The Umbrella and Critical Perception of Artificial Intelligence with Driven Personalization Across Marketing, Media, And Well-Being

Yash B. Naik[1], Dhairya R. Joshi[2], Darshan M. Patel[3]

[1]*Teaching Assistant, Department of Psychology, The M.S. University of Baroda, Vadodara (Gujarat), INDIA*

[2]*Student Scholar, Department of Computer Science and Design, Sardar Vallabhbhai Patel Institute of Technology, Vasad (Gujarat), INDIA*

[3]*Student Scholar, Department of Computer Science and Engineering, GSFC University, Vadodara (Gujarat), INDIA*

Abstract—Artificial Intelligence (AI) with driven personalization has rapidly transformed domains including digital marketing, journalism, e-commerce, creative work, and mental health support. This umbrella and critical review synthesize evidence from recent qualitative studies, systematic reviews, conceptual papers, and mixed-methods research (2023–2025) to examine how algorithmic personalization affects autonomy, customer engagement, transparency, ethics, and human flourishing. Drawing on ten reviews and empirical investigations, the paper integrates findings across disciplines to identify convergent themes, methodological gaps, and unresolved ethical tensions. Results indicate that AI personalization enhances efficiency, engagement, and adaptive learning, but simultaneously introduces risks related to privacy erosion, algorithmic bias, reduced autonomy, opacity, and over-reliance on automated systems. Critically, most evidence relies on small qualitative samples or secondary literature, limiting generalizability. The review proposes an integrative framework linking personalization benefits with autonomy-preserving design and offers recommendations for researchers, practitioners, and policymakers.

Index Terms—*artificial intelligence; personalization; autonomy; transparency; digital marketing; ethics*

I. INTRODUCTION

AI-powered personalization systems now shape customer journeys, media consumption, learning pathways, creative production, and even psychotherapy. Advances in machine learning such as collaborative filtering, deep learning, and predictive analytics which enables hyper-personalized experiences that promise improved engagement and efficiency. At the same time, scholars warn of growing concerns surrounding privacy, manipulation, algorithmic bias, and diminished human agency.

Given the rapid proliferation of domain-specific studies, an umbrella review is warranted to consolidate higher-level evidence and critically assess methodological rigor. This paper integrates qualitative inquiries, systematic and narrative reviews, conceptual frameworks, and mixed-methods research to answer three guiding questions:

1. What benefits does AI-driven personalization deliver across sectors?
2. How does personalization affect autonomy, transparency, and ethical practice?
3. What limitations characterize the current evidence base, and what directions should future research and practice take?

II. METHODS

2.1 Umbrella Review Approach

An umbrella review synthesizes evidence from multiple reviews and primary studies to provide a high-level overview of a research field. The present review draws on ten recent studies (2023–2025) encompassing qualitative interviews, phenomenological designs, systematic literature

reviews including PRISMA-guided work, conceptual analyses, and mixed-methods experiments.

2.2 Sources and Scope

The included works examine AI personalization across journalism, digital marketing, e-commerce, creative collaboration, education, and AI-based psychotherapy. Data sources range from in-depth interviews (11–20 participants), university-student surveys (n≈108), small experimental samples (n≈12), and synthetic simulations, to secondary analyses of 25+ peer-reviewed articles.

2.3 Critical Appraisal

Each study was assessed qualitatively along four dimensions:

- Design rigor (empirical vs. conceptual; qualitative vs. quantitative)
- Sample adequacy and diversity
- Transparency of methods and analysis
- Strength of claims relative to evidence

III. RESULTS: CROSS-DOMAIN SYNTHESIS

3.1 Performance and Engagement Benefits

Across marketing and digital platforms, AI personalization consistently improves automation, predictive analytics, and customer engagement. Machine-learning approaches enhance customer lifetime value prediction and adaptive targeting, while recommendation systems streamline discovery and conversion. Systematic reviews conclude that AI strengthens campaign performance and operational efficiency, particularly through hyper-personalized content and automated workflows.

In creative and educational contexts, adaptive learning algorithms identify individualized learning paths, and AI-assisted workflows can increase productivity and satisfaction. Similarly, AI-based psychotherapy tools provide accessible short-term emotional support and usability benefits.

Synthesis: Evidence converges on AI's capacity to optimize personalization at scale, improving engagement, learning efficiency, and operational outcomes.

3.2 Autonomy, Privacy, and User Experience

Despite performance gains, multiple qualitative studies report tension between convenience and autonomy. Users often trade privacy for personalized services in early engagement stages but become increasingly sensitive to data misuse during later stages (e.g., loyalty and retention). In journalism, personalization both enables choice and constrains autonomy by subtly steering attention.

In mental-health applications, users value anonymity and immediacy but perceive AI tools as insufficient for deeper therapeutic needs, highlighting limits of scripted empathy. Transparency research shows that users better understand system inputs and outputs than underlying processing logic or control mechanisms.

Synthesis: Personalization frequently operates through implicit behavioral nudging, raising concerns about informed consent, reduced agency, and opaque decision-making.

3.3 Ethical Risks

Conceptual and integrative reviews identify recurring ethical challenges:

- Large-scale data extraction and privacy loss
- Reinforcement of algorithmic and societal bias
- Potential manipulation of consumer behavior
- Lack of explainability and accountability
- Risk of job displacement and over-automation

While responsible deployment can yield transformative marketing and learning outcomes, the absence of robust governance frameworks amplifies societal risks.

Synthesis: Ethical concerns are not peripheral; they are structurally embedded in current personalization architectures.

IV. CRITICAL EVALUATION OF THE EVIDENCE BASE

Although the literature demonstrates thematic coherence, several limitations constrain interpretability:

1. Small and localized samples: Many empirical studies rely on fewer than 20 participants or single-country contexts.
2. Heavy dependence on secondary data: Several reviews and conceptual papers lack primary empirical validation.

3. Subjectivity in transparency and autonomy measures: User perceptions dominate, with limited behavioral or longitudinal metrics.
4. Underdeveloped explainability research: Deep-learning effectiveness is emphasized more than interpretability.
5. Fragmented domains: Marketing, media, education, and health studies rarely integrate insights, limiting systemic understanding.

Consequently, strong causal claims about autonomy, well-being, or long-term societal impact remain premature.

V. DISCUSSION

Taken together, the findings portray AI personalization as a dual-use infrastructure which enhances efficiency and engagement while simultaneously reshaping power relations between platforms and users. Current systems prioritize optimization over autonomy-preserving design. Transparency tools and ethical frameworks exist, but adoption is uneven and often superficial.

A key theoretical implication is the need to move beyond a narrow "performance vs. privacy" trade-off toward a human-centered personalization paradigm, integrating autonomy, explainability, cultural sensitivity, and participatory design.

VI. RECOMMENDATIONS

6.1 Researchers
- Conduct large-scale, cross-cultural, and longitudinal studies to assess sustained effects on autonomy and well-being.
- Combine qualitative insights with behavioral and experimental methods to reduce reliance on self-reported perceptions.
- Advance explainable AI in personalization, especially for deep-learning models.
- Develop standardized, validated measures of autonomy, transparency, and perceived manipulation.

6.2 Practitioners
- Embed privacy-by-design and autonomy-by-design principles into recommendation pipelines.

- Provide users with meaningful control, including opt-outs, preference dashboards, and clear explanations.
- Avoid over-automation in sensitive domains (e.g., mental health); use AI as augmentation, not replacement.
- Regularly audit systems for bias, fairness, and unintended behavioral steering.

6.3 Policymakers and Regulators
- Mandate algorithmic transparency and accountability reporting for large personalization platforms.
- Strengthen data-protection enforcement and require impact assessments for high-risk AI applications.
- Support interdisciplinary standards linking technical performance with human-rights based evaluation criteria.

VII. IMPLICATIONS

7.1 Theoretical Implications
This review supports an integrative model of AI personalization that balances optimization with autonomy, extending existing marketing and media theories by foregrounding agency, transparency, and ethical design.

7.2 Practical Implications
Organizations adopting AI personalization should prioritize trust-building mechanisms, user control, and explainability to ensure sustainable engagement rather than short-term performance gains.

7.3 Societal Implications
Without deliberate governance, personalization risks deepening inequality, normalizing surveillance, and eroding individual agency. Conversely, responsibly designed systems can support learning, creativity, and accessible care.

VIII. CONCLUSION

AI-driven personalization is a powerful socio-technical force. Evidence across marketing, media, education, creativity, and mental health shows substantial benefits in engagement and efficiency,

counterbalanced by persistent risks to autonomy, privacy, and fairness. The current literature is methodologically fragmented and often exploratory. Progress now depends on moving from optimization-centric architectures toward human-centered, transparent, and accountable personalization systems. Future research must adopt interdisciplinary, large-scale approaches to ensure that AI serves human flourishing rather than undermining it.

REFERENCES

[1] Beg, M. J., & Verma, M. K. (2025). Artificial intelligence-based psychotherapy: A qualitative exploration of usability, personalization, and the perception of therapeutic progress. *Indian Journal of Psychological Medicine*.

[2] Biru, S., & Pallaprolu, S. (2025). AI-driven pathways to human happiness: Algorithmic architectures for thriving beyond work in the age of humanoid automation. *Journal of Computer Science and Technology Studies, 7*(12), 120–134.

[3] Hardcastle, K., Vorster, L., & Brown, D. M. (2025). Understanding customer responses to AI-driven personalized journeys: Impacts on the customer experience. *Journal of Advertising, 54*(2), 176–195.

[4] Islam, M. A., Fakir, S. I., Masud, S. B., Hossen, M. D., Islam, M. T., & Siddiky, M. R. (2024). Artificial intelligence in digital marketing automation: Enhancing personalization, predictive analytics, and ethical integration. *Edelweiss Applied Science and Technology, 8*(6), 6498–6516.

[5] Karami, A., Shemshaki, M., & Ghazanfar, M. (2024). Exploring the ethical implications of AI-powered personalization in digital marketing. *Data Intelligence, 3*.

[6] Owen, A., & Moore, J. (2023). Ethical considerations in AI-driven e-commerce solutions: Balancing personalization and privacy.

[7] Potwora, M., Vdovichena, O., Semchuk, D., Lipych, L., & Saienko, V. (2024). The use of artificial intelligence in marketing strategies: Automation, personalization and forecasting. *Journal of Management World, 2*, 41–49.

[8] Rydenfelt, H., Lehtiniemi, T., Haapoja, J., & Haapanen, L. (2025). Autonomy and algorithms: Tracing the significance of content personalization. *International Journal of Communication, 19*, 481–500.

[9] Schelenz, L., Segal, A., Adelio, O., & Gal, K. (2024). Transparency-Check: An instrument for the study and design of transparency in AI-based personalization systems. *ACM Journal on Responsible Computing, 1*(1), 1–18.

[10] Verma, C., Vijayalakshmi, P., Chaturvedi, N., Umesh, U., Rai, A., & Ahmad, A. Y. B. (2025). Artificial intelligence in marketing management: Enhancing customer engagement and personalization. In *2025 International Conference on Pervasive Computational Technologies (ICPCT)*, 397–401.