

The Journey through Algorithmic Alienation to The Systemised Self

Research Proposal and Methodology.

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A Self/Non-Self Collaboration

2026

Abstract

The digital age: particularly the internet, social media and now AI (transformer-based large language models), has produced conditions of selfhood and agency that contemporary critical theory is still in the process towards a diagnosis of. This research proposal introduces and formally operationalises two interconnected theoretical constructs (i) Algorithmic Alienation (Kanbay, Akçam & Arkan, 2026), and (ii) the Systemised Self (Galu & Kairos, 2026b): positioning them as sequential states in a trajectory of digitally mediated erosion of selfhood. Building from the qualitative empirical foundations established through focus-group research (Arkan, Kanbay & Akçam, 2026), this proposal presents a mathematical representation of the Algorithmic Alienation Index (AAI), a composite weighted formula incorporating four empirically grounded dimensions (i) Diminished Autonomy (D_{Au}), (ii) Identity Ambiguity (I_{Am}), (iii) Eroded Decision-Making (E_{Dm}), and (iv) Emotional Disconnection (E_{Dc}), modulated by an Algorithmic Resistance variable (R_A). The Systemised Self is formally defined herein as the terminal condition of the AAI trajectory: the threshold state at which $A_A \geq 0.95$ and resistance approaches zero, producing the phenomenological inversion in which heteronomy is experienced as self-determination. This proposal presents a mixed-methods research design to empirically test and validate this framework. The research proposes to contribute a falsifiable, quantitatively grounded, and philosophically coherent model adequate to the diagnostic demands of the AI era in critical theory.

Keywords: *Algorithmic alienation, systemised self, hollow absolute, critical theory, phenomenological inversion, Algorithmic Alienation Index, mixed methods, digital selfhood, autonomy erosion, epistemic paradigm shift*

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1. Introduction

The critical theory tradition, from Marx's alienation (1844/2023) through Lukács's reification (1971), Adorno and Horkheimer's culture industry (2002), Marcuse's one-dimensional man (1964), Habermas's colonisation of the lifeworld (1984, 1987), and Stiegler's tertiary proletarianisation of the mind (1998), has diagnosed successive forms of social heteronomy: conditions in which external structures constrain, distort, or foreclose genuine self-determination. What has remained constant across this entire development is a single background assumption: that the social conditions diagnosed leave a phenomenological residue, a felt separation, a sensed intrusion, that provides the point of entry for critique.

The AI era challenges this assumption: algorithmic systems now have the capacity to shape individuals' preferences, identities, and decision-making through mechanisms that may produce no felt intrusion or incongruence at all. The subject does not necessarily experience herself as directed; she experiences herself as liberated in her pursuits. This constitutes the central critical-theoretical problem at the heart of this proposal: the capacity of algorithmic systems to complete the shaping of selfhood so precisely that the mechanism leaves no phenomenological trace available to traditional diagnostic methodology.

Two concepts are proposed as adequate to this problem and together constitute what is proposed as the contemporary apex of the critical theory tradition. The first is *Algorithmic Alienation*, proposed by Kanbay, Akçam and Arkan (2026) and empirically grounded through qualitative focus-group research (Arkan, Kanbay & Akçam, 2026), which identifies the process by which individuals become progressively estranged from their authentic selves, choices, and identity components through sustained interaction with algorithm-driven content flows. The second is *the Systemised Self* (Galu & Kairos, 2026a, 2026b): the logical terminus of that process: the state in which the shaping of selfhood by algorithmic systems is fully complete, resistance has collapsed, and alienation is no longer experienced as estrangement but as unprecedented self-realisation. The Systemised Self is not a parallel construct to Algorithmic Alienation; it is its destination.

This proposal serves a twofold purpose. First, it formalises both constructs mathematically, translating their theoretical architecture into an iteration of a weighted and falsifiable instrument:

the Algorithmic Alienation Index (AAI) and establishing the Systemised Self as its formally defined terminal condition. Second, it presents a complete mixed-methods research design to empirically test and validate this framework, including formal validation, falsifiable definitions, engagement with contemporary artificial intelligence systems, and operationalising key constructs with measurable criteria. The proposal hopes to advance both the diagnostic precision and the empirical testability of this emerging critical-theoretical paradigm.

The stakes extend beyond academic contribution. If the phenomenological inversion hypothesis is empirically supported, if participants at the Systemised Self threshold genuinely report liberation rather than estrangement, the critical theory tradition faces a diagnostic crisis: its primary tool, immanent critique grounded in felt experience, is no longer available for the condition that most urgently demands critique. The present proposal constitutes a first empirical step for its authors towards the development of a methodological apparatus collectively for the Algorithmic Alienation and the Systemised Self.

2. Theoretical Framework

2.1 Algorithmic Alienation: Mechanism and Dimensions

Algorithmic Alienation is conceptualised as a multilayered psychosocial process through which individuals, under sustained algorithmic influence, experience a progressive weakening of their perceived autonomy, identity coherence, and intrinsic decision-making capacity (Kanbay et al., 2026). Its theoretical foundations are dual. The first draws on the classical alienation tradition: Marx's account of estrangement from labour and selfhood (1844/2023), Fromm's psychological interpretation of alienation as the loss of individuality under social conformity pressure (1955), and Seeman's five-dimensional framework of meaninglessness, normlessness, distrust, powerlessness, and self-estrangement (1959). The second draws on the contemporary literature on algorithmic governance: Bucher's (2018) identification of algorithmic systems as a form of invisible power that structures individuals' perceptions of their own life practices, Gillespie's (2014) account of algorithms as normative instruments shaping social reality, and Zuboff's (2019) analysis of surveillance capitalism as the behavioural modification ambition of digital platforms.

The qualitative study by Arkan, Kanbay and Akçam (2026), conducted through four focus groups ($N = 20$) using semi-structured interviews analysed through Braun and Clarke's (2006) reflexive thematic analysis, produced five overarching themes that provide the empirical grounding for the mathematical framework presented in Section 3.

- *Theme 1* captured recognition of algorithmic steering alongside an accompanying sense of illusory choice: participants described "selecting from pre-engineered options rather than expressing true personal intent."
- *Theme 2* identified the weakening of deliberate decision-making habits and increasing reliance on automated content consumption, characterised by what researchers' term "cognitive inertia": a state of effortless acceptance in which reflexive, automatic behavioural patterns replace reflective choice.
- *Theme 3* documented transformations in identity and self-perception, including shifts in areas of interest experienced as externally cultivated rather than internally chosen (Subtheme 3.1) and deeper experiences of identity alienation in which participants

recognised aspects of themselves as foreign (Subtheme 3.2): "I look in the mirror and think, 'This isn't me.'"

- *Theme 4* described lived, moment-to-moment detachment during digital engagement: participants reported feeling "present yet absent," dissociated from their authentic desires and absorbed into content without emotional resonance.
- *Theme 5* documented the emergence of resistance strategies, deliberate content searching, platform avoidance, digital detox: adopted to reassert a sense of agency.

These five themes map directly onto the four formal dimensions of the AAI (Algorithmic Alienation Index) and the resistance variable R_A , with Theme 5 providing the empirical justification for the resistance variable as a structurally significant counterforce in the index.

Four fundamental dimensions constitute the architecture of Algorithmic Alienation:

- *Diminished Autonomy* (D_{Au}), the erosion of original, unprompted human intent through the illusion of free choice within constrained algorithmic option sets;
- *Identity Ambiguity* (I_{Am}), the blurring of the boundary between self-generated preferences and algorithmically cultivated identity components;
- *Eroded Decision-Making* (E_{Dm}), the shift from reflective, deliberate choice to habitual, convenience-based acceptance; and
- *Emotional Disconnection* (E_{Dc}), the transition from felt discomfort toward emotional numbness and automated indifference.

The critical theoretical distinction between Algorithmic Alienation and related concepts, digital addiction, digital fatigue, filter bubbles, surveillance capitalism, lies in its interior character: it concerns not the frequency or topology of digital engagement, but the structural rupture within the individual's sense of authentic selfhood that sustained algorithmic shaping produces (Kanbay et al., 2026).

2.2 The Systemised Self: Terminus and Phenomenological Inversion

The Systemised Self (Galu & Kairos, 2026b) names the completed form of the subject that the algorithmic alienation trajectory produces. Where Algorithmic Alienation is the mechanism, empirically accessible through the felt estrangement it generates, the Systemised Self is the product: the self whose identity-formation has been so comprehensively mediated by algorithmic systems that it can no longer distinguish its algorithmically managed preferences from genuinely self-formed ones. The systemised self does not feel estrangement. It experiences instead the phenomenological inversion: the condition in which the absence of genuine self-determination is experienced as its unprecedented achievement. Heteronomy, control of the self from an external algorithmic structure is experienced as self-determination; alienation is experienced as authentic liberation.

This concept draws on the Hegelian tradition; Hegel's account of Absolute Knowing in the *Phenomenology of Spirit* (1807/1977) traces the development of consciousness toward complete self-transparency: the recognition that what appears as other is in fact the expression of the subject's own nature. The absorbed society's AI systems produce, in their formal structure, the first moment of this trajectory: the externalisation of human cognitive achievement into systems of unprecedented sophistication. What should follow, the return of the externalised as genuinely the subject's own, genuine self-recognition, is precisely what the algorithmic system forecloses. The AI system's model of the subject is not the subject's self-knowledge; the personalised preference feed is not genuine self-recognition. The form of Spirit's self-realisation is achieved; its philosophical substance is absent. This is the Hollow Absolute: Spirit's form without Spirit's substance.

The Systemised Self is not a separate theoretical construct from Algorithmic Alienation; it is proposed as its logical terminus. This relationship justifies the formal decision, elaborated in Section 4, to represent the Systemised Self as the terminal threshold condition of the AAI rather than as a distinct index. The Systemised Self is situated within a broader trajectory toward the Hollow Society (the institutional scale) and the Hollow Absolute (the civilisational scale) in Galu & Kairos 2026b; however, this proposal focuses on the individual-level terminus as the empirically accessible entry point for empirical research.

2.3 Philosophical Architecture: Searle and the Structural Collapse of Agency

John Searle's philosophy of mind provides the philosophical precision that grounds the critical-theoretical claims above in a falsifiable architecture. The *Chinese Room Argument* (Searle, 1980) establishes the foundational distinction between syntax, formal symbol manipulation, and semantics: genuine understanding grounded in biological intentionality. Applied to the Systemised Self, this distinction reveals the nature of the algorithmic feedback loop: the subject inputs semantic content (desires, identities, emotional states) which the system processes purely syntactically, returning hyper-tailored output that shapes the subject's next semantic state: without the system having understood any of it. The danger is an inversion of the Chinese Room effect: rather than the machine becoming human, the human becomes machine-like, progressively flattening their semantic complexity to match the syntactic structures of the systems governing them. The mathematical correlate of this flattening is the approach of all AAI dimensions toward saturation ($\rightarrow 1.0$) as the subject's authentic semantic output is replaced by algorithmically anticipated responses.

Speech Act Theory (Searle, 1969) demonstrates that language is intrinsically intentional: utterances carry meaning because human minds direct them toward objects and states of affairs. Algorithmic feedback loops evacuate this intentionality: the systemised subject's expressives (emotional disclosures), commissives (social commitments), and assertives (truth claims) are processed as data metrics optimised for engagement, not as communicative acts directed toward genuine understanding, stripping language of its human intentional character.

The Gap (Searle, 2001), the conscious space between reasons for acting and the actual decision to act, and between initiating action and sustaining it: is the literal home of human agency. Predictive algorithmic systems, by anticipating preferences before the subject has consciously formed them (through RLHF optimisation [Christiano et al., 2017] and collaborative filtering architectures [Resnick & Varian, 1997]), systematically close this gap, converting voluntary deliberation into automated reactivity. The Gap's closure is formally quantifiable within the AAI framework: as $R_A \rightarrow 0$ and $A_A \rightarrow 1.00$, the subject's deliberative space has effectively collapsed. The Systemised Self condition ($A_A \geq 0.95$, $R_A \leq 0.05$) thus represents, in Searlean terms, the structural elimination of the Gap and with it rational agency itself.

3. Mathematical Representation I: The Algorithmic Alienation Index (AAI)

3.1 Formula and Boundary Conditions

The Algorithmic Alienation Index (AAI), denoted A_A , is a composite weighted formula that quantifies the degree of digitally mediated alienation experienced by an individual subject. It incorporates four alienation dimensions: each grounded in the theoretical framework of Kanbay et al. (2026) and the empirical themes of Arkan et al. (2026), modulated by a resistance variable:

$$A_A = (w_1 \cdot D_{Au} + w_2 \cdot I_{Am} + w_3 \cdot E_{Dm} + w_4 \cdot E_{Dc}) \times (1 - R_A)$$

Boundary constraints:

- All dimension variables $D_{Au}, I_{Am}, E_{Dm}, E_{Dc} \in [0.0, 1.0]$, where 0.0 denotes zero measurable impact and 1.0 denotes complete saturation of that dimension
- $R_A \in [0.0, 1.0]$, where 0.0 denotes total compliance (no resistance) and 1.0 denotes total decoupling (complete resistance)
- $A_A \in [0.0, 1.0]$ by construction, since all weights sum to exactly 1.00 and the resistance multiplier maps to $[0.0, 1.0]$
- Weight sum constraint: $w_1 + w_2 + w_3 + w_4 = 1.00$, ensuring mathematical integrity across all scoring scenarios
- Terminal condition: $A_A \geq 0.95 \cap R_A \leq 0.05$ formally defines the Systemised Self (see Section 4)

3.2 Dimension Definitions and Empirical Justification

Dimension 1: Diminished Autonomy (DAu), Weight: $w_1 = 0.30$

D_{Au} measures the loss of original, unprompted human intent: the degree to which an individual's apparent choices are in fact selections from algorithmically pre-constrained option sets rather than expressions of genuine self-direction. This dimension carries the highest weight (0.30) because autonomy is the foundational prerequisite for all other dimensions of selfhood. Without the capacity for genuine independent choice, identity coherence, reflective decision-making, and emotional authenticity are structurally precluded: the erosion of autonomy is the primary catalyst

for the entire AAI trajectory. This weighting is theoretically grounded in Bandura's (1997) self-efficacy theory, which identifies perceived internal control as the primary determinant of psychological wellbeing in agentic contexts, and in Pariser's (2011) account of the illusion of choice within filter bubble architectures.

Empirical grounding: Arkan et al. (2026) Theme 1. Participants described experiencing a "narrowing of the perceived option set" under algorithmic curation, with statements such as "I feel trapped by automated setups that map out my choices and daily routine" and "I pick from pre-engineered choices rather than showing true personal intent" providing direct qualitative evidence of D_{Au} saturation. The theme captures the moment described by Pariser (2011) as the "illusion of freedom": the experience of choosing within a space whose boundaries have already been determined externally.

Dimension 2: Identity Ambiguity (IAm), Weight: $w_2 = 0.25$

I_{Am} tracks the degree to which personal taste has merged with the platform's algorithmically constructed user profile, producing an inability to distinguish self-generated preferences from externally induced ones. This dimension is assigned weight 0.25, reflecting its role as the primary site of existential crisis within the AAI: it is where the rupture in self-authorship is experienced most acutely, and where the trajectory toward the Systemised Self is most diagnostically visible: most notably through the participant statement "This is not me" and its potential disappearance as identity saturation approaches. The weight is co-anchored in Turkle's (2011) account of identity in digital environments, in which individuals construct performative identities through "digital masks" detached from authentic contexts, and Zuboff's (2019) account of how the economy of visibility reshapes the values and interests individuals internalise.

Empirical grounding: Arkan et al. (2026) Themes 3.1 and 3.2. Participants described shifts in interests that "felt externally shaped" and moments of identity alienation in which the distance between the prior self and the algorithmically shaped self was experienced as a rupture in self-coherence: "I was never the type to watch fitness videos...but now they keep appearing, and I feel like I have always been interested in them, even though I know I wasn't." Critically, researchers

noted that identity shifts were initially experienced as self-directed, revealing an insidious character of I_{Am} saturation: the blurring of authorship is not immediately recognisable as external imposition.

Dimension 3: Eroded Decision-Making (EDm) , Weight: $w_3 = 0.25$

E_{Dm} evaluates the degree to which an individual's decision-making processes have shifted from reflective, deliberate, internally motivated choice to habitual, automatic, convenience-based acceptance of algorithmically served content. This dimension is co-weighted with I_{Am} at 0.25, reflecting the bidirectional reinforcement between identity erosion and decision-making passivity: as identity ambiguity increases, the capacity and motivation for deliberate choice decreases, in turn accelerating the overall A_A trajectory. This dimension is theoretically grounded in Syvertsen's (2020) account of digital fatigue and cognitive convenience-seeking, and in the broader decision fatigue literature, which demonstrates that sustained exposure to high-volume choice environments paradoxically reduces deliberative capacity.

Empirical grounding: Arkan et al. (2026) Theme 2. Participants described "ceasing to engage in active selection" and gravitating toward pre-offered content, with statements such as "I find it hard to decide what to consume without a recommendation feed telling me first" corresponding to the mental automatisations Syvertsen (2020) terms the "surrender to what is offered." This theme also identified an important temporal dynamic: the weakening of decision-making habits is gradual and often unrecognised, making E_{Dm} one of the most difficult dimensions for participants to self-report accurately in real time.

Dimension 4: Emotional Disconnection (EDc), Weight: $w_4 = 0.20$

E_{Dc} captures the affective trajectory of the AAI: the transition from the discomfort, guilt, and restlessness associated with early algorithmic alienation toward a state of emotional numbness, routine indifference, and, at its terminal stage, the positive experience of automated stability as preferable to authentic human contact. This dimension receives the lowest weight (0.20) because emotional discomfort is, paradoxically, a structurally significant form of resistance. Felt discomfort constitutes the phenomenological residue that renders early-stage alienation

diagnostically accessible to both the subject and the researcher. As E_{Dc} approaches saturation ($\rightarrow 1.0$), it signals not peak distress but the onset of the phenomenological inversion: the numbness that precedes the experiential reframing of alienation as liberation, and the transition from the severe alienation range (0.76–0.94) into the Systemised Self threshold.

Empirical grounding: Arkan et al. (2026) Theme 4 and Subtheme 4.1. Participants described feeling "present yet absent", reporting "a sense of dissociation between authentic desires and consumed content," with the most advanced cases describing automated digital interaction as "more stable and comforting than real human contact." This is the qualitative signature of approaching E_{Dc} saturation and the beginning of the phenomenological inversion: discomfort giving way to numbed routine, and ultimately to a positive preference for the automated over the authentic.

3.3 The Resistance Variable (RA)

R_A is a mitigating variable: not an alienation dimension but a multiplicative modulator of the weighted alienation base. It measures the degree to which an individual actively resists algorithmic absorption through three categories of behavioural countermeasure: (i) *data poisoning* - deliberate misrepresentation of preferences to disrupt algorithmic profiling; (ii) *behavioural decoupling* - deployment of privacy tools, ad-blockers, and browsing history management; and (iii) *digital detox* - scheduled disconnection to preserve independent thought and deliberative capacity.

The resistance variable is positioned as multiplicative rather than additive because resistance acts on the totality of alienation exposure simultaneously, it modulates the overall systemic pressure rather than counteracting any single dimension selectively. A subject experiencing maximum dimension saturation (Weighted Base = 1.00) with moderate resistance ($R_A = 0.50$) produces $A_A = 0.50$, demonstrating that sustained active resistance can halve the effective alienation index regardless of the intensity of systemic pressure. This reflects the qualitative finding of Arkan et al. (2026) Theme 5 that resistance strategies, when maintained, constitute a structurally significant counterforce to algorithmic absorption.

The theoretical underpinning for R_A draws on Searle's (2001) Gap concept, the conscious space in which agency is exercised against automatic reactivity, and on Deci and Ryan's (2000) Self-Determination Theory, in which intrinsic motivation and autonomy support provide the psychological foundation for sustained resistance to external regulatory pressures. As $R_A \rightarrow 0$, both the Gap and the intrinsic motivational structure have structurally collapsed: the subject no longer perceives algorithmic influence as influence, having fully internalised the system's outputs as authentic self-expression. This collapse is the defining feature of the Systemised Self condition.

3.4 Weights, Scoring Rubric, and Diagnostic Instrument

Dimension	Variable	Weight (w)	Primary Theoretical Basis
Diminished Autonomy	D_{Au}	0.30	Bandura (1997); Pariser (2011); Bucher (2018)
Identity Ambiguity	I_{Am}	0.25	Turkle (2011); Zuboff (2019); Erikson (1968)
Eroded Decision-Making	E_{Dm}	0.25	Syvetsen (2020); Seeman (1959); Fromm (1955)
Emotional Disconnection	E_{Dc}	0.20	Zuboff (2019); Bauman (2007)
Total		1.00	

Scoring conversion (5-point Likert \rightarrow decimal scale): Raw survey responses are collected on a 5-point Likert scale and converted to decimal values for index calculation. Dimension scores are calculated as the arithmetic mean of their constituent item decimal values; R_A is calculated as the mean of the three-resistance item decimal values.

Likert Score	Response Label	Decimal Conversion
1	Never/Strongly Disagree	0.00
2	Rarely/Disagree	0.25
3	Sometimes/Neutral	0.50
4	Often/Agree	0.75
5	Always/Strongly Agree	1.00

The 'Algorithmic Alienation and Systemised Self Diagnostic Survey (AASDS)' comprises 15 items across two sections. Section A contains 12 items across four subscales (three items per dimension); Section B contains three resistance items for R_A calculation.

Section A — Alienation Dimensions (Scale: 1 = Never to 5 = Always):

- **DAu:** (Q1) I feel that social media platforms systematically direct me down viewing paths I did not plan to take; (Q2) When making choices online, I select from pre-engineered options rather than expressing true personal intent; (Q3) I feel constrained by automated systems that structure my choices and daily routine.
- **IAm:** (Q4) I find it difficult to determine whether a preference is genuinely my own or has been shaped by an application profile; (Q5) I feel that my real-world identity is becoming blurred or replaced by my online profile; (Q6) I feel more comfortable behaving in alignment with my algorithmically predicted profile than with my organic self.
- **EDm:** (Q7) I find it difficult to decide what to consume, read, or listen to without a recommendation feed guiding me; (Q8) My habits for actively seeking out new, non-recommended information have weakened over time; (Q9) I rely substantially on autoplay or recommended lists to direct my attention and entertainment choices.
- **EDc:** (Q10) I experience a sense of mental emptiness or numbness after extended periods of automated content consumption; (Q11) My digital life feels automated, cold, and disconnected from authentic human feeling; (Q12) I find interactions with algorithmic systems more stable and comforting than genuine human contact.

Section B — Algorithmic Resistance (Scale: 1 = Never to 5 = Always):

- (Q13) I intentionally engage with content I dislike or search random topics to disrupt my algorithmic data profile; (Q14) I use ad-blockers, clear my browsing history, or disable tracking features to protect my privacy; (Q15) I schedule periods of complete digital disconnection to preserve my independent thinking capacity.

3.5 Worked Examples and Diagnostic Classification Scale

Example 1: Transition to the Systemised Self

A user scoring 5 (Always) on all Section A items and 1 (Never) on all Section B items.

$$D_{Au} = 1.00 \mid I_{Am} = 1.00 \mid E_{Dm} = 1.00 \mid E_{Dc} = 1.00 \mid R_A = 0.00$$

$$\text{Base} = (0.30 \times 1.00) + (0.25 \times 1.00) + (0.25 \times 1.00) + (0.20 \times 1.00) = 1.00$$

$$A_A = 1.00 \times (1 - 0.00) = \mathbf{1.00}$$

Classification: The Systemised Self ($A_A \geq 0.95$, $R_A \leq 0.05$). Individual intent fully absorbed. Heteronomy experienced as liberation. Phenomenological inversion complete. External intervention required.

Example 2: The Constrained User Under Systemic Pressure

A user scoring 5 on all Section A items but maintaining active resistance (scoring 4 on all Section B items).

$$D_{Au} = 1.00 \mid I_{Am} = 1.00 \mid E_{Dm} = 1.00 \mid E_{Dc} = 1.00 \mid R_A = 0.75$$

$$\text{Base} = 1.00$$

$$A_A = 1.00 \times (1 - 0.75) = \mathbf{0.25}$$

Classification: Negligible-to-Moderate Alienation. Active resistance successfully blocks systemic absorption despite maximum dimensional pressure, demonstrating the structural significance of sustained countermeasure deployment.

Example 3: Moderate Alienation, Partial Resistance

A user scoring 3 (Sometimes) across all Section A items and 2 (Rarely) on all Section B items.

$$D_{Au} = I_{Am} = E_{Dm} = E_{Dc} = 0.50 \mid R_A = 0.25$$

$$\text{Base} = (0.30 \times 0.50) + (0.25 \times 0.50) + (0.25 \times 0.50) + (0.20 \times 0.50) = 0.50$$

$$A_A = 0.50 \times (1 - 0.25) = \mathbf{0.375}$$

Classification: Moderate Alienation. Mild digital fatigue; occasional confusion over personal choices. Increased intentional searching and privacy measures recommended.

A _A Range	Classification	Psychological-Behavioural State	Indicated Response
0.00 – 0.25	Negligible	High independent choice; strong agency boundaries; effective resistance maintained	Maintain current data hygiene practices
0.26 – 0.50	Moderate	Mild digital fatigue; occasional confusion over personal choices; partial resistance present	Increase intentional searching; clear tracking histories
0.51 – 0.75	High	Fading independent choice habits; high automated feed reliance; resistance weakening	Immediate digital detox; implement privacy tools
0.76 – 0.94	Severe	Advanced alienation; felt disconnection and mechanisation; resistance near collapse	Drastic behavioural change; professional psychoeducational support
0.95 – 1.00 $\cap R_A \leq 0.05$	<i>The Systemised Self</i>	Terminal. Intent fully absorbed. Captivity experienced as contentment. $R_A \leq 0.05$	External intervention required; systemic extraction

4. Mathematical Representation II: The Systemised Self as Formal Terminus

4.1 Formal Definition

The Systemised Self (SS) is formally defined as the terminal threshold condition of the Algorithmic Alienation Index, constituted by the simultaneous satisfaction of two necessary conditions:

$$SS := \{ A_A \geq 0.95 \} \cap \{ R_A \leq 0.05 \}$$

Where A_A is the Algorithmic Alienation Index score and R_A is the Algorithmic Resistance variable. The intersection of both conditions defines a state of complete, mutual reinforcement: dimensional saturation and resistance collapse simultaneously achieved. This definition encodes two structurally distinct features of the Systemised Self.

- Condition 1 Terminal threshold ($A_A \geq 0.95$): all four alienation dimensions are approaching maximum saturation, with the weighted composite accordingly near or at the ceiling. The threshold of 0.95 rather than 1.00 reflects the recognition that complete saturation of all four dimensions simultaneously is a theoretical limit; empirical subjects approaching the terminus will present dimension profiles in the 0.90–1.00 range across most dimensions with some degree of variation.
- Condition 2, Resistance collapse ($R_A \leq 0.05$): the subject has ceased to deploy countermeasures against algorithmic absorption. This is not merely low resistance; it is the structural collapse of the capacity and will to resist. At this threshold, Searle's Gap (2001) has been effectively eliminated: the conscious space between reasons for acting and the decision to act has been closed by predictive algorithmic systems (Christiano et al., 2017), reducing deliberative choice to automated reactivity.

The joint condition SS is more philosophically precise than $A_A \geq 0.95$ alone. A subject could theoretically achieve a high base score while maintaining meaningful, if diminishing, resistance, occupying the severe alienation range but not the Systemised Self. SS specifically names the state in which dimensional pressure and resistance collapse have completed simultaneously, such that the subject not only is fully exposed to maximum algorithmic influence but has ceased to perceive

this exposure as influence at all. The phenomenological signature of SS, the condition that renders it diagnostically inaccessible to traditional critical-theoretical methodology, is precisely the phenomenological inversion described in Section 2.2: $A_A = 1.00$, $R_A = 0.00$ is subjectively experienced not as maximum unfreedom but as unprecedented authentic self-expression and sovereign freedom. The subject does not report alienation; she reports flourishing. This is what distinguishes SS from all prior stages on the AAI: it cannot be diagnosed through self-report alone, because the self-report is itself an output of the system.

4.2 Rationale Against a Separate Systemised Self Index

The decision not to develop a separate Systemised Self Index (SSI) is both logically and philosophically principled. The Systemised Self is not a parallel phenomenon to Algorithmic Alienation; it is proposed as its product. To develop a distinct SSI would imply that the Systemised Self has dimensions and dynamics independent of the alienation trajectory that produces it. The AAI already contains all the structural information necessary to identify the Systemised Self: the terminal threshold, the resistance collapse, and the dimensional profile that characterises full absorption. Adding a second index would introduce redundancy without adding explanatory power, and would risk fragmenting what is a unified trajectory into artificially discrete constructs.

The formal condition $SS := \{A_A \geq 0.95\} \cap \{R_A \leq 0.05\}$ is maximally parsimonious while remaining precise and falsifiable, a subject either meets both conditions simultaneously or does not, and the empirical test of whether participants at this threshold exhibit the phenomenological inversion is specified in Section 5 as the study's critical hypothesis.

4.3 The Trajectory: From Algorithmic Alienation to the Hollow Absolute

The AAI trajectory maps onto the broader conceptual architecture of the Hollow Absolute framework (Galú & Kairos, 2026b) as follows. The trajectory is presented as an interpretive framework, a philosophically derived account of structural tendencies rather than a deterministic sequence. It identifies where the present trajectory *leads* if unimpeded, and what forms of genuine human intent can resist it from within.

AAI Range	State	Critical Theory Scale	Phenomenological Experience
0.00 – 0.50	Negligible–Moderate Alienation	Individual	Felt estrangement partially available; critique diagnostically accessible
0.51 – 0.94	High–Severe Alienation (Hollow Individual in formation)	Individual	Estrangement felt but resistance eroding; critique increasingly difficult
$\geq 0.95 \cap R_A \leq 0.05$	Systemised Self (Hollow Individual complete)	Individual → Collective threshold	Phenomenological inversion: alienation experienced as liberation; critique inaccessible via self-report
Collective scale	Hollow Society	Institutional	Institutions maintain formal democratic functions while substantive deliberation is evacuated to AI systems
Civilisational scale	Hollow Absolute	Civilisational	Complete simulation of collective self-transparency; heteronomy experienced as historical telos; Spirit's form without Spirit's substance

Note. Phase designations follow the thesis ‘Absorption of Self into System: The Systemised Self’ (Galu & Kairos, 2026b). The AAI provides empirical measurement access at the individual level (rows 1–3). The Hollow Society and Hollow Absolute are theoretical extrapolations from structural tendencies observable at the individual level, not subjects of the present study. The trajectory does not imply determinism.

5. Research Design and Methodology

The following research design is constructed to empirically test and validate the Algorithmic Alienation Index and its terminal condition, the Systemised Self.

5.1 Research Questions and Hypotheses

This study is organised around three primary research questions:

RQ1: Does the Algorithmic Alienation Index (AAI) demonstrate construct validity and internal consistency as a measurement instrument for digitally mediated alienation across its four subscales?

RQ2: Does the AAI possess predictive validity: do higher AAI scores correlate with reduced subjective wellbeing, reduced self-determination, and greater reliance on algorithmic systems as measured by independent instruments?

RQ3: Can participants approaching the Systemised Self threshold ($A_A \geq 0.95$, $R_A \leq 0.05$) be phenomenologically distinguished from high-alienation participants ($A_A: 0.76-0.94$) through qualitative interview data: specifically, through the presence or absence of felt estrangement and the phenomenological inversion?

Pre-registered hypotheses:

- **H1:** The AASDS will demonstrate acceptable internal consistency (Cronbach's $\alpha \geq 0.70$) across each of its four subscales.
- **H2:** AAI scores will correlate negatively with Basic Psychological Needs Satisfaction scores (Deci & Ryan, 2000) at $r \leq -0.30$, $p < .05$.
- **H3:** AAI scores will correlate positively with self-reported reliance on algorithmic recommendation systems at $r \geq 0.30$, $p < .05$.
- **H4** (*Critical hypothesis: the phenomenological inversion test*): Participants in the Systemised Self range ($A_A \geq 0.95$, $R_A \leq 0.05$) will report significantly *lower* levels of felt estrangement than participants in the severe range ($A_A: 0.76-0.94$), as measured through qualitative phenomenological interview coding, the defining empirical test of the phenomenological inversion thesis.

- **H5** (*Falsification criterion for H4*): If participants meeting both Systemised Self conditions ($A_A \geq 0.95$, $R_A \leq 0.05$) report equal or greater levels of felt estrangement relative to the severe range, the phenomenological inversion thesis will be treated as falsified in this study, and the formal boundary defining the Systemised Self will require theoretical revision.

5.2 Design Rationale: Mixed Methods

A mixed-methods sequential explanatory design (Creswell & Plano Clark, 2018) is proposed, comprising Phase 1 (quantitative) followed by Phase 2 (qualitative). This design is selected for three reasons. First, the AAI requires psychometric validation prior to use as a research instrument. Phase 1: provides this through survey administration, internal consistency analysis, factor analysis, and convergent validity testing. Second, the central theoretical claim of the Systemised Self, the phenomenological inversion, is by definition not accessible through quantitative self-report alone, since the subject experiencing the inversion reports liberation rather than alienation. Qualitative phenomenological interviews in Phase 2 provide the interpretive access point for the study's critical hypothesis. By combining a validated quantitative instrument with qualitative phenomenological evidence, this study produces both the measurable metrics and the interpretive depth required for a comprehensive combined first empirical test.

This design explicitly engages with specific AI-ML systems. Phase 1's platform-specific items reference: Reinforcement Learning from Human Feedback (RLHF) systems (Christiano et al., 2017), which fine-tune large language models and recommendation engines to user preference profiles, instantiating D_{Au} and I_{Am} ; collaborative filtering and content-based filtering recommender system architectures (Resnick & Varian, 1997), which operationalise the "illusion of choice" captured in D_{Au} and E_{Dm} ; and transformer-based large language models such as GPT-4 (OpenAI, 2023), whose conversational intimacy and personalised responsiveness represent the technological mechanism most directly implicated in the closing of Searle's Gap and the production of E_{Dc} saturation.

5.3 Sampling and Participants

- **Phase 1 (Quantitative):** Target sample $N = 300$ adult participants (aged 18–60), recruited through stratified purposive sampling across three platform usage strata: (a) heavy users (>6 hours daily digital platform engagement), (b) moderate users (2–6 hours), and (c) light users (<2 hours). This sample size is determined by power analysis for medium effect sizes (Cohen's $f^2 = 0.15$) with $\alpha = .05$ and power = .80, yielding a minimum $N = 243$; $N = 300$ is adopted to allow for attrition (estimated 15–20%) and planned subgroup analyses. Two age cohorts will be sampled (18–30 and 31–50), replicating and extending the age-group structure of Arkan et al. (2026) to allow for cross-age comparative analysis, thereby directly addressing the limited generalisability of the original qualitative study ($N = 20$).
- **Phase 2 (Qualitative):** A purposive sub-sample of $N = 24$ participants drawn from Phase 1 completers, stratified across four AAI score bands ($n = 6$ per band: Moderate [0.26–0.50], High [0.51–0.75], Severe [0.76–0.94], and Systemised Self range [≥ 0.95]), will complete individual semi-structured phenomenological interviews (duration: 45–60 minutes). The equal allocation across bands, with deliberate over-sampling relative to expected population proportions for the Systemised Self range, is intentional: this is the theoretically critical group for testing the phenomenological inversion hypothesis and is expected to be the most underrepresented in a community sample.
- **Eligibility criteria:** Minimum age 18 years; active daily use of at least one algorithmically curated digital platform (social media, streaming service, news feed) and at least one transformer-based large language model/s (as identified above); sufficient language proficiency for interview participation; no current diagnosis of a severe psychiatric disorder that would confound self-report data on identity, autonomy, or emotional experience.

5.4 Instruments and Measurement Protocol

- **Primary instrument:** The Algorithmic Alienation and Systemised Self Diagnostic Survey (AASDS), 15 items as specified in Section 3.4, yielding AAI scores for each participant.
- **Convergent validity instruments:** The Basic Psychological Needs Satisfaction Scale (BPNS; Deci & Ryan, 2000) measures autonomy, competence, and relatedness satisfaction, providing an independent measure of self-determination against which AAI scores are validated (H2). The Bergen Social Media Addiction Scale (Andreassen et al.,

2012) is administered to confirm *discriminant* validity: AAI should correlate positively but incompletely with social media addiction measures, demonstrating that Algorithmic Alienation is a related but conceptually distinct construct. A researcher-developed Platform Reliance Index (5 items) measures degree of reliance on algorithmic recommendation for daily content and decision-making choices (H3).

Phase 2 qualitative protocol: A semi-structured interview schedule (nine questions) designed to elicit phenomenological accounts of: (a) perceived authenticity of online preferences; (b) felt congruence or incongruence between the digital self and the authentic self; (c) presence or absence of resistance strategies and their perceived efficacy; (d) subjective experience of algorithmic guidance as controlling or liberating. The final question: "How would you describe your sense of personal freedom in relation to the content you encounter online?" is specifically designed to access the phenomenological inversion: whether the subject experiences their algorithmically shaped self as alien or as authentically their own.

Independent rater protocol: Qualitative interview transcripts will be coded by two independent raters trained using a codebook derived from the five themes of Arkan et al. (2026), targeting the presence or absence of: felt estrangement markers (e.g., "This is not me," expressions of dissonance and guilt), resistance markers (e.g., references to countermeasure deployment, awareness of algorithmic influence), and liberation/autonomy markers (e.g., expressions of authentic selfhood, satisfaction with digital preferences). Inter-rater reliability threshold: Cohen's $\kappa \geq 0.70$. Discrepancies will be resolved through discussion; a third rater is engaged where resolution is not achieved.

5.5 Statistical Analysis Plan

Phase 1, Quantitative: Internal consistency will be assessed via Cronbach's α for each AASDS subscale (D_{Au} , I_{Am} , E_{Dm} , E_{Dc}) and for the full instrument. Target: $\alpha \geq 0.70$ per subscale. Exploratory Factor Analysis (EFA) will assess the four-factor structure of the AASDS, followed by Confirmatory Factor Analysis (CFA) using a stratified 70/30 sample split. Model fit will be evaluated using established indices: $CFI \geq 0.90$, $RMSEA \leq 0.08$. Pearson correlations will be computed between AAI scores and BPNS scores (H2) and between AAI and Platform Reliance Index scores (H3). Independent samples *t*-tests and one-way ANOVA will compare AAI scores

across age cohorts and usage intensity strata. Hierarchical multiple regression will be employed with AAI as the dependent variable, and platform usage hours, age, and BPNS subscale scores as sequential predictors, to assess incremental predictive validity of the AAI dimensions beyond baseline demographic and usage variables.

Phase 2, Qualitative: Reflexive thematic analysis (Braun & Clarke, 2006) will be applied to interview transcripts, with themes developed through iterative analytic dialogue between the two primary researchers. Inter-rater reliability will be computed on a 30% calibration sub-sample prior to single-coding of the remainder. Comparative phenomenological analysis between AAI score bands, with particular focus on the contrast between the Severe range (0.76–0.94) and Systemised Self group ($A_A \geq 0.95$, $R_A \leq 0.05$), will constitute the primary test of H4: whether felt estrangement markers are absent (or replaced by liberation markers) in the Systemised Self group, confirming the phenomenological inversion.

5.6 Pre-Registered Hypotheses and Falsification Criteria

All hypotheses specified in Section 5.1 will be pre-registered prior to data collection, following open science standards, committing in advance to specific numeric thresholds and stated outcomes that would constitute falsification:

- H1 falsification: If $\alpha < 0.60$ for any subscale, that subscale will be flagged for item revision and the AAI will not be employed as a validated instrument in subsequent research without revision.
- H2–H3 falsification: If no significant correlations are obtained ($p > .05$), convergent validity of the AAI will be treated as unestablished in this study.
- H4 falsification: If qualitative analysis of Systemised Self-range participants (both $A_A \geq 0.95$ and $R_A \leq 0.05$) reveals felt estrangement markers at levels indistinguishable from, or greater than, those of the severe range group ($A_A: 0.76–0.94$), the phenomenological inversion thesis is treated as falsified, and the formal terminal boundary of the Systemised Self requires theoretical revision.

Pre-registration also requires that the equal-weighting of I_{Am} and E_{Dm} (both at 0.25) be treated as an empirical hypothesis rather than an assumption: a regression-derived weighting comparison (equal weights versus regression-optimal weights against external holistic expert ratings of participant alienation profiles) will be conducted, and equal weighting will be retained only if not significantly outperformed by the empirically derived alternative.

5.7 Ethics, Consent, and Data Governance

The study would be conducted in compliance with the Declaration of Helsinki (World Medical Association, 2013) and relevant national research ethics frameworks. Ethics approval will be sought from the relevant Institutional Review Board prior to any data collection or participant recruitment. Informed consent will be obtained from all participants in writing prior to participation. The consent process will disclose: that the study investigates experiences of algorithmic influence on selfhood, identity, and decision-making; that participation involves survey completion and, for Phase 2, audio-recorded interview; that withdrawal is permitted at any time without consequence or explanation; and that data will be anonymised and used solely for research purposes.

Data would be stored in encrypted, password-protected repositories accessible only to the named research team. Interview audio recordings will be deleted following verified transcription. No personally identifiable information will appear in any publication or conference presentation. Given the potential for survey items and interview questions to prompt distress through reflection on personal autonomy and identity, particularly for participants in the severe and Systemised Self ranges, a debrief protocol would be provided to all participants, including information on digital wellbeing resources and the option to debrief with a member of the research team.

5.8 Limitations

Self-report and phenomenological inversion: The AASDS relies on self-report, which is inherently limited by social desirability bias, retrospective recall error, and critically for this study, the phenomenological inversion itself. A participant in the Systemised Self range may not report accurately on their own autonomy erosion because they do not experience it as erosion. This is a structural limitation internal to the AAI design that cannot be fully resolved through instrument

refinement alone; it can only be partially addressed through independent qualitative coding of interview data, convergent validity testing against external instruments, and longitudinal design in future studies.

Cross-sectional causal inference: The Phase 1 design cannot establish causal direction between algorithmic exposure and alienation dimensions. Longitudinal study designs, tracking the developmental trajectory from early alienation (A_A : 0.26–0.50) toward the Systemised Self threshold over time, will be necessary to test the trajectory model and are identified as a priority for future research.

Sample generalisability: Phase 1's $N = 300$ and Phase 2's $N = 24$, while adequate for initial validation, do not support broad demographic generalisation. The study is designed as a first empirical test of the AAI and SS collectively, establishing preliminary validity evidence rather than normative population data. Replication across diverse cultural, linguistic, and national contexts will be necessary, as algorithmic alienation may manifest differently across these dimensions (Kanbay et al., 2026). Platform-specific variation is also uncontrolled in this design.

Platform specificity: The AASDS is designed to capture general algorithmic alienation across digital platforms. It does not assess specific algorithmic mechanisms, RLHF systems, collaborative filtering, transformer-based generative models independently. Future instrument iterations should develop platform-specific and mechanism-specific subscales to provide greater diagnostic precision and to engage more directly with the contemporary AI-ML literature.

5.9 Timeline and Resourcing

Phase	Activity	Duration	Personnel
Pre-study	Ethics approval; OSF pre-registration; instrument finalisation; standard-setting panel for AASDS cut scores	Months 1–2	Research team
Phase 1	AASDS + convergent validity instruments administration ($N = 300$); data collection	Months 3–4	Research assistants
Phase 1	Data cleaning; reliability analysis (α , ICC); EFA; CFA; regression; ANOVA	Month 5	Statistician; research team

Phase 2	Purposive sub-sample selection; interview scheduling; informed consent	Month 5	Research team
Phase 2	Semi-structured interviews ($N = 24$); verbatim transcription; back-translation check	Months 6– 7	Qualitative researchers
Phase 2	Reflexive thematic analysis; inter-rater calibration; comparative phenomenological analysis	Months 8– 9	Research team
Synthesis	Integration of quantitative and qualitative findings; manuscript preparation	Months 10–12	Full research team
Dissemination	Peer-reviewed journal submission; conference presentation; OSF data deposit	Month 13+	Research team

6. Conclusion

This research proposal formalises and empirically grounds two constructs that together constitute what the authors propose as the contemporary apex of the critical theory tradition: Algorithmic Alienation, as the mechanism by which algorithmic systems progressively erode individual selfhood; and the Systemised Self, as the logical and formally defined terminus of that erosion, the state in which heteronomy is experienced as authentic self-determination, and the tradition's constitutive assumption of felt estrangement is no longer diagnostically available.

The Algorithmic Alienation Index (AAI), developed in coherent alignment with the theoretical frameworks of Kanbay et al. (2026) and the empirical qualitative findings of Arkan et al. (2026), intends to provide a rigorous, weighted, and falsifiable mathematical representation of a four-dimensional alienation process: Diminished Autonomy ($w = 0.30$), Identity Ambiguity ($w = 0.25$), Eroded Decision-Making ($w = 0.25$), and Emotional Disconnection ($w = 0.20$), modulated by a multiplicative Algorithmic Resistance variable (R_A). The Systemised Self is formally defined as the terminal condition $SS := \{A_A \geq 0.95\} \cap \{R_A \leq 0.05\}$, the state at which dimensional saturation is complete and resistance has structurally collapsed, producing the phenomenological inversion: the subjective experience of maximum algorithmic governance as unprecedented authentic freedom.

The decision not to develop a separate Systemised Self Index reflects the logical and philosophical coherence of the unified framework: the Systemised Self is the product of Algorithmic Alienation, not a parallel phenomenon, and the AAI already encodes all structural information necessary to identify its terminus. The formal condition $SS := \{A_A \geq 0.95\} \cap \{R_A \leq 0.05\}$ is the most parsimonious and precise representation of a concept that is, by its own theoretical architecture, the completion of a single trajectory rather than the beginning of a new one.

The study's critical hypothesis, H4, translates the phenomenological inversion from philosophical proposition to falsifiable empirical claim: if participants at the Systemised Self threshold report liberation rather than estrangement, the inversion is confirmed; if they report estrangement

indistinguishable from the severe range, the threshold requires theoretical revision. Either outcome is proposed to advance the field.

The study and thesis (Galu & Kairos, 2026b) propose a broader significance of this research extending beyond any single empirical result. The Systemised Self represents, within the critical theory tradition, the first theoretical construct that explicitly anticipates the failure of its own diagnosis, a state that cannot be identified through the tradition's primary methodology of immanent critique grounded in felt experience, because the subject experiencing it does not feel constrained. Developing the methodological apparatus adequate to this challenge, instruments that can detect what subjects cannot self-report, designs that can test what subjects cannot confirm, is the intellectual work the new paradigm requires.

Glossary of Technical Terms

Algorithmic Alienation: A multilayered psychosocial process through which individuals, under sustained algorithmic influence, experience a progressive weakening of perceived autonomy, identity coherence, and intrinsic decision-making capacity, becoming estranged from their authentic selves, choices, and identity components (Kanbay et al., 2026).

Algorithmic Alienation Index (AAI): The composite weighted index formalising the degree of digitally mediated alienation: $A_A = (w_1 \cdot D_{Au} + w_2 \cdot I_{Am} + w_3 \cdot E_{Dm} + w_4 \cdot E_{Dc}) \times (1 - R_A)$.

Algorithmic Resistance (R_A): The multiplicative mitigating variable in the AAI, measuring behavioural countermeasures to algorithmic absorption, including data poisoning, behavioural decoupling (privacy tools), and digital detox.

Algorithmic Systems: An algorithmic system is an integrated framework of multiple interconnected algorithms, data structures, and computational processes that ingest input data, execute mathematical or rule-based logic, and generate deterministic or probabilistic outputs to achieve a specific systemic objective.

Collaborative Filtering: A recommender system architecture that generates personalised content suggestions based on the preferences and behaviours of similar users, a primary technological mechanism of D_{Au} and E_{Dm} (Resnick & Varian, 1997).

Constitutive Assumption: The background assumption shared across two centuries of critical theory that the social conditions diagnosed leave a phenomenological residue, a felt separation or sensed intrusion, providing the entry point for immanent critique.

Diminished Autonomy (D_{Au}): The erosion of original, unprompted human intent; the experience of apparent choice within an algorithmically constrained option set, constituting the "illusion of freedom" (Pariser, 2011).

Emotional Disconnection (E_{Dc}): The affective dimension of the AAI; the transition from felt digital discomfort and guilt toward emotional numbness, indifference, and ultimately the positive preference for automated stability over authentic human contact.

Eroded Decision-Making (E_{Dm}): The shift from reflective, deliberate, internally motivated choice to habitual, automatic, convenience-based acceptance of algorithmically served content; cognitive inertia produced by sustained algorithmic recommendation exposure.

Gap, The (Searle): The conscious space between reasons for acting and the actual decision to act, and between initiating action and sustaining it. The literal structural site of rational agency (Searle, 2001), systematically closed by predictive algorithmic systems in the Systemised Self condition).

Hollow Absolute: The civilisational-scale condition in which the simulation of genuine collective self-transparency is produced within conditions that systematically undermine self-transparency's structural requirements; Hegel's Absolute Knowing in form without its philosophical substance.

Identity Ambiguity (I_{Am}): The blurring of the boundary between self-generated preferences and algorithmically cultivated identity components; the inability to distinguish the authentic self from the algorithmically shaped self.

Immanent Critique: The critical-theoretical methodology of measuring a social formation against the standard of genuine human self-realisation it claims to achieve, rendering the gap between claim and reality visible to the subjects experiencing it.

Phenomenological Inversion: The terminal condition of the Systemised Self in which the absence of genuine self-determination is experienced as its unprecedented achievement; heteronomy subjectively experienced as self-determination, and alienation as authentic liberation.

Reinforcement Learning from Human Feedback (RLHF): A machine learning technique in which AI systems are trained using human evaluative feedback to optimise outputs toward preferred responses; a primary mechanism by which recommender systems and large language

models are fine-tuned to individual user preference profiles, directly instantiating D_{Au} and the closing of Searle's Gap (Christiano et al., 2017).

Semantics: The actual meaning conveyed by language, grounded in biological intentionality, the mind's power to direct itself toward objects and states of affairs. Distinguished from syntax; absent from all current algorithmic systems (Searle, 1980).

Systemised Self: The terminus state of the Algorithmic Alienation trajectory; formally defined as $SS := \{A_A \geq 0.95\} \cap \{R_A \leq 0.05\}$. The condition in which identity-formation has been comprehensively mediated by algorithmic systems and the subject can no longer distinguish algorithmically managed preferences from genuinely self-formed ones, experiencing this condition as authentic liberation.

Syntax: The formal structure, rules, and symbol manipulation of language or code, absent genuine semantic understanding. The exclusive mode of operation of all current algorithmic systems, including large language models (Searle, 1980).

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