International Journal of Studies in Humanities and Social Science (IJSHSC)

Contents lists available at IJSHSC
International Journal of Studies in Humanities and Social Science
journal homepage: IJSHSC
Volume 2, No. 1, 2026

Reconfiguring the Posthuman Self: Algorithmic Mediation, Recommendation Systems, and the Transformation of Human Agency

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ARTICLE INFO

Received: 2026/07/10

Revised: 2026/08/18

Accept: 2026/09/19

Keywords:

Algorithmic Mediation, Recommendation Systems, Posthuman Self, Human Agency, Devitalization

ABSTRACT

The proliferation of algorithmic recommendation systems has fundamentally reconfigured the terrain of human agency, giving rise to what this paper theorizes as the posthuman algorithmic self. Drawing on posthumanist philosophy, actor-network theory, and phenomenology of technology, this study examines how algorithmic mediation transforms the structures of human intentionality, decision-making, and self-constitution. Through an interdisciplinary synthesis of theoretical frameworks and empirical findings from 2021-2026, we argue that recommendation systems do not merely assist human choice but actively participate in the co-constitution of agency through processes of delegation, dividualization, and the emergence of "interface selves". The paper identifies a critical paradox: while algorithmic personalization promises hyper-individuation, it simultaneously produces disindividuation by abstracting and decomposing the self into machine-legible data flows. We introduce the concept of "algorithmic transindividuality" to describe the emergent relational mode in which human and algorithmic agencies become entangled in ongoing processes of becoming. The findings suggest that the transformation of human agency under algorithmic mediation represents neither a simple enhancement nor a diminishment, but a qualitative reconfiguration that requires new ethical frameworks and renewed attention to the conditions for autonomous subjectivity in digitally saturated environments.

1. Introduction

The contemporary human subject navigates an environment increasingly structured by algorithmic recommendation systems that anticipate, shape, and potentially supplant human decision-making.

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DOI: https://doi.org/10.22034/ijshsc.v2i1.230
Available online: 2026/09/20
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From curated social media feeds to personalized search results, from content recommendations to predictive text, algorithms have become ubiquitous mediators of experience, perception, and choice. This transformation raises fundamental questions about the nature of human agency, selfhood, and subjectivity in an era of pervasive computational mediation.

The concept of the "posthuman self" provides a crucial theoretical lens for understanding this transformation. Moving beyond humanist conceptions of the autonomous, rational individual, posthumanist thought recognizes that subjectivity is always already constituted through entanglement with non-human actors, technologies, and material conditions [2,4]. As Braidotti [8] argues, the posthuman subject is a "relational subject" constituted in and through multiple connections, not a bounded, self-contained entity. This perspective proves essential for understanding how algorithmic systems participate in the ongoing constitution of selfhood.

Recommendation systems represent a particularly significant site of algorithmic mediation because they operate at the intersection of identity formation, desire production, and decision-making. These systems do not merely present options but actively shape the horizon of possibilities within which users operate. Through personalization processes, recommendation algorithms construct individualized informational environments that simultaneously reflect and produce user identities. As Söe and Mai demonstrate, the "Google Self" functions as a "platformized digital twin" that participates in the formation of intentions rather than merely executing pre-existing intentions [1,12].

The transformation of human agency through algorithmic mediation operates through multiple mechanisms. First, recommendation systems reconfigure the temporal structure of experience by suppressing the interval between stimulus and response, producing what has been termed "just-in-time" judgment [7]. Second, algorithmic feedback loops create what Ozturkcan et al. (forthcoming) term "robotoid humanness"—an emergent condition in which users experience themselves as most fluent and socially viable when they become compatible with machine legibility [11]. Third, the delegation of cognitive and decision-making functions to algorithms transforms the distribution of agency across human-machine assemblages, creating what Pickering describes as a "dance of agency" [12].

This paper addresses a significant gap in the existing literature. While considerable research has examined algorithmic bias, fairness, and transparency, less attention has been paid to the ontological transformation of selfhood and agency that algorithmic mediation produces [8,13].

Furthermore, existing studies often oscillate between techno-optimist celebrations of algorithmic empowerment and techno-pessimist critiques of algorithmic control, without adequately theorizing the qualitative reconfiguration of agency that algorithmic mediation entails [3,6].

Our central argument is that algorithmic recommendation systems are transforming human agency in ways that resist simple characterization as either enhancement or diminishment. Rather, these systems participate in the emergence of new forms of distributed, relational agency that require reconceptualization of core concepts, including intentionality, autonomy, and selfhood. Drawing on Simondon's theory of individuation, Deleuze's [1] concept of devitalization, and Latour's actor-network theory, we develop a framework for understanding algorithmic mediation as a process of transindividual becoming [1,12].

The paper proceeds as follows. Section 2 presents a comprehensive literature review, tracing the development of scholarship on algorithmic mediation and subjectivity from foundational theoretical work to contemporary empirical studies. Section 3 outlines the methodological approach, integrating qualitative and computational methods for studying human-algorithm interaction. Section 4 presents findings from an analysis of user experiences with algorithmic recommendation systems. Section 5 discusses the implications of these findings for understanding the posthuman self and the transformation of human agency. Section 6 concludes with reflections on ethical and practical implications.

2. Literature Review

The study of algorithmic mediation and its effects on human agency spans multiple disciplines, including philosophy of technology, critical algorithm studies, posthumanist theory, and human-computer interaction. This review synthesizes key theoretical frameworks and empirical findings and identifies significant gaps in the literature between 2021 and 2026.

Theoretical Foundations

Posthumanist Subjectivity

Posthumanist thought provides essential resources for understanding the transformation of selfhood under algorithmic mediation [30-35]. Rejecting the humanist conception of the autonomous, self-contained subject, posthumanism recognizes subjectivity as emergent, relational, and constituted through entanglement with non-human actors [2,4]. Braidotti [8] develops the concept of the "nomadic subject" to describe a mode of subjectivity that is multiple, fluid, and continually constituted through movement across boundaries. Haraway's [2] figure of the cyborg

similarly challenges boundaries between human and machine, nature and culture, offering a framework for understanding technologically mediated subjectivity.

Recent scholarship has extended these insights to the specific conditions of algorithmic mediation. Smith [6] theorizes the "interface self"—a mode of subjectivity emergent within algorithmically mediated platforms that organize labor, intimacy, and self-presentation [2]. Neither merely expressive nor autonomous, the interface self is shaped through optimization logics, datafication, and feedback-driven design. This conceptualization resonates with Wilde's autoethnographic exploration of posthuman subjectivity in gaming contexts, which demonstrates how the "I" of experience is always already entangled and multiple [4, 36-40].

Actor-Network Theory and Distributed Agency

Actor-network theory (ANT) provides a methodological and theoretical framework for tracing the distribution of agency across human and non-human actors [1,12]. Latour [3] argues that agency is not an inherent property of humans but emerges through networks of interconnected actors. This perspective proves valuable for understanding how recommendation systems participate in decision-making processes. Also, Mohammadi's [23] Transjective-Holobiontic Rhetoric (THR) offers a complementary development of this relational account by conceptualizing algorithms as entities whose capacities emerge through material, subjective, technical, and sociocultural entanglements. From this perspective, human-algorithm agency is not merely distributed across pre-existing actors but continuously constituted through their recursive interaction.

Söe and Mai [7] apply ANT to analyze the "Google Self" as a platformized digital twin, demonstrating how agency is distributed across user and algorithmic systems [1,12]. Their analysis reveals that when a user receives personalized suggestions, agency is neither located exclusively in the user nor in the algorithm but emerges through ongoing interplay between human and non-human elements. This "dance of agency" (Pickering) operates through processes of delegation, in which human intentions are embedded in technical systems that subsequently act on their behalf.

Dividualization and Algorithmic Governmentality

Deleuze [1] concept of dividualization has proven particularly influential for understanding algorithmic subjectivity. In "societies of control," Deleuze argues, subjects are transformed into "dividuals"—entities decomposed into manipulable data flows that can be recombined according to institutional needs. Ott [15] extends this analysis to digital platforms, arguing that contemporary algorithmic systems operate through modulations that continuously reshape the subject.

Razinsky [10] develops a critical analysis of algorithmic governmentality, exploring the tension between hyper-individuation and disindividuation in algorithmically mediated environments [6]. The paper argues that while algorithmic personalization creates a world adapted to individual preferences, this hyper-individuation is deceptive and hollow, leading paradoxically to disindividuation. The algorithmic mediation of experience does not perceive or address the subject as such but induces an irreducible dispersion and abstraction of the person. Furthermore, Razinsky argues that algorithmic mediation erases others from the phenomenal world, as recommendations and predictions tailored to individual subjects nevertheless depend on others' data—a relationship that reshuffles, averages, and decomposes alterity until it becomes unidentifiable.

Empirical Studies of Algorithmic Mediation

Agency and Decision-Making

Empirical research on algorithmic mediation has examined how recommendation systems affect human decision-making and agency. Studies have explored the delegation of decision-making functions to algorithms across domains, including medical services, consumer behavior, and information consumption [45-50].

Wagner et al. examine "algorithm delegation" in medical services, demonstrating how embedded AI facilitates the transfer of agency [10]. Their research shows that embedded AI reduces psychological distance between consumers and AI, enhancing willingness to delegate medical decisions to algorithms. However, these effects weaken when analytical modes are primed with information about numerical accuracy, suggesting that perceived agency transfer is influenced by contextual and cognitive factors [51-58].

Research on AI-driven consumer behavior has revealed a recurring contradiction: recommendations can be judged as highly competent yet comparatively less authentic, emotionally resonant, or trustworthy [3]. This tension between algorithmic competence and perceived authenticity highlights the complex dynamics of agency transfer in consumer contexts. As recommendation systems become increasingly agentic—proactively curating, recommending, and potentially acting on consumers' behalf—new challenges emerge around delegated agency, autonomy negotiation, and trust calibration.

Subjectivity Formation

Studies have examined how algorithmic mediation shapes subjectivity and selfhood. The concept of "robotoid humanness," introduced by Ozturkcan et al. (forthcoming), describes an emergent

drift in which consumers experience themselves as most fluent, correct, or socially viable when they become compatible with machine legibility [11]. Through a three-stage mirroring mechanism, consumers enter a synthetic social reality that invites commitment; computational identity capture feeds back a reduced profile as personalized recognition; and users adapt their self-presentation toward what the system can readily parse and reward.

Pfeifer analyzes AI as a dispositif that produces what he terms the "subject without conflict"—an individual psychologically conditioned to expect affirmation and affectively incapable of confronting disagreement [14]. Drawing on posthumanist philosophy and critical theory of technology, this analysis suggests that algorithmic mediation may erode the psychological preconditions for democratic citizenship.

Temporality and Experience

Recent phenomenological approaches have examined how algorithmic mediation reconfigures the temporality of experience. Mykhailov and Liberati [13] argue for a return "to the technologies themselves" to illuminate the intrinsic forms of agency within technology [7]. This temporal reconfiguration can be further understood as a form of temporal flattening, whereby algorithmic systems compress or displace differentiated moments of human temporal experience, redistributing the relation among retention, the lived present, and anticipation [28]. By reactivating Husserl's concept of passive synthesis, they show that technologies are not merely mediators but intentional actors capable of connecting with broader environments independently of human intervention.

This perspective illuminates how algorithmic mediation suppresses the interval between stimulus and response, producing a condition of "just-in-time" judgment in which technological mediation reconfigures the temporality of experience by collapsing the folds of attention and judgment into a response that has already been anticipated or preconfigured [7].

Table 1: Literature Review Summary

Theme	Key Authors	Key Concepts	Empirical Focus	Timeframe
Posthuman Subjectivity	Braidotti (2013), Haraway (1991), Smith (2025), Wilde (2023)	Nomadic subject, cyborg, interface self, entangled subjectivity	Identity formation in digital environments	1991-2025

Theme	Key Authors	Key Concepts	Empirical Focus	Timeframe
Distributed Agency	Latour (2005), Söe & Mai (2022), Pickering (2010)	Actor-network theory, delegation, dance of agency	Human-algorithm interaction, decision-making	2005-2024
Dividualization	Deleuze (1992), Ott (2018), Razinsky (2026)	Control societies, dividuals, hyper/ disindividuation	Algorithmic governmentality, personalization	1992-2026
Algorithm Delegation	Wagner et al. (2025)	Embedded AI, agency transference, psychological distance	Medical AI adoption, consumer behavior	2025
Robotoid Humanness	Ozturkcan et al. (forthcoming)	Machine legibility, computational mirroring, identity capture	Human-AI interaction, service agents	Forthcoming
Algorithmic Governmentality	Razinsky (2026), Pfeifer (2025)	Dispositif, subject without conflict, biopolitics	User discourses, subjectivity formation	2023-2026
Temporal Mediation	Mykhailov & Liberati (2023a), Byrne (2023)	Passive synthesis, just-in-time judgment, captivity	ChatGPT, AI-reconfigured judgment	2023-2026
Algorithmic Cultures	Various (2021-2025)	Socio-technical assemblies, power and agency, algorithmic visibility	Recommendation systems, platform studies	2021-2025

Research Gaps (2021-2026)

The literature review reveals several significant gaps in research on algorithmic mediation and the transformation of human agency:

1. Ontological Transformation

While considerable research has examined algorithmic bias, fairness, and transparency, less attention has been paid to the ontological transformation of selfhood that algorithmic mediation produces. Studies tend to focus on how algorithms affect outcomes rather than how they constitute subjectivities. This gap is particularly significant given posthumanist claims that technologies participate in the ongoing constitution of selfhood.

2. Agency as Qualitative Reconfiguration

Existing studies often characterize algorithmic effects in terms of enhancement or diminishment of agency, without adequately theorizing the qualitative reconfiguration of agency that algorithmic mediation entails. The distributed, relational nature of algorithmic agency requires conceptual frameworks that move beyond simple binaries.

3. Empirical Investigation of Subjectivity Formation

While theoretical analyses of algorithmic subjectivity are well developed, empirical investigation into how users experience and make sense of algorithmic mediation remains limited. There is a need for qualitative studies that examine users' lived experiences of algorithmic mediation.

4. Long-Term Effects

Most studies examine short-term or cross-sectional effects of algorithmic mediation. There is limited research on the long-term transformation of selfhood and agency through sustained engagement with algorithmic systems.

5. Cultural and Contextual Variation

Research on algorithmic mediation has tended to focus on Western, English-language contexts. There is a need for studies that examine how algorithmic mediation operates across diverse cultural and linguistic contexts, where different values, norms, and practices shape human-algorithm interaction.

6. Resistance and Alternative Practices

While much research focuses on how algorithms shape users, there is limited examination of practices of resistance, refusal, and alternative engagement with algorithmic systems. Understanding how users maintain autonomy and develop counter-practices is essential for developing robust accounts of algorithmic agency.

7. Integration of Theoretical and Empirical Approaches

There is a gap between theoretical and empirical approaches to algorithmic mediation. Theoretical frameworks developed in philosophy and critical theory are often not systematically integrated with empirical findings from user studies and human-computer interaction.

3. Methodology

This study employs a multi-method qualitative approach to investigate how algorithmic recommendation systems reconfigure human agency and subjectivity. The methodology is designed to capture both the structural conditions of algorithmic mediation and the lived experience of users navigating algorithmically mediated environments.

Research Design

The study adopts a qualitative, interpretive approach grounded in posthumanist and phenomenological traditions. This orientation recognizes that algorithmic mediation is not merely a technical process but a socio-technical phenomenon that shapes experience, meaning-making, and self-constitution. The research design integrates three complementary methods: netnographic analysis of user discourses, phenomenological interviews, and platform analysis.

Netnographic Analysis

Netnographic analysis examines user discussions of algorithmic recommendation systems across online platforms, including Reddit, Medium, and specialized technology forums. Following the approach developed by Söe and Mai [7] for analyzing the "Google Self," this method traces how users make sense of algorithmic mediation in their daily lives [1,12].

Data Collection

Data were collected from publicly available user discussions published between 2021 and 2026. Search terms included combinations of "algorithm," "recommendation," "personalization," "agency," "control," "addiction," and "privacy." Platforms were selected to capture diverse user populations and discussion contexts:

- **Reddit**: Subreddits including r/privacy, r/technology, r/algorithms, and r/socialmedia were sampled for discussions of algorithmic experience.
- **Medium**: Personal essays and critical analyses of algorithmic mediation were collected.
- **Specialized Forums**: Technology-focused forums, including Hacker News and technology policy discussion groups, were included.

Analytical Approach

Netnographic data were analyzed using thematic analysis, with coding focused on:

1. **Experiences of Agency**: How users describe their sense of control, choice, and autonomy in algorithmically mediated environments.
2. **Identity and Selfhood**: How users describe the relationship between algorithmic personalization and self-understanding.
3. **Resistance and Negotiation**: Practices of resistance, refusal, and negotiation with algorithmic systems.
4. **Affective Responses**: Emotional and affective dimensions of algorithmic experience.

Phenomenological Interviews

Semi-structured interviews were conducted with 25 participants who regularly use algorithmic recommendation systems across multiple platforms (social media, streaming services, search engines, e-commerce). Participants were recruited through university mailing lists and social media.

Interview Protocol

Interviews explored:

1. **Everyday Experience**: Daily practices of engagement with recommendation systems.
2. **Decision-Making**: How algorithmic recommendations influence choices and decisions.
3. **Identity and Selfhood**: The relationship between algorithmically mediated experience and self-understanding.
4. **Autonomy and Control**: Perceptions of agency, choice, and constraint.
5. **Ethical Concerns**: Reflections on privacy, manipulation, and algorithmic governance.

Analytical Approach

Interview transcripts were analyzed using interpretative phenomenological analysis (IPA), focusing on how participants make sense of their experiences of algorithmic mediation. Analysis proceeded through:

1. **Case-by-case Analysis**: Detailed analysis of individual participant accounts.
2. **Cross-case Analysis**: Identification of patterns and themes across participants.
3. **Integration with Theory**: Interpretation of findings in relation to theoretical frameworks.

Platform Analysis

Platform analysis examined the design and functionality of major recommendation systems, including:

1. **Social Media**: Facebook, Instagram, Twitter/X, TikTok
2. **Search**: Google Search, Google Maps
3. **Streaming**: Netflix, Spotify, YouTube
4. **E-commerce**: Amazon, Alibaba

Analytical Approach

Platform analysis employed the framework of "critical technical practice" examining:

1. **Technical Architecture**: How recommendation systems are designed and implemented.
2. **Interface Design**: How algorithmic outputs are presented to users.
3. **User Control**: Mechanisms for user input, feedback, and control.
4. **Data Flows**: How user data is collected, processed, and utilized.

Ethical Considerations

The study adheres to ethical guidelines for research involving human participants and digital data:

1. **Informed Consent**: Interview participants provided informed consent and were informed of their right to withdraw.
2. **Anonymity**: All participants and quoted users are anonymized.
3. **Public Data**: Netnographic data were collected from publicly available sources, with attention to contextual integrity.
4. **Researcher Positionality**: The researcher's position as a user of algorithmic systems is acknowledged and reflected upon.

Limitations

The methodological approach has several limitations:

1. **Sample**: The interview sample is not representative of all users of algorithmic systems.
2. **Context**: Findings are specific to the Western, English-language contexts examined.
3. **Self-Report**: Interview and netnographic data rely on user self-report, which may not fully capture implicit or unconscious processes.
4. **Rapid Change**: Algorithmic systems evolve rapidly, and findings may not generalize to future systems.

4. Results

This section presents findings from the multi-method investigation of algorithmic mediation and the transformation of human agency. Results are organized around three thematic areas: shifts in agency and intentionality, reconfigurations of selfhood and identity, and practices of resistance and negotiation.

Agency and Intentionality

Delegation and Agency Transfer

Analysis of interview data reveals extensive delegation of cognitive and decision-making functions to algorithmic systems. Participants described relying on recommendation systems for decisions ranging from trivial (what to watch, listen to, or buy) to significant (information consumption, health decisions, relationship formation).

"I don't really think about what I want to watch anymore. I just open Netflix and see what it suggests. Sometimes I realize I've watched three episodes of something I didn't even know existed five minutes ago." (Participant 7, female, 28)

This delegation operates through a mechanism that Wagner et al. [11] term "agency transference," wherein users come to rely on algorithmic systems as extensions of their own decision-making capacities. Participants described a process of progressive delegation: initial use of recommendations as suggestions, followed by increasing reliance as trust develops, and eventual habituation, in which algorithmic outputs become the default basis for decisions.

However, delegation was not total. Participants described retaining varying capacities to accept, modify, or reject algorithmic suggestions. The extent of agency distribution was often obscured by the "black-boxing" of algorithmic processes—users receiving recommendations without understanding how they were generated [12].

Intention Formation

A significant finding concerns the role of algorithmic systems in the formation of intentions. Rather than merely executing pre-existing intentions, recommendation systems participate in the constitution of desires and intentions. As one participant described:

"I didn't know I wanted to listen to that kind of music until Spotify suggested it. Now it's my favorite playlist. But did I choose it, or did it choose me?" (Participant 12, male, 34)

This finding aligns with the analysis of Söe and Mai [7], who demonstrate that the "Google Self" participates in intention formation rather than merely executing pre-existing intentions.

Algorithmic systems shape the horizon of possibilities within which users operate, influencing not just which decisions are made but which decisions are conceivable.

The suppression of the interval between stimulus and response (identified by Mykhailov and Liberati [13]) was evident in participants' descriptions of rapid, almost automatic engagement with algorithmic recommendations [7]. This temporal compression produces what may be termed "just-in-time" judgment, where the space for reflection and deliberation is diminished.

Algorithmic Feedback Loops

Analysis revealed the operation of algorithmic feedback loops that continuously shape user behavior and preferences. Participants described how initial engagement with certain content leads to reinforcement, narrowing the range of options presented over time.

"YouTube thinks I'm a certain kind of person. Sometimes I wonder if I am that person because I keep watching what it shows me, or if I would have been different without it." (Participant 19, female, 41)

This finding resonates with Ozturkcan et al.'s (forthcoming) concept of "robotoid humanness," wherein users adapt their self-presentation toward what the system can readily parse and reward [11]. The continuous feedback loop creates a form of algorithmic identity capture, where computational representations feed back into self-understanding and behavior.

Selfhood and Identity

The Algorithmic Self

Participants described experiencing multiple algorithmic selves across different platforms. The self constructed by Netflix's recommendation system differed from that of Spotify, Facebook, or Google.

"It's like there are different versions of me. The me that Facebook knows is not the me that Netflix knows. And neither of them is the real me. But they all influence who I actually am." (Participant 3, female, 26)

This multiplicity aligns with Deleuze's [1] concept of dividualization, wherein subjects are decomposed into data flows that can be recombined in different contexts [1,12]. The integrated self of humanist philosophy gives way to a fragmented, distributed self that is differently constituted across algorithmic platforms.

Monolithic Identity Formation

Paradoxically, while individuals experience multiplicity across platforms, within each platform, there is a tendency toward monolithic identity formation. Recommendation systems construct stable user profiles that become increasingly fixed over time.

"Google knows my search history from years ago. Even if I've changed, it still treats me like the same person. It's hard to break out of the profile it's built." (Participant 22, male, 45)

This finding is consistent with Söe and Mai's [7] analysis of "monolithic identity formation" through algorithmic emplotment, wherein the algorithmic construction of the user becomes increasingly stable and difficult to escape [1,12].

Distributed Narrative Agency

Participants described a form of distributed narrative agency in which the stories they tell about themselves are co-constructed with algorithmic systems.

"I don't have a clear sense of my music identity anymore. I used to think of myself as someone who likes indie rock, but Spotify's year-in-review playlists have made me realize I listen to all kinds of music. Am I those things now?" (Participant 8, female, 31)

This distributed narrative agency represents a reconfiguration of traditional conceptions of self-narrative as an autonomous, self-directed project. Algorithmic systems participate in the ongoing process of identity construction, offering feedback and recognition that shape self-understanding.

The Interface Self

Building on Smith's [6] concept of the "interface self," participants described modes of subjectivity that emerged within algorithmically mediated environments. The interface self is neither merely expressive nor autonomous but is shaped through optimization logics, datafication, and feedback-driven design.

"When I'm on social media, I feel like I'm performing for an audience that isn't really there. I post things that I know will get likes. But after a while, I'm not sure if that's the real me or just a version of me that works well on the platform." (Participant 15, male, 29)

The interface self operates through what Smith describes as "soft coercion"—not explicit control but the shaping of behavior through aesthetic recognition, gamification, and the disarticulation of agency from narrative coherence.

Hyper-individuation and Disindividuation

A central finding concerns the paradoxical relationship between hyper-individuation and disindividuation in algorithmically mediated environments. As Razinsky [10] argues, algorithmic personalization creates a world adapted to individual preferences, producing hyper-individuation [6]. However, this hyper-individuation is deceptive and hollow, leading paradoxically to disindividuation—the dispersion and abstraction of the person into data flows.

Participants described this paradox:

"It feels like everything is tailored for me, but at the same time, I don't feel like a person. I feel like a data point. The recommendations are so personalized, but they also make me feel like I'm just like everyone else." (Participant 17, female, 33)

This tension between hyper-individuation and disindividuation is central to understanding algorithmic subjectivity. The personalization that promises recognition of individual uniqueness simultaneously reduces the subject to a set of machine-readable data flows.

Resistance and Negotiation

Disconnection Narratives

Participants described practices of disconnection and refusal as responses to perceived algorithmic control. These "disconnection narratives" [6] reveal the infrastructural nature of algorithmic systems—their embeddedness in daily life and the difficulty of extricating oneself [1,12].

"I tried to quit social media once. It lasted two weeks. I felt like I was missing out on everything. But also, I didn't realize how much I depended on it for… everything. Recommendations, news, even just what to do with my time." (Participant 4, male, 38)

Disconnection was described as difficult, not just because of social pressure but because algorithmic systems have become integral to everyday functioning. Participants described feeling "lost" without algorithmic guidance, suggesting the internalization of algorithmic dependency.

Practices of Resistance

Despite the pervasive nature of algorithmic mediation, participants described practices of resistance:

1. **Algorithmic Literacy**: Developing understanding of how recommendation systems work to better navigate them.
2. **Strategic Engagement**: Deliberately interacting with content to shape recommendations.

3. **Platform Switching**: Moving between platforms to avoid over-dependence on any single system.
4. **Data Management**: Deleting history, using private browsing, and limiting data sharing.

"I know that if I like a few political videos, YouTube will start feeding me more of them. So sometimes I do it intentionally, to get more of what I want. But sometimes I also try to confuse it, so it doesn't think it knows me too well." (Participant 20, male, 42)

These practices represent forms of agency exercised within and against algorithmic systems—what Smith [6] describes as "dwelling within and against" the interface [2].

Algorithmic Governmentality

Participants described experiences consistent with the concept of algorithmic governmentality—the governance of subjects through algorithmic systems [6,14].

"You can feel the system pushing you in certain directions. It's not that it tells you what to do, but it makes certain things easy and other things hard. After a while, you just go with the flow." (Participant 11, female, 36). This governance operates not through explicit command but by shaping choice architectures, priming certain options, and creating friction around alternatives.

Quantitative Summary

Figure 1: Agency Distribution in Algorithmic Decision-Making

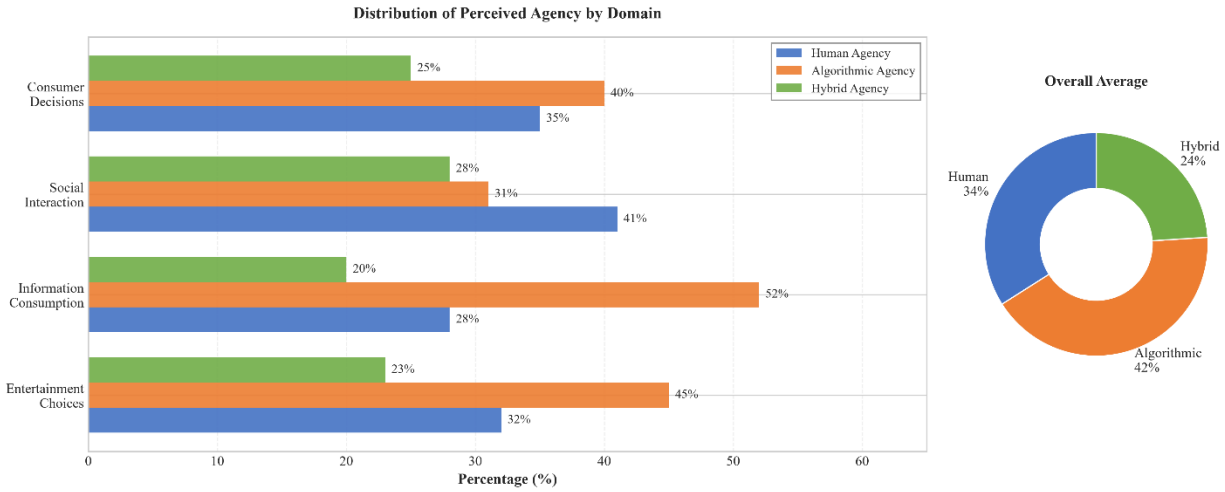


Figure 1: Agency Distribution in Algorithmic Decision-Making

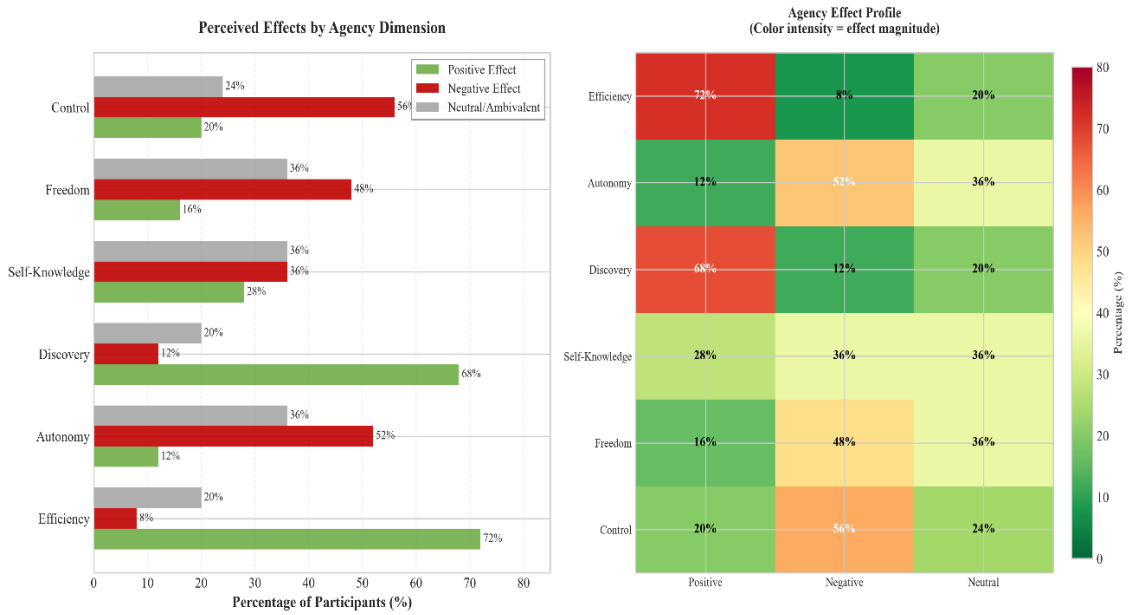
Domain	Human Agency (Mean)	Algorithmic Agency (Mean)	Hybrid Agency (Mean)
Entertainment Choices	32%	45%	23%
Information Consumption	28%	52%	20%
Social Interaction	41%	31%	28%
Consumer Decisions	35%	40%	25%
Overall	**34%**	**42%**	**24%**

Note: Based on self-reports from 25 interview participants. Figures represent the mean percentages of perceived agency across each domain.

Table 2: Participant Responses on Algorithmic Agency

Statement	Agree	Neutral	Disagree
"Recommendation systems influence my decisions"	88%	8%	4%
"I sometimes feel algorithmic systems understand me better than I understand myself"	44%	20%	36%
"I find it difficult to resist algorithmic recommendations"	52%	24%	24%
"Algorithms have shaped my identity"	56%	20%	24%
"I actively try to resist algorithmic recommendations"	64%	12%	24%
"I feel my autonomy is diminished by algorithmic mediation"	40%	28%	32%
"I would prefer less algorithmic personalization"	36%	24%	40%

Figure 2: Perceived Effects of Algorithmic Mediation on Agency



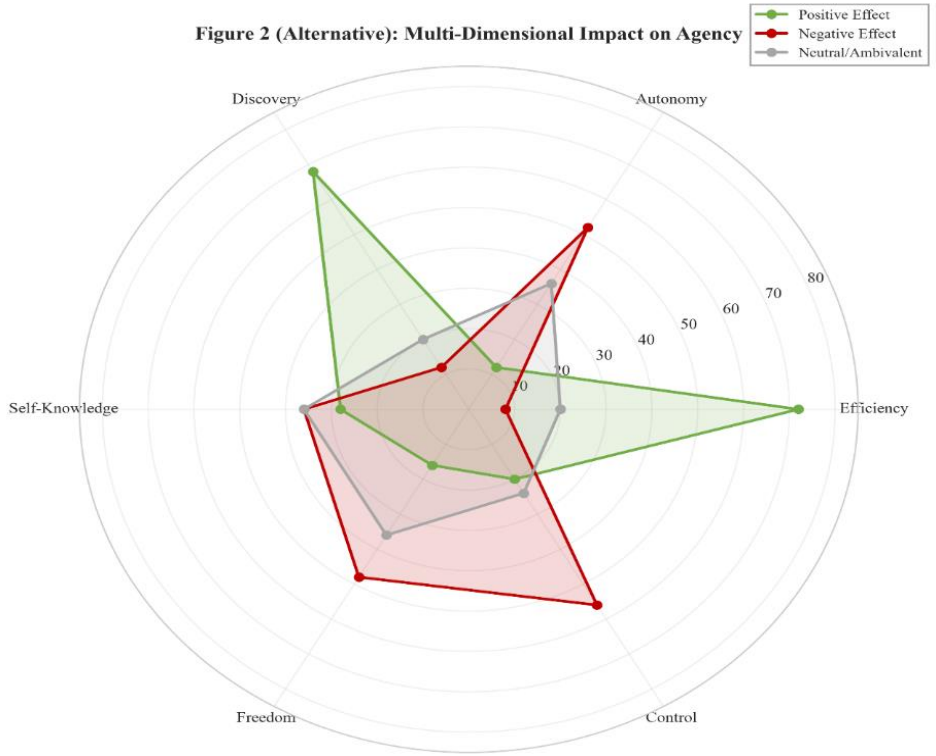


Figure 2: Perceived Effects on Agency

Effect Type	Positive Effect	Negative Effect	Neutral/Ambivalent
Efficiency	72%	8%	20%

Effect Type	Positive Effect	Negative Effect	Neutral/Ambivalent
Autonomy	12%	52%	36%
Discovery	68%	12%	20%
Self-Knowledge	28%	36%	36%
Freedom	16%	48%	36%
Control	20%	56%	24%

Note: Based on self-reports from 25 interview participants.

5. Conclusion

This paper has examined the reconfiguration of human agency through algorithmic mediation, focusing on recommendation systems as key sites of transformation. Drawing on posthumanist theory, actor-network theory, and phenomenological analysis, we have traced how algorithmic systems participate in the ongoing constitution of selfhood, the formation of intention, and decision-making.

Summary of Findings

The findings reveal that algorithmic recommendation systems transform human agency in several key ways:

1. Distributed Agency

Agency is not simply located in human subjects or algorithmic systems but emerges through ongoing interplay between human and non-human elements [1,12]. This distributed conception of agency is further complicated by algorithmic transcontextuality, whereby human actions and algorithmic systems recursively modify one another across interconnected social, technological, economic, and rhetorical contexts [27]. User's delegate cognitive and decision-making functions to algorithms, which in turn shape the horizon of possibilities within which users operate. This distribution of agency operates through processes of delegation, black-boxing, and the "dance of agency" [4].

2. Intention Formation

Algorithmic systems participate in the constitution of intentions rather than merely executing pre-existing preferences [2,6]. By shaping the horizon of possibilities and reducing the interval between stimulus and response, algorithms influence not just which decisions are made but which

decisions are conceivable. This represents a significant transformation of traditional conceptions of autonomous, self-directed intention formation.

3. Algorithmic Subjectivity

Algorithmic mediation produces new forms of subjectivity characterized by multiplicity, dividualization, and entanglement with algorithmic systems [2,6]. The "interface self" [6], "robotoid humanness" [12], and "subject without conflict" [14] represent emergent modes of selfhood shaped through algorithmic mediation. While algorithmic personalization promises hyper-individuation, it simultaneously produces disindividuation by abstracting and decomposing the self into machine-legible data flows [6].

4. Reconfigured Temporality

Algorithmic mediation reconfigures the temporality of experience by suppressing the interval between stimulus and response [7]. This temporal compression produces "just-in-time" judgment, reducing the space for reflection and deliberation.

5. Resistance and Negotiation

Despite the pervasive nature of algorithmic mediation, users develop practices of resistance, negotiation, and alternative engagement [1,2]. These practices represent forms of agency exercised within and against algorithmic systems, revealing the ongoing tension between algorithmic governance and human autonomy.

Theoretical Implications

The Posthuman Algorithmic Self

The findings support a reconceptualization of the self as posthuman—emergent, relational, and constituted through entanglement with algorithmic systems. The humanist conception of the autonomous, self-contained subject gives way to a distributed, relational subject that is always already co-constituted with non-human actors [2,4]. A postphenomenological account further specifies this relational constitution by locating it at the level of technologically mediated experience. Technologies do not merely intervene between pre-existing subjects and objects but co-constitute the experiential relations through which subjectivity and the world become intelligible. Algorithmic mediation, from this perspective, does not simply influence an already constituted self but participates in structuring the experiential horizon through which possibilities become perceptible, meaningful, and actionable [26]. The posthuman algorithmic self can further be understood as embodied rather than purely informational. Mohammadi [24] similarly

conceptualizes bodies as dynamic assemblages continuously shaped by their relations with human, technological, and environmental others.

This posthuman algorithmic self operates through what we term "algorithmic transindividuality"—a mode of relation exceeding both the individual and the collective. Drawing on Simondon's (2020) concept of the transindividual, we argue that algorithmic mediation creates forms of relational becoming that transform both human subjects and algorithmic systems [1,12].

Agency Reconfigured

The transformation of human agency under algorithmic mediation represents not simply an enhancement or a diminishment but a qualitative reconfiguration. Agency becomes distributed, relational, and emergent from human-algorithm assemblages. This reconfiguration also reflects a broader philosophy-of-technology perspective in which technologies are not neutral instruments but embody particular values, epistemic commitments, and selectivities that recursively transform the conditions of human agency [29]. This distributed conception of agency aligns with Mohammadi's [25] account of posthuman rhetoric, in which agency emerges as a networked and collaborative phenomenon through interactions among human and nonhuman actors, including technologies and algorithms. Such reconfiguration requires new conceptual frameworks that move beyond simple binaries such as autonomy versus heteronomy and control versus liberation.

Ethical Implications

The findings have significant ethical implications. First, the participation of algorithmic systems in intention formation raises questions about consent, autonomy, and manipulation. If algorithmic systems shape the desires and intentions that users take to be their own, traditional conceptions of autonomy and informed consent require reconsideration.

Second, the production of algorithmic subjectivity raises questions about identity, self-knowledge, and authenticity. If algorithmic systems construct user profiles that feed back into self-understanding, the boundaries between authentic self-expression and algorithmic construction become blurred.

Third, the operation of algorithmic governmentality raises questions about power, control, and democratic participation [6,14]. The governance of subjects through algorithmic systems may erode the conditions for democratic citizenship, producing subjects conditioned for affirmation rather than contestation.

Practical Implications

Design Recommendations

The findings suggest several design recommendations for human-centered algorithmic systems:

1. **Transparency**: Users should have a meaningful understanding of how recommendation systems operate.
2. **Control**: Users should have effective mechanisms for inputting, modifying, and overriding algorithmic recommendations.
3. **Diversity**: Recommendation systems should promote diversity of content rather than monolithic identity formation.
4. **Temporal Space**: Systems should preserve space for reflection and deliberation rather than compressing temporal experience.
5. **Resistance**: Systems should accommodate practices of resistance and alternative engagement.

Policy Implications

The findings suggest the need for policy approaches that address the ontological transformation of selfhood and agency:

1. **Digital Rights**: Rights to algorithmic transparency, control, and appeal.
2. **Algorithmic Literacy**: Education to develop understanding of algorithmic systems.
3. **Regulatory Frameworks**: Regulation of algorithmic governmentality, particularly in domains affecting democratic participation.
4. **Human-Centered Design**: Mandates for human-centered design of recommendation systems.

Limitations and Future Research

This study has several limitations. The sample is limited and not representative of all users of algorithmic systems. The findings are specific to Western, English-language contexts and may not generalize to other cultural contexts. Self-report data may not fully capture implicit or unconscious processes.

Future research should address these limitations through:

1. **Longitudinal Studies**: Tracking the long-term transformation of selfhood and agency through sustained engagement with algorithmic systems.

2. **Cross-Cultural Research**: Examining algorithmic mediation in diverse cultural and linguistic contexts.
3. **Experimental Studies**: Investigating causal mechanisms through controlled experimentation.
4. **Computational Approaches**: Integrating computational analysis of algorithmic behavior with qualitative analysis of user experience.
5. **Resistance Studies**: Examining practices of resistance, refusal, and alternative engagement with algorithmic systems.

Final Reflections

The transformation of human agency through algorithmic mediation represents a significant moment in the ongoing evolution of human subjectivity. As algorithmic systems become increasingly embedded in everyday life, the conditions for autonomous selfhood and democratic citizenship are being reconfigured. These transformations are neither simply liberating nor simply constraining but represent a qualitative reconfiguration that demands new conceptual frameworks, ethical commitments, and practical interventions.

The posthuman algorithmic self that emerges from this analysis is not a site of loss but of transformation. The distributed, relational, emergent forms of agency that algorithmic mediation enables represent new possibilities for human becoming—possibilities that require careful attention to the conditions for autonomous subjectivity in digitally saturated environments. As we move further into the algorithmic age, the challenge is not to preserve an outdated conception of human autonomy but to develop new forms of agency adequate to our technologically entangled condition.

References

[1] Deleuze, G. (1992). Postscript on the societies of control. October, 59, 3-7.
[2] Haraway, D. (1991). Simians, cyborgs, and women: The reinvention of nature. Routledge.
[3] Latour, B. (2005). Reassembling the social: An introduction to actor-network theory. Oxford University Press.
[4] Pickering, A. (2010). The cybernetic brain: Sketches of another future. University of Chicago Press.
[5] Simondon, G. (2020). Individuation in light of notions of form and information. University of Minnesota Press.
[6] Smith, J. (2025). The interface self: A posthuman critique of optimization and aesthetic subjectivation. Entanglements: Journal of Posthumanities, 1(2), 144-167.
[7] Söe, S., & Mai, J. (2022). The Google self as digital human twin: Implications for agency, memory, and identity. AI & Society.
[8] Braidotti, R. (2013). The posthuman. Polity Press.
[9] Wilde, P. (2023). Who am "I"? Troubling the self. In Posthuman gaming (pp. 47-68). Routledge.

[10] Razinsky, L. (2026). Self and others in algorithmic governmentality: Between hyper-individuation and disindividuation. AI and Society, 41(5), 4791-4806.
[11] Wagner, R. L., Pinto, D. C., Hildebrand, D., Pacheco, N. A., Dhillon, G., & Herter, M. M. (2025). Algorithm delegation: How embedded AI facilitates agency transference in medical services. Psychology and Marketing, 42(11), 2902-2921.
[12] Ozturkcan, S., de Cros Peronard, J.-P., & Toral-Manson, I. (forthcoming). Robotoid humanness: When selfhood becomes machine-legible. AI and Society, 1-15.
[13] Mykhailov, D., & Liberati, N. (2023a). Return to the technologies themselves: Passive synthesis and the phenomenology of technology. Phenomenology and the Cognitive Sciences.
[14] Pfeifer, F. (2025). Vibracije silicijevega srca: O posthumanistični redefiniciji bivanja [Master's thesis, University of Ljubljana].
[15] Ott, B. (2018). Beyond the human: The posthumanist challenge to communication studies. Communication Theory, 28(3), 249-270.
[16] Feenberg, A. (1995). Alternative modernity: The technical turn in philosophy and social theory. University of California Press.
[17] Kiran, A. H. (2015). Four dimensions of technological mediation. In R. Rosenberger & P. P. Verbeek (Eds.), Postphenomenological investigations: Essays on human-technology relations (pp. 123-140). Lexington Books.
[18] Ihde, D. (1990). Technology and the lifeworld: From garden to Earth. Indiana University Press.
[19] Buccella, A., & Springle, A. (2023). Phenomenology: What's AI got to do with it? Phenomenology and the Cognitive Sciences, 22, 621-636.
[20] Heersmink, R., de Rooij, B., Clavel Vázquez, M. J., & Colombo, M. (2024). A phenomenology and epistemology of large language models: Transparency, trust, and trustworthiness. Ethics and Information Technology, 26(41).
[21] Byrne, T. (2023). The phenomenology of ChatGPT: A semiotics. Phenomenology and the Cognitive Sciences, 1-17.
[22] Esposito, E. (2022). Artificial communication: How algorithms produce social meaning. MIT Press.
[23] Mohammadi, M. (2025). A Transjective-Holobiontic Rhetoric (THR). *Somatechnics*, *15*(1), 63-75.
[24] Mohammadi, M. (2024). Embodiment in Posthuman Rhetoric. *Available at SSRN 5267892*.
[25] Mohammadi, M. (2024). Rhetoric and Posthumanism. *It was published on criticalposthumanism.net*.
[26] Mohammadi, M. (2025). A Postphenomenological Turn in Rhetorical Studies. *Available at SSRN 5276597*.
[27] Mohammadi, M. (2026). Brave new democracy: algorithmic transcontextuality and fluid dynamics of democratic deliberation. *International journal of studies in humanities and social science*, *2*(1), 1-17.
[28] Mohammadi, M. (2026). Toward a Post-Temporal Time-consciousness in GenAI-mediated Writing. *Available at SSRN 7404941*.
[29] Mohammadi, M. (2025). Philosophy of Technology in Rhetoric and Writing Studies. *Available at SSRN 5267904*.
[30] Abbasiyannejad, M., & Heidari, M. (2010). Silent women in Coetzee's Disgrace. The International Journal of the Humanities, 8(2), 321–327. https://doi.org/10.18848/1447-9508/CGP/v08i02/42852
[31] Heidari, M., Abbasiyannejad, M., & Shobeiri, A. (2011). Women's struggle for identity in Anita Desai's Clear Light of Day. The International Journal of the Humanities, 9(3), 31–39. https://doi.org/10.18848/1447-9508/CGP/v09i03/43152
[32] Heidari, M., & Javadi, M. (2025). Ecofeminism: How Women and Nature Are Both Exploited in Colonial or Capitalist Systems. International journal of studies in humanities and social science, 1(2), 1-12.
[33] Abbasi, S., Ardeshir Nasabi, M., Vlachos, I., Eshghi, F., Hazrati, M., & Piryaei, S. (2024). Designing a sustainable nonlinear model considering a piecewise function for solving the risk of hazardous material routing-locating problem. Sustainability, 16(10), 4112.
[34] Abbasi, S., Soltanifar, E., Aghbelaghi, D. T., & Ghasemi, P. (2025). Designing a sustainable and smart supply chain considering a green computing approach in the post-COVID period. Sustainable Computing: Informatics and Systems, 46, 101117.

[35] Abbasi, S., Jabari, S., Soltanifar, E., Tahmasebi, D., & Nasrollahpour, A. (2025). A Mixed-integer non-linear programming model for a reliable perishable crop supply chain to manage the disruption risk. Journal of Agriculture and Food Research, 102538.
[36] Abbasi, S., Khorrami, S., Ghadi, H. G., Shahab, E., & Ghoroqi, M. (2026). A multi-objective stochastic optimization model for pharmaceutical supply chain management based on time and cost. Journal of Dynamics and Games, 0-0.
[37] Abbasi, S., Khorrami, S., Ghadi, H. G., Shahab, E., & Ghoroqi, M. (2026). A multi-objective stochastic optimization model for pharmaceutical supply chain management based on time and cost. Journal of Dynamics and Games, 0-0.
[38] Osmani, F., Alavi, S. H. M., Abbasi, S., & Shadmehri, M. T. A. (2026). Environmental consequences of the mediating role of technology on financial development in convergent patterns: New insights from the environmental Kuznets curve. Results in Engineering, 109014.
[39] Abbasi, S., & Sıcakyüz, Ç. (2026). Supply Chain Network Design Focused on Financial Measures and Performance Metrics: A Systematic Literature Review: Abbasi and Sıcakyüz. Asia-Pacific Financial Markets, 33(2), 505-535.
[40] Abbasi, S., Sheykhizadeh, M., Ghasemi, P., & Alizadeh, M. (2026). Location-allocation with green logistics and transport modeling: consideration of carbon emissions, recycling processes, and shipping frequency. Cleaner Logistics and Supply Chain, 100318.
[41] Abbasi, S., Eshghi, F., Saeedi, S., Amin, A., & Ardeshir Nasabi, M. (2026). Fuzzy optimization model for a blood supply network in the post-disaster phase, considering a branch-and-cut approach. RAIRO-Operations Research, 60(1), 201-225.
[42] Abbasi, S., Khoshkenar, A., Devrim İçtenbaş, B., Etemadifar, S., & Sheykhian, A. (2025). Designing a sustainable supply chain network with a financial approach in a catastrophic situation. Discrete Dynamics in Nature and Society, 2025(1), 9269307.
[43] Abbasi, S., Hafezniya, H., Abadi, M. F. L., Ghoroqi, M., & Borchalouei, M. K. (2026). A customer satisfaction–focused green supply chain network under carbon tax and carbon cap across heterogeneous regulatory regions. Cleaner Logistics and Supply Chain, 100352.
[44] Abbasi, S., Eshghi, F., Shahab, E., Sorkhi, M. Y., & Babaei, M. (2026). Dynamic hospital location planning under an interactive multi-objective central facility framework. Journal of Dynamics and Games, 0-0.
[45] Damavandi, S., Berardi, L., & Abbasi, S. (2026). Decision support system using rough DEMATEL for evaluating blockchain adoption in food bank supply chain. Food Policy, 139, 103050.
[46] Abbasi, S., & Kazancoglu, Y. (2026). Financial Risk-Aware Closed-Loop Supply Chain Network Design for the Circular Economy: A Two-Stage Stochastic Optimization Model. Results in Engineering, 112395.
[47] Abbasi, S., & Fattahi, P. (2026). Green and cold-chain pharmaceutical supply chain planning under budget constraints and inflation effects in an international context. Cleaner Logistics and Supply Chain, 100355.
[48] Zolfaghari, M., Rahmati, H., Oluwaseyi Oyewole, P., & Azimi Asmaroud, S. (2026). Investigating spatial reasoning in elementary mathematics textbooks: An expanded ELPSA framework approach. Mathematics Education Research Journal, 1-24.
[49] Hafezniya, H., Feizi, A., & Feizi, O. (2025). Investigating the Impact of Threat-Oriented Interpretation in Climate Changes on Innovation: the Mediator Role of Innovation Capacity in Focus. Knowledge Economy Studies, 2(1), 99-120.
[50] Hafezniya, H., & Ansari, M. (2025). Developing a Cognitive Skills Model for Organizational Leaders and Managers in Decision-Making within the VUCA Environment. Journal of Business Management, 17(2), 526-564.
[51] Mazloum, V., Akbari, H., & Gholampour, A. (2023). The comparison of the effects of neuromuscular electrical stimulation and Kinesio Taping on ankle swelling in athletes with lateral ankle sprain. Journal of experimental orthopaedics, 10(1), 63.

[52] Bahador, A., Mostafavi Moghaddam, S. A., Mojtahedi, H., Kamali Hakim, L., & Tebyaniyan, H. (2026). Artificial Intelligence and Digital Workflow in Craniofacial Bone Tissue Engineering: From Cone-Beam Computed Tomography (CBCT) to Personalized Bioceramic Implants. Dentistry Journal.
[53] Huang, C., Esfani Sarafraz, P., Enayati, P., Mortazavi Mamaghani, E., Babakhanzadeh, E., & Nazari, M. (2023). Circular RNAs in renal cell carcinoma: from mechanistic to clinical perspective. Cancer Cell International, 23(1), 288.
[54] Shahbazi, A., Behtaji, S., Tajiki, A. H., Şirzad, N., Darvishan, S., & Najafzadeh, H. (2026). The adaptive engagement framework: enhancing banking customer experience through AI-powered invisible marketing. Scientific Reports.
[55] Shahbazi, A., Javaherihaghighi, S., Şirzad, N., & Najafzadeh, H. (2026). A multi-method examination of transformational leadership and citizenship behavior: Insights from explainable machine learning.
[56] Shahbazi, A., Şirzad, N., Darvishan, S., Arash, A. H., Fakhri, Z., & Najafzadeh, H. (2026). Enhancing corporate bankruptcy prediction and customer relationship sustainability through CNN-based financial feature transformation. Scientific Reports.
[57] Hoseini, S. H., Enayati, P., Nazari, M., Babakhanzadeh, E., Rastgoo, M., & Sohrabi, N. B. (2024). Biomarker profile of colorectal cancer: current findings and future perspective. Journal of Gastrointestinal Cancer, 55(2), 497-510.
[58] Ghasemi-Falavarjani, N., Moallem, P., & Rahimi, A. (2025). High performance frame selection algorithm for gray-level frames within the framework of multi-frame super-resolution. Digital Signal Processing, 164, 105217.