, theory-driven media education offers a pathway for ensuring that AI serves the public interest rather than undermining it.

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