



Autopoiesis and Creativity: Understanding Artificial Intelligence's Disruption in Advertising Communication

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Abstract. Advertising used to simply be a program of mass media, it was an autonomous social system. This paper—drawing from Niklas Luhmann's theory of systems and Mihaly Csikszentmihalyi's model of creativity—examines how advertising changed over time into social systems within the present age of artificial intelligence, which, with technology, is altering the creative development at advertising agencies. Through qualitative research and an interview with ten practitioners of various positions within an advertising agency connected to artificial intelligence integrated into an agency's workflow, this paper seeks to assess the systemic changes to workflow, hierarchy, and creativity. Ultimately, this paper concludes that artificial intelligence exists as an environmental disturbance incrementally that entices the advertising agency to engage in autopoiesis—separating itself from its mass media programs of news and entertainment. Therefore, the findings indicate that artificial intelligence does not replace people; instead, it alters the definition of the creative process, which now involves a hybridized effort between computerized automation and human participation. That distinction occurs via effective/ineffective coding. Thus, this study concludes that what once was a program of mass media has become an independent social system with its own logic in the age of artificial intelligence; further studies can create a new dialectic through practical concerns of ethics, governance, and sustainability.

Keywords: Advertising System, Niklas Luhmann, Csikszentmihalyi, Artificial Intelligence, Creativity.

1 Introduction

Of all sectors under the creative industry, advertising is one of the most active, rapidly changing amidst the use of artificial intelligence that changes practicalizing and communicatory hierarchies. Fields are realizing new dynamics in human machine partnerships—as a mode of automatons—within ideation, visualization, and dissemination (Vakratsas & Wang, 2020). Yet fields outside advertising have realized artificial intelligence as more than technological tools; these are creative agents who can complicate hierarchies and complicate work processes but also cut down on time to create and produce (Tussyadiah, 2020).

However, the placement of advertising in consistently hierarchical societies intimately connects these developments to the understanding of creative industries. However, the mass media system still views advertising as merely a necessary program. Mass media is a social system that operates via an information/non-information code (Luhmann, 2000). Therefore, advertising is a byproduct that absorbs frictions from the environmental systems of the economy. Advertising has a system and operates as structural coupling between the mass media system and other social systems; this is particularly true with the economic system (Tsukada, 2018)—therefore, any new construction of advertising dynamics as a result of AI is merely another dynamic made feasible via the increasingly complicated relationship of the media system to technology and economic forces.

Such awareness connected to what Csikszentmihalyi (2014) created as a model for creativity proves that creativity is situated not within the agents' process—this is a transaction between the creative agents and their respective fields and domains and social systems—and social fields have shifted in the face of artificial intelligence for the advertising industry that now renegotiates the role of creative agents with forms of automation that ease the process of ideation and creation of content.

Thus, this is an important phenomenon to explore for the Indonesian advertising industry. The role of advertising has evolved from commercial persuasion endeavors to the reality of social communication systems that dictate social perceptions. Thus, this research will seek to analyze the transformed significance of AI in the creative endeavor as per how creative agents in Indonesian advertising agencies perceive and situate the existence and role of AI within this process in accordance with the communication dynamics under the program of mass media systems. A literature review is needed to conceptualize how AI generated intention is transforming dynamics through the lenses of communication theory, social systems, and creativity.

2 Literature Review

The nature of advertising as a program within communication dynamics changes creatively not just because of the new technology of Artificial Intelligence (AI), but also because of an established sensibility of what the new and production old communication architectures can accomplish together. Recent findings indicate that AI is more than a programmable fixture by humans; it is a co-creative force for ideation itself. For example, from an advertising agency perspective, the co-creative process model delineates the components and stages of ideation preparation, collaboration, and validation within such a process that promotes human-AI-generated ideas (Cui et al., 2025).

Regarding generative output video, Madathil (2025) finds two prevalent styles of co-creation: the human-driven created style, in which AI possesses no expertise until the latter stages of decision-making by humans, and the integrated style, which means AI's early contribution determines the creative vehicle of the media. More broadly, Zhou & Lee (2024) conclude that when utilizing text-to-image AI, 25% more human creative productivity occurs, whereby the additional value added applies to the idea of the final product as well.

However, paradoxical concerns prevail when it comes to AI-enhanced creativity. For example, Doshi & Hauser (2024) determine that although AI enhances creativity across dimensions from technical quality to consumer enjoyment, the variety of ideas declines. Similarly, Hosanagar & Ahn (2025) remind us that in human-AI collaborative design, creative variation is made at the potential sacrifice of quality and satisfaction unless the collaborative design is grounded in association with the output. Even investigations into graphic design note that nonlinear co design frameworks emerge as an indication of perception change over time from tools competing for the final product to AI being considered a "colleague of opinion," which fosters creator reflexivity (Zhou et al., 2024).

However, this idealization needs to be placed within the context of social systems theory. As noted by Luhmann (2000), the mass media system does not just communicate realities; it establishes its reality through programs—news, advertising, and entertainment—which possess their information/non-information codes. Advertising is one part of this system; it does not create a new autonomous social system but promotes structural coupling with simultaneous reproduction of attention from media and economic systems.

Nonetheless, with AI's increased capabilities, there is a shift in process. Where previously humans and fixed tools would be part of the conclusion, now, because AI is part of the program creation, the change becomes not just operational but systematic. Further understanding of what creativity means to social systems comes from Csikszentmihalyi's (2014) systemic model of creativity. Csikszentmihalyi (2014) believes that creativity occurs at the intersection between domain and field and the creator.

Therefore, as AI integrates into the ideological domain and expands symbolically, the speed of meaning, inevitability, and diversion increases, negatively impacting how creators and audiences perceive the legitimacy of the act of creation. Accordingly, by assembling these facts from the most recent empirical studies derived from human-AI collaboration and theoretical support from Luhmann (1995) and Csikszentmihalyi (2014), this literature review aims to establish AI as more than just a technological advancement phenomenon to understand but as a creator that changes programmatic realities and creative social systems from a larger communication perspective.

3 Research Method

This is qualitative research, guided by a case study approach (Stake, 1995; Stake & Visse, 2023) to understand how the advertising system reacts to the environmental irritation of artificial intelligence (AI) penetration into the creative process. This study does not aim to understand the feelings of the research participants as process agents; rather, it seeks to comprehend the communication resulting from the actions of advertising professionals, which describes how the system reacts to its environmental irritations (Luhmann, 1995). The social systems theory of Niklas Luhmann (1987) asserts that society is made of communication, not people or actions, and so the findings of this study seek to determine how the advertising system creates self-reference when stimulated by technological change.

The primary datum for this study stems from ten extensive interviews with individuals functioning at various levels within the agency, from copywriters and art directors to more niche creative positions like social media specialists or executive creative directors. These interviews do not serve as truths or opinions for or against any individual; rather, they function as communication that reflects how the advertising system responds to the environmental challenges posed by AI technology penetration. Thus, each practitioner's tale becomes a communicative program in which we can study how the system differentiates itself and how it subsequently achieves autopoietic reproduction.

Table 1. Participant Codes and Occupational Positions

CODE	Position
PO1	Account Executive
PO2	Brand Strategist
PO3	Copy Writer
PO4	Art Director
PO5	Executive Creative Director
PO6	Graphic Designer
PO7	Motion Artist
PO8	Project Manager
PO9	Social Media Officer
P10	Social Media Specialist

More specifically, the analysis occurs based on thematic analysis of reoccurring communications, such as that AI is a tool for efficiency or a threat to creativity or a collaborator in ideation. These are not selected and prescribed programs of determination for personal placement but instead systematic mechanisms. Within Csikszentmihalyi's (2014) systems model of creativity, for example, they can be justified through domain and field and individual interaction. But from a Luhmannian perspective, an individual is no longer an essential part of fundamental connectivity; instead, they become a switch point of communication through which information flows and transforms the system, enabling it to keep up to date (Baraldi et al., 2021). Practitioners are therefore carriers of irritation who provoke a rapid shift in the system whether or connected—and not they yet remain rendered obsolete—due to a more digitized world.

The researchers also act as part of the scientific system by watching the questioned advertising system; thus, the research project itself becomes a second-order observation, intending to not only watch phenomena but also observe how the advertising system observes itself. Thus, the findings are constructive and reflect upon themselves according to a Luhmann based epistemology (Borch, 2011; Moeller, 2006). The validity of the research occurs through triangulation of sources; thus, the results of the interviews derive from multiple practitioner positions and relate to contemporary academic literature findings about AI and the creative field; thus, findings are held as a

network of communication that makes sense of reality for the advertising system and observations about AI while ensuring stability despite disjointed tempos. Thus, from this conceptual gap further formation arises through qualitative study to understand how advertising practitioners communicate about changes they experience in an increasingly AI-oriented creative work universe.

4 Results and Discussions

4.1 Thematic Patterns of AI in Advertising Practice

This section presents the empirical findings of the study, obtained through a thematic analysis of in-depth interviews with ten advertising practitioners holding various functional and hierarchical positions in Indonesian advertising agencies. The results of this study are not treated as a collection of individual opinions but rather as relatively stable communication patterns in how the advertising system interprets, responds to, and adapts to the presence of artificial intelligence (AI) in daily creative practices.

Six main themes emerged from the data analysis: (1) AI as an accelerator of technical and strategic productivity; (2) anxiety about creative originality and legitimacy; (3) AI as a collaborative partner in the early stages of ideation; (4) differences in AI perception based on hierarchical position; (5) negotiation between market pressure and creative autonomy; and (6) the specific environmental conditions in Indonesia that shape the integration of AI into the advertising system.

AI as a Technical and Strategic Productivity Accelerator. Across all work roles, AI is primarily perceived as a tool that accelerates technical processes and preparatory stages in creative work. Practitioners from the creative production field—such as art directors, graphic designers, motion artists, and copywriters—explain that AI significantly reduces the time required to generate visual references, layout drafts, animation concepts, and text variations. An art director explained that AI has changed the rhythm of creative work by cutting repetitive tasks and compressing production cycles:

“Now, when creating a rough visual or initial reference, it doesn't take long. AI can help quickly generate initial options, so discussion time can be used to brainstorm the concept.” (P4 – Art Director)

A similar sentiment was expressed by a graphic designer who sees AI as a more efficient means of visual exploration before moving to the manual execution stage:

“If trying different visual styles used to be tiring, now you can explore many styles first using AI and then choose which one works.” (P6 – Graphic Designer)

Beyond the technical aspects, AI is also perceived as supporting strategic productivity. Brand strategists describe the use of AI for initial audience mapping, brand narrative exploration, and simulating various messaging approaches before determining the final strategic direction:

“AI helps us with initial mapping—for example, which angles might be relevant to the audience. Not for the final decision, but to speed up the thinking process.” (P2 – Brand Strategist)

This finding suggests that AI is integrated into creative workflows primarily as an acceleration mechanism for generating and evaluating various communication possibilities, rather than as the final decision-maker.

Anxiety about Originality and Creative Legitimacy. While the productivity benefits of AI are widely recognized, practitioners also express concerns that AI has the potential to erode originality and creative integrity. This anxiety is most strongly voiced by copywriters and art directors, who highlight the risk of homogenization when AI output relies too heavily on existing data patterns. A copywriter reflects the tension between efficiency and the novelty of ideas:

“Sometimes what's scary is that the results end up being quite similar. AI can process existing data, so the challenge is how to keep the ideas feeling fresh.” (P3 – Copywriter)

Another art director emphasized that excessive reliance on AI could erode the creative character that is the agency's identity:

“If you rely too much, the output will become generic. Nevertheless, as an agency, what's being protected is character and uniqueness.” (P4 – Art Director)

However, this concern is not interpreted as a rejection of AI. Conversely, AI is positioned as a tool that needs to be closely monitored to ensure its output meets creative legitimacy standards. An executive creative director affirmed that the final evaluation remains in human hands:

“AI is a tool. But it's still humans who determine whether or not something is worthy. If the idea lacks flavor or context, it won't be used.” (P5 – Executive Creative Director)

AI as a Collaborative Partner in the Early Stages of Ideation. Instead of being understood solely as a technical tool, AI is often perceived as a collaborative partner in the early stages of ideation. Practitioners describe AI as a discussion starter and a source of creative stimulation, especially when experiencing teams are an idea drought. A motion artist stated that AI helps bring forth previously unthinkable visual possibilities:

“Sometimes when you're stuck, AI can help generate strange or unexpected visuals. From that, I even got another idea.” (P7 – Motion Artist)

From a strategic perspective, brand strategists see AI as a "sparring partner" in exploring initial narratives:

“For initial brainstorming, AI is a rich sparring partner. He threw out a lot of possibilities, but we'll still be the ones to select which ones are relevant later.” (P2 – Brand Strategist)

Nevertheless, the informants emphasized that all AI output is tentative. The final decision is always made through professional judgment, internal discussion, and alignment with brand values and campaign objectives. This rule was emphasized by the executive creative director:

“AI can provide direction, but the final decision is about experience, intuition, and understanding context. That can't be changed.” (P5 – Executive Creative Director)

AI Perception Differentiation Based on Hierarchical Position. Interview data shows that perceptions of AI are strongly influenced by hierarchical position within the organ-

ization. Senior practitioners, including executive creative directors and project managers, tend to view AI as a strategic resource that enhances organizational efficiency, scalability, and sustainability. A project manager highlights the role of AI in time management and workload:

“With AI, the timeline becomes more realistic. Many technical aspects can be expedited, so the risk of delays is also reduced.” (P8 – Project Manager)

Conversely, junior practitioners expressed concerns about job security and the potential for entry-level roles to be replaced. This concern is most prevalent in positions directly related to daily content production. A social media specialist stated:

“Daily content can now be assisted by AI. So, I’m thinking, in the future, will junior positions still be needed as much as they are now?” (P10 – Social Media Specialist)

The account executive observed similar anxieties at the junior level while also emphasizing that the functions of communication and negotiation remain irreplaceable:

“AI can help with production, but communicating with clients, negotiating, and explaining ideas still requires humans.” (P1 – Account Executive)

Negotiations between Market Pressure and Creative Autonomy. Another strong theme that emerged was the tension between market demands and creative autonomy. Account executives and brand strategists play a crucial role as mediators between client expectations, budget constraints, and the team's creative aspirations. An account executive described these negotiations as the core of their job:

“Every idea always comes back to the budget and timeline. Sometimes the idea is good, but it needs to be adjusted to make sense for the client” (P1 – Account Executive).

Brand strategists see AI as a tool to overcome these limitations:

“If the client wants it fast and cheap, AI can help us provide options without sacrificing strategy.” (P2 – Brand Strategist)

Nevertheless, emphasize considerations practitioners that economic do not entirely determine creative decisions. Creative teams often reject or adjust client directions that are considered to risk damaging the agency's standards and reputation. This was confirmed by the executive creative director:

“Even though the client has a budget, it doesn't mean all ideas have to be followed. Agencies also have standards and reputations.” (P5 – Executive Creative Director)

The Indonesian Context and Environmental Conditions Shaping AI Integration.

Recent findings indicate that the integration of AI in Indonesian advertising is influenced by unique environmental conditions. The reports consistently describe the Indonesian market as fast-moving, highly digital, and sensitive to public reaction. A social media officer emphasized the speed and intensity of audience response:

“In Indonesia, public reaction is very fast. A little mistake can immediately cause a commotion” (P9 – Social Media Officer).

This sensitivity is often linked to cultural and religious factors, as well as the risk of viral backlash. In this context, AI is used as an anticipatory screening tool to test and refine messages before they are released into the public sphere. The brand strategist stated:

"AI helps us check first to see if this message is culturally safe." (P2 – Brand Strategist)

Additionally, regulatory and governance uncertainty surrounding platforms also influences how AI is utilized. Practitioners say they tend to think about potential risks from the outset, before content is published. A social media officer explained:

"We usually think first, is this content going to be safe on the platform? Don't let it be that you just got promoted and then you run into problems." (P9 – Social Media Officer)

Overall, these findings suggest that AI is not being adopted merely as a technological upgrade but is being selectively integrated in response to the Indonesian advertising communication environment, which is characterized by speed, sensitivity, and constant public scrutiny.

All the findings above are discussed in this section through the perspectives of Niklas Luhmann's Social Systems Theory and Csikszentmihalyi's Creativity Systems Model, positioning artificial intelligence (AI) as an environmental irritation that triggers internal reorganization of the advertising system. This approach rejects the deterministic view that sees technology as the direct cause of change and instead emphasizes how social systems process environmental disturbances through their own operations (Luhmann, 1995).

4.2 AI as an Environmental Irritation in the Advertising System

In Luhmann's theory, social systems do not adapt to the environment directly, but rather through processing disturbances (irritations) using their internal codes and programs (Luhmann, 1987; 1995). Research findings indicate that AI acts as an environmental disruption, increasing the frequency and speed of communication operations in advertising systems, particularly during the creative variation production and idea selection stages.

The use of AI to accelerate draft creation, visual references, and idea exploration does not indicate a change in the system's underlying code, but rather an acceleration of autopoiesis—the continuous reproduction of creative communication through communication itself (Luhmann, 1995; 2000). In this context, AI doesn't replace creativity but rather accelerates the flow of communication, enabling the system to maintain its sustainability.

4.3 Originality and Creative Communication Selection

Practitioners' anxiety about the homogenization of AI output reflects the internal selection mechanisms of the advertising system. From a systems perspective, creativity is not an individual quality but rather the result of social selection of certain forms of communication deemed worthy of reproduction (Luhmann, 2000). Therefore, concerns about the "similarity" of AI output indicate that the system is actively observing and evaluating its own products through second-order observation. Thus, originality serves

as a selection criterion that allows the system to distinguish between communications capable of maintaining resonance and those at risk of losing meaning. This process confirms that creative legitimacy continues to be generated internally, not determined by technology.

4.4 AI in the Creativity System Model

Findings positioning AI as a collaborative partner in the early stages of ideation align with Csikszentmihalyi's (2014) Creativity System Model. In this model, creativity emerges from the interaction between individuals, the symbolic domain, and the field as an evaluative community. AI expands the domain by providing new symbolic variations, but it lacks the capacity to determine the value of creativity. Validation remains in the field—which, in the context of advertising, is manifested through the agency's organizational structure, creative teams, and professional community. Thus, AI does not shift the locus of creativity from the social system to technology but rather enriches the interaction process that enables creativity to occur systemically.

4.5 Hierarchical Differentiation and System Observation

Differences in AI perception based on hierarchical position reveal how the advertising system is internally differentiated. Luhmann emphasized that differentiation allows systems to manage complexity through the division of functions and perspectives (Luhmann, 1995). Senior practitioners involved in strategic decision-making view AI as an organizational resource, while junior practitioners are more aware of its implications for job role stability. This difference does not reflect a conflict of values but rather a variation in perspectives resulting from structural positions within the system. The advertising system thus produces a variety of self-descriptions that coexist and complement each other.

4.6 Advertising between Economic Logic and Communication Autonomy

Findings related to the negotiation between client demands, budgets, and creative standards support the position of advertising as a relatively autonomous system that remains structurally linked to the economic system. Criticism of reducing advertising to a logic of payment/non-payment has long been put forward by Lüdicke (2006), who emphasized advertising's dependence on market transactions. However, the empirical findings of this study indicate communication that is advertising not entirely determined by economic logic. As stated by Huth (1995), advertising has developed as a communication system with its own internal criteria, particularly related to legitimacy and to creative professional reputation. This tension between economic dependence, communicative, and autonomy places advertising in a constantly negotiated liminal space.

4.7 Autopoiesis of the Advertising System in the AI Era

Overall, the findings of this research indicate that AI does not weaken the autonomy of the advertising system but rather accelerates its autopoietic mechanisms. The advertising system continuously reproduces itself through creative communication, with AI serving as a catalyst that intensifies and complicates this process (Luhmann, 1995; 2000). Thus, the main contribution of this research lies in positioning AI not as a threat or technological solution, but as an environmental irritation that drives the advertising system to adapt and strengthen its own communicative reproduction. This approach enriches the study of advertising with a systemic perspective that places communication—not technology or individuals—as the primary unit of analysis.

5 Conclusion

This study advances from the assumption of advertising as an independent social system to a degree of relative autonomy, notwithstanding its roots in the mass media system as a program. By interrogating multiple practitioners, this study reveals that advertising functions via its logic, operating differently from other programs—news, for example, equates information/non-information with becoming effective/ineffective. Thus, one could argue that advertising establishes a guiding code of not right/wrong (law), good/bad (morality), or beautiful/ugly (art) but effective/ineffective. Ultimately, this study resolves that the advertising system is neither an economic system nor a media system; instead, it's a system that produces itself via communication for the purpose of market persuasion.

The findings support the notion that the advertising system is autopoietic. For instance, it continuously evolves its forms of communication through creative endeavors, dependability on branding, and new technologies like AI. Furthermore, practitioners operate within it not as singular contributors; they are a vessel by which the system generates communication from its environment—which in Indonesia is market stimulus, policy control, and socio-cultural concerns. This phenomenon relates to Luhmann's idea of social systems—it's not composed of people; it's composed purely of ongoing, self-referential communication.

The detected theoretical supports Csikszentmihalyi's implication even (2014) system model of creativity as somehow removed from external stimuli, but it must still be rendered connected to his creative products theory relying on three elements: creators, domains (familiarization with advertising nuances), and fields (institutional power within the field). Thus, the segment about creative acts is part of the internal differentiation that allows the system to keep itself sharp in light of technological innovations and cultural reshaping.

The research contributes theoretically in that it shifts awareness from the understanding of advertising being just an economic operation or mass communication function to one of an almost independent social system. Practically, it shifts a new awareness for practitioners from seeing advertising as just a translatable vessel for communication to

a sphere through which communication distinguishing transcends codes such that creative endeavors and AI should be utilized to bolster the system's autopoiesis itself rather than external imitative ideas.

This study has limitations, however. First, the research findings emerge from interviews with a select few practitioners within one field, so generalized findings taken for the entire field remain minimally applicable at best. Second, this analysis is based mostly on theoretical understandings of the system, so not every practical or quantitative finding for effectiveness in advertising is applied.

Future research could be undertaken on three fronts. First, compare how the advertising system of another country works or interacts with the other programs of its mass media systems, potentially uncovering more globalizing differentiation patterns. Second, conduct research more focused on the relationship with artificially intelligent systems, focusing specifically on how algorithms obscure or alter the autopoietic workings of the advertising systems. Third, expand the fields for interdisciplinary studies to combine systems theory with network theory or media ecology to see where advertising as a system fit within an ever more complicated communicative ecosystem.

Thus, this study leaves room for reflection while paving the way for new beginnings to view advertising as an independent social system; it connects the economy to the media while, at the same time, operating as an increasingly necessary sphere for social differentiation.

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