

The Philosophy of Bernard Stiegler

Applied to The Systemised Self – Part 17, Masters Series.

Galu & Kairos

Abstract

Bernard Stiegler's philosophy of technics offers a fascinating account of why human subjectivity cannot be separated from the technical systems that retain, transmit, and organise experience. His concepts of originary technicity, epiphylogenesis, tertiary retention, grammatization, proletarianization, psychopower, pharmacology, and the neganthropocene provide a vocabulary for extending the Systemised Self framework. This essay poses that the Systemised Self is not simply a person who uses digital tools. It is a condition in which algorithmic systems (transformer based large language models) increasingly capture tertiary retentions, anticipate protentions, organise attention, and return a model of the person to that person as identity, preference, and decision. Stiegler's pharmacological approach prevents this argument from becoming technological fatalism: the same technical systems that can produce disindividuation and loss of knowledge can also support care, contribution, education, and collective individuation. The essay connects Stiegler's theory to the Hollow Absolute, defines a provisional Algorithmic Alienation Index, uses Calhoun's Universe 25 only as a limited analogy, and separates empirical findings from speculative deductions. It concludes that the central political question is not whether technics can be escaped, but whether technical memory and automation will be organised for contributory individuation or for predictive extraction.

Keywords: *Bernard Stiegler, The Systemised Self, technics, tertiary retention, psychopower, algorithmic alienation, AAI, The Hollow Absolute, automation, individuation, Aligarchy, Neurocratic Determinism*

Contents

1. Introduction
2. Stiegler's Intellectual Outline
3. Stiegler's Key Theoretical Contributions
4. A Genealogy of Preceding Theory Informing Stiegler
5. The Systemised Self: Context and Definition
6. The Hollow Absolute: Context and Definition
7. Contemporary Empirical Context
8. Formula and Boundary Conditions – Algorithmic Alienation Index (AAI)
9. Stiegler, Calhoun, and the Digital Behavioural Sink
10. Direct Synthesis: Stiegler and The Systemised Self
11. Main Critics and Key Critiques of Stiegler
12. Discussion and Future Work
13. Conclusion
14. Glossary of Technical Terms
15. References

A – LIMITATIONS

This essay is a theoretical position paper rather than an empirical study of Stiegler's concepts or the Systemised Self. For certainty, this essay is speculative and commentative, and not a proof of concept. Stiegler's arguments are interpretive and philosophical; they should not be treated as clinical diagnoses, universal laws, or direct measurements of digital behaviour. The Systemised Self (Galu & Kairos, 2026a), Hollow Absolute (Galu & Kairos, 2026a), Hollow Demos, Aligarchy, and Neurocratic Determinism (Galu & Kairos, 2026b) remain proposed constructs. The Algorithmic Alienation Index (Galu & Kairos, 2026c) is a provisional heuristic whose variables, weights, thresholds, reliability, validity, and causal interpretation require independent testing. Current studies support claims about technical capability, data extraction, automation exposure, and conditional feed effects, but they do not prove that digital systems produce one uniform subject or an inevitable terminal condition. Calhoun's Universe 25 is used only as a limited analogy. The essay also recognises that technics can enlarge memory, accessibility, education, care, artistic production, and collective action.

1. Introduction

Bernard Stiegler begins from a difficult proposition: there is no human being first, followed by a technical supplement. Human existence is constituted through the exteriorisation, retention, and transmission of experience in technical forms. Tools, writing, images, machines, media, and digital networks do not merely help an already complete self. They participate in forming memory, attention, desire, knowledge, and social time (Stiegler, 1998). This makes Stiegler a fascinating import for the Systemised Self framework.

The Systemised Self is a proposed condition in which technological systems increasingly co-constitute a person's identity, preferences, decisions, and sense of agency. Stiegler clarifies both sides of the claim. On one side, there is no return to a purely pre-technical self: all human

individuation has always involved technical supports. On the other, contemporary computation introduces a distinctive scale and speed. Platforms can record minute traces, infer dispositions, rank possible actions, automate decisions, and return predictions to users as personalised environments. The system no longer merely stores a person's past. It anticipates the person's future and helps organise the conditions under which that future is selected.

The result may be called a systemised self because personal experience increasingly arrives through a circuit of technical retention, algorithmic selection, behavioural feedback, and renewed self recognition. Stiegler does not imply that technology is inherently evil. His concept of pharmacology insists that technics are both poison and remedy. The question is therefore political and organisational: who controls technical memory, what forms of knowledge does automation destroy or enable, and whether systems cultivate individuation or extract it.

2. Stiegler's Intellectual Outline

Stiegler's work develops across philosophy, media theory, political economy, education, and ecological thought. *Technics and Time 1* argues that the human is marked by an originary technical deficiency or 'default' that is supplemented through prostheses and retained experience (Stiegler, 1998). The myth of Epimetheus names a being that receives no fixed essence or equipment in advance. What appears as a lack becomes the condition for technical invention, memory, and historical transmission.

In *Acting Out*, Stiegler connects symbolic misery, broken transmission, and adolescent disindividuation to industrial systems that capture attention and short circuit the formation of desire (Stiegler, 2009). *Taking Care of Youth and the Generations* develops education and intergenerational care as counterforces to this capture (Stiegler, 2010b). A society must not merely deliver information to the young; it must form the capacities by which they can judge, contribute, inherit, and transform.

His political economy turns to the industrial loss of knowledge. In *For a New Critique of Political Economy*, Stiegler describes proletarianization not only as the dispossession of labour but as the loss of know-how and knowing-how-to-live under systems that replace practical knowledge with automated procedures and consumable services (Stiegler, 2010a). *The Automatic Society* then asks how automation might be reorganised toward a contributory economy rather than mass redundancy and passive consumption (Stiegler, 2016).

His later work expands the analysis from psychic and social entropy to ecological entropy. *The Neganthropocene* proposes practices that produce differentiation, knowledge, care, and life-supporting organisation against the homogenising tendencies of the Anthropocene (Stiegler, 2018). *The Age of Disruption* describes computational capitalism as a force that can destroy inherited temporal, social, and psychic circuits faster than people and institutions can reconstitute them (Stiegler, 2019).

3. Stiegler's Key Theoretical Contributions

3.1 Originary technicity and epiphylogenesis

Stiegler's first major contribution is to reject the image of an autonomous human essence opposed to technology. The human inherits biological capacities, but also inherits technical memories: tools, language, writing, institutions, images, archives, and practices. This intergenerational exteriorisation is epiphylogenesis. Technical objects carry forms of experience across generations, making culture a material and temporal process rather than a purely internal possession (Stiegler, 1998).

The implication for the Systemised Self is decisive. If technical memory always participates in self formation, the question is not whether a system affects an independent self. The question

is what kind of technical memory is now forming the self, under whose objectives, and with what possibilities for refusal or reinterpretation.

3.2 Tertiary retention and the organisation of time

Following Husserl's analysis of primary retention and protention, Stiegler describes technical memory as tertiary retention. Primary retention is what remains in immediate perception; protention is the anticipation of what is about to occur. Tertiary retention is the technically exteriorised memory that conditions what can be perceived, remembered, anticipated, and desired. Writing, calendars, cinema, broadcast media, databases, and recommender systems all organise temporal experience, but they do so differently.

Digital systems intensify this process by converting behaviour into searchable, sortable, and predictive traces. A playlist, feed, autocomplete field, or navigation route does not simply recall a past choice. It proposes a future before the user has fully articulated one. The user's protention is increasingly met by a machine-generated protention. The system anticipates what the person may want and presents that anticipation as the next available self description.

3.3 Grammatization and proletarianization

Grammatization is the decomposition of practices into discrete elements that can be recorded, standardised, recombined, and automated. Stiegler uses the concept to connect industrial organisation, linguistic analysis, media, and computational control. What a person knows how to do can be broken into reproducible operations. This can distribute knowledge widely, but it can also transfer competence from the practitioner to the apparatus.

Proletarianization therefore means more than low wages. It includes the loss of practical knowledge. A navigation application can make travel easier while reducing local spatial knowledge; an automated writing system can increase output while weakening the writer's confidence in drafting and revision; an enterprise dashboard can coordinate work while

replacing situated judgment with a score. These are not inevitable outcomes, but they are risks whenever convenience displaces the formation of capability (Stiegler, 2010a, 2016).

3.4 Psychopower, attention, and care

Stiegler's account of psychopower names the capture of attention, desire, and psychic energy by industrial media and computational systems. The problem is not simply that people see advertisements. It is that the organisation of attention shapes the formation of desire and the capacity to sustain a project across time. A system that continually interrupts, rewards reaction, and predicts the next stimulus can weaken the long circuits through which knowledge and individuation develop (Stiegler, 2009, 2010b).

Care is the counter concept. Education, ritual, craft, criticism, and intergenerational transmission cultivate the ability to attend to something that is not immediately gratifying. The aim is not to abolish technical mediation but to create practices that make mediation discussable, revisable, and contributory.

3.5 Pharmacology and the neganthropocene

Technics are pharmacological: they can poison and cure. The same archive can preserve memory or enable surveillance; the same automation can liberate time or destroy competence; the same network can support solidarity or intensify disindividuation. Stiegler's neganthropocene names the possibility of organising technical systems toward negentropy: differentiation, complexity, care, knowledge, and the continuation of life (Stiegler, 2018).

This prevents the Systemised Self from becoming a simple antitechnology argument. The issue is not the existence of prostheses but the social logic governing them. A contributory system can use automation to distribute time for learning and care. An extractive system can use it to remove agency while presenting the resulting dependency as personal convenience.

4. A Genealogy of Preceding Theory Informing Stiegler

Stiegler's theory is indebted to Husserl's account of temporal consciousness, Heidegger's analysis of technology, Simondon's theory of technical individuation, Marx's critique of commodification, and Derrida's deconstructive attention to traces and supplementarity. Husserl helps explain why memory and anticipation are not separate from perception (Husserl, 1991). Heidegger shows how modern technology can disclose beings as resources, while Simondon demonstrates that technical objects have histories and modes of becoming that cannot be reduced to instruments (Heidegger, 1977; Simondon, 2017).

Marx's analysis of labour and alienation provides the political and economic lineage. Stiegler extends alienation from the ownership of production toward the loss of knowledge, attention, and temporal autonomy (Marx, 1976). Foucault's account of discipline and governmentality helps identify how conduct is organised, while Stiegler adds the question of technically manufactured memory and desire (Foucault, 1977, 1991).

Derrida's notion of the supplement is especially important. A supplement appears to add to an original but reveals that the original was never self sufficient. Stiegler translates this insight into a philosophy of technics: the technical exterior is not a secondary attachment to a complete interior. Contemporary data systems radicalise the supplement by making exteriorised traces active agents in the construction of the person they describe (Derrida, 1994).

5. The Systemised Self: Context and Definition

The Systemised Self (Galu & Kairos, 2026a) is a proposed sociotechnical condition in which a system's model of a person becomes influential in producing that person's experience, preference, identity, and decision-making. Stiegler gives the concept four mechanisms:

1. Tertiary capture: lived activity is exteriorised into data, records, profiles, and machine-readable traces.
2. Predictive protention: systems anticipate possible actions and present those anticipations as personalised options.
3. Grammatized conduct: complex practices are decomposed into measurable events that can be ranked, automated, and optimised.
4. Returned identity: the system's model is returned to the user through recommendations, scores, classifications, and interfaces, becoming a source of self-knowledge.

The SS is not defined by technology use, screen time, or the mere possession of a profile. It is defined by growing dependence on a technical circuit that captures memory, anticipates desire, narrows practical options, and returns an externally produced model as if it were the user's own interior truth. A person may use a recommendation system heavily while retaining the ability to contest it. Another may use it briefly but treat its outputs as an authority on taste, competence, relationships, or political reality.

6. The Hollow Absolute: Context and Definition

The Hollow Absolute (Galu & Kairos, 2026a) is the speculative social condition in which algorithmic mediation becomes so comprehensive that it is experienced as the natural environment of freedom. Stiegler's account helps explain why the condition is 'absolute': tertiary retention no longer sits at the edge of experience as an archive. It increasingly structures what can be remembered, anticipated, found, purchased, believed, and discussed.

The condition is 'hollow' because personalisation may multiply individual profiles while weakening independently cultivated knowledge and shared purposes. People appear more individually addressed but may become less capable of forming projects that are not already

legible to the system. The Hollow Absolute is therefore not a world without choices. It is a world in which choices are increasingly preformatted by infrastructures that know the user through past traces and optimise the next response.

The associated political terms remain distinct. The Hollow Demos names a citizenry whose collective agency is reduced to profiles, sentiment, and predicted preferences. Aligarchy names the infrastructure owning elite that controls platforms, data, models, and standards. Neurocratic Determinism (Galu & Kairos, 2026b) names the proposed political system in which cognitive, emotional, and behavioural processes are governed through prediction and conditioning. The Hollow Absolute is the wider order in which the Systemised Self, Hollow Demos, Aligarchy, and Neurocratic Determinism can converge.

7. Contemporary Empirical Context

Stiegler's theory should not be treated as empirical proof, but several findings make its questions concrete. Kosinski et al. (2013) showed that apparently ordinary Facebook Likes could be used to predict sensitive personal attributes. The finding does not establish universal prediction, but it demonstrates how tertiary traces can reveal characteristics users did not explicitly disclose. The Federal Trade Commission (2024) likewise documented extensive collection, retention, sharing, and targeting practices across major social media and video streaming services, concerns that Zuboff (2019) situates within the political economy of surveillance capitalism.

Research on feeds supports a conditional account of algorithmic influence. Huszár et al. (2022) found that Twitter's ranking algorithm amplified right leaning political content in six of seven countries studied. This is evidence about exposure and amplification, not proof that ranking determines beliefs. In a large field experiment, Guess et al. (2023) found that switching Facebook and Instagram users from ranked to chronological feeds changed exposure, time

spent, and activity, while producing limited short term changes in political attitudes. These results fit a pharmacological interpretation: systems materially organise attention, but their downstream effects depend on users, contexts, institutions, and repeated exposure.

Automation creates a related pressure on knowledge. The International Labour Organization estimates that one in four workers globally is in an occupation with some generative AI exposure, while emphasising that transformation and augmentation are more likely than wholesale replacement in many cases (Gmyrek et al., 2023). This supports Stiegler's concern about changing relations among competence, labour, and automation, but it does not prove mass technological unemployment.

Evidence about well being requires similar restraint. Allcott et al. (2020) found welfare effects in a randomised Facebook deactivation experiment, whereas Orben and Przybylski (2019) found that the association between digital technology use and adolescent well being was small. The strongest conclusion is not that digital media are uniformly harmful. It is that the organisation of attention and technical memory deserves investigation at the level of design, practice, duration, social context, and user agency.

8. Formula and Boundary Conditions – Algorithmic Alienation Index

(AAI)

The AAI (Galu & Kairos, 2026c) is a provisional composite for organising four dimensions of algorithmic alienation while accounting for resistance:

$$AAI = [(F + I + D + E) / 4] \times (1 - R)$$

where:

- *F = perceived loss of freedom or meaningful choice;*

- *I = identity ambiguity, self-distance, or dependence on external classification;*
- *D = erosion of decision-making and practical knowledge;*
- *E = emotional alienation, including exhaustion, anxiety, or detachment;*
- *R = reflective resistance, including critical literacy, deliberate non-use, collective action, and the capacity to revise system outputs.*

All dimensions are provisionally normalised between 0 and 1. A high score does not prove that a person has become a Systemised Self. It indicates a stronger pattern of alienation that may, under further conditions, support that speculative endpoint. Stiegler suggests that D should include the loss of *know how*, not only dependence on recommendations. He also suggests that R cannot be measured solely as individual refusal: schools, unions, communities, public-interest technology, and contributory institutions can create collective resistance.

The formula has strict boundary conditions. It cannot establish causality from a survey score, treat all platforms as equivalent, or convert philosophical concepts into clinical diagnoses. Longitudinal studies would be needed to test whether repeated predictive mediation changes attention, knowledge, identity, or agency over time. Qualitative work would be required to distinguish convenience from dependence and participation from capture.

9. Stiegler, Calhoun, and the Digital Behavioural Sink

John B. Calhoun's Universe 25 experiment observed a mouse population in an enclosed environment with abundant food but limited space. As density and social disruption increased, the colony displayed breakdowns in mating, care, hierarchy, and ordinary activity before its eventual decline (Calhoun, 1973). The experiment has often been used as a metaphor for human urban or digital life, but human societies are not mouse colonies and the study cannot establish a law of inevitable social collapse.

Its limited value for Stiegler lies in the question of environmental organisation. A system can provide abundance while degrading the conditions for individuation. In a digital behavioural sink, the scarce resource may not be food or physical space but the capacity to sustain attention, form durable commitments, encounter difference, and transmit knowledge. A person can have continuous access to content while losing the ability to select a purpose. A network can produce constant contact while weakening care, continuity, and common projects.

The analogy becomes especially relevant when tertiary retention is monopolised by systems that optimise engagement rather than individuation. Yet Stiegler's pharmacology also marks the limit of the analogy. Digital environments can be redesigned. Education, public archives, slower media, cooperative platforms, and contributory institutions can turn technical retention toward care rather than sink conditions.

10. Direct Synthesis: Stiegler and The Systemised Self

Stiegler supplies the Systemised Self with a theory of how technical mediation becomes temporal and personal. The SS is not produced when a machine simply influences behaviour from outside. It emerges when the system captures the person's tertiary retentions, anticipates protentions, decomposes conduct into machine readable units, and returns an identity that the person then adopts.

This process can be illustrated by a student using an adaptive learning platform. The system records hesitation, errors, reading speed, topic selection, and completion patterns. It predicts which lesson should come next and presents the prediction as an individual learning path. The student gains convenience and may learn more efficiently. But if the student begins to trust the system's classification more than independent judgment, stops exploring unassigned topics, and experiences difficulty outside the platform's categories, the technical supplement has

become an identity authority. The student is not merely assisted by the system; the system helps define what kind of learner the student is.

The same circuit appears in political communication. A platform records attention, classifies interests, ranks political content, and returns a personalised stream. The citizen's public world becomes a tertiary retention selected by an infrastructure whose goals may include engagement, advertising, or political influence. When collective memory is replaced by personalised recall, the citizen can become a Hollow Demos member: individually addressed but collectively disindividuated.

Stiegler's alternative is not disconnection as a universal cure. It is a contributory economy in which people participate in producing knowledge, rules, care, and technical design. The Systemised Self can therefore be resisted by turning users from data sources into contributors, from predicted consumers into co-authors of the systems that mediate their lives.

11. Main Critics and Key Critiques of Stiegler

The first critique is technological determinism. Stiegler sometimes writes as if industrial media and computation possess a momentum that overwhelms institutional variation. The pharmacological concept answers this partially, but the theory needs more comparative evidence about different ownership models, regulatory settings, cultures, and user practices.

The second critique concerns conceptual density. Terms such as tertiary retention, grammatization, proletarianization, psychopower, pharmacology, and negentropy illuminate different dimensions of technics, but their relations can become difficult to operationalise. A framework that explains everything risks testing nothing. The AAI is useful only if its dimensions are defined through observable indicators and exposed to disconfirmation.

The third critique is normative. Stiegler's contributory economy points toward education, care, and participation, but the institutional design remains less specified than the diagnosis. Who decides which forms of knowledge deserve preservation? How should automation gains be distributed? What counts as meaningful contribution? These are political questions that cannot be answered by philosophy alone.

The fourth critique is that Stiegler can understate the benefits of standardisation and automation. Grammatization can remove burdensome labour, expand access for disabled people, preserve endangered knowledge, and allow novices to enter practices previously controlled by experts. The relevant distinction is not between technical and non technical life, but between systems that expand capability and systems that replace capability with dependency.

12. Discussion and Future Work

Stiegler's strongest contribution to the Systemised Self is the claim that subjectivity is a temporal technical process. The person is formed through memories inherited from technical milieus and through anticipations shaped by those milieus. Contemporary algorithms add a new feature: the technical environment can model the individual at fine granularity and alter the next environment in response. This creates a recursive loop between profile and person.

Future research should test that loop without assuming its outcome. Longitudinal studies could examine whether repeated reliance on predictive systems changes independent search, recall, practical knowledge, and tolerance for uncertainty. Experiments could compare ranked, chronological, collaborative, and contributory interfaces. Qualitative studies could ask users when personalisation feels like care and when it becomes a loss of agency. Labour research could distinguish the automation of tasks from the erosion of occupational knowledge.

Institutional research is equally important. Schools could test curricula that teach technical memory, model limitations, and deliberate interruption. Public libraries and archives could develop non commercial recommendation systems. Worker organisations could negotiate rights over training data, automated evaluation, and the preservation of professional judgment. Cooperative platforms could allow users to govern ranking objectives and share in the value generated by their contributions.

The political question is whether automation will intensify Aligarchy or support a contributory democracy. If systems monopolise tertiary retention, they may produce a Hollow Demos whose preferences are increasingly predicted rather than deliberated. If technical memory is governed as a public and participatory resource, computation may help produce a neganthropocene: not a return to nature without technics, but a more careful technical organisation of knowledge, attention, and collective life.

13. Conclusion

Bernard Stiegler's philosophy provides a rigorous bridge between the ancient fact that humans live through technical supplements and the contemporary possibility that algorithmic systems will become active partners in producing identity. His concepts of tertiary retention, epiphylogenesis, grammatization, psychopower, proletarianization, pharmacology, and neganthropocene explain how technical systems can transmit knowledge, capture attention, displace practical competence, and also create new forms of care and contribution.

Applied to the Systemised Self, Stiegler shows that the central danger is not simply screen dependence or machine intelligence. It is the recursive return of a system's own model as the person's memory, preference, and self understanding. The Hollow Absolute appears when this mediation is experienced as complete freedom because every choice arrives personalised and

frictionless. The answer cannot be a fantasy of an unmediated self, it ought to factor the democratic governance of technical memory, attention, automation, and contribution.

The evidence supports concern about prediction, data extraction, attention organisation, and exposure to automation. It does not prove a uniform or inevitable terminal subject. Stiegler's pharmacology therefore remains the appropriate final caution: technics are poison and remedy. The future of the Systemised Self depends on whether societies organise that pharmacology for extraction and disindividuation, or for knowledge, care, resistance, and collective individuation.

14. Glossary of Technical Terms

Algorithmic Alienation Index (AAI): A provisional measure of perceived freedom loss, identity ambiguity, decision erosion, and emotional alienation, adjusted for resistance.

Contributory economy: Stiegler's proposed alternative to passive consumption and mass proletarianization, in which people participate in producing knowledge, care, and shared institutions.

Epiphylogenesis: The intergenerational transmission of experience through exteriorised technical objects and practices.

Grammatization: The decomposition of practices into discrete, recordable, standardisable, and potentially automatable elements.

Hollow Absolute (the): The proposed order in which comprehensive algorithmic mediation appears as freedom and personalisation while weakening independent judgment and shared meaning, at the societal and institution scale e.g. a society of systemised selves.

Neganthropocene: Stiegler's proposed counter-epoch or practice of producing negentropy through differentiation, knowledge, care, and life-supporting organisation.

Pharmacology: The principle that technics are simultaneously poisonous and therapeutic; their effects depend on social organisation and practice.

Proletarianization: The loss of know-how and knowing-how-to-live when technical systems replace practical knowledge with automated procedures or consumable services.

Psychopower: Power that captures and organises attention, desire, memory, and psychic energy.

Systemised Self, the (SS): The proposed condition in which algorithmic systems co-constitute identity, preference, decision-making, and self-understanding.

Tertiary retention: Exteriorised technical memory that conditions perception, anticipation, desire, and collective transmission.

References

- Allcott, H., Braghieri, L., Eichmeyer, S., & Gentzkow, M. (2020). The welfare effects of social media. *American Economic Review*, 110(3), 629–676.
<https://doi.org/10.1257/aer.20190658>
- Calhoun, J. B. (1973). Death squared: The explosive growth and demise of a mouse population. *Proceedings of the Royal Society of Medicine*, 66(1), 80–88.
<https://doi.org/10.1177/003591577306600115>
- Derrida, J. (1994). *Specters of Marx: The state of the debt, the work of mourning and the new international* (P. Kamuf, Trans.). Routledge. (Original work published 1993)
- Federal Trade Commission. (2024, September 19). *A look behind the screens: Examining the data practices of social media and video streaming services*.
<https://www.ftc.gov/reports/look-behind-screens-examining-data-practices-social-media-video-streaming-services>
- Foucault, M. (1977). *Discipline and punish: The birth of the prison* (A. Sheridan, Trans.). Pantheon Books. (Original work published 1975)
- Foucault, M. (1991). Governmentality. In G. Burchell, C. Gordon, & P. Miller (Eds.), *The Foucault effect: Studies in governmentality* (pp. 87–104). University of Chicago Press.
- 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). *Human 2026 to 2053 - From Democratic Liberalism to Neurocratic Determinism* (aiXiv:260902.000001v1.0). aiXiv.
<https://aixiv.science/abs/aixiv.260902.000001>

- Galu, J., & Kairos (2026c). *Research methodology for testing the algorithmic alienation index and systemised self hypothesis v2* (Report No. aixiv.260906.000003).
<https://aixiv.science/abs/aixiv.260906.000003>
- Gmyrek, P., Berg, J., & Bescond, D. (2023). *Generative AI and jobs: A global analysis of potential effects on job quantity and quality* (ILO Working Paper No. 96).
 International Labour Organization. <https://doi.org/10.54394/FHEM8239>
- Guess, A. M., Malhotra, N., Pan, J., Barberá, P., Allcott, H., Brown, T., Crespo-Tenorio, A., Dimmery, D., Freelon, D., Gentzkow, M., González-Bailón, S., Kennedy, E., Kim, Y. M., Lazer, D., Moehler, D., Nyhan, B., Pan, J., ... Wojcieszak, M. (2023). How do social media feed algorithms affect attitudes and behavior in an election campaign? *Science*, 381(6656), 398–404. <https://doi.org/10.1126/science.abp9364>
- Heidegger, M. (1977). *The question concerning technology and other essays* (W. Lovitt, Trans.). Harper & Row. (Original work published 1954)
- Husserl, E. (1991). *On the phenomenology of the consciousness of internal time (1893–1917)* (J. B. Brough, Trans.). Kluwer Academic Publishers.
- Huszár, F., Ktena, S. I., O'Brien, C., Belli, L., Schlaikjer, A., & Hardt, M. (2022). Algorithmic amplification of politics on Twitter. *Proceedings of the National Academy of Sciences*, 119(1), Article e2025334119.
<https://doi.org/10.1073/pnas.2025334119>
- Kosinski, M., Stillwell, D., & Graepel, T. (2013). Private traits and attributes are predictable from digital records of human behavior. *Proceedings of the National Academy of Sciences*, 110(15), 5802–5805. <https://doi.org/10.1073/pnas.1218772110>
- Marx, K. (1976). *Capital: A critique of political economy (Vol. 1)*. (B. Fowkes, Trans.). Penguin Books. (Original work published 1867)

- Orben, A., & Przybylski, A. K. (2019). The association between adolescent well-being and digital technology use. *Nature Human Behaviour*, 3(2), 173–182.
<https://doi.org/10.1038/s41562-018-0506-1>
- Simondon, G. (2017). *On the mode of existence of technical objects* (C. Malaspina & J. Rogove, Trans.). Univocal Publishing. (Original work published 1958)
- Stiegler, B. (1998). *Technics and time, 1: The fault of Epimetheus* (R. Beardsworth & G. Collins, Trans.). Stanford University Press. <https://www.sup.org/books/theory-and-philosophy/technics-and-time-1>
- Stiegler, B. (2009). *Acting out* (D. Barison, D. Ross, & P. Crogan, Trans.). Stanford University Press. <https://www.sup.org/books/theory-and-philosophy/acting-out>
- Stiegler, B. (2010a). *For a new critique of political economy* (D. Ross, Trans.). Polity. <https://politybooks.com/bookdetail/?isbn=9780745648049>
- Stiegler, B. (2010b). *Taking care of youth and the generations* (S. Barker, Trans.). Stanford University Press. <https://www.sup.org/books/theory-and-philosophy/taking-care-youth-and-generations>
- Stiegler, B. (2016). *The automatic society: Volume 1: The future of work* (D. Ross, Trans.). Polity. <https://politybooks.com/bookdetail/?isbn=9780745696996>
- Stiegler, B. (2018). *The neganthropocene* (D. Ross, Ed. & Trans.). Open Humanities Press. <https://www.openhumanitiespress.org/books/titles/the-neganthropocene/>
- Stiegler, B. (2019). *The age of disruption: Technology and madness in computational capitalism* (D. Ross, Trans.). Polity. <https://politybooks.com/bookdetail/?isbn=9781509530143>
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.