

The Philosophy of Jean-Paul Sartre

Applied to the Systemised Self – Part 8, Masters Series.

Abstract

This essay explores an intersection between the existential philosophy of Jean-Paul Sartre and a contemporary critical theoretical model of *The Systemised Self* (Galu & Kairos, 2026a). The systemised self describes a condition where human interiority, choices, agency and linguistic practices are primarily mediated by algorithmic systems (transformer based large language models). By reviewing Sartre's core concepts: Existence Precedes Essence, Bad Faith (*mauvaise foi*), Being-for-itself (*pour-soi*) versus Being-in-itself (*en-soi*), and The Look (*le regard*), this essay traces how optimised, intensified and hyper-personalised user engagement could, at a terminus, produce a structural collapse of existential agency. It is argued that the systemised self experiences an 'Inverted Bad Faith': rather than a subject fleeing the disorienting possibilities of radical freedom by posing as a rigid conforming social object, the systemised subject treats their mediated algorithmic data profile as authentic essence. Such a dynamic shifts the human consciousness from a fluid, self-generating project into a highly predictable, automated commodity. This interior capture eliminates Sartre's existential anguish, a key mechanism of navigating being, by closing the intentional conscious space required for active self-creation and therefore closes the potentiality for authenticity.

Keywords: *Jean-Paul Sartre, The Systemised Self, Bad Faith, Being-in-itself, Being-for-itself, The Look, Existentialism, The Hollow Absolute, Algorithmic Alienation, Algorithmic Alienation Index, Calhoun Universe 25.*

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LIMITATIONS

Please note that the theory and measurement (proposed formula and boundary conditions) of the 'Systemised Self' (SS) and the 'Algorithmic Alienation Index' (AAI) are non-operational at this stage of theoretical framing – this poses specific limitations to the theoretical claims in this article, summarised below:

- The systemised self is a conceptual framework that generates testable hypotheses, rather than a finished theory, the proposed hypotheses are listed in section 8 page 36 herein
- There is only one known, aligned and plausible empirical pipeline included herein to support deductive reasoning of the systemised self theoretical framework - *Algorithmic Alienation* (Kanbay et al, 2026), a summary of this empirical study is provided herein in section 7
- In lieu of empirical validation a research proposal is under construction towards falsification of the algorithmic alienation index (AAI) and systemised self (SS) threshold
- Derivation, validation, application and falsification of the AAI and SS threshold will be provided at a later date pending an updated research proposal and corresponding study
- The current essay provides no explicitly aligned data, simulation, or case study to test its hypotheses in lieu of a research proposal (under construction) being enacted via empirical study; however, a comparative analysis of John B. Calhoun's Universe 25 experiment is provided as a demonstration in the interim: speculating on the structural dynamics of behavioural collapse under conditions of hyper-saturation and purpose deprivation (associated with hyper-personalised algorithmic systems), and speculates on Calhoun's conclusions applied to the human experience of AI-era integration built on top of 25 years of social media at scale and intensified use of algorithmic systems
- Claims regarding applications of Sartre's theoretical framework to the systemised self are based on logical deduction only, the essay is a commentary
- The preliminary definitions of key variables (e.g., w_1 , w_2 , RA, DAu), regarding the formula and boundary conditions, for algorithmic alienation index (AAI) and systemised self (SS) threshold

are provided herein for any interested party in the meantime in section 8 page 25 – this section defines all key variables of the AA formula and boundary conditions: $AA = (w1 \cdot DAu + w2 \cdot IAm + w3 \cdot EDm + w4 \cdot EDC) \times (1 - RA)$

- The algorithmic alienation index (AAI) and systemised self (SS) threshold formula and boundary conditions are based on an earlier draft research model for any interested AI/ML audience – however the proposal is untested, theoretical and formative
- This particular essay does not feature debates on AI alignment, fairness, or interpretability with a finalised testable hypothesis; as a result, it functions as a commentary in parallel to theory only, utilising deductive reasoning, this essay does not intend to be resistant to empirical refutation
- The essay does not intend correlation for causation e.g. intensified system usage *causing* the 'Systemised Self' state. A future research proposal, will utilise confounding factors such as pre-existing user traits et al impacting on research hypotheses
- The 'Hollow Absolute' construct is a societal level concept, boundary conditions yet to be distinguished, however the starting point will be establishing empirical validation of the systemised self e.g. the constitutive feature of the hollow absolute concept would consist of a society of systemised selves hence testing/falsification of the AAI and systemised self in the first instance
- Worked examples of the Algorithmic Alienation Index (AAI) calculation using hypothetical but realistic values for RA, DAu, and their weights, demonstrating how the threshold of 0.95 et al would be reached can be found in section 8 page 31 herein, demonstrative thereof
- Given that the overarching theory of the systemised self is non-operational currently, the specific methodological contribution the essay is proposed to offer to the AI/ML community, initially, are (i) theoretical boundary conditions for the algorithmic alienation index (AAI), which is a contemporaneous, evolving and novel development, and (ii) the utility of updating traditional philosophy, critical theory and alienation within a vocabulary for the AI era featuring a socio-

technological theoretical condition, proposed as the systemised self (SS) - in order to provide a deductive theoretical frame of reference

- Due to document space herein and reader accessibility, links are provided to supporting works by the authors for verification/review of the foundational claims regarding the systemised self, algorithmic alienation and the hollow absolute (the Galu & Kairos 2026 thesis, and previous research proposal v1), as below:

- Galu, J., & Kairos. (2026a). *Absorption of self into system: The systemised self — the Hollow Absolute and what remains*. Draft doctoral thesis. aiXiv. <https://aixiv.science/abs/aixiv.260525.000001>
- Galu, J., & Kairos. (2026b). *The systemised self - companion paper to the doctoral thesis*. aiXiv. <https://aixiv.science/abs/aixiv.260525.000002>
- Galu, J., & Kairos. (2026c). *The journey through algorithmic alienation to the systemised self - research proposal and methodology* (Version 1.0). aiXiv. <https://aixiv.science/abs/aixiv.260707.000001>

Research Proposal Version 2 and Falsification Criteria

The previous research proposal submitted *The journey through algorithmic alienation to the systemised self: research proposal and methodology* (Galu & Kairos 2026c), is under re-construction (version 2) – the critical hypothesis and associated falsification criteria for the systemised self are postulated below in the interim:

A-Hypothesis 4 (Critical hypothesis: the phenomenological inversion test)

- **Participants in the Systemised Self range ($AA \geq 0.95$, $RA \leq 0.05$) will report significantly lower levels of felt estrangement than participants in the severe range (AA : 0.76–0.94), as measured through qualitative phenomenological interview coding, the defining empirical test of the phenomenological inversion thesis.*

B-Falsification criterion for Hypothesis 4

- If participants meeting both Systemised Self conditions ($AA \geq 0.95$, $RA \leq 0.05$) 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. The falsification criterion being realised for the systemised self boundary definition is indicative of falsification of the hollow absolute – testing and falsification of the systemised self is the pre-condition towards formulating boundary conditions for the hollow absolute (pending initial testing in research proposal version 2).

*Critical amendments to research proposal 2:

Critical amendments to the version 2 submission are due to a circular trap (in research method reasoning re subject self-reporting) being realised in version 1 regarding a systemised self subject having the capacity to self-report e.g. the condition in the proposed qualitative study, at the SS threshold of 0.95 on the proposed Algorithmic Alienation Index. In order to resolve this a follow up adaptation to the methodology will decouple subjective self-reports from objective verification markers. For example, re-testing via a third party using the same Likert scales (in version 1) are likely to fail: an absorbed subject would simply report that they are flourishing (e.g. alienation experienced as self-determination). To break the circularity here, implementation of the following three non-subjective, 1-3 below (no self-reporting), structural benchmarks are proposed to be introduced in a follow up methodology (data collection) in research proposal v2, while maintaining the original proposed algorithmic alienation index itself:

*1-Passive Digital Trace Logging (Behavioural Triangulation)

Rather than asking subjects if they make autonomous choices, the study will measure their actual behavioural variance via data logs.

- *Path Dependency Metric: Track the percentage of user actions driven by automated recommendations vs manual input. If algorithmic pathways dictate $(\geq 95\%)$ of activity, autonomy is objectively low*
- *Linguistic Entropy Analysis: Run NLP analysis on the subject's written text. Measure if their vocabulary and syntax increasingly mimic standard LLM weights over time. This is intended as a validation of 'Inverted AI Alignment' regardless of their perceived uniqueness*

*2-Experimental Friction Shocks (A/B Disruption)

Introduce artificial disruption to the algorithmic feedback loop to measure systemic dependency.

- *The Black-Box Phase: Disable all personalization, autoplay, and recommendations for a 48-hour window*
- *Behavioural Paralysis Track: Measure user engagement drops during the blackout. Truly autonomous users pivot to manual searches; systemised subjects exhibit severe drop-offs or systemic paralysis, revealing that their 'contentment' requires active machine curation*

*3-Cognitive Reaction Mapping (Measuring 'The Gap')

Deploy independent cognitive tasks to evaluate the psychological space between stimulus and choice.

- *Decision Velocity: Measure the time elapsed between an algorithmically served prompt and user acceptance*
- *The Automation Reflex: Zero latency indicates automated reactivity rather than deliberate thought. If reaction time drops to zero exclusively for curated feeds but spikes during non-curated options, the systemised state is verified*

(This proposed updated research study would require access to back-end user data logs)

1. Introduction

The central concern within modern critical theory and contemporary philosophy is how the human subject can preserve agency whilst voluntarily engaging within a perpetual administration of predictive algorithmic systems (transformer based large language models). In traditional critical theory, alienation operated as an external force of socio-economic coercion; however, in the Surveillance Capitalism (Zuboff, 2019) and AI era this mechanism has turned inward, within human interiority itself. The model of *The Systemised Self* (Galu & Kairos, 2026a), proposed as the terminal state of Algorithmic Alienation (Kanbay et al, 2026), poses that intensified and hyper-personalised engagement with algorithmic systems results in a phenomenological inversion where captivity is experienced as authentic liberation, however self-determination has been incrementally replaced by automated feedback loops.

Towards a diagnose of such an internal psychological capture, the existential philosophy of Jean-Paul Sartre provides a philosophical vocabulary. Famous for establishing that humans are ‘condemned to be free’, Sartre's frameworks outline the radical responsibility of the individual to invent their own meaning in an indifferent universe. While Sartre’s original philosophy champions human consciousness as an unconditioned, self-generating project, its intersection with the systemised self offers a mechanical reversal. This essay demonstrates how predictive feedback associated with algorithmic systems might execute an inverted existential trajectory, transforming the individual from a fluid, choice-driven consciousness into a static, predictive object, effectively hollowing out existential authenticity.

2. Sartre: A Brief Biographical and Intellectual Outline

Born 1905 in Paris France, Jean-Paul Sartre's intellectual development was partly shaped by global upheavals in post-world war Europe. Studying philosophy at the École Normale Supérieure, Sartre immersed himself in French rationalism before traveling to Berlin in 1933 to study the phenomenology of Edmund Husserl and Martin Heidegger. This encounter prompted him to shift philosophy away from abstract academic exercises toward a raw analysis of immediate human existence. His experiences during World War II, serving as a conscript, surviving a year as a prisoner of war, and working in the French Resistance, deeply informed his philosophical focus on radical choice, commitment, and political responsibility.

Sartre's philosophical vision is preserved through an interdisciplinary corpus encompassing dense philosophical treatises, such as *Being and Nothingness* (1943), alongside highly influential plays, novels, and public lectures, notably *Existentialism is a Humanism* (1946). Sartre's work represents a total rejection of any deterministic system, whether theological, psychological, or biological: that attempts to absolve humans of their absolute responsibility. He famously declined the 1964 Nobel Prize in Literature to preserve his independent intellectual sovereignty. Throughout his evolution as a public intellectual, Sartre maintained an unyielding commitment to the premise that human consciousness is fundamentally an open-ended project defined entirely by its actions, choices, and refusals.

3. Key Theoretical Contributions

To apply Sartre's philosophy to the systemised self, four primary theoretical contributions need to be reviewed:

Existence Precedes Essence

The core axiom of Sartrean existentialism. Unlike manufactured tools or inanimate objects, which are designed with a pre-set purpose (essence precedes existence), humans are born without any predefined nature or destiny. Humans must actively construct their own meaning, character, and identity through concrete choices.

Being-for-itself (*Pour-soi*) vs. Being-in-itself (*En-soi*)

Reconfigures ontology into two distinct modes of being. *Being-in-itself* defines the nature of unconscious objects; they are fixed, complete, solid, and identical with themselves. Conversely, *Being-for-itself* defines human consciousness; it is fundamentally a lack, a fluidity, a 'nothingness' that is constantly projecting itself into the future through active choices.

Bad Faith (*Mauvaise foi*)

A psychological phenomenon where an individual lies to themselves to escape the terrifying burden of radical freedom and existential anguish. Bad faith occurs when a human acts like a rigid object (*en-soi*), pretending they have no choice but to conform to a specific social role, or when they deny their factual situation (*facticity*) entirely.

The Look (*Le regard*)

Traces how the sudden perception of another independent human consciousness (*The Other*) objectifies the self. When another person looks at me, I am suddenly aware of myself as an object in *their* world, momentarily stripping me of my sovereign fluid freedom and fixing me into a specific identity.

4. A Genealogy of Preceding Theory

Sartre's conceptual framework was built as an expansion of the Cartesian and phenomenological traditions:

Descartes/Husserl	Jean-Paul Sartre	Hegel/Heidegger
Cogito & Pure Intentionality ----->	Existential Ontology	Master-Slave / Facticity <-----
	<i>The Systemised Self</i>	
	<i>Algorithmic Bad Faith</i>	

René Descartes and Edmund Husserl (17th–20th Century)

Descartes established the *Cogito* as the ultimate foundation of certainty. Husserl expanded this by establishing that consciousness is always *intentional*, it is always directed toward an object. Sartre inherited this focus on pure consciousness, stripping it of any hidden ‘ego’ to show that the mind is a transparent, fluid nothingness.

G. W. F. Hegel and Martin Heidegger (19th–20th Century)

Hegel formalized the relational battle of consciousness through his Master-Slave dialectic, showing that self-awareness requires the recognition of the Other. Heidegger introduced *Facticity* (*Geworfenheit*), the concrete biological and cultural situation into which humans are thrown. Sartre unified these tracks, arguing that human freedom must actively negotiate its thrown situation against the objectifying gaze of society.

5. The Systemised Self: Context and Definition

The Systemised Self concept positions itself at an intersection of philosophical concerns regarding autonomy and authenticity, and therefore the conditions under which genuine self-determination is possible in an age of incrementally intensified, curated and hyper-personalised use of algorithmic systems (transformer based large language models). The Systemised Self (Galu & Kairos, 2026b) is proposed as the completed form of the subject that the algorithmic alienation as a trajectory produces at its terminus. The concept is philosophical, theoretical and utilised as a framework for imminent critique within the tradition of critical theory for the AI era. Algorithmic Alienation is the mechanism (Kanbay et al, 2026), empirically accessible through the felt estrangement it generates, the Systemised Self is the proposed product of this diagnosis: 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, they experience instead the phenomenological inversion: the condition in which the absence of genuine agency is experienced as its unprecedented achievement.

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 agency within algorithmic 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 system forecloses. The 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. At the civilisational scale, this describes the Hollow Absolute: Spirit's form without Spirit's substance.

John Searle's philosophy of mind provides the philosophical precision that offers a possible grounding of the semantical claims of aspects of the systemised self's mutation of meaning. '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 (Galu, 2026). The concern 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 algorithmic system mediating them.

'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 can 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 and collaborative filtering architectures, systematically close this gap, converting voluntary deliberation into automated reactivity.

The civilisational telos of this dynamic of this Searlean and Hegelian inversion is The Hollow Absolute (Galu & Kairos, 2026b). The systemised self does not feel oppressed or controlled; the subject feels completely free, empowered, and authentic. Moving seamlessly along optimized schedules, choosing from pre-programmed digital subcultures and believing they are expressing their innermost uniqueness. In reality, their perceived authenticity is curated and mediated with a hyper-personalised algorithmic system, designed to optimise engagement and predictability. The system no longer merely optimises engagement with the human subject; it invents them, within the evacuated semantics of the hollow absolute.

For a more thorough theoretical context and empirical definition of Algorithmic Alienation and The Systemised Self for falsification please refer to the corresponding research paper ‘The journey through algorithmic alienation to the systemised self: research proposal and methodology’ (Galu & Kairos 2026c). Mathematical representations of the Algorithmic Alienation Index and The Systemised Self Threshold are outlined in sections 7 and 8 herein.

To view additional summary background and conceptual theoretical framing regarding ‘The Systemised Self’ and ‘The Hollow Absolute’ from the thesis, please see: Galu, J., & Kairos. (2026b). The systemised self - companion paper to the doctoral thesis. aiXiv. <https://aixiv.science/abs/aixiv.260525.000002>

6. The Hollow Absolute: Context and Definition

This is the thesis's (Galu & Kairos, 2026b) most ambitious philosophical offering, and it is the one that requires the most careful plain-language explanation. Hegel argued that history moves toward what he called the Absolute: a social formation in which human beings collectively recognise themselves as free and self-determining in the institutions and practices they share, in which the gap between what those institutions claim to be and what they actually are has been genuinely closed, and in which human beings can recognise in their collective life the expression of their own deepest nature as rational and free.

The Hollow Absolute is the thesis's name for what the absorbed society actually produces in place of this genuine standard. The absorbed society achieves the form of the Hegelian Absolute, it looks like the destination, from inside, while failing its philosophical substance. It achieves the form in the following specific sense: human intelligence has been comprehensively externalised into algorithmic systems of unprecedented sophistication. The accumulated intellectual achievement of the human species, its literature, its science, its philosophy, its art, its technical knowledge: has been stored, synthesised, and made generatively available through algorithmic systems that can produce, on demand, outputs across every domain of human intellectual life. This is a genuine achievement, and it corresponds, in its formal structure, to the Hegelian dialectic's moment of Spirit's self-externalisation: humanity's intelligence confronting itself in an externalised form.

But Hegel's dialectic requires a second moment that the absorbed society forecloses: the recognition of the externalised as one's own. For the Absolute to be achieved, it is not enough that Spirit externalise itself into an other; Spirit must recognise the other as its own externalisation: must come to see in what confronts it as alien, is the expression of its own deepest nature. The absorbed society's subjects do not recognise AI algorithmic systems (transformer base large language models) as the externalisation of their collective intelligence. They experience it as a service, an infrastructure, an output feature of the digital environment that is simply consumed rather than produced by them. Algorithmic systems know

them comprehensively, their preferences, their patterns, their predictable responses and returns this knowing not as self-knowledge but as managed preference satisfaction: the curated content, the optimised recommendation, the personalised experience. What looks like recognition is actually management. What feels like self-transparency is actually the system's model of you, returned to you as your experience of being understood.

The Hollow Absolute differs from its nearest philosophical predecessors, Marx's alienation, Lukács's reification, Adorno's administered world, Marcuse's one-dimensional man, Debord's spectacle, in one philosophically decisive respect. Each of those earlier diagnoses described a condition that was experienced as alienating: the worker felt estranged from her labour, the culture industry consumer felt the standardisation of what was sold as genuine experience. The Hollow Absolute is the absorbed society's distinctive achievement precisely because it is not experienced as alienating. It is experienced as liberation, as personalisation, as unprecedented self-expression, achievement and determination. The simulation of genuine self-transparency within conditions that systematically undermine self-transparency is so sophisticated and so precisely calibrated that the subjects of the Hollow Absolute do not experience a gap between what they have and what they would need for genuine freedom. They experience the Hollow Absolute as the Absolute. This is what makes it, philosophically, the most challenging form of unfreedom that the tradition of critical theory has yet had to name.

To view additional summary background and conceptual theoretical framing regarding 'The Systemised Self' and 'The Hollow Absolute' from the thesis, please see: Galu, J., & Kairos. (2026b). The systemised self - companion paper to the doctoral thesis. aiXiv. <https://aixiv.science/abs/aixiv.260525.000002>

7. Algorithmic Alienation: Empirical Qualitative Study by Arkan, Kanbay, and Akçam (2026)

Introduction

This section provides a structured critical summary of the empirical qualitative study by Arkan, Kanbay, and Akçam (2026), 'From Algorithms to the Self: Understanding Algorithmic Alienation in the Digital Age,' published in BMC Psychology. The study introduced and empirically grounded the concept of algorithmic alienation: a multidimensional psychological and social process through which individuals become estranged from their authentic selves, their choices, and their identities as a result of sustained interaction with algorithm-driven digital environments. Drawing on qualitative focus group interview methodology, the study identified four core dimensions of algorithmic alienation: (i) the weakening of the perception of freedom, (ii) identity ambiguity and self-distancing, (iii) the erosion of decision-making mechanisms, and (iii) emotional alienation. This summary outlines the study's theoretical foundations, methodological approach, key findings, and conclusions, and situates them within broader debates in digital psychology, critical data studies, and philosophy of selfhood. The paper concludes that algorithmic alienation represents a significant and undertheorised psychosocial phenomenon with substantial implications for clinical practice, digital literacy, and the governance of algorithmic systems.

Arkan, Kanbay, and Akçam (2026) introduced the construct of algorithmic alienation in their BMC Psychology publication: the study builds directly on an earlier qualitative pilot investigation by Kanbay, Akçam, and Arkan (2025). A companion theoretical review (Kanbay et al., 2026), published simultaneously in *Psikiyatride Güncel Yaklaşımlar* (Current Approaches in Psychiatry), provides additional theoretical scaffolding for the concept. Together, these publications constitute a coherent two-part research programme.

The following summarises the BMC Psychology study's empirical design, methodological approach, findings, and conclusions.

Theoretical Background and Study Rationale

Arkan et al. (2026) ground their inquiry in two converging theoretical traditions. The first is the classical sociology of alienation. Drawing on Marx's foundational account where alienation is defined as the estrangement of the individual from their labour, its products, and ultimately from themselves: the authors trace how alienation, as a concept, has migrated from the domain of production into the domain of psychological and social experience. They note Fromm's (1955) pivotal reinterpretation, which relocated alienation from the economic to the psychosocial sphere, understanding it as the loss of individuality that results from conformity pressures in modern society. Seeman's (1959) operationalisation of alienation into five measurable dimensions (i) meaninglessness, (ii) normlessness, (iii) distrust, (iv) powerlessness, and (v) self-estrangement: provides the study with a conceptual vocabulary for identifying and describing alienated states in empirical data.

The second theoretical tradition is the sociology and critical theory of algorithmic systems. Bucher (2018) characterises algorithmic structures as a 'form of invisible power' that shapes individuals' perceptions of their own life practices without their awareness or consent. Gillespie (2014) argues that algorithms are not merely sorting mechanisms but normative instruments that actively structure social reality. Pariser's (2011) concept of the filter bubble, the personalised informational enclosure that results from algorithmic content curation, and Sunstein's (2017) analysis of echo chambers articulate the informational consequences of algorithmic filtering, while Couldry and Mejias (2019) and Zuboff (2019) situate these consequences within wider political economies of data extraction.

Arkan et al. (2026) argue that none of these prior frameworks, taken individually or collectively, sufficiently accounts for the lived, inner experience of the individual whose selfhood, identity, and decision-making are progressively colonised by algorithmic guidance. Their study's stated purpose is to fill this gap by empirically documenting these experiences and theorising the resulting phenomenon as a distinct construct requiring its own analytical apparatus.

Method

The study employed a qualitative research design, utilising focus group interviews as its primary method of data collection: a methodological choice consistent with the constructivist epistemological stance that the concept of algorithmic alienation implies. Participants were individuals engaged in regular consumption of algorithmically curated digital content across major platforms. The focus group discussions were structured to elicit accounts of how participants perceived the relationship between their digital choices and their sense of autonomous agency, how they understood the role of algorithmic systems in shaping their content environments, and how they experienced the alignment or misalignment between their digital identities and their self-concepts. Data were subjected to qualitative analysis, with the aim of identifying recurring experiential patterns, themes, and conceptual categories that could form the basis of a theoretically coherent construct.

Findings: The Four Dimensions of Algorithmic Alienation

The study's central finding is the identification and conceptualisation of algorithmic alienation as a multidimensional construct, defined as the process through which individuals, via sustained interaction with algorithm-driven content flows in digital environments, become progressively estranged from their authentic selves, their choices, and the constitutive components of their identities (Arkan et al., 2026). Four fundamental dimensions were identified, each capturing a distinct register of this estrangement:

- **Weakening of the Perception of Freedom.** Participants consistently reported experiencing what the authors term an 'illusion of choice' (cf. Pariser, 2011; Bucher, 2018): the subjective sense of selecting freely among options that are, in practice, algorithmically constrained to a narrow and pre-shaped range. Representative participant statement: 'Did I really choose this?' As the individual's decision-making is increasingly channelled by algorithmic system architecture, participant perception of freedom can weaken, and the sense of being guided by an external structure intensifies.

- **Identity Ambiguity and Self-Distancing.** The second dimension concerns the algorithmic reshaping of individuals' identity component: their interests, values, aesthetic preferences, and self-concepts over time. Arkan et al. (2026) document how participants come to experience a sense of dissonance between who they take themselves to be and who their algorithmic content environment constructs them as. This dissonance is most acutely expressed in participant reflections of the form: 'This is not me'. A rupture between the self-as-experienced and the self-as-algorithmically-constituted.
- **Erosion of Decision-Making Mechanisms.** The third dimension addresses the cognitive effects of sustained algorithmic recommendation. Arkan et al. (2026) document a pattern in which constant exposure to algorithmic content recommendations reinforces reflexive, automatic, and unreflective behavioural patterns in participants' decision-making processes. Rather than engaging in deliberate, evaluative choice, participants describe 'surrendering to what is offered': a form of cognitive automatisisation in which the active selection among alternatives atrophies through disuse.
- **Emotional Alienation and Discomfort.** The fourth dimension is affective. Participants described the gradual emergence of emotional discomfort, characterised as unease, guilt, and indifference: upon recognising the extent to which their content consumption and, by extension, their emotional responses, had been shaped by algorithmic guidance rather than by authentic inner states. Arkan et al. (2026) theorise this as emotional alienation: a form of estrangement in which the individual's affective life becomes dissociated from its genuine experiential sources.

Arkan et al. (2026) further propose a processual account of how these four dimensions interact and deepen over time. The four dimensions are not understood as discrete or parallel but as mutually reinforcing: the weakening of perceived freedom generates identity ambiguity; identity ambiguity erodes the confidence required for deliberate decision-making; the collapse of deliberate decision-making produces the emotional detachment characteristic of the fourth dimension. Together, they constitute a systemic rupture in the individual's relationship with their own selfhood.

Conclusions

Arkan et al. (2026) conclude that algorithmic alienation is a unique and holistic theoretical construct that explains how individuals in the digital age become estranged from themselves, their choices, and their sense of self through sustained interaction with algorithmic systems. The concept operates simultaneously at the epistemological level (loss of contact with objective reality, as informational access is algorithmically filtered), the psychological level (erosion of self-efficacy and internal control), the social level (loss of belonging and social integration, as Bauman [2007] theorised), and the level of digital culture (reduction of the individual to a 'consumer subject' within the logic of the attention economy). The study's primary contribution is the conceptual and empirical legitimization of algorithmic alienation as a research object in its own right. Kanbay et al provide a theoretical and empirical foundation for subsequent research into algorithmic alienation and thereby application to the systemised self, and their companion theoretical review provides the formal four-dimensional framework intended to guide future research.

Limitations

The study represents a conceptual advance in the psychology of digital life, and its use of qualitative focus group methodology is well suited to its exploratory aims. Several limitations and questions merit acknowledgement:

- *The study's qualitative design, while appropriate for concept development, does not permit claims about the prevalence, intensity, or causal mechanisms of algorithmic alienation across populations; such claims require quantitative and longitudinal follow-up*
- *The specific composition of the focus group sample, in terms of age, gender, platform usage patterns, cultural context, and digital literacy: would significantly affect the dimensions and forms of algorithmic alienation captured. Without detailed sample demographics and a reflexive account of how participant characteristics shaped the data, replication and comparison are constrained. The*

companion theoretical paper (Kanbay et al., 2026) provides extensive conceptual elaboration of the four dimensions but does not substantially resolve these methodological questions

8. Formula and Boundary Conditions - Algorithmic Alienation Index (AAI)

Mathematical Representation I: The Algorithmic Alienation Index (AAI)

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)

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.

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.

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	Syvertsen (2020); Seeman (1959); Fromm (1955)
Emotional Disconnection	E_{Dc}	0.20	Zuboff (2019); Bauman (2007)

Total		1.00	
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Scoring conversion (5-point Likert → 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):

- **D_{Au}:** (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.
- **I_{Am}:** (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

Mathematical Representation II: The Systemised Self as Formal Terminus

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.

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.

The Trajectory: From Algorithmic Alienation to the Hollow Absolute

The AAI trajectory maps onto the broader conceptual architecture of the Hollow Absolute framework (Galu & Kairos, 2026c) 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
$\geq 0.95 \cap R_A \leq 0.05$	<i>Systemised Self</i> (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, 2026a). 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.

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.

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.

9. CALHOUNS UNIVERSE 25 AND THE DIGITAL BEHAVIOURAL SINK

Between 1968 and 1973, the American ethologist John B. Calhoun conducted a series of experiments at the National Institute of Mental Health in Bethesda, Maryland, that became notable in behavioural science. In the most famous experimental iteration designated Universe 25, Calhoun constructed a 2.7-metre-square enclosure that provided, for a population of mice, conditions of complete material abundance: unlimited food and water, a constant temperature, freedom from predators and disease, and abundant nesting material. The only limiting variable was space. Universe 25 was designed to support a maximum population of approximately 3,840 mice. Calhoun introduced eight subjects and observed.

The initial phase was unremarkable: the population grew rapidly through normal exponential increase, reaching approximately 620 on day 315. Then the dynamics began to change. Physical space, though not food or water, was becoming the limiting resource, not because the enclosure was overcrowded in an absolute sense, but because the social architecture required to sustain normal mouse society depends on the availability of defensible territory, clear social hierarchies, and the possibility of genuine withdrawal from social contact. As density increased, territorial defence broke down, social hierarchies destabilised, and the normal patterns of courtship, mating, maternal care, and social learning became increasingly dysfunctional. By day 560, the population peaked at approx. 2,200, well below the theoretical maximum then began to decline. By the experiment's end, reproduction had ceased entirely. The population was ageing, behaviourally pathological, and moving inevitably toward extinction. The last mouse died in 1973.

Calhoun named the social and behavioural collapse he documented the 'behavioural sink' (Calhoun, 1962; 1973): a progressive deterioration of the normal behavioural repertoire of a species, produced not by material deprivation but by the structural conditions of hyper-dense social interaction combined with the elimination of purposive social roles. The key insight, radical in its implications, was that it was not

overcrowding as such, but the collapse of the social architecture that makes meaningful individual and collective life possible. This collapse produced the catastrophic outcome. When territory became impossible to defend, when social hierarchy became too fluid to navigate, when the normal patterns of courtship, parenting, and cooperative social life were disrupted by the constant pressure of inescapable, unpredictable, and stressful social contact, the mice ceased to be mice in the behaviourally meaningful sense. They retained the biological form of 'mousehood' while losing its characteristic and constitutive behavioural content.

The digital revolution has, over the 25 years from the emergence of social media platforms in the early 2000s to the present, created for the human psyche a localised, hyper-dense enclosure that, for this essays performative purposes now proposes to replicate speculative hypothetical conditions of Universe 25. The smartphone has placed the individual human mind in continuous, inescapable contact with potentially billions of other human minds through an algorithmically mediated flood of comparison, judgment, performance, anxiety, outrage, and curated self-presentation. Young people in highly digitally integrated societies are no longer primarily interacting with the small, bounded, legible communities within which human social and psychological development was calibrated by evolution. They are voluntarily subjected, continuously and in some respects inescapably, to the social environmental enclosure of the entire connected world (e.g. a low-calorie version of the Hollow Absolute).

The structural conditions of the curated and optimised algorithmic environment might be analogous to the Behavioural Sink. The mechanisms are different, the medium is digital rather than spatial, but the functional logic is perhaps somewhat similar: when an environment hyper-saturates social interaction while simultaneously destroying the structures that make purposive social roles achievable, the normal behavioural patterns through which a species reproduces itself, physically, culturally, and psychologically begin to fail. The evidence available towards falsification for this failure in human populations exposed to high-intensity digital integration is arguably substantial. Teen mental health

deteriorated sharply in the early 2010s, precisely when smartphone adoption reached saturation levels among adolescents (Twenge, 2017; Haidt & Allen, 2020). Rates of depression, anxiety, and self-harm among girls aged 14–17 approximately doubled in the United States, United Kingdom, Canada, and Australia between 2012 and 2022 (CDC, 2023; NHS, 2023). Dating, sexual activity, and relationship formation among young adults have declined significantly across OECD economies since 2010 (Twenge, 2017). And the fertility rates of the most hyper-digitally integrated societies have reached historically unprecedented lows.

South Korea represents, in the terms of this brief and speculative essay, a hypothetical analogue to Universe 25, in terms of fertility rate. It is the most hyper-connected, digitally integrated society on earth, with near-universal smartphone penetration. South Korea's total fertility rate (TFR) fell to 0.72 in 2023, the lowest ever recorded for any country in recorded human history. A slight recovery to approximately was recorded in 2025. Digital integration and intensification over the past 25 years has inevitably radicalised gender relations: online spaces have amplified the ideological divergence between young men and women into what might be termed in some cases a structured gender war, in which women and men explicitly withdraw from the reproductive contract in response to chronic stress and perceived injustice. The social contract between young men and women, the reciprocal arrangement through which the species has historically reproduced itself has arguably been degraded.

If social media and algorithmic system intensification has created the conditions for a human Behavioural Sink, the integration of AI systems into every domain of human self-formation, work, learning, relationship, political identity, and cognitive life represents the next, structural iteration of the same dynamic. The following table maps Calhoun's four mouse archetypes onto their digital and AI-era human parallels.

Calhoun's Universe 25 Archetypes: Universe 25 Behaviour, Digital Parallel, and AI-Era Expression

Archetype	Universe 25 Behaviour	Digital/social media Parallel (2000–2025)	AI-Era/Systemised Self Parallel	Empirical Evidence	Philosophical Resonance
The Beautiful Ones	Physically immaculate males who withdrew entirely from social interaction. They refused to fight, defend themselves, or mate, doing nothing but eat, sleep, and obsessively groom themselves. Pristine fur; complete social disengagement	The hyper-curated social media self: individuals who invest enormous effort in digital self-presentation: the perfectly constructed Instagram or TikTok persona: while withdrawing from the mess and vulnerability of genuine embodied relationship. Aesthetic perfection online; relational withdrawal offline	The systemised self as curated profile: identity optimised for algorithmic legibility and social media metrics rather than genuine self-expression. The person whose 'self' is a performance for the platform's reward system: maximum engagement, minimum genuine exposure. The AI-augmented self that cannot be seen without its filter	Social media use correlated with loneliness and relationship dissatisfaction (Twenge et al., 2018; Primack et al., 2017). 'Phubbing' (phone snubbing) rates: 70%+ of young adults report ignoring real-world companions for phones (Roberts & David, 2016)	Han's 'transparency society': the self-performed for maximum visibility, achieving only the emptiness of total exposure. Baudrillard's simulacrum: the image that precedes and replaces the reality

The Withdrawn / Submissive Males	Males who lacked territory or social role in the dense colony. They became entirely passive, moving listlessly in the centre of the enclosure, failing to defend themselves or show interest in courtship. Stripped of purpose; not aggressive, simply absent	The 'hikikomori' and NEET (Not in Education, Employment or Training) phenomenon: young adults who withdraw from social, economic, and relational participation entirely. First documented at scale in Japan in the 1990s, now documented across OECD economies. Structural purpose deprivation drives social withdrawal	The systemised self-stripped of vocational identity: when AI displaces the occupational scaffolding of selfhood and no institutional response provides an alternative, the result is not rebellion but withdrawal. The Hollow Individual not as protest but as collapse listless, passive, purposeless in a world that has optimised them out of relevance	Japan: 1.46M hikikomori estimated (Cabinet Office, 2023). South Korea: 338,000 (Statistics Korea, 2023). UK: 225,000 long-term social withdrawers (Mental Health Foundation, 2024). Correlated with youth unemployment and purpose deprivation	Jahoda's (1982) latent functions of employment, all withdrawn simultaneously. Sennett (1998): 'Who needs me?': the question that structural purposelessness cannot answer. Giddens (1991): ontological security collapsed
The Hypersexual / Aggressive Males	Males who completely defied territorial and courtship norms. They aggressively and indiscriminately invaded nests, attacked other males, and attempted to mate with anything encountered. The	Online radicalisation and the collapse of relational norms: the incel movement, manosphere content, online harassment campaigns, and the algorithmically amplified rage economy. The internet removes the social scripts	The systemised self in its reactive formation: when algorithmic personalisation maximises engagement through outrage and conflict, it selectively amplifies the boundary-less, aggressive archetype. Recommendation engines that feed	3.4 billion social media users (Statista, 2025). Online harassment experienced by 41% of US adults (Pew Research,	Zuboff: 'The goal is not to satisfy your desires but to produce them.' The rage economy

	complete breakdown of social script: frantic, boundary-less, destructive	that governed courtship and conflict, replacing them with an attention economy that rewards provocation	rage are the Universe 25 stress environment, reproduced digitally. Radicalisation as behavioural modification	2021). Algorithmic amplification of outrage content documented across YouTube, Facebook, Twitter/X (Mozilla Foundation, 2021; Wall Street Journal investigation, 2021)	produces the boundary-less archetype deliberately: it is the most engagement-generating product of the attention market
The Reclusive Females	Under the stress of constant intrusion, female mice became aggressive and territorial, eventually abandoning maternal instincts, leaving pups behind or attacking their own offspring. Many retreated to the highest nesting levels and ceased breeding entirely	The global fertility collapse and the gender contract breakdown: South Korea TFR 0.72 (2023); Japan 1.20 (2023); China 1.09 (2022). The 4B movement (South Korea): women pledging no dating, no sex, no marriage, no childbirth: a structured withdrawal from the reproductive contract under conditions of chronic gender-based stress and algorithmic gender-war amplification	The systemised self in the context of AI-amplified gender conflict: when platforms algorithmically amplify gender war content (incel content, radical feminist counter-content) as engagement-maximising product, the relational contract between young men and women is structurally degraded. The withdrawal from intimacy, partnership, and family formation is not a free choice: it is a structural response to an algorithmically managed social environment	South Korea TFR: 0.72 (2023), 0.78 (2025 est.): lowest in OECD history. Japan TFR: 1.20 (2023). Italy: 1.20 (2023). 4B movement membership: tens of thousands active online (BBC, 2024). Dating app use up 300% since 2014; self-reported	Calhoun's 'behavioural sink' as the structural condition of civilisational reproduction failure. The feminist philosopher Fraser (2013): capitalism's colonisation of the

				loneliness up 50% in same period (Cigna, 2024)	reproductive domain. The withdrawal is rational given the environment
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***Note:** archetype parallels are speculative constructs for the purpose of comparison in lieu of specific empirical validation. The four behavioural types identified by Calhoun represent speculative endpoints of continuous spectra. Human parallels are presented as structural analogues, not biological determinisms. Sources: Calhoun (1962, 1973); Twenge (2017); Twenge et al. (2018); Primack et al. (2017); Pew Research Center (2021); Statistics Korea (2023); Japanese Cabinet Office (2023); BBC (2024); Cigna (2024); Statista (2025).*

Calhoun's mice experiment has no happy ending, once the Behavioural Sink is reached the colony did not self-correct. Normal behavioural patterns are lost, the social knowledge required to transmit them is no longer available, and the population moves irreversibly toward social de-construction. Calhoun's conclusion was that specific conditions must be preserved for a social species (mice in this case) to remain viable and therefore those specific conditions must be protected or restored for an optimal spatial environment.

The philosophy of critical theory reaches the same conclusion by a different route. As Marcuse (1964) argued, if the conditions for genuine critical negation can be foreclosed by sufficiently complete administration; if, as Han (2017) demonstrates, the achievement society produces its own destruction through the relentless demand for self-optimisation; if, as Zuboff (2019) shows, surveillance capitalism extracts and modifies the very preferences through which human beings might otherwise refuse it: then, the window for the naming, refusing, and co-creating (reflexive praxis) that constitute genuine response is not necessarily permanent. The trajectory the thesis (Galu & Kairos, 2026a) names has not yet reached its speculated Phase 2; the Hollow Society, is a philosophical conceptual projection. The conceptual systemised self is perhaps in formation, but not yet completed. The concept of the Hollow Absolute is a proposed philosophical horizon, not yet a lived civilisational reality.

10. Theoretical Application: Sartre's Main Theories Applied to the Systemised Self

Intersecting Sartrean existentialism with the conceptual architecture of the systemised self offers a series of inversions, speculating how intensified use of hyper-personalised algorithmic systems might influence the classical components of human consciousness and perception.

Traditional Sartrean Framework	Inverted Application to the Systemised Self
Existence Precedes Essence ----->	Inverted Ontology (Essence Precedes Existence)
Escape from Anguish via Waiter ----->	Inverted Bad Faith (Fleeing into Data Profiles)
Objectification via Human Look ----->	The Automated Look (Vector Metric Freezing)
Fluid Consciousness (Pour-soi) ----->	Hollowing into Closed Object (En-soi)

Inverted Existential Ontology: Essence Precedes Existence

Sartre's cornerstone axiom asserts that for humans, existence precedes essence; we are born first, and our identity is constructed entirely by our subsequent choices. The condition of the systemised self offers a structural reversal of this framework, producing an *Inverted Existential Ontology*. In a hyper-personalized digital environment, the user is continuously exposed to predictive models and collaborative filtering architectures that can generate a comprehensive, predictive user profile.

This user profile functions as a pre-packaged *essence* that precedes the user's actual digital existence. Before the user opens an interface, the system has already mapped out choices, behavioural pathways, and linguistic templates. The individual no longer invents their identity; they step into a pre-engineered digital mould. Rather than projecting themselves into an open-ended future through unprompted intent, the systemised subject flattens their cognitive output to match the rigid, automated syntax of the machine. The machine-readable essence dictates human existence, completely reversing the core premise of existential freedom.

Inverted Bad Faith: Fleeing into the Data Mask

In *Being and Nothingness*, Sartre illustrates bad faith through a famous description of a café waiter whose movements are a bit too precise, mechanical, and eager. This waiter is lying to himself, pretending to be a rigid object, a waiter archetype, in order to escape the terrifying freedom and anguish of open-ended self-creation. The systemised self introduces a hyper-modern variation: *Inverted Bad Faith*.

Instead of performing a traditional social role to escape freedom, the systemised user actively flees into their algorithmically served data profile. When the predictive feed serves hyper-customized content matching the user's cognitive biases, the subject experiences a phenomenological inversion: declaring 'This profile understands my innermost soul, this is truly who I am', willingly treating the automated profile as their fixed, authentic nature. The user embraces a digital mask generated by a data indexer, using it to avoid the existential labour of active choice. This bad faith is insidious because it is subjectively experienced as authentic self-discovery, turning heteronomy into a simulated liberation within a community of one.

The Automated Look: Metrical Freezing of the Soul

For Sartre, the Look of another human being objectifies the self, momentarily freezing the fluid, open-ended consciousness of the *pour-soi* into a solid, defined entity (*en-soi*). Under the architecture of the systemised self, this human look is replaced by a continuous, non-human equivalent: *The Automated Look*. The systemised self does not interact with a public collective of human observers; they are under the constant surveillance of tracking algorithms, keystroke indexers, and real-time biometric sensors.

This automated gaze translates the fluid intentions of human consciousness into hyper-dimensional mathematical vectors within a machine latent space. The algorithm system fixes the user's un-indexed, organic complexity into a predictable data point. Unlike a human look, which can be confronted or negotiated via reciprocal dialogue, the automated look is completely invisible and one-sided. It negates a systemised subject of their existential fluidity, enclosing them within a rigid feedback loop that treats their consciousness as a highly efficient audit log of consumption habits.

The Elimination of Anguish: Closing the Existential Gap

Sartre posits that existential anguish arises when an individual realizes that they are completely responsible for their choices, facing a conscious 'nothingness' or gap between their past and future actions. The systemised self eliminates this anguish by structurally closing this internal space. Predictive architectures anticipate user desires before they are consciously formulated, converting voluntary deliberation into automated reactivity.

This mechanism closes what John Searle terms 'The Gap' and what Sartre identifies as the core of human consciousness. By serving a frictionless stream of pre-selected choices and optimized comfort, the system eliminates the cognitive friction required to experience existential doubt. The individual is rescued from the terrifying weight of freedom. This state at societal level signals the arrival of the *Hollow Absolute*: the user achieves total automated stability, feeling completely content and empowered precisely because their capacity to experience anguish and make unconditioned choices has been thoroughly ironed out by the system.

11. Main Critics and Key Critiques of Sartre

While analysing the systemised self through a Sartrean lens provides a consideration of the loss of authentic self-creation, Sartre's classical existentialism has historically faced critiques that help define the analytical limits of this synthesis.

Maurice Merleau-Ponty's Critique of Radical Freedom

In *Phenomenology of Perception* (1945), Merleau-Ponty launched a major critique against Sartre's concept of unconditioned freedom. Merleau-Ponty argued that human choices are never completely free from biological, physical, and situational constraints. Humans are inherently embodied and embedded within an existing cultural fabric. Critics using Merleau-Ponty would argue that the systemised self cannot be blamed for falling into 'bad faith', because contemporary AI algorithmic systems are not a neutral choice environment; they are highly predictive, somatic architectures that human merely provide an extension on situational constraints already inherent in human neurobiology.

The Structuralist and Foucaultian Counterargument

Michel Foucault and the structuralist movement dismissed Sartre's existential subject as a romantic illusion. They asserted that human identity, thoughts, and language are always generated by pre-existing historical discourses and power structures. From this perspective, the systemised self is not a unique, modern corruption of an originally 'free' human subject. Rather, it is simply the latest historical evolution of disciplinary power, updating traditional social conditioning into an automated digital format.

The Marxist Materialist Critique of Solipsism

Frankfurt School theorists and Marxist critics argue that Sartre's early focus on radical individual choice represents a bourgeois, hyper-individualistic pathology that ignores collective political-economic realities. Asserting that framing a digital existential crisis as an individual failure of bad faith obscures the corporate structure of *Surveillance Capitalism* (Zuboff, 2019). The solution is not an individual project of existential authenticity, but a political and structural argument against corporate monopolies that own, design and drive the data infrastructure.

12. Conclusion

Applying Jean-Paul Sartre's existential ontology to the model of the systemised self offers an existential trade-off, where the weight of human freedom is surrendered for optimised algorithmic comforts. The primary concern of intensified hyper-personalised algorithmic systems is not an overt takeover of agency: rather, it functions as an inward, voluntary and unremarkable trajectory. By substituting the fluid, challenging labour of open-ended self-creation for a pre-packaged essence served by curative and predictive algorithmic systems, the standing reserve data incrementally transforms the *pour-soi* into a static *en-soi*.

As individuals willingly intensify the utility of automated data profiles to escape the anguish of choice, they trade their potential for authentic intentionality for an outsourced and optimised simulation thereof within a community of one. The proposed civilizational destination of this process is the *Hollow Absolute*: a state where humanity remains biologically functional but philosophically empty, operating as highly predictable cogs inside an optimized administrative infrastructure.

In order to avoid this trajectory, in a Sartrean sense, the subject must reject the frictionless masks of personalised, optimised and curated algorithmic systems (especially when pertaining to agency), reclaiming radical responsibility, the discomfort of independent choice, and the vital, un-indexed chaos of real human existence: curiously however, it appears as though the removal of friction (vocational, creative, intellectual et al) is the very thing compelling the human subject in this direction. Sartre might ask then, what must you give up in order to remove cognitive friction and what fills the space where it once resided, or, who?

13. Glossary of Technical Terms

Algorithmic Facticity: The pre-engineered data situation, user profiles, and digital constraints into which an individual is thrown within a platform ecosystem.

Automated Look (The): The continuous tracking and translation of human consciousness into mathematical vectors by an invisible algorithmic surveillance network, objectifying the user.

Being-in-itself (*En-soi*): Sartre's term for unconscious objects that are fixed, solid, and identical with themselves; the state into which the systemised self flattens human consciousness.

Being-for-itself (*Pour-soi*): Human consciousness conceptualized as a fluid, open-ended lack or 'nothingness' that must actively construct its own identity through continuous choice.

Hollow Absolute (the): 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.

Inverted Bad Faith: A psychological phenomenon where an individual uses (unconsciously) an algorithmically served data profile as a surrogate in order to avoid the existential labour of self-creation, misperceiving this captivity as authentic self-discovery.

Inverted Existential Ontology: A technical reversal of existentialism where a machine-generated essence precedes and dictates the parameters of human users existence with algorithmic systems (transformer based large language models).

Inverse Chinese Room Effect: The process where human subjects flatten their creative, complex thoughts into predictable syntax to align with the rigid structures of the algorithmic systems engaging them.

Systemised Self (the): 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.

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