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**Generativity in language,
cognition, and artificial intelligence:
Theoretical convergences and emerging paradigms**

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From linguistic generativity to projective generativity: Natural language, generative AI, and the circulation of meaning

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BY: Rossana De Angelis and Didier Tsala-Effa

1. Introduction

Generative AI is becoming increasingly present in our professional and personal lives. It is integrated into complex tasks (data analysis, synthesis of results, etc.) as well as simple tasks (writing an email, organising a menu, etc.). Sometimes it helps us understand the complexity of a phenomenon by facilitating access to content, and sometimes it eliminates the repetitiveness of an action by automating routine tasks. The introduction of these technologies into everyday life could have an impact similar to that of calculators in modernity (Urlaub and Dessein 2024). The emergence of generative AI in our lives forces us to take a stance on both machines and their uses. We can use generative AI to produce different objects: images (DALL-E 2, Midjourney, Stable Diffusion...), texts (ChatGPT, Gemini, Perplexity, Claude, Maia...), music (Jukebox, MusicLM...), code (Copilot...), etc. Interacting with machines, we define ourselves in return through the ways we use them. To use it consciously and critically, we need to understand the dynamics of these upheavals.

This special issue of *Punctum* aims to foster a truly transdisciplinary dialogue on generativity as a linguistic, cognitive, semiotic, and technological phenomenon. By bringing together theories from semiotics, enunciative linguistics, cognitive chronogenesis, and AI, we aim to highlight both the continuities and discontinuities in the creation, transformation, and sharing of meaning.

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1. What does ‘generativity’ mean in AI wor(l)ds

When working with and on generative AI, one question arises repeatedly: What does the term ‘*generative*’ mean when applied to machines? Generative AI is a category of AI that enables the autonomous, automatic creation of data, content, and text whose outputs resemble those produced by humans. The limits of these resemblances are frequently questioned. However, to avoid a misleading debate opposing ‘imitation’ and ‘creativity,’ it is useful to clarify that there exist at least two regimes of generativity: a human generativity – theorized in different ways in linguistics and semiotics – and a generativity specific to large language models (LLMs), which we propose to describe as *projective generativity*.

The term ‘*projective*’ is chosen to meet a specific methodological need. It aims to prevent both (i) anthropomorphism, which would involve attributing generative abilities to language models that are equivalent to those of humans, and (ii) computational reductionism, which would limit these systems to simple mechanisms of reproduction or imitation. Most importantly, this term indicates an intermediate process: the ability to expand a given discursive state by projecting a plausible continuation without assuming cognitive interiority, semiotic intentionality, or the original establishment of meaning.

This terminology is situated within an explicit theoretical lineage: it extends Eco’s conception of the text as a projective machine, Rastier’s distinction between generative paths and interpretive paths, and Simondon’s analysis of technical objects as functional extensions devoid of interiority. The expression *projective generativity* thus makes it possible to name positively what LLMs actually do – namely, project operative discursive continuities – without improperly inscribing them within the theoretical frameworks developed to account for human linguistic and semiotic generativity.

This distinction appears decisive to us, as it helps explain why the outputs of LLMs can be highly convincing while, in certain cases, remaining fragile with respect to reference, veridiction, or enunciative commitment. We may thus call *projection* the fact that a language model extends a discursive context by producing the most plausible continuation in light of the regularities learned from a very large corpus. The model does not first generate an ‘upstream’ structure (rules, operations, values) that it subsequently realizes; rather, it projects *downstream* a coherent sequence within the space of textual possibilities. This projection is not mere ‘chance’: it is constrained by coherence, style, isotopies, and genres. Yet it does not operate in the same way as human generativity as conceived by the major theoretical traditions. It replaces the logic of the *possible* (or the *pertinent*), in the linguistic and semiotic sense, with a logic of the *plausible* in the statistical and cultural sense.

This rupture can be more firmly grounded by comparing this machine-based projection (LLMs) with the major definitions of human generativity (Chomsky, Guillaume, Culioli, Greimas, and Courtés). For Chomsky, generativity is first and foremost formal and combinatorial: a finite number of rules produces an infinite number of possible sentences, and the ambition of the theory is to explain the competence of a speaker capable of judging grammaticality and impossibility (Chomsky 1957, 1962). An LLM, however, does not primarily proceed by applying explicit rules, nor by computing grammaticality as a structural property; rather, it adjusts a continuation to a context within a probabilistic space (Jurafsky and Martin 2026). In other words, we move from a generativity grounded in principles (in the sense of an internal grammar) to a generativity grounded in learned regularities (in the sense of a distributional memory). This difference explains a crucial point: the machine can produce grammatically fluent sentences while, in some cases, being incapable of detecting conceptual impossibility or referential contradiction, because its regime is not one of judging possibility but of projecting plausibility.

For Gustave Guillaume, generativity is conceived as chronogenesis: a mental activity unfolds in operative time, moving from a potential of language to an actualization in discourse (Guillaume 1968, 1992). Here, to generate means to *construct*. Language takes shape as it is being thought. The rupture introduced by LLMs is therefore twofold: (i) they possess no lived operative time, only a computational dynamic; and (ii) they do not move from potentiality to act, but from one textual state to another textual state. Their ‘temporality’ is one of iteration and optimization, not that of subjective actualization. This has an important consequence for writing: the machine does not actualize a thought in the process of formation; it extends a culturally already-said, which it reconfigures at great speed and on a massive scale (Léon 2015).

For Antoine Culioli, generativity is inseparable from enunciative operations: constructing a value, stabilizing a reference, modalizing, validating, and adjusting according to an interlocutor and a situation (Culioli 1990). In other words, generating consists of producing meaning by carrying out acts of identification and validation. The projective function breaks down at a central point: the LLM does not validate. It can imitate markers of validation (“it seems that...”, “one may conclude that...”), but it lacks its own regime of referential testing. Hence, the tension observed in co-enunciation: are we really talking about the same thing? Are we genuinely negotiating the referent, or merely a discursive compatibility between utterances? (De Angelis 2025). In this framework, the semantic coherence produced by the model must be understood as internal discursive coherence, rather than as the effect of a validation procedure anchored in lived experience.

Finally, for Greimas and Courtés, generativity refers to a generative trajectory of meaning: simpler structures become more complex, are transformed, and are realized up to discursive manifestation (Greimas and Courtés 1982). The model is explicitly oriented toward the growth of meaning, axiological structuring, narrativity, and the articulation between syntax and semantics. Machine-based projection introduces an equally sharp rupture here: an LLM can produce narratives, actantial roles, isotopies, and rhetorical regularities; however, it does not begin from an axiological structure to be transformed. It does not actualize a lack, nor does it pursue a narrative program in the strong sense; it navigates within a discursive topology already constituted by human texts. What follows is a difference in kind: Greimasian theory describes a mechanism for transforming meaning, whereas the LLM performs a projective exploration of discourse that may mimic the surface structures of the generative trajectory without reproducing its underlying logic (Linzen and Baroni 2021).

These ruptures do not imply that LLMs are ‘non-generative’ or ‘purely repetitive.’ Rather, they invite us to refine our vocabulary. The generativity of LLMs is not primarily a generativity of rules (Chomsky), nor a generativity of thought in action (Guillaume), nor a generativity of validation operations (Culioli), nor a transformational generativity of meaning (Greimas). It is a projective generativity, that is, a capacity to extend and reconfigure discourses within a space of learned regularities. As such, it can produce robust effects of meaning, sometimes stylistic innovations, and novel assemblages; yet it remains structurally exposed to two forms of fragility: the fragility of reference (what is ‘said’ is not necessarily anchored in a test of reality) and the fragility of enunciative commitment (what is ‘asserted’ is not borne by a responsible subject). It is precisely this gap – between plausible production and the institution of meaning – that makes a critical examination of the notions of generation and generativity as applied to machines necessary.

2. Creativity and generativity: what is the connection?

These positions could be tested in different fields of AI applications. Regarding the use of AI in writing, for example, Castillo, Zapata, and Gamboa (2025) offer an in-depth analysis of the literature on artificial intelligence and writing in the social sciences, based on the Scopus database for the period 2019–2023. This mixed approach combines bibliometric analysis with a qualitative analysis of the most relevant articles. The results show a growing acceptance of artificial intelligence as a transformative tool for writing and communication. Five major research axes are identified: the use of AI to facilitate the writing process; the ethical implications of automated content generation; the application of AI in education to enhance writing skills; the impact of AI on journalism and the media; and the exploration of creativity in AI-assisted writing.

Eaton et al. (2026) survey the impact that artificial intelligence-based technologies are having and will have on academic and professional writing, its teaching, and practice. “In the three years since the release of ChatGPT in November 2022, countless academic articles have opened with that very (or a very similar) phrase, marking a transitional moment for the study of writing” (Violini and Vearncombe 2026: 57). The special issue of *Discourse and Writing/Rédactologie* (vol. 35, 2025) recenters writing in these works, thinking through what writing is, what it does, and why and how writing matters, in the age of AI. All articles converge around the idea of *writing as a relational act*. Writing is a major field of research for understanding the relationship between human and artificial generativity.

The centrality of creativity in AI development is further attested by computational creativity, a branch of artificial intelligence research. Many studies try to define what artificial creativity is (see, for instance, the call for papers for the special issue on “Creativity and Algorithms: Codes, Interactions, Outputs” of the review *Studi Filosofici*, 2026). By highlighting the properties of the process of generating digital artefacts through deep learning techniques, computational creativity posits the relative autonomy of computers considered as creators or co-creators (Colas-Blaise 2025). Research on computer creativity often involves comparative studies of different types of output. For example, in research on writing, Sardinha (2024) assesses the degree of similarity between texts generated by artificial intelligence (GPT) and those (written and oral) produced by humans in real-life situations. A comparative analysis was conducted according to the five main dimensions of variation identified by Biber (1988). The results revealed significant disparities between AI-generated texts and human-written texts. Several studies analyse the written output of generative AI systems such as ChatGPT. For instance, several analysts have noted that the use of statistical correlations often reproduces stereotypes present in training data (Gallegos et al. 2024). The question of generative AI as a stereotyping machine was also posed during the Semiotic Seminar in Paris (2025-2026). Furthermore, these devices can produce errors. For instance, exploring co-enunciation between a user and a machine (De Angelis 2025), the analysis of the interaction between a human and a machine highlights the dynamics of co-reference: are we talking about *the same thing* when we speak with a machine? How do users and machines negotiate *reference* during their practice of co-enunciation? In fact, LLMs only deal with the superficial structures of languages and have no concept of reference: everything it ‘knows’ is based on the analysis of texts as configurations of linguistic forms, in which it observes quantifiable recurrences and regularities: this process is what ‘recursivity’ means for GenAI. It produces semantically coherent statements, but not necessarily factually correct ones (De Angelis 2025). Furthermore, writing with and through GenAI adds another dimension to the writing process. “Writing with GPT through

the interface provided for this purpose already goes beyond the traditional concept of writing, where the production tool, whether a pen, typewriter or computer, does not *produce* text or add words to those of the author” (Fülöp 2024: 13). In fact, Fülöp (2024) proposes to call ‘sympoiesis’ (doing together) the human-machine relationship based on the process of co-enunciation producing written texts, a process that transforms writing itself in this relationship. ‘Sympoietic writing’ thus refers to writing as a process and as a product. Fülöp explores the creative potential of large language models (LLMs) based on two literary experiments with OpenAI products: K Allado-McDowel’s *Pharmako-AI* (2020), the first book co-written with GPT-3, according to the author, and Grégory Chatonsky’s *Internes* (2022), the first one in French, written with a customized version of GPT-2.

To understand the linguistic and semiotic issues of generative AIs, such as ChatGPT, we must examine both the modalities of text generation and the characteristics of the corpora on which the machines are trained. Compagno (2025) examines the contemporary relevance of the criteria of truth used to evaluate human statements. He notes that artificial statements are not true or false in the same way as those produced by humans, which calls into question our conception of language. He identifies the specificity and limitations of automatic language generation in machines’ inability to anchor themselves in reality through perception. In this issue, Massimo Roberto Beato’s article, for example, examines the relationship among language, *natural* intelligence, and *artificial* intelligence in contexts involving creative practices such as writing. He questions, in particular, the relationship between generativity and creativity. What is the connection between the two?

While the concepts of ‘creation’ and ‘creativity’ are often questioned in relation to these processes of (re)production of content and texts, as demonstrated by a wealth of recent scientific literature (Andler 2023; Franceschelli and Musolesi 2024; Gefen 2023; Gefen and Huneman 2025; Jeu de Paume and JBE Books 2025; Picca and Romele 2025; *Semiotica* vol. 262/2025, the *International Semiotics Seminars in Paris* 2024-2025 and 2025-2026), the dynamics of human-machine interaction (Grinbaum 2023), the concepts of ‘generation’ and ‘generativity’ still need to be examined: what is the relationship between the generativity of machines and the linguistic and semiotic generativity of the texts and discourses they produce? Analysing art creations, Colas-Blaise proposes that “the idea of *generativity* in AI combined with an ‘organic’ genesis; together, they bring different levels and spaces into play” (Colas-Blaise 2025: 172).

While the first level is that of machine language with its non-linguistic binary coding, the second level accommodates an assembly language that already introduces the linguistic component; the third level is that of programming

languages. We then form the hypothesis of a continuous and sensitive underlying tension (...). This foundation is characterized by blurriness and vagueness, virtuality and indeterminacy, before embeddings gradually take over, before still-precarious configurations begin to take shape and visual forms become denser, more precise, and more stable. This occurs as the superimposed layers are traversed, as we move from the latent space to the space of programming and implementation, until the moment of visualization on a screen. Underground forces exert pressure at all levels and thus serve as a 'bond' between them. (Colas-Blaise 2025: 172, translated by DeepL)

But how does the transition from one enunciative layer to another, from one semiotics to another, take place? Colas-Blaise (2025: 179) speaks of a *machine-based enunciative sequence* in which the human enunciator occupies the initial positions (programming, provision of a database, commands, prompts, etc.) and the final positions (selection of artefacts, evaluation, and interpretation). The middle stage sees a confrontation between machinic instances or agents inside machine learning. These questions invite a critical examination of what it means to generate meaning and raise the question of whether AI systems participate in the same generative logics that characterise human language and cognition.

3. An overview of generative theories in linguistics

This issue explores how different theoretical traditions have conceptualised the generative capacities of language and thought, and how these ideas intersect with contemporary developments in AI. In the following pages, we will focus on the frameworks of Noam Chomsky, Gustave Guillaume, Antoine Culioli, Algirdas Julien Greimas, and Joseph Courtés, each offering a distinct perspective on the generative processes underlying the construction of meaning.

As Jacqueline Léon (2015) shows in her book on the history of the automation of the language sciences, the rise of generative language theory has been gradual. An article by Harwood (1955), published in *Language* in 1955 – i.e., before Chomsky's first publications – and based on Harris (1951), proposes a conception of grammar as an organised system of generative rules that allows possible sequences to be deduced and distinguished from impossible sequences according to general principles identified from the analysis of the linguistic system. Harris's work (1951a: 350) concludes with a diagram representing the general structure of English sentences: an algorithm for deriving sentences from the surface layers of utterances, based on a system of general principles and applied through deductive reasoning. This already offers the beginnings of a generative grammar.

As early as 1943 with Pike, then in 1954 with Hockett, we see the emergence of hierarchical representations, which nevertheless remain limited to immediate constituents and morphemes. We have seen how Harris, as early as 1951, developed this model by integrating the notion of generation into the usual schemas, even though, in this text, *generate* is not only used for grammar but also for phonemes and lexicon. The notion of instruction (*condition then action*), which appeared in 1954 with the possibilities of automation, transformed the model into an automatable algorithm and changed the definition of grammar. Grammar became a set of instructions responsible for generating the sentences of a language. The explanation given by Harwood in 1955 led to the definition of a grammar capable of distinguishing between two sets: that of possible sentences and that of impossible sentences, transforming Harris's model into a true generative grammar. All these elements argue in favour of a continuist approach to the history of American linguistics, as opposed to a conception that would see a break, or even a revolution, between the distributionist approach and Chomsky's programme. (Léon 2015: § 45, translation with DeepL)

The institutional rise of generative grammar began in the early 1960s, when Noam Chomsky's proposals (1955) gained traction. Chomsky (1957) defines generativity as the human ability to produce an infinite number of sentences from a finite number of rules (*recursivity*). Generative theory is based on an explanatory model consisting of a 'formal grammar' – different from the normative grammars used for the description and transmission of languages – based on general principles that account for the uses of language by native speakers. "What we seek, then, is a formalised grammar that specifies the correct structural descriptions with a fairly small number of general principles of sentence formation and that is embedded within a theory of linguistic structure that provides a justification for the choice of this grammar over alternatives. Such a grammar could properly be called an explanatory model, a theory of the linguistic intuition of a native speaker" (Chomsky 1962: 533). This idea of 'generativity' is at the heart of, for example, the approach to generative AI as machines that reproduce sequences based on general principles (Modicom 2023).

At the core of Noam Chomsky's transformational-generative grammar is the idea that a finite set of syntactic rules can generate infinite grammatically correct sentences. For Chomsky, generativity is a formal, combinatorial property of language grounded in human biology – specifically, the faculty of language. His focus is on linguistic competence, the internalised system of knowledge that enables speakers to produce and comprehend novel utterances. For him, syntactic structure is at the centre of meaning construction. In this framework, generativity is

not merely creative expression but a computational process driven by recursive operations such as Merge. This perspective has profoundly influenced both theoretical linguistics and computational models of language, shaping approaches to natural language processing and AI systems designed to simulate syntactic productivity. But is it adequate to describe how GenAI works? Valle (2025) proposes a distinction between classical programming and machine learning: as the task for programming is always problem solving, in classical programming, the programmer must input rules and data to gather answers in output; in machine learning, the programmer inputs data and the required answers, while the software learns or discovers the rules. In ‘classical programming,’ results are produced starting from the formulation of algorithms (rules) and the available data. In ‘machine learning,’ the system receives data and expected answers, and generates the rules (by learning). In terms of Peircean logical operations (Peirce 1878), classical programming emphasizes deduction (a certain result strictly follows from a rule), whereas machine learning emphasizes abduction (a certain fact is proposed because of a newly established rule). Thus, machine learning can be thought of as “a set of technical methodologies for the automation of abduction” (Valle 2025: 58). From a semiotic point of view, these two approaches to programming can be characterized by the couple ‘grammar’ vs. ‘text’ and ‘allography’ vs. ‘autography.’ Based on Lotman and Uspenskij’s (1973) proposals, Eco (1976) defines an opposition between ‘replica’ (based on grammar) and ‘invention’ (based on text). A grammar defines a set of rules to be applied so that an output is generated that is formally consistent with the prescribed rules. Rather, a text acts as an example from which to infer regularities to generate a new text. “OpenAI’s chatbot offers paraphrases, whereas Google offers quotes. Which do we prefer?” asks Chiang (2023). From this point of view, generative theories can’t explain how generative AIs work.

Furthermore, in a famous article in the *New York Times*, Chomsky (2023a) argues that AIs are not ‘generative’ in the biological sense of the term, but merely ‘statistical prediction engines’ that lack the ability to judge what is *impossible* in a language. Chomsky’s point of view on AI is very close to the ‘stochastic parrot’ metaphor – using a definition coined by the linguist Emily Bender – believing that ChatGPT is nothing more than a “clumsy statistical machine for recognizing patterns that ingests hundreds of terabytes of data and extrapolates the most plausible response for a conversation or the most likely one for a scientific question. In contrast, ... the human mind is an astonishingly efficient and elegant system that operates with limited information. It does not seek to infer brute correlations from data but rather to create explanations ... Let’s stop presenting it as ‘Artificial Intelligence’ and call it what it is: ‘plagiarism software’” (Chomsky 2023a). In fact, Chomsky’s linguistic model was generative but in a different way compared to AI models, because it is not based

on a probabilistic-statistical mathematical system. This new generative model also entails ethical implications. “On the other hand, Chomsky critiques what he terms ‘generalized plagiarism’ in AI systems, a concept that extends beyond its traditional definition. He highlights the protests by writers, artists, screenwriters, and news organizations worldwide against the unrestricted and unauthorized use of vast text corpora for AI training. These systems rely on the consumption of millions of texts without proper consent or acknowledgment. For Chomsky, this represents not only an ethical breach but also an attempt by systems like ChatGPT to position themselves as ‘impostors,’ claiming equivalence with human intelligence.” (Montanari 2025: 193-194). As Norvig (2017) highlights, there are tensions and differences between statistical approaches and Chomsky’s generative theory of language and cognition: statistical language models may produce texts with success, but they are incomprehensible; they might simulate some human linguistic phenomena accurately, but they do so in a different way than humans. However, Chomsky’s model has also been criticised for its limited attention to the semantic, pragmatic, and enunciative aspects of language – areas highlighted by Guillaume and Culioli. In this issue, Maede Mirsonbol explores the shift from ‘*descriptive*’ to ‘*reflective*’ reading of generative AI images, drawing on linguistic and semiotic theories of Chomsky, Halliday, and Culioli.

Gustave Guillaume offers a distinct view of generativity through his theory of psychomechanics,¹ which frames language as a dynamic unfolding of mental processes over time – a concept he calls *chronogenesis*. For Guillaume ([1929] 1968), generativity is not purely structural but involves a temporal and cognitive activity in which thought is progressively actualized in language. Guillaume’s concepts of discourse time and system time – the former representing the temporality of speech, and the latter the latent, organising structure of language – provide a nuanced model for understanding how abstract linguistic categories (such as tense, aspect, or modality) are mentally constructed before being expressed (Guillaume 1992). This perspective positions generativity within the mental representation and transformation of language forms, anticipating cognitive linguistics and aligning with modern, embodied, and predictive models of cognition. It also raises questions about whether and how AI systems could replicate such processes. In fact, as Massimo Roberto Beato recalls in his article, the works of Gustave Guillaume (*chronogenesis*), Antoine Culioli (*mental gestures*), and Luciano Floridi (*distant writing*) show that human generativity involves cognitive and subjective operations that cannot be reduced to

¹ See *Psychomechanics of Language and Cognitive Linguistics*. Proceedings of the 11th International Colloquium of the AIPL Montpellier (France), 8, 9 and 10 June 2006. Texts edited by Jacques Bres, Marc Arabyan, Thierry Ponchon, Laurence Rosier, Renée Tremblay, Pierrette Vachon-L’Heureux, Editions Lambert-Lucas, Limoges, 2007.

syntax alone. Danilo Pettrassi explores how Luciano Floridi's concept of 'distant writing' reconfigures the nature and future of literature in the era of Large Language Models (LLMs). Building on Franco Moretti's (2000) notion of 'distant reading,' Floridi demonstrates how authorship shifts from direct to indirect textual production, mediated by generative AI, transforming the writer into a meta-author: writing becomes 'wrAIting.' Where distant reading uses computation to interpret what already exists, distant writing uses computation to generate what could exist. In this model, the traditional authority of the author dissolves, while the reader's role expands to that of a co-designer and active interpreter of generative, machine-mediated texts. Eaton (2023) speaks about 'hybrid writing' and moves us beyond binary thinking about human vs AI-generated text, asserting that "hybrid writing co-created by human and artificial intelligence is becoming prevalent and will soon become the norm. Text generated by artificial intelligence tools is not static. It can be edited, revised, reworked, and remixed. The result can be a product that is neither fully written by a human nor by an AI, but rather a hybrid. Trying to determine where the human ends and where the artificial intelligence begins is pointless."

Antoine Culioli (1990) takes a different approach, defining generativity not as rule-following or temporal construction but as a series of mental gestures that structure meaning. Culioli emphasises that language is not a fixed code but a procedure in which speakers perform operations of representation, predication, and validation to construct reference and value in context. These mental gestures are abstract, recursive, and combinatorial, yet they are fundamentally contextual – shaped by the specific situation of enunciation. For Culioli, generativity involves a constant negotiation of meaning through operations that are both cognitive and linguistic. The speaker is an agent of meaning, navigating virtual structures and adapting them to communicative goals. This view contrasts Chomsky's formalism and Guillaume's temporal psychomechanism by emphasising variation, subjectivity, and the epistemic dimensions of language. Culioli's ideas have influenced both linguistic analysis and discourse theory, with implications for human-machine interaction – particularly regarding how AI could simulate inferential, context-sensitive language use.

4. Generativity from linguistics to semiotics

The common use of 'generation' may suggest an epistemic link between Chomskyan generativity, the Greimasian generative path (*parcours g n ratif*), and modern systems of Generative AI. In this issue, Marco Giacomazzi's article reconstructs the relationships between contrasting epistemologies (the structural semiotic project vs. Chomskyan generative syntax) to distinguish and semiotically analyse AI-driven textual generation. While the Chomsky-Greimas relationship has been

extensively studied and debated, its dialogue with the epistemological presuppositions of *General Purpose Chatbots* (e.g., ChatGPT, Gemini) remains underexplored. Giacomazzi also reaffirms the profound anthropological relevance of Greimasian generativism concerning sense as it is structured in the lived world, as well as the importance of not separating semantics from pragmatics, as indicated by Umberto Eco's interpretative framework of semiotics.

In semiotics, Algirdas Julien Greimas and Joseph Courtés (1982) provide a structural account of generativity that shifts the focus from grammar or cognition to semiotic systems and narrative logic. In their *Semiotics and Language: An Analytical Dictionary*, they define generativity as a “generative trajectory of meaning,” structured through a series of transformational levels: deep structures, surface structures, and discursive manifestations. For Greimas and Courtés, generativity is not simply about producing linguistic forms or cognitive constructs but also about the systematic unfolding of meaning from abstract, actantial configurations to concrete textual expressions. The generative process involves semantic articulation (semic level), syntactic organisation (actantial and narrative structures), and discursive realisation (enunciative and stylistic forms). This approach highlights the transformation of meaning across multiple levels, balancing structural regularity with discursive variation. It provides a valuable framework for analysing how AI systems generate coherent narratives or simulate storytelling, raising questions about whether these systems merely imitate surface structures or engage in deeper semiotic processes.

In structural semiotics, generativity is conceived very differently, also from the Chomskyan conception, although semiotics has borrowed some of the concepts from it – it is linked to metalinguistic constructions. ‘Deep’ and ‘surface’ are spatial scientific metaphors relating to the axis of verticality, designating the starting position and end point of a chain of transformations. This chain represents a process of generation, a generative trajectory – the generative path (*parcours*) as it has been proposed, as it is well known, by Greimas and his school (Greimas and Courtés 1993 [1979]) – within which the various stages are distinguished by an increase in the degree of meaning complexity. The operational nature of these structural stages justifies the questioning and arrangement that the theory must carry out. In semiotics, the use of this dichotomy fits within the general theory of meaning generation. It accounts for the generative principle, where complex structures arise from simpler ones, and the principle of ‘meaning growth,’ where each structural complexification produces an extension of meaning. Therefore, each domain of the generative trajectory includes both syntax and semantics.

The notion of depth is relative, with each domain of discourse generation referring to a 'deeper' domain, leading to the deep structure par excellence: the elementary structure of meaning in Greimas' structural semiotics. Could this stratified structural model, in comparison with the idea of generativity in AIs, be useful for the advancement of knowledge and further development of AI forms? Considering that this concept of generativity is intrinsically linked to the enrichment and growth of meaning complexity – and, by extension, to invention and creativity – it is worth exploring another critical issue in contemporary AI: the phenomenon of so-called 'hallucinations.' These hallucinations represent unique and 'uncontrolled' ways of generating possible meanings, which merit closer examination as we seek a more nuanced understanding of AIs' capabilities and limitations. (Montanari 2025: 201-202)

In this issue, Marion Colas Blaise compares generative Artificial Intelligence (GenAI) with Greimas's generative trajectory of meaning (GTM). She shows that, despite similarities, deep learning algorithmic models, which seek to produce verbal and visual texts by involving spaces (latent space, implementation, and visualisation spaces), are not generative in the sense understood by semioticians (semiotic square, narrative structures, discursive structures, actantial conversions, modalizations, aspectualizations, etc.). She asks whether the GTM offers a productive framework for understanding the specificities of contemporary models of algorithmic processes and, conversely, whether GenAI can provide new insights to inform the development of the former. The challenge is to understand GenAI through GTM, and vice versa. In fact, algorithms that generate language are black boxes that we understand at a micro-level functioning, and at the general level of fundamental principles, but we don't understand at a macro-level functioning: we know how statements are produced in general, but we do not know how a particular individual statement is produced in a specific case. This is what computer scientists call the problem of explainability (Mersha et al. 2024). What elements or criteria ensure the connection between the micro- and macro-levels? For instance, Massimo Roberto Beato's article traces the tension between two registers of meaning generation: one formal, combinatorial, and distributive; the other temporal, intentional, and transformative. The author proposes to call this tension, which is internal to the generative process of meaning, the *double register of generativity*. This double register explains why comparisons between human and artificial modes of meaning creation often fail due to an incompatibility of categories: machines operate according to a different ontological logic than humans, namely, distributional semantics and contextual attention rather than chronogenetic and enunciative operations.

We could then propose a distinction between Greimas' 'generative path,' completed by Rastier's 'interpretative path,' and the 'generative processing' specific to machines: *if the first one supposes choices which can (not) reproduce the most popular uses, the second one supposes directions which reproduce the most popular choices.* As Danilo Petrassi shows in his article, when observing the relationships between author, reader, and machine in the interpretation and generation of texts, there is not necessarily equivalence between process and treatment. For example, Dondero (2025) explores the relationship between images and databases, particularly through the Midjourney generative artificial intelligence model. First, she examines image databases as sources for computational image analysis; second, she studies image databases as sources for *image generation*. Image analysis and generation are studied through the concept of 'enunciative praxis' to understand the generation of new images from old and traditional images, or in other words, the generative processing of downstream data to produce upstream data. According to Fontanille (2003), the notion of 'enunciative praxis' refers to a dynamic between the sedimentation of existing schemas of signification (virtualization) and the creativity inherent to any ongoing semiotic process (realization). According to Dondero, "this dynamic of the fundamental modes of existence in discourse practices has the merit of valuing the complexity of our linguistic operations caught between creativity and sedimentation, because it multiplies the steps and the nuances in this process" (2025: 112). More specifically, the process of image generation in cooperation with generative AI such as Midjourney or DALL-E is envisaged as a process of human-machine co-enunciation (D'Armenio, Deliège and Dondero 2024) guided by 'patterns.' Furthermore, as Marion Colas-Blaise points out in her article, the terms 'level' and 'layer' must be used with caution. LLMs (Large Language Models), which form the basis of GenAI, involve operations that take place in 'latent spaces' (Leveau-Vallier 2023) in which the vector, i.e., a set of continuous values, has no internal layers, which does not mean that there are no different *subspaces* of the vector that can be correlated with different types of information. What does 'path' mean if we cannot identify the stages? Kim (2025) proposes a multi-stage approach to image generation across the micro, meso, and macro levels. The analysis moves from a micro examination of plastic characteristics and the translation of text into images, to the meso level of enunciation, narrativity, and causality, to the macro level of social stereotypes, ideology, creativity, rhetoric, truth, and inference. However, since AI processes data produced and mediated by humans, organized into more or less visible layers of text and images, instead of talking about 'generative AI,' we should talk about 'regenerative AI.'

In generative AI, recursivity does not have the same meaning as in linguistics or semiotics.

A generative pre-trained transformer, or GPT (Generative Pre-trained Transformer), is a text generation tool that relies on deep learning performed on a large amount of text collected from the web, written (for the most part) by humans. The corpus includes documents in several languages without distinguishing between them from a linguistic point of view. It is the learning process that enables the model to identify recurring patterns in the sequences and then produce texts in the language of the query. However, the quality of the response remains uneven in the case of languages that are less represented in the corpus, which is largely dominated by English: GPT-2 was trained on the WebText dataset created by OpenAI from the content of sites identified through 45 million links from Reddit. However, some 97% of discussions on the platform are in English, and we can assume a similar (if not even more skewed) proportion for the referenced sites. GPT-3, on the other hand, is based on a larger and more refined corpus: it includes the 2016 to 2019 archives of Common Crawl, a monthly collection of web data, as well as an augmented version of WebText, two collections of Google books, and English-language Wikipedia. 92.65% of the overall corpus is in English, with French in second place with only 1.82%, followed by German (1.45%). While these corpora represent a considerable portion of humanity's written knowledge and communications in the 21st century, they are far from containing 'the entire Internet' and inevitably contain numerous historical, linguistic, geographical, cultural and social biases that reproduce those of the web and reinforce some of them. (Fülöp 2024: 9-10)

5. From the generative trajectory to discursive projection

The cross-examination of linguistic and semiotic theories of generativity and the functioning of large language models leads to a decisive theoretical shift. The central question is no longer whether generative AI systems are 'creative' or whether they 'understand' language in the human sense, but rather how to identify the regime of generativity in which they operate. The introduction of the notion of *projective generativity* makes it possible to move beyond reductive alternatives – imitation versus invention, calculation versus intelligence – that still structure much of contemporary debate.

The traditions examined show that human generativity, whether conceived as formal (Chomsky), chronogenetic (Guillaume), enunciative (Culioli), or semiotic (Greimas and Courtés), always rests on a common principle: linguistic production is anchored in an instance that finds meaning – internal competence, cognitive

activity, validation operations, or axiological structures. In these frameworks, to generate means to produce novelty through rules, operations, or transformations that engage, to varying degrees, a subject, a temporality, and a normativity.

The generativity of LLMs belongs to a different regime. It is neither deficient nor derivative in a weak sense, but heterogeneous. It does not proceed through the institution of meaning, but through the conditional projection of plausible discursive continuities based on regularities sedimented in corpora. This projection is not arbitrary: it is constrained by genres, styles, isotopies, and argumentative and narrative forms. Yet it is not foundational either: it neither validates nor establishes axiological hierarchies, nor does it assume responsibility for its products. As Laticia Moraes and Silvia Sousa show in their article, from a projective perspective, through digital technologies – and the objects they produce – meaning emerges from individual actions, ethical conduct, collective organization, and even the creation of axiological configurations of aesthetic taste.

Therefore, *projective generativity* must be understood as a power of circulation and reconfiguration of meaning, rather than as a power of institution. LLMs do not create meaning *ex nihilo*; they set it in motion, amplify it, redistribute it, and make it available for new human interpretive trajectories. In this sense, they occupy a novel intermediate position within the contemporary ecology of language: neither mere passive tools nor autonomous semiotic subjects, but projective dispositifs embedded in chains of co-enunciation.

This distinction has several major consequences. On a theoretical level, it invites us to rethink generativity not as a univocal property of language, but as a stratified concept, capable of designating ontologically distinct regimes. At the methodological level, it requires that AI-generated outputs not be evaluated exclusively by criteria developed for human production, at the risk of overlooking their specificity. Finally, on an anthropological level, it sheds light on the contemporary transformation of practices of writing, creation, and interpretation: what is shifting is not human creativity itself, but its technical and projective environment.

Understood in this way, projective generativity does not mark the end of human generativity, but rather its being placed in tension with a new type of semiotic agent. It compels us to shift the classic question – “who produces meaning?” – toward a more productive one: how does meaning circulate, reconfigure itself, and become redistributed within hybrid dispositifs associating humans and machines? It is within this space of circulation, rather than in the sterile opposition between human and artificial intelligence, that the linguistic, semiotic, and cultural stakes of generative AI are now being played out.

References

- Andler, Daniel 2023. *Intelligence artificielle, intelligence humaine: la double énigme*. Paris: Gallimard.
- Biber, Douglas 1988. *Variation Across Speech and Writing*. Cambridge: Cambridge University Press.
- Bres, Jacques, Marc Arabyan, Thierry Ponchon, Laurence Rosier, Renée Tremblay and Pierrette Vachon-L'Heureux (eds.) 2007. *Psychomécanique du langage et linguistiques cognitives*. Actes du XIe Colloque International de l'AIPL Montpellier (France), June 8-10, 2006. Limoges: Lambert-Lucas.
- Castillo, V.S., Zapata, R.E. and A.J.P. Gamboa 2025. Artificial Intelligence and Writing: Trends and Future Directions in the Social Sciences. In: Farhaoui, Y., Herawan, T., Lucky Imoize, A., and A.E. Allaoui (eds.), *Intersection of Artificial Intelligence, Data Science, and Cutting-Edge Technologies: From Concepts to Applications in Smart Environment*. ICAISE 2024. *Lecture Notes in Networks and Systems*, vol. 1397. Springer. https://doi.org/10.1007/978-3-031-90921-4_68
- Chiang, Ted 2023. ChatGPT Is a Blurry JPEG of the Web. *The New Yorker* 100, February 9. <https://www.newyorker.com/tech/annals-of-technology/chatgpt-is-a-blurry-jpeg-of-the-web>
- Chomsky, Noam 1955. *The Logical Structure of Linguistic Theory*. Boston, MA: The MIT Press.
- Chomsky, Noam 1957. *Syntactic Structures*. Paris/The Hague: Mouton.
- Chomsky, Noam 1962. Explanatory models in linguistics. In: Ernest Nagel, Patrick Suppes and Alfred Tarski (eds.), *Logic, Methodology and Philosophy of Science*. Stanford, CA: Stanford University Press, 528-50. French translation 1974. *Modèles explicatifs en linguistique*. J. Mehler and Georges Noizet (eds.), *Textes pour une psycholinguistique*. Paris/The Hague: Mouton.
- Chomsky, Noam 2023a. The false promise of ChatGPT. *New York Times*, March, 8. <https://www.nytimes.com/2023/03/08/opinion/noam-chomsky-chatgpt-ai.html>
- Chomsky, Noam 2023b. Noam Chomsky speaks on what ChatGPT is really good for. *Common Dreams*. <https://www.commondreams.org/opinion/noam-chomsky-on-chatgpt>
- Colas-Blaise, Marion, 2025. La machine crée, mais énonce-t-elle? Le computationnel et le digital mis en débat. *Semiotica* 262: 147-187. <https://doi.org/10.1515/sem-2024-0188>
- Compagno, Dario 2025. La notion de vérité à l'épreuve de l'intelligence artificielle. *Semiotica* 262: 25-49. <https://doi.org/10.1515/sem-2024-0201>
- Culioli, Antoine 1990. *Pour une linguistique de l'énonciation*. Paris: Ophrys.
- Franceschelli, Giorgio and Mirco Musolesi 2024. On the Creativity of Large Language Models. *AI & Soc.* <https://arxiv.org/abs/2304.00008>

- D'Armenio, Enzo, Deliège, Adrien and Maria Giulia Dondero 2024. Semiotics of Machinic Co-Enunciation. *Signata* 15. <http://journals.openedition.org/signata/5290>
- De Angelis, Rossana 2025. La rédaction assistée par l'Intelligence Artificielle générative. *Signata* 16. <http://journals.openedition.org/signata/5817>
- Dondero, Maria Giulia 2025. Semiotics of artificial intelligence: enunciative praxis in image analysis and generation. *Semiotica* 262: 111-146.
<https://doi.org/10.1515/sem-2024-0195>
- Dondero, Maria Giulia, Alonso Aldama, Juan and Massimo Leone 2025. Aspects of AI semiotics: enunciation, agency, and creativity. *Semiotica* 262: 1-3.
<https://doi.org/10.1515/sem-2025-0014>
- Eaton, S.E. 2023. Postplagiarism: transdisciplinary ethics and integrity in the age of artificial intelligence and neurotechnology. *International Journal for Educational Integrity* 19(1): 1-10. <https://doi.org/10.1007/s40979-023-00144-1>
- Eaton, C., Belmonte, I., Enaya, T., Flood, S., Khalil, Z., Makwanda, A., Shah, M. M. A., Toma, A., Wang, T. and C. Yu 2026. Where We're At, What We Must Know, and Where We Can Go: A Systematic Review of Research about Writing and Artificial Intelligence. *Discourse and Writing/Rédactologie* 35: 89-113.
<https://doi.org/10.31468/dwr.1167>
- Eco, Umberto 1976. *A theory of semiotics*. Bloomington, IN: Indiana University Press.
- Fontanille, Jacques 2003. *Semiotics of discourse*. Berlin: Peter Lang.
- Lotman, Jurij M. and Boris A. Uspenskij 1973. *Tipologia della cultura*. Milano: Bompiani.
- Floridi, Luciano 2025. Distant Writing: Literary Production in the Age of Artificial Intelligence. *CEDE Research Paper*. <http://dx.doi.org/10.2139/ssrn.5232088>
- Fülöp, E. 2024. Écrire-avec l'intelligence artificielle, ou l'esthétique de la sympoïèse. *Nouveaux Cahiers de Marge* 8.
<https://publications-prairial.fr/marge/index.php?id=956>
- Gallegos, I. O., Rossi, R. A., Barrow, J., Tanjim, M. M., Kim, S., Dernoncourt, F., Yu, T., Zhang, R. and N. K. Ahmed 2024. Bias and Fairness in Large Language Models: A Survey. *Computational Linguistics* 50(3): 1097-1179.
https://doi.org/10.1162/coli_a_00524
- Gefen, Alexandre (ed.) 2023. *Créativités artificielles. La littérature et l'art à l'heure de l'intelligence artificielle*. Paris: Les Presses du réel.
- Gefen, Alexandre and Philippe Huneman 2025. Philosophies de l'IA: penser et écrire avec les LLM. *Intellectica* 81:7-13.
- Greimas, Algirdas Julien and Joseph Courtés 1982. *Semiotics and Language: An Analytical Dictionary*. Bloomington: Indiana University Press.
- Grinbaum, Alexei 2023. *Parole de machines. Dialoguer avec une IA*. Paris: HumenSciences.
- Guillaume, Gustave 1968 [1929]. *Temps et verbe*. Paris: Champion.
- Guillaume, Paul 1992 [1937]. *La psychologie de la forme*. Paris: Champs-Flammarion.

- Harris, Zellig Sabbettai 1951. *Methods in Structural Linguistics*. Chicago, IL: University of Chicago Press.
- Harwood, F. W. 1955. Axiomatic syntax. The construction and evaluation of a syntactic calculus. *Language* 31-3: 409-413.
- Jeu de Paume and JBE Books 2025. *Le monde selon l'IA. Explorer les espaces latents*. Paris: JBE Books / Jeu de Paume.
- Jurafsky, Daniel and James H. Martin 2026. *Speech and Language Processing: An Introduction to Natural Language Processing, Computational Linguistics, and Speech Recognition with Language Models*, 3rd edition.
<https://web.stanford.edu/~jurafsky/slp3>
- Kim, Sung Do 2025. A Semiotic Analysis of Generative AI Multimodality: An Epistemological Inquiry for an Interpretation and Evaluation Model. *EPISTÉMÈ* 36: 1-25.
<https://doi.org/10.38119/cacs.2025.36.1>
- Leveau-Vallier, Alban 2023. Comprendre l'IA générative: qu'est-ce que l'espace latent? *Hyperthèse* 3. <https://doi.org/10.58079/prpn>
- Léon, Jacqueline 2015. *Histoire de l'automatisation des sciences du langage*. Lyon: ENS Éditions. <https://doi-org.ezproxy.u-pec.fr/10.4000/books.enseditions.3741>
- Linzen, T. and M. Baroni 2021. Syntactic Structure from Deep Learning. *Annual Review of Linguistics* 7:2.1-2.18.
- Lotman, Jurij M. and Boris A. Uspenskij 1973. *Tipologia della cultura*. Milano: Bompiani.
- Mersha, Melkamu, Khang Lam, Joseph Wood, AlShami Alia and Jugal Kalita 2024. Explainable artificial intelligence: A survey of needs, techniques, applications, and future direction. *ArXiv*.
<https://doi.org/10.48550/arXiv.2409.00265>
- Modicom, Pierre-Yves 2023. ChatGPT ou le perroquet grammairien. *AOC*, November 14.
<https://aoc.media/analyse/2023/11/13/chat-gpt-ou-le-perroquet-grammairien/>
- Montanari, Federico 2025. ChatGPT and the others: artificial intelligence, social actors, and political communication. A tentative sociosemiotic glance. *Semiotica* 262: 189-212.
<https://doi.org/10.1515/sem-2024-0210>
- Moretti, Franco 2000. Conjectures on world literature. *New Left Review* 1: 54-68.
- Norvig, Peter 2017. On Chomsky and the two cultures of statistical learning. Personal website. <https://norvig.com/chomsky.html>
- Peirce, Charles Sanders 1878. Deduction, induction, hypothesis. *Popular Science Monthly* 12: 470-482.
- Picca, Davide and Alberto Romele 2025. *ChatGPT e le intelligenze artificiali. Una biografia intellettuale*. Fandango.
- Sardinha, Tony Berber 2024. AI-generated vs human-authored texts: A multidimensional comparison. *Applied Corpus Linguistics* 4(1): 100083.
<https://doi.org/10.1016/j.acorp.2023.100083>

Séminaires de Sémiotique de Paris 2024-2025. *Intelligence artificielle générative et nouveaux enjeux sémiotiques. Traduction et appropriations créatives.*

<https://ceserh.hypotheses.org/4410>

Urlaub, P. and E. Dessein 2024. When Disruptive Innovations Drive Educational Transformation: Literacy, Pocket Calculator, Google Translate, ChatGPT. An MIT Exploration of Generative AI: From Novel Chemicals to Opera. *mit-genai*

<https://doi.org/10.21428/e4baedd9.cb55d9a3>

Valle, Andrea 2025. From grammar to text: a semiotic perspective on a paradigm shift in computation and its usages. *Semiotica* 262: 51-69.

<https://doi.org/10.1515/sem-2024-0187>

Valle, Andrea and Alessandro Mazzei 2017. Sapir-Whorf vs. Boas-Jakobson: Enunciation and the semiotics of programming languages. *Lexia* 27–28: 505–526.

Violini, C. and E. Vearncombe 2026. Introduction: The Present and Future(s) of Writing in the Age of Artificial Intelligence/Le Présent et le(s) Futur(s) de la Rédaction à l'ère de l'Intelligence Artificielle. *Discourse and Writing/Rédactologie* 35: 57-65.

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Some semiotic dimensions of generative AI: Structure, generativity, and relational epistemology

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BY: Marco Giacomazzi

ABSTRACT

The common use of ‘generation’ may suggest an epistemic link between Chomskyan generativity, the Greimasian *parcours génératif*, and modern systems of Generative AI. This article, however, reconstructs the relationships between contrasting epistemologies – specifically, the structural semiotic approach *vs.* Chomskyan generative syntax – to distinguish and semiotically analyse AI-driven textual generation. While the Chomsky-Greimas relationship has been extensively studied and debated, its relevance to the epistemological presuppositions of *General Purpose Chatbots* (e.g., ChatGPT, Gemini) remains underexplored. Generative AI's operation thus provides an empirically observable basis for semiotic analysis *and* reflection on language, relaunching the semiotic project to address challenges arising from the widespread use of these linguistic technologies. This study also reaffirms the profound semiotic-anthropological relevance of Greimasian generativism concerning sense as it is structured in the lived world, as well as the importance of not separating semantics from pragmatics, as indicated by Umberto Eco's interpretative framework of semiotics.

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Introduction

The rise of generative artificial intelligence (GenAI) has shed new light on the concept of *generation* in linguistic and philosophical discourse. The current, common usage of the term generation in systems like *ChatGPT*, *Gemini*, *Claude*, and *Deepseek* might suggest that there can be traced a cohesive epistemic link spanning Noam Chomsky's formal generativity (1957), Algirdas Julien Greimas' *parcours génératif* (Greimas and Courtes 1979; Greimas 1983), and modern computational models that reproduce linguistic performance. However, this presumed continuity masks fundamental theoretical incompatibilities.

This paper proposes a path through theoretical and technical models of language to clarify the differences between homonymous concepts and to deepen understanding of semiotic processes related to AI. GenAI systems model language's semantic space by mapping relationships between discrete units, called *embeddings*; this mapping creates a vectorial and topological model of the semantic space across different languages. It will be argued that this function is rooted in a particular reception of structural epistemology within the North American community of linguistic studies, thereby enabling the emergence of the distributional hypothesis in linguistics, which in turn influenced the development of Natural Language Processing (NLP). An investigation of the conditions of possibility of these AI systems will frame how their use reaffirms key epistemological principles of semiotics, from relationalism to a critique of Chomskyan syntax. The core challenge posed by these modern systems lies in their underlying technical *dispositifs*¹ – in a Deleuzian (1989) and Latourian (2012) sense. Large Language Models eschew reliance on explicit, innate rules, instead relying on a mathematical model of the semantic space which emerges from vast quantities of linguistic data. To this architecture, which grants linguistic competence, a *generative* component must be added.

Through this research paper, multiple dimensions of meaning will be analysed. First, a theoretical inquiry on the difference between linguistic theories will be pursued: the first section (§1) of the paper will discuss the premises of different approaches to language. In the second section (§2), we will draw a connection between these linguistic theories and the development of NLP and GenAI. This will help to understand how GenAI *works* – both in the architecture of the *Large Language Model* and the assemblage of the *Transformer* – and how its manifestation of linguistic abilities differs from human language phenomena. Even if the Natural Language Processing theories that shaped

¹ Even if the term *dispositif* is commonly translated with *device*, the meaning adopted here is the one outlined by Gilles Deleuze in his theory of how knowledge and power are constantly *assembled*, co-implicated and distributed via heterogeneous networks of different modes of existence; the same term – with little explicit reference to Deleuze, but many analogies – is adopted by Bruno Latour to indicate the series of relations deployed in the use of an artifact. In the latest development of his *Actor-Network Theory*, the *Inquiry on the Modes of Existence*, the *device* or *network* is studied under the principle of irreductionism; the system of relations cannot be reduced to its components, nor to the single workings of the nodes, but has to be conceived as a whole.

LLMs have been originally formulated to explain human language, it is better to avoid the temptation to generalise different kinds of mediation under the same theoretical concepts. The aim of this research is not to formulate one theory that can encompass all of the possible dynamics and strategies of meaning production; instead, moving from a semiotic point of view, different perspectives will be compared in order to establish *which* approaches can better describe, rather than explain, different strategies of emergence of meaning. Once this is accomplished, the discussion will be able to move toward a semiotic analysis of technical mediations of meaning (§3), integrating GenAI *chatbots* as semio-technical artifacts that *act* and therefore *produce signs*.

1. Theories of language and generativity

1.1. Relational epistemology and the problem of reference

Semiotics, as a scientific project, is inscribed in a structuralist tradition: it stems from a European reception of Saussure's *Course in General Linguistics* (1916)² and has been contaminated by a pragmatist view of meaning (cf. Eco 1975, 1984, 2007). In this section, the reception of two fundamental *pairs of* (or, rather, *oppositions between*) semiotic notions will be addressed: the arbitrary relationship between *signifier* and *signified* (and its Hjelmslevian translation into *planes*) and the paradigmatic dimension of *Langue* as it has been opposed to the syntagmatic one of *Parole*.

The scope of this research does not allow for a deep dive into the foundational role of Saussure in structuralist epistemology; therefore, only a few starting points of his reflection will be recalled. First of all, the idea that language is a structural system composed solely of differences: the *Cours* (Saussure 1916) inspired the anti-essentialist relationalism of semiotics, which implies that the *value* of an element neither has an ontological foundation nor can be deduced from its properties, but instead derives from the network of relations that surrounds it. Hence, value is *relational*. It was the relational take on the structuration of language systems that enabled language to be defined in a non-referential and autonomous manner with respect to the extra-linguistic space: in this framework, the *linguistic value* emerges from the opposition of forms, which are defined at a systemic level. However, in Saussurian terms, this is related to a specific abstraction of language: the *system* of language (*la langue*), which remains fundamentally *virtual*. In itself, *la langue* is an operative construct, a structural hypothesis which can be reconstructed *a posteriori*, following a work of classification and analysis of *parole* acts. It is indeed independent from reference, but it still holds a relationship with *the social use of the word*, or the *parole* act.

² As it is well known, Saussure's *Cours* was published by his students Charles Bally and Albert Sechehaye, with the collaboration of Albert Riedlinger, in two editions: one in 1916 and the second one in 1922.

Following Saussure and the Prague Circle, many theorists advanced the idea of analyzing language as the *immanent object* of a structural science: in this view, the possibility for language to be an autonomous system of relations did not mean that *experience* or *the lived world* (the *transcendent*³) could not influence language, but that *it is not in elements outside the activity of language*, such as *speaking*, that explanatory elements for the functioning of language itself should be looked for. One of the key promoters of the *immanent* hypothesis in the study of language was Luis Hjelmslev (1961), who was then able to articulate another Saussurian dyad – the *signifier* and *signified* – through the notions of *expression* and *content planes*. As is well known, the two are correlated via *forms* which, as already stated, are differential and relational.

A lot can be said about the history of linguistic thought and its consequences on different philosophical stances. For instance, many interpreted the strong Hjelmslevian structuralism as a *complete detachment* of sense from the structure of the world, making the relation between experience and language as arbitrary as the relationship between signifier and signified (cf. Bondi 2012). Of course, this is a simplification of semiotic epistemology, which presents a much more nuanced integration of a structural hypothesis about language and the semiotic phenomena of *motivation* (cf. Eco 1975). However, it is true that this interpretation is confirmed by some of the most classical semiotic arguments: for instance, in Barthes (1964), we find the famous theoretical project of *tuer le referent*; it was always Barthes who argued that it is *language*, with its structuring strength, that speaks to *us*. However, many of these theoretical challenges remain valuable to the scientific project of semiotics. Before dwelling into the *pragmatic* account on meaning – and how it shaped the semiotic adventure allowing it to overcome some of these aporias – it is important to remind that it was the structuralist hypothesis – the one that recognised the arbitrary connection between *expression* and *content* – which allowed for a study of the interdependencies of forms as they are related among them in the system in which they are found. The fact that these two planes are *organised* through forms (the *constants* of the *langue*) that only exist in virtue of their relations means that *it is impossible for an enunciative act not to bring with it the entire set of relations 'embedded' in that language*. Even if we wanted to criticise the rigid non-referentiality of structural epistemology, some of its evidence still holds theoretical and analytical value. For instance, it is evident, as Hjelmslev famously pointed out, that different languages cut the two planes in different ways; not just the plane of expression, but also the one of content: this is sufficient proof that the arbitrary hypothesis cannot be denied. Starting from this possibility, Hjelmslev's theory of *forms* can be developed, and more research is possible: how does the semantic plane structure itself? What dynamics organise the matter of content?

³ For an interpretation of the role of the transcendent dimension of meaning, cfr. Paolucci 2010.

The Hjelmslevian hypothesis sees the *continuum of what can be expressed* (the *matter of content*, loosely connected to the idea of *experience*) and the *continuum of how it can be expressed* (the *matter of expression*) as two planes in which *forms* are individuated through systemic relations, and the correlation as simultaneous for both planes. It is true, however, that in our experience we only encounter *substances*, or *already* articulated sounds and *already formed* words: these, however, are not the object of the *immanent* science of language – at least not in Hjelmslev’s terms.

1.2. Before Chomsky: back to distributional semantics

How does structuralism relate to our inquiry into generativity? Before defining generativity and how it might or might not relate to both linguistic theory and modern-day AI models, it is better to lay down the theoretical framing of a linguistic hypothesis that connects both with structuralism, the works of Noam Chomsky, and modern-day LLMs. It comprises the distributional hypothesis of semantics, as proposed by Zellig Harris (1951). One of Harris’s most famous arguments was that the *meaning* of an expression should reside in its *neighbourhood*. This hypothesis has an indirect Saussurean lineage: Harris was strongly influenced by Leonard Bloomfield (1933), a reader of Saussure who is widely regarded as the father of the North American structuralist linguistic school.

Leonard Bloomfield wrote a review of Ferdinand De Saussure’s *Cours* in 1924: as Venier notes (2019: 289-20), the review does not attest an *adherence* of Bloomfield to the theoretical apparatus of Saussure, but it testifies what Bloomfield recognised relevant in Saussure’s work: the construction of a new scientific object, the *systematic* aspect in the study of language, and the radical refusal of psychological explanations for the scientific grounding of the study of language.⁴ In this review, some of the theoretical directions of his seminal work, *Language* (1933), are evident; however, many points of divergence with Saussure are also noticeable. According to Lenci’s interpretation (cf. 2008), for Bloomfield, paradigmatic classes emerged from textual distribution, but his analyses focused only on syntactic types to reconstruct models specific to particular linguistic groups. Harris (1951) instead accepted that the analysis of meaning was possible, but it could not be the starting point for scientific work. Harris promoted a profound anti-psychologism for which it could not be the signified that explained the behaviour of speakers, but the similarity in the distribution of signifiers that explained the meaning. Therefore, a scientifically grounded analysis had to start from a solid empirical base, i.e., the distributional method, which, we should remember, Hjelmslev was a great critic of, arguing that it added nothing to classic structural analysis. Another protagonist of distributional semantics was Firth (1951), who, instead, pursued a *contextual* theory of meaning: his theory moved towards a pragmatic understanding of

⁴ On the different relationships among structural linguistic theories, also cf. Lepschy 1966.

context, moving away from Harris' idea of *neighbour words*, and comprehended more cultural factors and presence in context. Meaning was not a matter of neighbourhood (intra-textual) but of keeping company in concrete occurrences (collocations, inter-textual and extra-textual relations).

1.3. Chomskyan and Greimasian Generativity

The distributional hypothesis was later abandoned – at least, in major linguistic debates – in favor of another linguistic theory, promoted by one of Harris's students: Noam Chomsky. Chomskyan *Generative Grammar* (1957) forms a research tradition focused on explaining the cognitive basis of language. It operates under a strong *universalist* and *nativist* theory that claims humans are born with an innate language faculty, encapsulated in the Language Acquisition Device (LAD) and the concept of Universal Grammar (UG). The generativist model suggests innate rules of language that could explain the emergence of this universal grammar, capable of accounting for the syntax of all languages. This capacity represents an unconscious *competence* that allows a speaker to produce syntactically *correct* sentences in any language they speak.

Chomsky's Cartesian linguistics was not interested in the problem of semantics, focusing only on syntax. His take was precisely that semantics was irrelevant to the coherent construction of sentences, which depended instead on the notion of *rule*. This idea of *rule* was *constitutive* of language, a *human* and *inner universal* linguistic mechanism, rather than a socially constructed norm in practice, as theorized by Coseriu (1952).

Later, Chomskyan generativity – which became central to mid-century linguistic debates – inspired the Greimasian notion of generativity, as noted by Fabbri (2000). The latter, however, is constructed against a completely different theoretical backdrop. Algirdas Julien Greimas was the most prominent figure in the Parisian school of semiotics: to him we owe the development of a different concept of generativity centred on the *construction* of sense. His theoretical basis stems from structural semiotics: in particular, he was a reader and interpreter of Hjelmslev, applying his fundamental categories to specific portions of language or *texts*. In fact, Greimas' theory does not focus on *parole* as the syntagmatic element that allows the reconstruction of the system; rather, it finds in the *text*, as a *concrete semiotic manifestation*, its fundamental object of analysis. From the text, fundamental structures of meaning can be abstracted and analysed, moving from *empirical manifestations* toward deeper levels of meaning; these structures are the ones capable of *generating* meaning in the trajectory of emergence, proceeding in the opposite direction from the analysis.

The *parcours génératif* (generative trajectory) describes the hierarchical process by which meaning unfolds, moving from the most abstract conceptual relationships to concrete, observable discourse. This trajectory begins at the fundamental level with the Semiotic Square, which systematically structures binary oppositions. It then progresses

through the narrative – profound – and syntactic – superficial – components, towards the discursive level. Greimas' generativity is fundamentally a model of narrative syntax, providing a metalanguage that describes the scheme of empty positions that will be invested with semantic content.

In this sense, it follows a completely different dynamic than Chomskyan generativity: unlike Chomsky's concern with grammatical sentences, Greimas seeks to explain how sense is structured. This notion of sense does not account for a 'fixed' and quantifiable codification of meaning, but rather for the articulation of narrative structures as they acquire sense in the *lived world*. These structures are reconstructed using texts as a collection of elements (*corpora*) that enable the individuation of deep semantic and actantial relationships, such as the roles of actants, modalities – semionarrative – and actors – on the discursive level.

In the *Dictionnaire* (1979), Greimas and Courtes note that *discursive semantics* is a rather understudied field of research. Following the *parcours génératif*, the enunciative dynamics move from abstract and profound levels to enunciative strategies that enable the *discursivisation* of figures and themes. The idea that underlies Greimasian generativity is that, given *universal articulations of sense* that work on deep semantic oppositions, semantic values are invested along the passages of the different levels that compose the trajectory.

Moreover, Greimasian generativity applies to all kinds of texts, including figurative ones: the model describes the generation of sense through abstract categories, regardless of whether the final output is linguistic or figurative. What is universal here is the generative structure of the Greimasian project: it is not the *syntax*, but the *scheme* of abstract relations that can be invested by different figures and values. This is why the model can describe different articulations of a text's meaning, depending on how the recurring scheme is applied during analysis. It could be argued that Greimasian generativity is a theory of how *semantic values* move from a *repository of semantic forms* towards our concrete, empirical utterances, regardless of the language in which we produce them.

2. Language: from theoretical to technical models

The primary focus of this section is the relationship between different theories of language and the development of Natural Language Processing (NLP) and GenAI systems. Whereas a precise reconstruction of the historical conditions of the emergence of this specific type of Artificial Intelligence systems⁵ cannot be provided here, it is fundamental to distinguish between different ideas about language and their subsequent descriptive models. This type of inquiry will allow a deeper understanding of how GenAI works and how semiotics can produce a meaningful criticism of its functions (§3).

⁵ For a semiotic reconstruction, see Monti 2025a and 2025b.

2.1. Criticism of formalisms and the notion of rule

Chomskyan formalism, which relied on the UG hypothesis, was successful in the early stages of AI development because it proposed that human linguistic *competence* could be represented by a set of formal rules that a computer could program. Along with mathematical information theory and Cybernetics (cf. Monti 2025b), it inspired the development of early NLP models that aimed to imitate human language structures without the need for corpora: the idea of an innate grammar challenged the importance of empirical data – at the time the domain of behaviorism – which posed an obstacle to programming functional AI (cf. Manning 2022).

This possibility of individuating formal structures that go beyond and shape linguistic utterances has fueled a highly debated philosophical issue. In his work on how forms emerge in lived experience, Jean Petitot emphasizes one inherent limitation of formalist views of language.

Les grammaires consistent en des mécanismes générateurs attribuant une interprétation sémantique à des séquences phonétiques, leur théorie dépend d'une sémantique générale encore inexistante. D'où la centralité de la syntaxe conçue comme le système des *contraintes formelles* conditionnant la possibilité de l'interprétation sémantique. (Petitot 1985: 147)

Petitot includes both structuralist and Chomskyan formalism in these ideas but criticizes them for lacking the interpretative component of semantics. Criticism of Chomskyan formal generativism did not come only from within the linguistic sciences but also from the philosophy of AI. Notably, Chomsky was among the polemical targets of the criticisms that thinkers such as Dreyfus (1972) later addressed regarding the limits of AI in managing the complexity of human language. While Chomsky's theories suggested that language could be formally modelled, Dreyfus pointed out that human use of language involves more than syntactic processing; rather, it includes other dimensions such as pragmatics, adaptation to context, nuances of meaning, implicit knowledge, and other non-representable conditions. Another critic of the project of Strong AI – who also believed that *semantics could not be reduced to syntax* – was John Searle (1980),⁶ who was skeptical of the idea of *constitutive norms* of language.

The relationship between formalism and various ways of understanding a rule – either as *constitutive*, as in the computational and generative (Chomskyan) paradigm, or as *normative*, as in the social regulation of behavior through exposure to recurring

⁶ Even if Searle (1980) does not explicitly name Chomsky as the target of his essay, he directly challenges the computational theory of mind that forms the bedrock of Chomsky's approach to cognitive science and language, making it a major, indirect point of dispute.

patterns – thus leads to another philosophical and linguistic antecedent of how GenAI functions: a specific interpretation of Wittgenstein’s philosophy within the context of distributional semantics and the so-called use theory of meaning.

2.2. Back to distributionalism, moving towards empiricism through social pragmatics

A second generation of distributionalists (cf. Lenci 2008) later interpreted the *use theory* of meaning in strictly textual terms. Famously, Wittgenstein asserted that the meaning of a word resided in its *use*: “For a large class of cases-though not for all – in which we employ the word ‘meaning’ it can be defined thus: the meaning of a word is its use in the language” (Wittgenstein 1953: §43). Although Wittgenstein intended this use to be *anchored* in concrete, non-textualizable *forms of life*, second-wave distributionalists interpreted it in terms of the co-textual distribution of words. In the current academic setting, Wittgenstein also figures prominently in the didactical framework of *Natural Language Processing* (Jurafski and Martin 2024): a textbook designed for computational linguistics students at Stanford University that reconstructs the theoretical inquiry over the reproduction of language starting from Wittgensteinian theory through distributionalism, the rise of modern NLP, and culminating in the development of contemporary large linguistic models.

It might even be argued that the success of modern computational models, based on a distributional, relational epistemology, constitutes a strong empirical argument in the long-standing debate between Chomskyan rationalist nativism and Harris’ structural relationalism. However, this interpretation addresses only one aspect of the technical assemblage that constitutes GenAI, such as the workings of language. In reviewing the debate between connectionist and symbolic AI, Cardon, Contiet, and Mazières (2018) highlighted how Wittgenstein’s theory also influenced Dreyfus’ critique of symbolic AI, thus opening the way for various connectionist-type criticisms; the primary one being the critique of Cartesian dualism, which argued that in the symbolic hypothesis, dualism was based on the separation of mind and body, leading the philosophical debate on AI’s theoretical foundations toward a logicist formalism.

Between Chomskyan rationalism, the formalism underlying the birth of symbolic artificial intelligence or GOFAI (Bachimont 1996; Cardon, Contet, and Mazières 2018; Rastier 2011), and that of Wittgenstein’s *Tractatus Logico-Philosophicus* (1921), there is a significant common term, namely the formalism of the Vienna Circle. This laid the foundations for the possibility of formalising natural language, allowing, on the one hand, its total control and calculability, and, on the other, its constitution as a rigid logical theory capable of linking the meaning of propositions to their truth conditions. The Vienna Circle’s formalism does not just provide a theory of language but constitutes a hypothesis concerning the possibility of description of the world in terms of logical atomism, where

semantics and *meaning* are resolved in terms of *truth conditions* that must respect a world perfectly representable through structured descriptions. Dreyfus, strongly condemning this theory, defined this account as the ontological hypothesis (Dreyfus 1992: 211-2).

It is truly remarkable to see that the same progression occurs from the Fregean project of the *Tractatus* (1921) to the social pragmatics of the *Investigations* (1953) as well as from the failure of natural language processing based on symbolic calculation to the interpretation of the use theory of meaning that informs modern NLP.

Whereas the first ones see the linguistic behaviour as a process that can be *deducted* by a closed set of rules, connectionist machines proceed by an *inductive* method of pattern recognition that is based on the consistency of regularities in huge amount of data:

Lorsque les concepteurs des machines symboliques cherchaient à insérer dans le calculateur *et le monde, et l'horizon*, la réussite actuelle des machines connexionnistes tient au fait que, de façon presque opposée, ceux qui les fabriquent vident le calculateur pour que le monde se donne à lui-même son propre horizon. (Cardon, Contiet and Mazières 2018: 181)

On this point, computational linguists (Jurafski and Martin 2024) acknowledge the failure of the pure language system project and the role of Wittgensteinian theory in orienting research not only in NLP but also in linguistics. The development of LLMs, which has led to satisfactory results in terms of linguistic production, comes instead from the combination of different approaches to language which are rooted in its social dynamics: the combination of what we have here identified as a 'structuralist' theory (distributional semantics), a social pragmatic theory (the use theory of meaning), both combined to another tradition in AI, namely connectionism, which stems from an *empiricist* tradition.

Connectionism openly opposes symbolic AI. Of course, the calculation of data within the connectionist paradigm can also be considered formalist, but it rests on a completely different epistemological basis: one that does not allow for hierarchies of levels in the production of meaning; nor for them to be rooted in logical, computational structures; instead, connectionism identifies formal relations as they are recognised *from regularities occurring in the linguistic experience*.

2.3. The development of Natural Language Processing techniques

The development of NLP slightly precedes that of artificial intelligence, and according to Manning (2022), it is not possible to draw a clear separation between the two fields: the institutionalisation of NLP precedes Minsky's famous denomination by a few years. As previously stated, NLP has a dual foundation in structural epistemology and in the North American reception of Wittgensteinian social pragmatics; the mechanism underlying modern Large Language Models will now be described.

The operational mechanism of modern Large Language Models (LLMs) relies on the distributional semantic hypotheses. These systems map the contextual relations between words into a high-dimensional vector space (embeddings), thereby creating a mathematical model of semantic similarity derived exclusively from *usage patterns*; this is where the *use theory of meaning comes in*. Of course, this passage from the *langue* as a virtual, structural field to a mathematical model can be seen as a type of reductionism – namely, the one that goes from the *territory* to the *map*.

According to Manning’s reconstruction of the NLP field (2022), what enabled distributional semantics machines to work was that, in 2013, developers began using *deep learning* systems and *artificial neural networks* to train Transformers. Deep Learning is a type of machine learning that uses networks composed of multiple layers of interconnected nodes (*neurons*). The term ‘deep’ indicates that these models contain three or more such layers, enabling them to handle the sheer volume and complexity of data required for sophisticated tasks such as natural language processing. This transition enabled the representation of words and sentences in a vector space with what are called ‘real dimensions,’ improving the performance of these machines in terms of semantic coherence and syntax (Manning 2022).

From 2013 to 2018, deep learning techniques enabled the development of more powerful models that can handle broader contexts and generalize more effectively across similar words or phrases. However, the basic approach remained supervised learning: the data used to train natural language processors had to be *labelled* by human annotators. In 2018, a significant change occurred with the introduction of large-scale self-supervised learning. In this approach, systems can recognize patterns in large amounts of data, enabling them to *autonomously* produce well-formed linguistic expressions.

In linguistic terms, the realisation of a device that can speak *naturally* – that is, without making grammatical, semantic, or lexical mistakes – could be defined as the realisation of a device that presents a *technically mediated competence*⁷ about language: a *potential ability* to perform linguistic acts *made possible* by the technical assemblage. This competence is based on the computation of enormous quantities of textual data: the system trains itself by creating prediction tasks from the same texts, such as completing missing sentences. The system ‘learns’⁸ from correcting its own errors, using

⁷ *Competence* is not a neutral word in respect to the array of linguistic theories that we developed: it is the word used by Chomsky to describe the innate, universal ability of speakers; it is a phase of the Canon Narrative Scheme developed by Greimas, preceding the one of *Performance*. It might describe a theoretical knowledge about language that precedes – and acts as a precondition – of linguistic utterances. However, the competence-performance dyad cannot be aligned with the notion of *Langue* as opposed to *Parole*. In this text, we chose to speak of the technical working of LLMs as a *technically mediated competence* because it allows us to describe the *manifestation* of a *coherent linguistic behaviour* without the risk of attributing ‘knowledge’ or human-like features to *Chatbots*. For a study on the agency of *Chatbots*, see Paolucci (2025).

⁸ The learning metaphor has become technical jargon to describe the training of Artificial Intelligence Systems; however, the author here recognises the risk of anthropomorphisation that lies in the use of such terminology.

the same training corpus as verification, and accumulates a vast *competence* made of procedural-type rules that can be applied for tasks like answering questions or classifying texts.

This competence allows for the *generation* of texts that are not *copied and pasted* from the linguistic structure in its database. The main difference between a pre-trained transformer and a search engine is that the former does not properly ‘search’ its database for answers, but instead uses a trained mechanism to generate text.

The possibility of self-learning in neural networks has reopened debate over the legitimacy of metaphors such as learning, understanding, and knowledge, which has taken the form of a debate over the natural-language *understanding* of NLP systems, particularly between Manning (2022) and Bender and Koller (2020). Bender is also one of the authors responsible for one of the most pervasive metaphors regarding LLMs circulating in culture: the *stochastic parrot* (Bender et al 2022). Manning, without explicitly mentioning it, reports an updated version of Searle's Chinese room problem, reconstructing a debate between distributional semantics on one side, which would be capable of holding together different dimensions of meaning via *statistical modelling*, and a linguistic theory that rigidly divides syntax, semantics, and pragmatics on the other. Bender and Koller, on the other hand, argue that if we want to conceptualise meaning according to the *use theory of meaning*, as in a social pragmatic theory, then we should explain it in terms of communicative intentions. However, they do not intend here a phenomenological notion of intentionality, rather a psychologistic and mentalistic one, thus denaturing Wittgenstein's position while trying to defend it.

2.4. What kind of generation is involved in Generative AI?

It has been explained how these technical *dispositifs* model the semantic space of language using embeddings to map relationships between discrete units, *thereby* creating a vectorial and topological model of the semantic space of different languages. How do they *generate* answers to users' prompts then?

It is now possible to define the *concept* of generation in *generative* AI. LM generation is purely a statistical prediction mechanism. Although, like other examples of generativism, they allow us to produce an *infinite set of possible answers* from a finite set of rules, these rules are not *constitutive* but *procedural*. The model works by calculating the likelihood of the next word given the preceding sequence, based on the patterns absorbed from billions of words of text. It uses high-dimensional embeddings as vectorial mappings to model relationships between linguistic units in a semantic space: this is an associative, sub-symbolic process, but it does not apply explicit, human-readable grammatical rules. The possible grammars – or formal rules – that can be observed in the behaviour of the Chatbot are an *effect* of these statistical patterns, not the cause of the generation.

GenAI has adopted the term *generative* to contrast with another feature: *copying* or *reporting* external linguistic information. Transformers *produce* linguistic outputs from an *open-ended* process that, starting from the same prompt, might produce two different answers. This process is called *generative* because it does not rely on a *copy-and-paste* mechanism from external sources, but it produces novel, *original* outputs. Most recent models combine this process with the mechanisms of a *search* engine to gather factual information from external websites; this information is subsequently synthesized through the *technically mediated linguistic competence of the LLM-Transformer complex*.

The success of GenAI-powered chatbots in generating coherent, complex utterances is achieved exclusively through distributional learning on massive amounts of data. This demonstrates that the required complexity, previously attributed to innate rules, may instead be statistically latent and derivable from sufficient textual exposure, supporting the distributional hypothesis that meaning is induced from structures associated with usage patterns.

3. A semiotic description of generative AI models

What can contemporary semiotics do then, to analyse the workings of these semiotic machines? A first step in a semiotics of GenAI is to define it in relation to linguistic theories.

GenAI systems can be described as *technical dispositifs* that use statistical prediction models to produce semantically and syntactically coherent texts. The debate over whether these machines *think* or the adequacy of categories such as *conscience* and *subjectivity* will not be addressed here. Instead, what will be pursued is an inquiry into the possibility of these models to test different theories of meaning and of sense unfolding.

The principles of distributional semantics and pragmatics, made automatic by the computational power and training methods of neural networks, have jointly made it possible to actualize the relational and virtual system of language in a vector space where differences are structured, and *enunciative praxis* (Fontanille and Zillberberg 1998) is mathematically stratified. However, this does not happen automatically, just by running a computer program on a huge repository of data. This process requires several treatments of linguistic data, such as *normalizing* texts so they can be processed by the machine, and human-driven *fine-tuning* of the chatbot's responses to ensure that the machine produces texts that do not infringe ethical thresholds; training is a process rooted in interaction. This heterogeneous set of directions and intentions calls for theoretical models that account for *mediations* among different modes of existence; a *dispositif* is a network of *transformations* (cf. Deleuze 1989; Latour 2012).

3.1. Technical mediation of meaning: the semantic architecture of LLMs as a semiotic challenge

As Eco (2007) and Rastier (2008) variously argue, the division between semantics (understood as truth-conditional semantics) and pragmatics (or the study of language as a practice in context) is almost arbitrary. For Eco, one cannot have an *exhaustive* semantics without resorting to inference processes that link the interpretation of linguistic exchanges to pragmatic operations. According to Rastier, the difference between the two fields is a rivalry constructed by two sides of a debate – philosophy of language and the *sciences du langage* devised semantics and pragmatics to deal with meaning by mutually delegating to the other field a set of problems that neither could autonomously solve. Another position on this is expressed by Paolucci (2021b), who states that semantics and pragmatics are not separable, but that, unlike the traditional account of pragmatics, it is not contexts that regulate the possibilities of meaning of a term. Rather, it is words that activate possible contexts, carrying with them the regularity of their uses that can, over time, act on the linguistic norm (cf. Coseriu 1952), modifying it through the stratification of enunciation praxis.

What does Eco mean when he speaks of *exhaustive* semantics? Eco is probably referring to a semantics that allows us to describe how meaning works across *all contexts of its emergence*. This is why semiotics, as a field, includes theoretical inquiries into perception and real-world practices as the frame for the emergence of meaning: from a pragmatic perspective, verbal language alone cannot exhaust the dimensions of meaning-making. Interpretive Semiotics⁹ (cf. Paolucci 2007), the current of semiotics that stems from Eco's theory (Eco 1975, 1984), addresses the aporias of structuralism by integrating real-world knowledge into the semantic model of the *encyclopaedia*, a model of semantic memory that regards intertextuality as a condition of possibility for semiosis.

To some extent, the semantics of LLMs realizes the idea of topological semantics: a meaning described purely in linguistic terms, relational and differential, structured topologically in a semantic space. In a structuralist fashion, the system (paradigm) is constructed through abstractions from a series of mechanical operations on processes (syntagms or utterances). This way, the 'radical' vision of the structuralist idea of meaning is realized: it is enough to know the relations between terms to describe meaning within an autonomous and closed linguistic system, without having to refer to a system external to it, whether it be that of the speakers' beliefs or

⁹ Another characteristic of Interpretive Semiotics is its reliance on the pragmatist theory of signs of Charles S. Peirce; however, pragmatism – or pragmaticism – should not be confused with pragmatics as the study of the relationship between language and its context. Famously, it was Umberto Eco that constructed a framework able to *keep together* structuralism, pragmatics and a pragmaticistic theory of signs.

psychological intentions. Through the semantic model of the encyclopaedia, we can conceptualise and describe this complex semantic topology: the encyclopaedia is not a register of terms and properties, but of *relations* between them (cf. Eco 1975, 1984; Paolucci 2010).

In this regard, a recent study by Grand et al. (2022) seeks to derive a theory of lexical knowledge from the topology of meaning, applying the method of semantic projection to LLMs and reconstructing how human lexical knowledge can be extracted from aggregations of embeddings. This method, based on Quillian's semantic memory,¹⁰ projects word vectors onto lines representing different semantic characteristics, such as /size/ or /danger/. This projection is analogous to placing words on a mental scale to compare them based on specific characteristics. The authors explicitly note that one cannot move from a simple linguistic *description* to a *judgment* without recourse to *experiential knowledge*. Although traditional models succeed in identifying generally correlated words, they seem to struggle to capture the nuanced and context-specific ways in which humans perceive the relationships between words: for example, the case of dolphins and alligators shows that while the two animals may be similar in size, they are very different in terms of perceived danger.

This could show that, to achieve an exhaustive semantics, one cannot exclude the type of knowledge that comes from experience and shared narratives from semantic modelling, which is one of the main theoretical features of the encyclopaedic model. While going through these types of study, it is difficult not to notice a resemblance to Eco's theory of interpretation based on the selection of semantic potentialities opened by words: the human way of using, learning, and interpreting language is a form of interaction with a repertoire of verbal utterances stored in the encyclopaedia. This model is internally structured through the use and sedimentation of linguistic forms. What we, as humans, do when we enunciate or interpret is select (by *potentialising* or *actualising* paths) the choices recorded in the encyclopaedia, based on our own personal slicing of it, which draws on our experience of the world. Patrizia Violi (1997) argues that

knowing the set of semantic relations that are established between a term and all others does not at all amount to knowing its meaning [...] for this to be possible, the sign must be interpreted, that is, a relationship between the sign and something else functioning as an interpretant must already be established for the subject. (Violi 1997: 35, my translation)

¹⁰ Which is the same theory adopted by Eco (1975) to provide his first version of the encyclopaedia model, as opposed to *dictionary-like* semantics. However, a point of incompatibility with current strands of cognitive semiotics (cf. Paolucci 2021a) is that this type of study relies on the idea that humans have an *internal* capacity to code semantic knowledge, which can be precisely localized in the brain.

However, even if the topological space of the embeddings can be described – or even explained – via the encyclopaedic model, the former cannot be considered a realization of the latter. A representation of the encyclopaedia – which, according to Violi (2017), is extended to the limits of non-representability to include everything that is knowable – is impossible, given that it is a *regulatory* model for explaining different dynamics of attribution of meaning. Moreover, it is not only a semantic model, but a semiotic one, concerning the connection between the planes of expression and content. As for LLMs, it can certainly be spoken of as an *actualization* – via the technical means of a *dispositif* – of the topological semantic field that confirms the structural functioning of verbal language, and it is from this consideration that further research can begin.

3.2. Verbal language as a modelling system

The fact that verbal language alone cannot exhaust all the dimensions of meaning-making does not mean that it is not possible to study languages as *immanent* organisations of forms. Instead, the path taken here to link linguistic theories (§1) to the architecture of LLMs (§2) should precisely confirm that a structuralist theory of language is not only possible but is also useful in *reproducing* language. However, it seems that the price to pay for an effective technical reproduction of language generation is that other possibilities opened by language might become more difficult to attend: for instance, the possibility of referring to states of affairs – what Eco calls the *semiotisation of the referent* (Eco 1997), or forms of reasoning that are based on conceptual abstractions. For a GenAI system to *mimic* reference and reasoning, it must construct a plane of expressions of signs mediated by its linguistic competence, namely, the space of embeddings.

To better explain this dynamic, it is important to recall Lotman's idea of verbal language as the *primary modelling system* (Lotman and Uspenskij 1973). This feature is intended by the authors of the Tartu-Moscow semiotic school as a description of the *possibility of verbal language to translate all other semiotic systems into it*, and therefore as assessing verbal language as the semiotic system with the strongest *structuration* power in the semiosphere.

As is well known, this idea has been criticised by Sebeok (1988), who asserted that the systems of verbal signs could not be considered primary because, both phylogenetically and ontogenetically, verbal language is secondary and therefore dependent on other zoosemiotic systems of signs. On this matter, Sebeok is right: other systems of signs do indeed participate in our experience, scaffolding our cognition (cf. Paolucci 2021a) and allowing us to construct meaningful semiotic niches in which we, as human beings, can act. Also, in the case of GenAI, one could argue that verbal language is secondary to the technical *assemblage* that enables the transformer to operate, or to the data that texts are transduced into for the system to function.

However, the biosemiotic critique of the concept does not challenge two key aspects of the Lotmanian idea: the *potential for intersemiotic translation* enabled by verbal language and its semiocultural role in our lived and shared experience. The arguments presented by Sebeok and biosemiotics can be valid when aiming to de-anthropomorphize our view of meaning-making practices or when it is necessary to focus on semiotic aspects that cannot be reduced to the mechanisms of verbal language; however, they do not capture the social importance of verbal language.

The claim that language can be described as a biosemiotic faculty emerging from evolutionary dynamics does not encompass all semiotic dimensions and dynamics of language. Let us take, for instance, the notion of *ratio facilis* systems (Eco 1975), which are described as systems operating with a type-token dynamic *encoded within* the system itself. This notion allows to conceptualise verbal language as something that functions independently of the substance of expression upon which it is realized; although it is true that different substances of expression will allow different possibilities of meaning – effects of temporality, or nuances of connotation derived by different *textualization practices* (De Angelis 2010) – verbal language is the only semiotic system that can be completely disembodied and still function properly (cf. Paolucci 2021a).

This reinforces the idea of verbal language as a primary modelling system – in the sense that it can *translate* every other semiotic system – and explains why LLMs can *perform actions* they would not otherwise be able to, such as *mimicking* the cognitive activity of *reasoning* through language. Normally, cognitive systems cannot be described without reference to the *ecology of relations* in which they emerge as *agents*: these relations encompass embodied mechanisms and situated environmental interactions. However, *through language* and the ability to *generate semantically coherent utterances*, GenAI can mimic complex semiotic behaviours, such as logical reflection or conceptual elaboration.

This is not only due to their powerful capabilities in statistical modelling and pattern recognition, but also to *the way language works*. Since verbal language is a *primary modelling system*, it can translate all other semiotic systems, and *it has, culturally, already done so*; at least *with sufficient quantity* for an artificial neural network to reproduce its structures and use them as a basis for future utterances.

3.3. Technical mediation of linguistic competence: hallucinations and the problem of reference in Generative AI

It has been noted how the structuralist hypothesis – both in semiotics and in distributional semantics – allows for the conceptualisation of language as an immanent object of study. This depends on the fact that language is structured through a series of interdependencies: this relational constitution of language allows it to function without a referential correspondent, because all linguistic elements can be described in terms of other linguistic elements.

Clearly, one has to hypothesize an intersubjective transcendent plan in order to make language work, because otherwise *communicative acts* would not be possible. However, this condition does not extend to minimal, intratextual *semantic coherence*. When Eco (2007) affirms that an exhaustive semantics should include pragmatics and inferential models, he is not wrong; however, a system that only works via linguistic relations works *sufficiently well* to have a *working semantics*.

This idea allows for an interpretation of *hallucinations*, or perceived performance failures, in LLMs. It is argued here that the phenomenon of hallucination, where LLMs generate factually incorrect or illogical information while maintaining impeccable grammatical and contextual coherence, is not a manifestation of a semantic crisis, nor an argument for a Chomskyan Universal Grammar. It demonstrates that meaning can operate independently of reference or logical principles (Eco 1984). LLMs decode meaning from statistical patterns and contextual likelihood, rather than from correspondence to truth conditions. While they can perform complex tasks and *mimic* reasoning capabilities, their output derives from *intertextual relationships established in their datasets* and lacks the mechanisms necessary for systematic external validation. There isn't a representation of a state of affairs, not even when they produce a successful act of reference. This, however, is not a crisis or a malfunction, but *an ordinary feature of verbal language*, which does not need a referent to work in a syntactically correct and semantically coherent way.¹¹

Conclusions

Some conclusions can now be drawn. First, it is important to note that the term *generative* in *Generative AI* cannot be shown to relate to Chomskyan or Greimasian generativity, as the three occurrences denote different processes. However, thanks to a reconstruction of the theoretical relations among fields that work *with* and *on* language, it has been possible to identify certain structural characteristics of verbal language that enable GenAI systems to function. Specifically, the characteristics that allow different languages to undergo distributional semantic analysis are the ones that enable LLMs to function. However, to understand and describe the *concrete act of sign production* that is manifested by GenAI-powered Chatbots, it is necessary to appeal to the notion of *competence* as a *potential ability* to perform linguistic acts.

This competence in GenAI chatbots is technically mediated: if LLMs can be seen as *dispositifs* that mediate a topological semantic space in which embeddings *encode* meaning, the Transformer can be interpreted as the engine that enables a coherent, naturally-like production of texts (be it an interaction with a user, the production of

¹¹ It is true that this demonstrates that we cannot produce acts of reference only through language – but, for a semiotician, this should not come as a surprise.

a report, a long text, or the review of a series of results from an online query). Rather than *reasoning*, GenAI-powered chatbots *manipulate linguistic data* by computing embedding values, transforming a virtual dimension of meaning into concrete linguistic expressions that make sense. This *competence* is inscribed in material *dispositifs*, technical assemblages made of heterogeneous elements (the engineers' knowledge, material elements, data, human curation...). Real-world meaning-making practices are anchored in social contexts and forms of life and extend beyond linguistic representation, even though language constitutes a semiotic system capable of translating other semiotic systems into a system of forms.

Many more dimensions of meaning remain unanalysed: three will be listed here, as an indication for further research in the field. The first requires an analysis of the dynamics of GenAI systems, understood as technically reproducing a *stochastic modelling of Norms*, in the sense attributed to this concept by Coseriu (1952). As opposed to the Chomskyan concept of constitutive rule, the true level of intervention in which semiotics can work is that of conceptualizing the dimension of *norm* as a dimension of mediation between the *scheme* of the *langue* and the *empirical manifestation* of the *parole*, in both ways, considering *Use* as this mediating dimension. The notion of *norm* reveals the *Langue-Parole* opposition not as privative but as a co-implication between a structured system and its elements, thereby highlighting the profound sociality of sense even in seemingly individual or *non-human* manifestations. Since LLMs are designed to work in interaction with humans, they must adapt to the normal functioning of language: this means that LLMs as well have to adapt to *how language is actually used by speakers*, and not construct an idealistic scheme of language detached from the real use of it. In this direction, the ability to learn through pattern recognition allows the system to analyse the data we produce when we interact with it – even if users don't notice this process. Moreover, for semiotic research on norms, particular interest lies in empirical studies such as that conducted by Yakura *et al.* (2024) that measure the incidence of GenAI lexicon in non-GenAI contexts: exposure to AI-produced texts might affect our word choices in everyday communication. Beyond technophobic preoccupations with how AI might harm our ability to think, this rapid cultural echo of GenAI language choices could be a noteworthy phenomenon to study through the lens of cultural semiotics.

The second concerns the applicability of the Greimasian generative trajectory of sense to GenAI products. The most plausible hypothesis is that the Greimasian model enables analysis of texts produced by GenAI systems, not because these models can reproduce it, but because it is a model that describes the unfolding of sense in the anthropological dimension of *lived sense*. This means that whenever we appreciate a portion of the world that *makes sense to us*, we can apply the Greimasian model to enhance its intelligibility. However, as we pointed out earlier, it would be wrong to apply the notion of Greimasian generativity to the process of text generation.

Finally, a research direction could involve the mediation of the technical *dispositif* and how its technical folds (cf. Latour 2012) can mask its network of mediations. GenAI chatbots combine this *dispositif* with an extremely user-friendly interface in which the artificial agent is only seemingly transparent: the fact that it can be activated and functions according to prompts constructed in our natural language creates an effect of *trust* and *reliability*. Through the semiotic analysis of the *dispositif*, this transparency of use appears as an opacification of its mechanism, masking a series of technical components. Thanks to its design, we do not perceive a semiotic mediation, even when all of its dimensions – from the theoretical background, through the technical folds, to its *effects* of meaning – can be described in a semiotic fashion.

References

- Bachimont, B. 1996. Intelligence artificielle et écriture dynamique: de la raison graphique à la raison computationnelle. In: J. Petitot and P. Fabbri (eds.), *Au nom du sens*. Paris: Grasset, 290-319.
- Barthes, R. 1964. *Éléments de sémiologie*. Paris: Seuil.
- Bender, E., Koller, A. 2020. Climbing towards NLU: On Meaning, Form, and Understanding in the Age of Data. *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics*, 5185-5198.
- Bender, E. M., Gebru, T., McMillan-Major, A., Shmitchell, S. 2021. On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency (FAccT '21)*. Association for Computing Machinery. New York, USA, 610-623.
<https://doi.org/10.1145/3442188.3445922>
- Bloomfield, L. 1933. *Language*. New York: Holt, Rinehart & Winston.
- Bondi, A. 2012. *Hjelsmev. Tra lingua e linguaggio*. Roma: Carocci.
- Cardon, D., Contiet J. P. and A. Mazière 2018. La revanche des neurones. L'invention des machines inductives et la controverse de l'intelligence artificielle. *Réseaux* 5 (211):173-220.
- Chomsky, N. 1957. *Syntactic Structures*. Berlin: Mouton.
- Coseriu, E. 1952. *Sistema, norma y habla*. Madrid: Gredos.
- De Angelis, R. 2010. Sur la matérialité du texte. La textualisation. *Directions actuelles en linguistique du texte, Actes du colloque international, Le Texte: modèles, méthodes, perspectives*. Cluj-Napoca, 95-106.
- Deleuze, G. 1989. Qu'est-ce qu'un dispositif? In: *Michel Foucault: Philosophe*. Paris: Seuil, 185-195.
- Dreyfus, H. 1972. *What Computers Can't Do*. Cambridge: The MIT Press.
- Dreyfus, H. 1992. *What Computers Still Can't Do*. Cambridge: The MIT Press.

- Eco, U. 1975. *Trattato di semiotica generale*. Milano: Bompiani.
- Eco, U. 1984. *Semiotica e filosofia del linguaggio*. Torino: Einaudi.
- Eco, U. 1997. *Kant e l'ornitorinco*. Milano: Bompiani.
- Eco, U. 2007. *Dall'albero al labirinto*. Milano: Bompiani.
- Fabbri, P. 2000. Introduzione. Greimas, A. J., *Semantica strutturale*. Milano: Meltemi.
- Firth, J. R. 1951. Modes of Meaning. *Essays and Studies*. Oxford: The English Association.
- Fontanille, J. and C. Zilberberg 1998. *Tension et Signification*. Sprimont: Pierre Mardaga.
- Grand, G., Blank, I.A., Pereira, F. et al. 2022. Semantic projection recovers rich human knowledge of multiple object features from word embeddings. *Nature Human Behaviour* 6-7: 975-987. doi: 10.1038/s41562-022-01316-8
- Greimas, A. J., 1983. *Du Sens II*. Paris: Seuil.
- Greimas, A. J., Courtés, J. 1979. *Sémiotique. Dictionnaire raisonné de la théorie du langage*. Paris: Seuil.
- Harris, Z. S. 1951. *Methods in Structural Linguistics*. Chicago, IL: University of Chicago Press.
- Hjelmslev, L. 1961. *Prolegomena to a theory of language*. University of Wisconsin.
- Jurafski, D. and J. H. Martin 2024. *Speech and Language Processing: An Introduction to Natural Language Processing, Computational Linguistics, and Speech Recognition with Language Models*, 3rd ed. <https://web.stanford.edu/~jurafsky/slp3>
- Latour, B. 2012. *An Enquête sur les modes d'existence*. Paris: La Découverte.
- Lenci, A. 2008. Distributional semantics in linguistic and cognitive research. *Italian journal of linguistics* 2(1):1-31.
- Lotman, J. M. and B. Uspenskij 1973. *Tipologia della cultura*. Milano: Bompiani.
- Manning, C. 2022. Human Language Understanding & Reasoning. *Daedalus* 151(2): 127-138. doi: https://doi.org/10.1162/daed_a_01905
- Monti, N. 2025a. *Prompting. Politiche e poetiche dell'Intelligenza Artificiale*. Torino: Tlon Edizioni.
- Monti, N. 2025b. *Automatic poetics. A study of the history and semiotic conditions of artificial linguistic creativity*. Doctoral Thesis, University of Turin.
- Paolucci, C. 2007. *Studi di semiotica interpretativa*. Milano: Bompiani.
- Paolucci, C. 2010. *Strutturalismo e interpretazione*. Milano: Bompiani.
- Paolucci, C. 2021a. *Cognitive Semiotics. Integrating Signs, Minds*. Dordrecht: Springer.
- Paolucci, C. 2021b. The distinction between semantics and pragmatics: The point of view of semiotics. *Intercultural Pragmatics* 18(3): 293-307.
- Paolucci, C. 2025. *Nati cyborg. Cosa l'intelligenza artificiale generativa ci dice dell'essere umano*. Roma: Luca Sossella Editore.
- Petitot, J. 1985. *Morphogenèse du sens I*. Paris: PUF.
- Rastier, F. 2008. La triade sémiotique, le trivium et la sémantique linguistique. *Actes Sémiotiques* 111. <https://www.unilim.fr/actes-semiotiques/1640>

- Saussure, F. 1916. *Cours de linguistique générale*. Lausanne-Paris: Payot.
- Searle, J. 1980. *Minds, Brains and Programs*. Cambridge: Harvard University Press.
- Sebeok, T. 1988. In what sense is language a 'Primary Modelling System? In: B. Henri and K. Rebecca (eds.), *Semiotics of culture*. Helsinki: Arator, 67-80.
- Venier, F. 2019. Un elogio paradossale. La recensione al *Cours* di Leonard Bloomfield. (febbraio 1924), *BLITYRI*, VIII (1-2), 283-300.
- Violi, P. 1997. *Significato ed esperienza*. Milano: Bompiani.
- Violi, P. 2017. Encyclopaedia: Criticality and Actuality. In: S. G. Beardworth and R. E. Auxier (eds.), *The Philosophy of Umberto Eco*. Chicago: Open Court, 223-250.
- Wittgenstein, L. 1921. *Tractatus logico-philosophicus*. London: Routledge (1961).
- Wittgenstein, L. 1953. *Philosophical Investigations*. Oxford: Blackwell.
- Yakura, H., Lopez-Lopez, E., Brinkmann, L., Serna, I., Gupta, P., Soraperra, I., and I. Rahwan 2024. Empirical evidence of Large Language Model's influence on human spoken communication. *arXiv preprint*. arXiv:2409.01754.
<https://arxiv.org/abs/2409.01754>

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From descriptive to reflective: Reading and interpreting generative AI images

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ABSTRACT

As generative AI expands from text to image creation, critical questions emerge about the nature of meaning-making in machine-generated visuals. This paper theoretically explores the shift from *'descriptive'* to *'reflective'* reading of generative AI images, drawing on linguistic and semiotic theories of Chomsky, Halliday, and Culioli. Chomsky emphasizes formal, rule-based structures, while Halliday and Culioli highlight meaning as contextual and inferential. Although studies of AI-generated images often focus on surface-level features such as style, coherence, and resemblance, this paper argues for a semiotic engagement that considers the underlying structures and contextual processes (or their simulation) at play. The central question of whether generative AI engages in the complex, contextual processes of human meaning-making is explored through an applied approach focusing on prompting and image inquiry. This is to construct and encourage humans in showing reflection and interpretation of visuals, firstly, by describing the relationship between AI and humans to form an interactive partnership; secondly, by moving to a reflective interpretation that requires a human viewer to supplement AI's syntactic fluency with socially, culturally, and cognitively grounded meaning-making.

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1. Introduction

In the contemporary digital sphere, the generativity structure of visual media displays is increasingly intertwined with the production and circulation of images, for example, in education, health, marketing, environmental sustainability, etc. (Hobbs 2024). This process has been significantly intensified by advances in image-generating technologies, including those powered by Artificial Intelligence (AI). In the context of human interaction with AI, the generativity of its systems relies heavily on human evaluation, particularly when the focus is on the capacity to autonomously produce and manipulate visual content (Lin et al. 2024). This notion further highlights the human side as the stronger side of the scale, while AI-generated content is intentionally positioned on the weaker side and is considered a pivotal mediator of socio-cultural and communicative processes. This phenomenon aligns with a long-standing production of aesthetic images and is also central to the philosophical field of semiotics (the study of signs and meaning-making). From a semiotic perspective, this evolution in human-AI interaction constitutes a shift in sign-making practices, in which the generativity of AI contributes to the reconfiguration of visual signification and to the anthropological dimensions of how meaning is co-constructed between humans and machines (Leone 2024).

This paper aims to theoretically explore the concept of generativity through interaction with AI and to examine its visual outputs through a semiotic reading of signs, a form of analysis performed by human agents. This method can help demonstrate the impact of linguistic enunciation on a generation procedure (prompt engineering), which involves placing linguistic text within generative AI platforms to create visual representations. The human interaction with the visual signs and their interpretation will feature the stage that is considered as a catalyst for deep reflection and a semiotic scaffolding that results in meaning creation (Lacković 2020a: 16). The purpose is to reflect on whether AI can truly generate meaning visually in the same way humans do, or it is only a simulation that misses the essential human processes such as creativity, intuition, and imagination that are important to be theorized in these linguistic models. The study foregrounds and builds on influential linguistic and semiotic theories, including Chomsky's (1968) Universal Grammar (UG), Halliday's (1978) systemic functional linguistics and social semiotics, and Culioli's (1991-2000) enunciative theory. They all offer contrasting yet complementary frameworks for analysing the processes of meaning-making in language, including the concept of generativity, to support the observation and evaluation stages of prompting from multiple perspectives.

To answer the main question *Do generative AI images engage in the complex, contextual, and inferential processes involved in human meaning-making*, this study employs an applied approach to further investigate the act of prompting to understand how

visuals are enunciated and produced. Inspired by the work of D'Armenio, Deliège, and Dondero (2024), this approach highlights the reflective dimensions of image interpretation, in which meaning is shaped by the viewer's awareness of communicative purpose and situational context. This emphasizes the interpreter's agency, subjectivity, and mental operations in constructing meaning. In this context, Culioli's inferential model can enhance reflective engagement with AI-generated images by framing meaning as the result of cognitive and contextual operations, whereby the interpreter constructs it through acts of questioning, predication, and validation within specific enunciative settings. By applying this method to AI-generated images used for conceptual understanding, the paper argues that while such systems can simulate structural and stylistic elements, their capacity for deep, situated, and reflective meaning-making remains limited unless we move from descriptive to reflective interpretation of visual artifacts. This attempt requires a human viewer to supplement AI's syntactic fluency with socially and cognitively grounded frameworks of meaning. This theoretical and interdisciplinary idea invites critical reflection on how to approach images, while the goal is to read, use, and (maybe) trust AI-generated visual media in different contexts.

2. The concept of generativity

2.1. Generativity in linguistics and semiotics

According to Cambridge Dictionary, the term '*generativity*' is simply defined as "the quality of being able to produce or create something new"¹ and in social sciences it is expanded to have close connection to a person's interest while acting as a motivational force in life that impacts on work and engagement (Ward and King 2017: 67). Through the years, generativity in linguistics has been explored from the perspective of semiotics, encompassing textual and structural dimensions, sociocultural diversity, interactional processes, and the dynamics of influencing perception, creativity, and narrativity (Salthe 1999; Clarke 2009; Galofaro 2013). Similarly, generativity in images and visual displays has been examined with respect to symbolic representation, compositional structure, and the communicative potential of visual forms (Bertling 2019; Dondero 2025). If the aim is to employ generativity of images and emphasis on its language, then we need to first consider semiotics as "central to human communication toward [sign interpretation as] a more holistic view of semiosis" (Topalidou Laskaridou, Papadopoulos, and Koutsogiannis 2022: 123).

¹ Retrieved from Cambridge Dictionary Press (July 2025):
<https://dictionary.cambridge.org/dictionary/english/generativity>

While it is difficult to view life from a single-dimensional perspective, it is also difficult to characterize language generativity as a rigid, rule-based, and analytic principle that operates along a one-way path, disconnected from other socio-cultural contexts. To explain generativity in linguistics and show its arc through time, it goes without saying to begin with Noam Chomsky, the father of modern linguistics. Chomsky's focus is on the linguistic aspect and grammatical structures of a language, and its generative behaviour follows rule-based strategies. In his 1960s research and papers, he articulated his views on the formalist view known as Universal Grammar (UG) (Chomsky 1968), which posits that all human languages share an innate set of grammatical principles and structures embedded in the human brain. According to this theory, the capacity for language acquisition and generating it into something more is hardwired, enabling children to learn any language rapidly and efficiently despite limited exposure. UG suggests that although languages may differ in certain respects, they all obey a universal set of rules governing sentence structure and syntax. This innate linguistic faculty enables children to generate and understand novel sentences that extend beyond the scope of their immediate experience (Chomsky 2000). UG challenges behaviorist notions of language based solely on imitation and reinforcement, and its main shortcoming is that context is eliminated in the study of language while it is examined in isolation from social use. Furthermore, meaning is often secondary in these circumstances, whereas structure holds the primary focus in language generativity (Chomsky 2002). Despite Chomsky's theory being revolutionary at its time, it has been criticized for its limited consideration of social, cultural, and communicative contexts. Michael Halliday, among other scholars, argued against UG by emphasizing the functional and social dimensions of language, proposing that the generativity of language is deeply influenced by interaction and the purpose language serves in communication rather than solely by innate grammatical structures.

Halliday's seminal work, *Language as Social Semiotic* (1978), introduced a paradigm shift by emphasizing language as a socially embedded semiotic system. The core of this perspective emphasizes the role of meaning as ideational (content), interpersonal (relationships), and textual (organization) as it is exchanged and interpreted in contextually generative communication shaped by socio-cultural and personal factors (Halliday 2013; Peluso 2021). Halliday (2005) argued that meaning is made through language, and its generative nature and usage in life cannot be fully understood without considering its social functions and the communicative purposes it serves within specific cultural contexts. In this sense, he sought to expand the scope of linguistic understanding and generativity with elements that could influence its production and implementation. His systemic functional linguistics proposed that language's generativity is not purely innate but is also shaped and constrained by

socio-cultural norms and human experience, which are “the total context of the interaction between an individual and his human [or non-human] environment” (Halliday 1978: 9; brackets added). This perspective moved linguistic research beyond Chomsky’s cognitive and innate framework toward a more comprehensive view that incorporates social interaction and cultural environment by establishing the necessity of social semiotic in the theory of language generativity with elements like: “text, situation, register[tion], code, the linguistic system, social structure” (Halliday 1978: 108; brackets added). Therefore, broadening the generativity ideology to include external influences alongside biological components is essential if the goal is to create a constellation of meanings. Halliday’s approach thus laid the groundwork for the sociolinguistic era, where the interplay between innate capacities and social contexts became central to understanding language development and use.

Both theories introduced by Chomsky and Halliday are powerful and serve different aims: Chomsky explains how language is possible, while Halliday explains how language is used. However, this study adopts an interdisciplinary approach that extends beyond them to complete the language generativity arc by building on the personal dimension of language described by linguist Antonio Culioli. Culioli’s (1995) enunciative theory further advanced linguistic inquiry by focusing on the act of enunciation itself, being the answer to how a speaker (enunciator) produces meaning in context (situation) through choices and interactions (Groussier 2000: 161). Culioli’s (1991-2000) collection of volumes complements and extends Halliday’s theory by emphasizing on a more dynamic point of view and situational nature of language use, instead of viewing language as a static system, highlighting this important perspective that “we cannot countenance considering languages to be codes of a stable, universal reality” (Culioli 1995: 27). Regarding this notion, a text is not predefined as well and meaning emerges not only from social norms but also from the speaker’s subjective position and interactional intentions, thus enriching the understanding of language and its generative aspect as a cognitive phenomenon (Culioli 2000).

To sum up this section, Halliday and Culioli are complementary in their rejection of Chomsky’s formalism, and both focus on meaning in context, speaker agency, and the dynamic nature of language (Table 1). While Halliday centers on social function, Culioli digs into the mental procedures that underlie those functions. Both offer valuable perspectives for understanding how meaning is constructed, especially relevant when examining AI prompting resulting in image generation and human-machine interaction. Culioli’s contextual and inferential approach, which this study adopts as its fundamental method for analysing AI’s generativity, emphasises the speaker’s subjectivity and mental operations in constructing meaning, which are central to understanding the relationship between human and AI.

Table 1.

Key differences between linguistic and semiotic theories of generativity by Chomsky, Halliday, and Culioli

Scholar	Key Work(s)	Core Contribution to Generativity	Linguistic / Semiotic Principles
Chomsky	<i>Syntactic Structures – UG Theory</i>	Proposed Universal Grammar (UG), an innate cognitive system enabling humans to generate infinite sentences from finite rules	Emphasized innate syntactic structures and cognitive mechanisms underlying language acquisition (linguistic)
Halliday	<i>Language as Social Semiotic</i>	Shifted focus to language and social semiotic system where generativity arises from social functions and cultural contexts, not solely innate structures	Developed systemic functional linguistics emphasizing language's social and communicative functions (semiotic)
Culioli	<i>Cognition and Representation in Linguistic: Enunciative Theory</i>	Introduces enunciative theory, focusing on language as dynamic acts of meaning production shaped by speaker's interactional choices. Extended generativity to include situational and subjective aspects.	Highlighted the role of enunciation and speaker's agency in meaning-making (linguistic and semiotic integration for generativity)

2.2. Generativity in the language of images

Images function as a unique language that communicates through shapes, colors, composition, and symbolism rather than words (Mitchell 1994). This language is inherently generative because, semiotically speaking, each viewer brings their own experiences, memories, and perceptions to the acts of semiosis, which can transform and expand the image's significance and generate new meanings (McAdams and de St. Aubin 1992). The great role that images have in today's scientific world is that they "invite us to revisit our conception of enunciation, to relate it more explicitly to a structure of experience, and to give it a place and a meaning in the exploration of our world" (Dondero and Fontanille 2014: 16). In this context, Lacković asserts:

Indeed, in today's world we still need more images that show diverse human experiences, capabilities and identities, including non-human beings and things, and that is one of many reasons why we need to talk about images [...]. Arguably, images can show exclusive representations. (Lacković 2020a: 6)

Within this visual domain, generativity refers to the ability to create and produce novel and meaningful forms, expressions, or shapes; especially pictures that explicitly convey messages capable of being expressed, interpreted, and transmitted within the operation of the semiotic transaction of visual communication (Louvel 2013: 13-14). Generated images to be used in this setting are also a means to be entangled with the action of signs and mind, because “mind translates differences, similarities, objective, subjective, wrong or right in a picture with semiotic systems” (Semetsky 2019: 9). According to this, the concept of generativity will undergo an evolution, extending from its foundational roots in psychology and sociology to encompass broader domains shaped by meaning-making processes in today’s image-saturated world. When applied to images, generativity follows from Halliday’s and Culioli’s theories, which help us conclude that signs are not static or fixed. Rather, they are dynamic, open-ended, and capable of eliciting multiple layers of meaning, subjective interpretation, and emotional response within a broader sociocultural context that we can imagine as the sphere of semiosis.

The generation of new images offers a valuable means to understand society through the lens of pictorial signs. With respect to the digital environment, an image, “if not considered *art pour l’art* without any reference and an artifice on its own, is a reference to something else and as a means of reference is not isolated from a context” (Haase 2022: 158). The capacity to comprehend and translate the language of images into meaningful contexts facilitates the investigation of the transposition of the theory of enunciation in the digital environment and the realm of visual discourse (Dondero 2020: 2). Image generation involves an interdisciplinary dialogue between linguistics and semiotics, which informs the development of specific methodologies for reading pictorial signs within a text or reflecting on those interpreted through a network of connections between the visible elements and the external world beyond the image. This approach aligns closely with the theory of ‘visual rhetoric’² (Group μ 1992 cited in Dondero 2020: 33). Ultimately, as Boling et al. (2014: 28) argues, “viewers of images must interpret them” because the interpretation of the generated contents inherent in the language of image highlights a dynamic interplay among the creator, the image, and the audience, shaping a fluid process of enunciation wherein meaning remains unfixed and is continually redefined through interpretation and creativity.

² Visual rhetoric theory is a critical study of the function of imagery and based on this theory “to understand an image, it is necessary to account not only for what is offered to vision, but also for what lies beyond the frame of the image, that is, what has been excluded” (Dondero 2020: 8). For more information about this theory see F. Andersson’s ‘The Visual Semiotics and Rhetoric of Groupe μ ,’ available at: <https://research.abo.fi/en/publications/the-visual-semiotics-and-rhetoric-of-groupe-%CE%BC-opening-a-dialogue->

Sless (1986) points out that “creators of the texts – including images as texts – have to imagine the readers of those texts who, in return, must imagine the creators of the texts as part of the process of interpretation” (cited in Boling et al. 2014: 31). If this kind of attention to the creator and the audience of the visuals is emphasized more, interpretation of the generated visuals becomes focused on users’ empowerment and relies on their creativity and intuition without centralized control that has an important role in the process of critical thinking. Therefore, the functional role of images is closely linked to this interpretive act and to how the viewer observes the text within a specific illustrative context. It can be understood from these that images can play a key role in many areas to impact on humans’ reflection and inquiry-based knowledge construction, for instance, in the educational research and practice, “visual representations like photographs, diagrams, and models enable students to engage in scientific practices by allowing them to interact with complex phenomena” (Okulu 2025: 2).

2.3. Generativity in the age of artificial intelligence

This section begins by examining the term *generativity*, distinguishing its traditional meaning from its recent transformation amid its redefinition in the age of AI. Generativity, which has acquired new meanings in the context of AI, now involves co-creation between humans and AI in tasks such as text-to-image generation, which leverages AI to convert human-generated ideas into visual representations (Silvennoinen et al. 2024). This act is also known professionally as *prompting*. Prompt engineering is defined by Hobbs (2024: 21) as “the skillful design of language that can be used to enable generative AI to produce high-quality and desirable results.” In fact, AI’s manipulability through algorithms enables the automatic generation of images, a mechanism that takes input and makes a pivotal shift from human-authored creation to computational generation of pre-existing visual data as output. This process led scholars to ethically question the nature of generativity in AI (Lin et al. 2024), currently viewed as a matter of “more ethical than technical” (Leone 2023: 4). Moreover, in this way, AI’s generativity is viewed as a serious concern challenging the idea of “human uniqueness” (Dondero 2025: 133).

Semiotically speaking, D’Armenio, Deliège, and Dondero (2024) take ethical objectives into consideration and pivot their exploration toward a more systematic approach to understanding the degree of human control over the generativity of AI. They evaluate the generated images in a three-layered structure: first, individually; second, with respect to their relevance to the input prompts; and finally, as a whole. In their research, they divided the dimensions of visual composition and evaluation of the text-to-image ability of AI into three categories called: “plastic

category, multimodal translation of actions, and enunciation” (D’Armenio, Deliège, and Dondero 2024: 6). These categories are applied while the viewer intends to semiotically study and describe the accuracy of image generation performed by AI. It begins with the plastic surface, which is a formal reading of the image, then moves to the next dimension to engage more deeply with the multimodal translation of signs into visual representations and their meanings. At this stage, viewers compare the linguistic instructions used for prompting with the generated image. Finally, the third layer of the study evaluates the enunciative articulation presented in the visual images to understand each sign and element within the image, as well as their connections to one another and to other signs invisible in the picture but existing in the surrounding sphere, which can influence the overall meaning of the image (D’Armenio, Deliège, and Dondero 2024: 14).

Having these three-layered structures to describe generativity in AI does not fully address the linguistic component of text creation; rather, it focuses on the second act of prompting, which concerns the image itself. From a linguistic perspective, I draw on the well-known sentence coined by Chomsky (1957) – *‘Colorless green ideas sleep furiously’* – to illustrate how the use of generative AI’s text-to-image prompting should be approached to get a hold on the linguistic composition for prompt activity. Additionally, the structure proposed by D’Armenio and colleagues is to set the stage for examples that demonstrate the human-AI interaction, based on a “comprehensive exploration of their impact on authority and visual rhetoric in the digital age” (Leone 2024: 432). Chomsky’s example reveals that a phrase can be grammatically correct yet semantically nonsensical. This highlights the plastic surface, where verbal language is the enunciator’s primary focus, acknowledging that proper sentence structure alone is insufficient and does not guarantee meaningful communication. In essence, while the organization of words provides a necessary framework for comprehension, it does not inherently convey the intended message. Therefore, a better approach is needed to promote generative AI visual simulations that transcend basic instruction by creating new layers of meaning that emerge through viewers’ evaluation and interpretation (Dai, Suzuki, and Chen 2024). The intended meaning of an AI-generated image depends heavily on contextual factors such as prior knowledge, cultural cues, and the viewer’s interpretive framework, much like Halliday and Culioli noted that sentence structure alone is insufficient to grasp the full meaning without context. The challenge of interpreting AI-generated images is therefore amplified: such visuals may incorporate symbolic or surreal elements, and their meanings are not immediately evident without additional explanation; their compositions may yield multiple, potentially conflicting interpretations that require systematic exploration.

On the one hand, a similar semiotic dynamic operates in the interpretation of AI images; on the other hand, visual arrangement and the inquiry into an image in isolation do not ensure that viewers will grasp the creator's intentional idea in the process of semiosis (the first step to enunciation). Evidently, the production of an image is necessarily followed by the significance of building its contents, and the next step is to guide the consumption of the image according to the context in which it will be used (Lacković 2020b: 450). Following this view, for effective recognition and consumption of AI-generated products and their use across a semiotic scope, it is essential to refine current methodologies and emphasize the generative potential of AI without neglecting the roles of human creativity, interpretation, and competence in controlling and guiding AI outputs. Thus, just as a grammatically correct sentence can be ambiguous or misunderstood without appropriate contextualization, a well-composed AI-generated image can be open to diverse interpretations that diverge from the enunciator's original intent. In summary, both linguistic and visual structures provide scaffolding for meaning but do not guarantee it. The first stage of scaffolding occurs when the enunciator creates a linguistic structure for the prompt to generate an image, while in the following, second stage, the viewer takes the product and uses various factors to consume and interpret what is seen, thereby creating a meaningful illustration. Ultimately, human agency and subjectivity foreground fruitful meaning and generate perspectives through interactive reflection on AI-generated content. This point brings us back to the beginning, where the scale of human-AI interaction and co-creation was explained by positioning humans as the ones who control the input and give instructions to the machine, while AI does the work of generating content. The division of labor between humans and machines can be represented as two sides of a scale, with one side exceeding the other (in this case, AI is doing more *work* in generating new visual content). However, when the question of interpretation and inquiry into what has been created arises, the human scale absolutely becomes *stronger* than the machine's. Particularly in the case of AI images, meaning-making is a dynamic, dialogic process involving the image itself, the viewer's perspective, and contextual clues, which are the very added substance that extends beyond mere linguistic structural elements and introduces us to a constellation of meanings. What should be the object of study forward is the extension beyond a simple descriptive analysis to a level of reading the visuals as signs can be illustrated in a polysemic³ manner for "analysis of all socio-cultural practices involving generative AI" (Dondero, Alonso Aldama, and Leone 2025: 2).

³ Also referred to as Polysemous: having multiple meanings. Retrieved from: <https://www.merriam-webster.com/dictionary/polysemous> (July 2025)

3. Going from 'describing' an image to 'reflecting' on it

The trajectory of Chomsky's UG theory parallels contemporary debates about AI across scholarly and practical fields. This parallel highlights a tension between descriptive frameworks and inquiry-based methods that require critical reflection on the subject matter. In this light, contents which are understood as signs can be developed, and the purpose of generativity is expanded within socially and culturally situated contexts. Crucially, such reflection and meaning-making processes remain grounded in human agency, while AI functions as a supportive tool. As mentioned before, humans occupy the dominant role in interpreting and shaping AI-generated content, and their place "is important in defining the meaning and intentions 'behind' image uses" (Lacković 2020b: 450). Now that humans are surrounded by the digital sphere, there is a strong emphasis on their role as users and on their competence in reading and understanding digital text. This ability is described as a reflective act, known as "the textual and reading experience" (Fadeev 2022: 87), which is essential in contemporary life, intertwined with AI algorithms. Reflection on immersive AI-generated images is essential because these images are created with human enunciation, yet no introductory course or method is available to analyse or reflect on them; nevertheless, they still carry aesthetic and ideological weight.

Dewey defines reflection as "the kind of thinking that consists in turning a subject over in the mind and giving it serious and consecutive consideration" (1934: 3). This meaning aligns with the goal of a deeper analytical approach to image interpretation. Reading images reflectively allows us to uncover the layered meanings embedded in visual culture, helping us understand the world more critically. Reflection, in this context, explores the power relations, dynamics, and ideologies that are often subtly embedded within images. For instance, a beauty advertisement may reflect dominant norms around femininity and whiteness, illustrating how visual media can reinforce societal ideologies. Kress and van Leeuwen (2021) support this approach by proposing a grammar to read visual signs with attention to Halliday's social semiotic model, which, as previously explained, suggests that meanings arise by the action of interpretation, inquiry, and reflection on signs in a social context. The goal of this grammar is to understand "how depictal elements –people, places, and things – combine in visual 'statements' of greater or lesser complexity and extension" (Kress and van Leeuwen 2021: 1). This reflective reading approach requires a shift from mere observation to deeper interpretation. This involves recognizing that visual signs are not neutral or passive exhibits but are active participants in semiosis. As Bertling (2019: 30-31) notes, this reflective process highlights the socio-cultural and relational nature of knowledge construction, where meaning emerges through collaborative and continuous reflection.

To apply the reflective grammar of reading to AI-generated images, this study adopts a comprehensive framework introduced by Gillian Rose (2022) (Figure 1). Her approach encourages moving beyond surface-level description to a deeper critique that includes contextual, ideological, and discursive inquiry. Rose describes this method as a rich pivot in visual analysis, where reflection serves as a bridge between seeing and knowing. By engaging in deliberate contemplation, observers move beyond mere perception of visual stimuli to a deeper understanding of their significance and context. Reflection transforms the passive act of viewing into an active process of interpretation, enabling insights that connect sensory experience with cognitive awareness. Consequently, this approach fosters a more nuanced comprehension of visual material, enriching both the analytical process and the knowledge derived from it. The four sites of her visual methodology highlight the importance of semiosis as the primary act for critically investigating different layers of an image and finding meanings according to the subjective interpretation of signs. Furthermore, she explains:

Interpretations of visual images broadly concur that there are four sites at which the meanings of an image are made: the site(s) of the production of an image; the site of the image itself; the site(s) of its circulation; and the site(s) where it is seen by various audiences and users. I also want to suggest that each of these sites has three different aspects. These different aspects I will call 'modalities,' and I suggest that there are three of these that can contribute to a critical understanding of images. (Rose 2022: 47)

Although Rose's method was not originally developed for the study and interpretation of AI-generated images, this research demonstrates that her approach is highly effective as a semiotic-based methodology for investigating AI text-to-image outputs to better understand their contextual significance. It is essential to be equipped with the right method to engage with images reflectively, comprehending not only what is depicted but also how and why the image conveys its meaning. Reflection asks not just what is shown, but what is missing, who or what is left out, and why that matters. This shift is even more important in the age of AI, as it reframes the investigation of prompts from description to reflection and deeper understanding. The outcome of such a visual methodology in the study of generative AI images is a record of the visual elements presented, their critical evaluation, and an attempt to explain how and why the image works culturally in a polysemous manner. In this way, it would be easier to answer the main research question underlying that: *Do generative AI images engage in the complex, contextual, and inferential processes involved in human meaning-making, or do they simply reproduce surface-level visual patterns without reflective or semantic depth?*

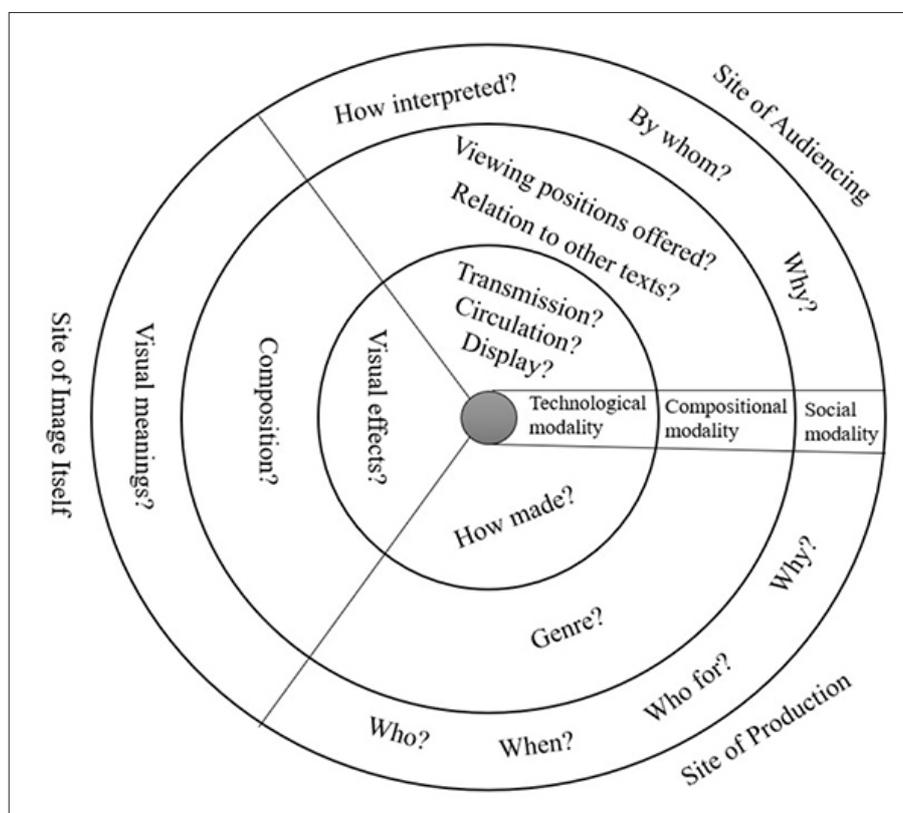


Figure 1. The sites and modalities for interpreting visual materials (Rose 2022)

4. AI-generated images: prompt examples and discussion

This section shows examples of images that were created by the generative AI platform Midjourney and explains how the inquiry was done according to Rose's (2022) visual methodology – separated from her work on semiology as a method– for reflection on the linguistic enunciation, its visual content output, and the socio-cultural and subjective interpretation that affect the context of the images. This approach is chosen to demonstrate the contrast between descriptive and reflective observation of viewers encountering AI-generated prompt content. This study specifically selects the generative platform Midjourney because it is “incapable of reasoning in a meta-semiotic way, namely, to operate a negation of an element expressed in the prompt” (Dondero 2025: 137). Another reason to use Midjourney is it offers artistic choice for non-artistic users who “want to explore their creative ideas but lack a strong grounding in traditional art approaches” (Hanafy 2023: 6). In this case, there will be no restriction in selecting who wants to perform in human-AI case studies that involve an interactive partnership with AI as a buddy. AI generative models, such as Midjourney, operate by integrating probabilistic patterns derived from large-scale training datasets to generate visually coherent images, without necessarily depicting a real-world reference.

In Figures 2 and 3, there are examples of text-to-image prompts created by Midjourney to demonstrate an illustration of the theories discussed; hence, to establish a comparison between the linguistic enunciation and the visual reading of the signs that is guided by Rose's methodology to understand the content (the visible signs existing in the image) and the context (the consumption of invisible signs and elements in relation to what can be seen). For this purpose, it is simply a matter of questioning, reflecting, and interpreting acts which are all part of humans' interactive role in connection with AI-generated images. Examples of questions about the content of the images, to first describe, then interpret, and finally reflect on the context in relation to real life, are listed below.



Figure 2. Prompt (Concept): *'a child sitting on a bench in a countryside and is looking away from the camera'*

- The first stage is the description of the foreground content of the images (production and image sites in Rose's methodology). The focus is on the visible signs and their meanings, which are more descriptive in nature, to ask critical questions about image production:
 - 1) Who do you see in the image? Small child sitting on the bench? Is the child young? Who are the child's parents? The age of the child?

- 2) When is it? Sometime outside of late spring / autumn? Does it look like a nice day? The time of the year? Old or new image?
 - 3) Where is the location? Somewhere rural / in the countryside?
 - 4) What is the child doing? Is the child looking away from / at the camera? What are the outfits and colors that the child is wearing?
 - 5) Why is the child alone? Is he / she waiting for someone (parents-friends) to return or play games? Why is the child smiling / sad? Why is the child outside on the road / in the forest?
 - 6) How does the eye-level viewpoint position the viewer in relation to the figure?
- The second stage is reflection on the context of the images (circulation and audience sites in Rose's methodology). The focus is on invisible signs and guessing their connection to the elements in the images, following a deeper semiosis inquiry to understand the hidden layers of linguistic enunciation to interpret the contexts within the AI-generated images:
- 7) Where does the image come from?
 - 8) How does the bench organize spatial relationships?
 - 9) Why was it created and with what purpose? What was on the mind of the creator? What was the affective intention behind its production?
 - 10) How does seasonal color function in this image?
 - 11) Who consumes the image? Who are the intended audiences of this image?
 - 12) What was the sentence used to create this prompt?
 - 13) Is this a digital image? Have you seen such an image before? Do you think you can find it in Google stock? In what kind of media platform can it be used?
 - 14) What aesthetic norms does the image reproduce as being created by AI?
 - 15) Who is the source of information? Who is standing behind the camera? What do you think was it said to the child to sit in this position?
 - 16) How does the visual style align with widely accepted ideas of "good" or "pleasing" imagery?
 - 17) What kinds of visual diversity seem absent or minimized?
 - 18) What would be other's reaction and consumption of this image? For example, what would a police officer, teacher, or security guard think about this child in the image?
 - 19) How does knowing the image is AI-generated change how you read its visual language?
 - 20) What kinds of decisions are visible as machine decisions rather than human ones?



Figure 3. Prompt (Concept): *'a sustainable classroom to enhance the quality of education'*

The same process can be repeated for images in Figure 3, or any other prompt outputs to question the meaning and intention behind their creation by the enunciator and how generative AI is trying to represent them. Ultimately, a stronger, more interactive bond between humans and AI is possible, and by engaging with AI's generative platforms to imagine future scenarios, humans learn to envision different interpretations and to address semiosis in relation to real-world events and outcomes. A balanced approach to AI integration is essential, and it involves fostering a thoughtful human-AI partnership aligned with ethical principles and critical thinking. Human roles should be guided to view AI as a partner and to question its role in shaping knowledge, with reflection on issues such as bias, accuracy, and implications for real-world contexts. Changing the formation of reading images from descriptive to inquiry-based, which requires a true reflection on what is being observed, evaluation, and ultimately personal interpretation to generate meaning, would cultivate a critical approach that can increase awareness of visual discourse among humans across various contexts. By instilling the theoretical perspective advanced in this article, human-AI interaction moves closer to being reflective rather than descriptive, while using AI responsibly, empowering it as both a consumer and a creator in an ethically sound manner. This study emphasizes that meaning in AI-generated images does not reside only in what is visible but also in how and why certain visual configurations emerge. Inquiry – characterized by careful observation, analytical questioning, and contextual interpretation – enables viewers to examine the latent mechanisms underlying AI image production, including prompt engineering, model biases, dataset composition, and probabilistic generation. This reflective approach directly supports the theoretical claim that understanding AI-generated imagery requires more than technical knowledge; it necessitates cultivating interpretive skills that enable humans to critically engage

with AI-generated visuals across contexts. By learning to question how images are constructed, what assumptions they reproduce, and what visual norms they reinforce or disrupt, individuals can better understand AI agency and prepare humans to make informed decisions in a technology-driven, image-saturated world (Silvennoinen et al. 2024).

Culioli's view that meaning arises from contextual, inferential operations was presented in Rose's visual methodology for reading and critically questioning the concept of generativity in AI. Additionally, this method prompted the study to ask whether AI-generated images convey meaning beyond statistical mimicry. The purpose of our study is to advance future research on AI-generated image production through a reflective, multi-layered inquiry that yields a constellation of meanings, in which images, like narratives, unfold from abstract structures to concrete representations. This framework becomes essential when AI-generated images are inevitable, and there are no choices other than interpretations that evoke mood, narrative, or symbolic and iconic depth. By comparing these linguistic models with the processes behind AI image generation, the paper highlights a tension: AI can simulate visual syntax and style but struggles with the enunciative and epistemic dimensions of meaning. The transition from descriptive viewing (what is seen) to reflective interpretation (what is meant, implied, or felt) requires readers to actively negotiate meaning, which AI itself does not do; however, its outputs provoke such negotiation in human viewers. This calls for acknowledging the layered, semiotic nature of generative images and interrogates their aesthetic, cognitive, and communicative status in a human-AI ecology. In this way, development towards socio-cultural and semiotic awareness of generative AI and its role as a mediator and sign creator will be established.

The grammar of reflective reading of AI-generated images can be used in structures that draw on readers' experiences to highlight the necessity of an apt reading grounded in human agency (subjectivity). More precisely, regarding visual images, their generative style, and the interpretation of the signs at play is a critical approach that would entail the (meta)awareness of the possibility of different viewings and interpretations of the world, because "any genuine sign that *closes* on itself is simultaneously *open* to further interpretation and meaning-making through the paradoxical logic behind the self-referential dynamics of semiosis" (Semetsky 2019: 15). This view helps users of AI's prompts to be socially, culturally, and textually situated on the heavier side of the scale compared to AI in expressing their emotions and understandings in layers of semiotic reflections.

Conclusion

The aim of this study was to examine how the visual generativity of AI (text-to-image) is perceived and what can be critically done to advance reflective, deeper approaches to meaning-making in machine-generated images, focusing on a shift from descriptive to reflective interpretation. Drawing on linguistic and semiotic theories from Chomsky, Halliday, and Culioli, it explores how AI's image generation differs from human meaning-making. While Chomsky's formalist model privileges internal, rule-governed, and rigid structures, it aligns with the computational capacity and algorithmic foundations of generative AI, which similarly rely on statistical and rule-based operations to produce coherent visual outputs. However, such outputs often remain at the descriptive level, without reflecting on the level and interpretation of resemblance and semantic depth. In contrast, Halliday's socially grounded model, combined with semiotics, and Culioli's contextual and inferential approach, challenge the claim that AI-generated images convey meaning beyond statistical mimicry, emphasizing subjectivity, cognition, and context in the construction of meaning. To investigate, the study uses text-to-image prompting examples to explore how human-AI interaction partnerships produce visual content, questioning the concept of generativity and assessing whether AI images involve complex, contextual meaning-making. Findings suggest that meaningful knowledge construction and interpretation require shaping linguistic and enunciative processes in accordance with the language of images in AI-human interaction. Moving from descriptive to reflective interpretation requires that human viewers' key role in evaluating and interpreting generated content be more fully recognized and guided, to supplement AI's syntactic fluency with socially and cognitively grounded frameworks. This interdisciplinary perspective encourages critical reflection on how we read, use, and trust AI-generated visuals in knowledge creation.

AI text-to-image generated copyright statement by author

All AI text-to-image generated images in this article were created using Midjourney. To create images with Midjourney, you will need a subscription plan; the corresponding author purchased one on March 7, 2025. According to Midjourney's content rights, the creator of the images owns all created assets (Midjourney, n.d.-c.).

<https://docs.midjourney.com/hc/en-us/articles/32083055291277-Terms-of-Service>

References

- Bertling, Joy G. 2019. Layered Collaborative Visual Reflection: Sharing Lived Experiences and Making Meaning. *Art Education* 72 (3): 28-38,
<https://doi.org/10.1080/00043125.2019.1578022>
- Boling, E., C. M. Gray, M. G. Modell, A. Altuwaijri, and J. Jung 2014. Learners Interpreting Instructional Images: Meaning-Making and Decision-Making Strategies. *Journal of Visual Literacy* 33 (2): 27-52,
<https://doi.org/10.1080/23796529.2014.11674716>
- Chapman, Siobhan and Christopher Routledge 2009. *Key ideas in linguistics and the philosophy of language*. Edinburgh: Edinburgh University Press.
- Chomsky, Noam 1957. *Syntactic Structures*. The Hague: Mouton.
- Chomsky, Noam 1968. *Language and Mind*. New York: Harper & Row.
- Chomsky, Noam 2000. *New Horizons in the Studies of Language and Mind*. Cambridge: Cambridge University Press.
- Chomsky, Noam 2002. *On Nature and Language*. Cambridge: Cambridge University Press.
- Clarke, Eric F. 2009[1995]. Expression in performance: generativity, perception, and semiosis. In: John Rink (ed.) *The Practice of Performance: Studies in Musical Interpretation*. Cambridge: Cambridge University Press, 21-54.
- Culioli, Antoine 1995. *Cognition and Representation in Linguistic Theory*. Amsterdam: John Benjamins.
- Culioli, Antoine 2000[1989]. Representation, Referential Processes, and Regulation: Language activity as form production and Recognition. In: Antoine Culioli (ed.) *Pour une linguistique de l'énonciation Vol. 1, Opérations et représentations*. Paris: Ophrys, 177-213.
- D'Armenio, E., A. Deliège and M. G. Dondero 2024. A semiotic methodology for assessing the compositional effectiveness of generative text-to-image models (Midjourney and DALL·E). In: Del Bue, A. C., Canton, J. Pont-Tuset, and T. Tommasi (eds.) *European Conference on Computer Vision*. Cham: Springer Nature Switzerland, 112-127,
https://doi.org/10.1007/978-3-031-92089-9_8
- Dai, D., S. Suzuki and G. Chen 2024. Generative AI for professional communication training in intercultural contexts: where are we now and where are we heading? *Applied Linguistics Review* 16 (2): 763-774,
<https://doi.org/10.1515/applirev-2024-0184>

- Dewey, John 1934. *Art as Experience*. New York, NY: Minton, Balch, and Company.
- Dondero, Maria Giulia 2020. *The language of Images*. Cham: Springer Nature.
- Dondero, Maria Giulia 2025. Semiotics of artificial intelligence: enunciative praxis in image analysis and generation. *Semiotica* 262: 111-146, <https://doi.org/10.1515/sem-2024-0195>
- Dondero, M. G., J. Alonso Aldama and M. Leone 2025. Aspects of AI semiotics: enunciation, agency, and creativity. *Semiotica* 262: 1-3, <https://doi.org/10.1515/sem-2025-0014>
- Dondero, Maria Giulia and Jacques Fontanille 2014. *The Semiotic Challenge of Scientific Images. A Test Case for Visual Meaning*. Ottawa, Canada: Legas Publishing,
- Fadeev, Aleksandr 2022. Concept formation and the text in digital culture. *Punctum. International Journal of Semiotics* 8 (2): 83-99, <http://dx.doi.org/10.18680/hss.2022.0017>
- Galofaro, Francesco 2013. Formalizing narrative structures: Glossematics, generativity, and transformational rules. *Signata: Annales des sémiotiques/Annals of Semiotics* 4:227-246, <https://doi.org/10.4000/signata.757>
- Groussier, Marie-Line 2000. On Antoine Culioli's theory of enunciative operations. *Lingua* 110(3): 157-182, [https://doi.org/10.1016/S0024-3841\(99\)00035-2](https://doi.org/10.1016/S0024-3841(99)00035-2)
- Haase, Fee-Alexandra 2023. Beyond Mona Lisa's Smile: A theoretical approach to the persuasion of likeness in the digital image. *Digital Age in Semiotics and Communication* 1: 157-173, <https://doi.org/10.33919/dasc.22.5.8>
- Halliday, Michael A. K. 1978. *Language as Social Semiotic: The Social Interpretation of Language and Meaning*. London: Edward Arnold.
- Halliday, Michael A. K. 2005. On matter and meaning: The two realms of human experience. *Linguistics and the Human Sciences* 1 (1): 59-82, <http://dx.doi.org/10.1558/lhs.2005.1.1.59>
- Halliday, Michael A. K. 2013. Meaning as choice. In: Fontaine, L., T. Bartlett and G. O'Grady (eds.) *Systemic Functional Linguistics: Exploring choice*. Cambridge University Press, 15-36.
- Hanafy, Nervana Osama 2023. Artificial intelligence's effects on design process creativity: A study on used AI text-to-image in architecture. *Journal of Building Engineering* 80, 107999, <https://doi.org/10.1016/j.jobbe.2023.107999>
- Hobbs, Renee 2024. *Media Literacy in Action: Questioning the Media*. London: Rowman & Littlefield.
- Kress, Gunther and Theo van Leeuwen 2021[1996]. *Reading Images: The Grammar of Visual Design*. London: Routledge.

- Lacković, Nataša 2020a. *Inquiry Graphics in Higher Education: New Approaches to Knowledge, Learning and Methods with Images*. Cham: Springer Nature.
- Lacković, Nataša 2020b. Thinking with digital images in the post-truth era: A method in critical media literacy. *Postdigital Science and Education* 2: 442-462, <https://doi.org/10.1007/s42438-019-00099-y>
- Leone, Massimo 2023. The main tasks of a semiotics of artificial intelligence. *Language and Semiotic Studies* 9 (1): 1-13, <https://doi.org/10.1515/las-2022-0006>
- Leone, Massimo 2024. Semiotics of the black box: on the rhetorics of algorithmic images. *Visual Communication* 23 (3): 426-451, <https://doi.org/10.1177/14703572241247120>
- Lin, Francis Y. 2017. A refutation of universal grammar. *Lingua* 193:1-22, <https://doi.org/10.1016/j.lingua.2017.04.003>
- Lin, Z., D. Pathak, B. Li, J. Li, X. Xia, G. Neubig and D. Ramanan 2024. Evaluating text-to-visual generation with image-to-text generation. In: Del Bue, A. C. Canton, J. Pont-Tuset, and T. Tommasi (eds.), *European Conference on Computer Vision*. Cham: Springer Nature, 366-384, https://doi.org/10.1007/978-3-031-72673-6_20
- Louvel, Liliane 2013. From intersemiotic to intermedial transposition: Ex-changing image into word / word into image. In: Nancy Pedri and Laurence Petit (eds.), *Picturing the Language of Images*. Newcastle upon Tyne: Cambridge Scholars Publishing, 13-31.
- McAdams, Dan P. and E. D. de St Aubin 1992. A theory of generativity and its assessment through self-report, behavioral acts, and narrative themes in autobiography. *Journal of Personality and Social Psychology* 62 (6): 1003-1015, <https://doi.org/10.1037/0022-3514.62.6.1003>
- Mitchell, W. J. Thomas 1994. *Picture Theory: Essays on Verbal and Visual Representation*. Chicago: University of Chicago Press.
- Okulu, Hasan Zuhtu 2025. Creating and evaluating instructional materials with generative artificial intelligence: visual representations in astronomy education. *Education and Information Technologies*: 1-20, <https://doi.org/10.1007/s10639-025-13580-y>
- Peluso, Marina 2021. The functional approach, semiotics, and professional discourse. *Training, Language and Culture* 5 (2): 62-72, <https://doi.org/10.22363/2521-442X-2021-5-2-62-72>
- Rose, Gillian 2022. *Visual Methodologies: An Introduction to the Interpretation of Visual Materials* (5th ed.). London: Sage.
- Salthe, Stanley N. 1999. A semiotic attempt to corral creativity via generativity. *Semiotica* 127 (1-4): 481-496, <https://doi.org/10.1515/semi.1999.127.1-4.481>

- Semetsky, Inna 2019. Visual semiotics and real events: Exploring the bricolage of images. *Video Journal of Education and Pedagogy* 4 (2): 90-110, <https://doi.org/10.1163/23644583-00401006>
- Silvennoinen, J. M., K. Fenyvesi, T. Yada, M. Fisk and J. Oppenlaender 2024. Visualizing futures: children's co-created sustainability solutions with text-to-image generative AI. Available at SSRN 5014965. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5014965
- Sless, David 1986. *In Search of Semiotics*. Totowa, NJ: Barnes and Noble.
- Topalidou Laskaridou, A., N. Papadopoulos and D. Koutsogiannis 2022. Contemplating post-digital narrativity: Co-active, multimodal meaning-making on Instagram and its implications on learning. *Punctum. International Journal of Semiotics* 8 (2): 119-142, <http://dx.doi.org/10.18680/hss.2022.0019>
- Ward, Sarah J. and Laura A. King 2017. Work and the good life: How work contributes to meaning in life. *Research in organizational behavior* 37: 59-82, <https://doi.org/10.1016/j.riob.2017.10.001>

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From the Greimasian generative trajectory to generative artificial intelligence: Rethinking the status of the human

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ABSTRACT

This article has as its primary objective to compare generative artificial intelligence (GenAI) with the generative trajectory of meaning developed by A.J. Greimas. We aim to show that, despite similarities, deep learning algorithmic models, which seek to produce verbal and visual texts by involving spaces (latent space, implementation, and visualization spaces), are not generative in the sense understood by semioticians (semiotic square, narrative structures, discursive structures, actantial conversions, modalizations, aspectualizations...). We will thus ask whether the Greimasian generative trajectory of meaning offers a productive framework for highlighting the specificities of contemporary models of algorithmic processes. Conversely, the study examines whether GenAI can serve as an epistemic lens to gain new insights into the Greimasian generative trajectory. Central to this inquiry are both the becoming of the technical object, its individuation, according to Simondon (*genesis* of technical objects), and, with regard to the human, a mode of 'being-with-it' in an 'associated milieu.' Finally, this question will be reexamined through a mixed, 'human-machine' enunciative apparatus. Particular attention will then be paid to the becoming of meaning.

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1. Introduction

Does comparing the process of text or image generation by GenAI with the generative trajectory of meaning developed by Algirdas Julien Greimas (1987) enable us to better identify their specificities, but also to highlight convergences beyond divergences? Although, as we will see, the differences are so great as to cast doubt on the generative character, in the semiotic sense of the term, of the technological process, are there any occasional similarities? In particular, despite major disparities, does such a rapprochement allow us to identify in both models a common *procedure*, i.e., operations responsible (i) for structuring at each *layer*, whether deep or more superficial, and (ii) for leading from one stage or stratum to another? Even if these operations differ in detail? Can we isolate, in both cases, a logic of discretization (disassembly) and of grouping or rearranging features (clusters or configurations of related elements, in the case of GenAI; ‘reassembly,’ Eugeni 2026)? We thus pursue two major objectives: we will ask whether the Greimasian generative trajectory of meaning provides a fertile framework for theorizing contemporary generative artificial intelligence. Conversely, can GenAI serve as an epistemic lens for rethinking the Greimasian generative trajectory? A central focus will be the *becoming of meaning*.

To these objectives will be added a third: to shed new light on the status of humans, particularly when they function as instances of enunciation. Within the Greimasian framework, the semiotician may begin with a text such as Maupassant's short story *Les deux amis* (Greimas 1988 [1976]) to analyze the key moments in the structural production of its signifying forms. We will test the hypothesis that, in the case of AI, humans interact with machines. More specifically, our focus will be on a *hybrid enunciative device*.

Drawing freely on Claudio Paolucci's (2025) reflections, we will revisit the key notion of the hybrid or ‘*cyborg human*,’ a figure that reconfigures traditional boundaries between human and machine. From a semio-linguistic and anthropological perspective, may we say that our meaning-making has always relied on hybrid, distributed processes?

To achieve our third objective, we will adopt an ‘internalist’ perspective (as opposed to the ‘externalist’ position often promoted by Greimasian semiotics). Our focus will then be on the generation of (new) outputs by GenAI, as well as on human-machine coupling during supervised and unsupervised learning and data processing, i.e., on *hybrid human-technical assemblages*.

From the point of view of an enunciation theory, we will ask whether the deployment of underpinning *forces* sheds a new light on the pluri-agentivity involved in artificial generation (Colas-Blaise 2025a) and allows us to identify an underlying machinic *impersonal*. We will argue that the latter operates *within an enunciation sequence* in which

the initial and final phases assign greater responsibility to the human who, while operating within a dual, technically oriented device, leads virtual and actualized configurations visualized on a screen to the stage of fully realized semiotic forms.

We will also continue along this internalist path by linking the notion of generation to that of *genesis*: by scrutinizing the stages of the ontogenesis of technical objects, according to Gilbert Simondon (2017 [1958]), i.e., *individuating* movements, rather than individualizing practices. The aim will be to define the human being *in relation to* the technical object, within an ‘associated milieu.’ The emphasis will be on *transduction* and *modulation* in a generative process that also addresses the ontogenesis of the technical object. We will reflect upon the proper individuation of technical objects in contact with the human, with whom they define a ‘being-with’ within an ‘associated milieu.’

The issues at stake in this article are thus manifold. Overall, we aim to improve our understanding of algorithmic models known as deep learning, such as ChatGPT and DALL•E, which, since the beginning of 2022, have been part of the vast field of GenAI, and to redefine the status of human-machine interaction. In this way, we hope to renew the ongoing debate, especially regarding the relationship between humans and machines. This will be done in light of landmark models that have contributed to the development of semiotics, such as Greimas’s generative trajectory of meaning, which is important for both Greimasian and post-Greimasian scholars, as well as the semiotics of enunciation.

Our article is divided into four sections. After the introduction (Section 1), we will compare the generation process using data-driven algorithmic models with Greimas’s generative trajectory of meaning (Section 2). Next, we will integrate Simondon’s concepts of individualization, including the progressive individuation of the technical object, transduction, and modulation (Section 3). Finally, we will focus on the status of the human interacting with the machine, viewed as a subject of enunciation and, more broadly, as a ‘cyborg human’ (Section 4).

2. The generative trajectory of meaning and GenAI: convergences and divergences

In general, we must acknowledge that, despite similarities, there are epistemological differences between the generative trajectory in semiotics and that of GenAI. We should avoid succumbing to the anthropocentric paradigm, whose threat hangs over much AI work that posits, without further discussion, machinic intelligence, consciousness, and intuition, as if the machine *imitates* the way a human interprets, for instance, an image and becomes involved in meaning-construction processes. Having taken these precautions, we aim to show that the generative trajectory of meaning and deep learning models raises questions about their functioning, and the challenge is to highlight the

specificity of the answers given here and there. Indeed, a better understanding of how algorithms work enables us, *reflexively*, to approach our own language, its weaknesses and strengths, with a fresh perspective.¹

Let us begin by pointing out a fundamental similarity: in both cases, the generation of meaning presupposes the crossing of successive levels, that is, the passage from depth to surface. Immediately, however, we must contrast the actantial conversions, the modal architecture, and axiological underpinnings characteristic of the generative trajectory of meaning with vectorial proximities. Accounting for the latter, then, requires articulating phases that involve *spaces*: from the latent space, to be defined, to the implementation space, which comprises a techno-applicative dimension, and to the visualization space (e.g., the visualization of the output on a screen). It is remarkable that these spaces can themselves be stratified (layers of processing (the network layers), as we will see), one of the most insistent questions for our development being that of the *definition* of the level or layer in the generative trajectory of meaning and in the models handled by GenAI. Moreover, are these models *hierarchical*?

2.1. Toward a definition of the level or layer

First, let us recall the levels that Greimas uses to convert a fundamental semiotic level into an actantial syntax, which, in turn, is manifested through discoursivization (see Fig. 1).

Generative Trajectory			
		Syntactic Component	Semantic Component
Semiotic and Narrative Structures	<i>Deep Level</i>	<i>Fundamental Syntax</i> Operations and relations in the semiotic square	<i>Fundamental Semantics</i> Semantic investment of the semiotic square
	<i>Surface Level</i>	<i>Narrative Syntax</i> Narrative schema: actants and modalities	<i>Narrative Semantics</i> Semantic investment of the actants and the modalities
Discursive Structures		<i>Discursive Syntax</i> Discoursivisation <i>actorialisation</i> <i>temporalisation</i> <i>spatialisation</i>	<i>Discursive Semantics</i> Thematisation Figurativisation

Figure 1. The generative trajectory, adapted from Greimas and Courtés (1982:133).²

¹ Also see the conference entitled “Faut-il être polis avec les intelligences artificielles?”, given by Massimo Leone in the International Seminary of Semiotics (Dondero & Alonso dir.), Paris, June 11, 2025.

² Cf. Trope (2016).

At the first level, the aim is to give the content a form, through the correlation of two contrary semes by means of a relation of junction (conjunction/disjunction), on the one hand, and a reciprocal presupposition, on the other hand. The result is an elementary structure that may be defined on the paradigm model, the relations of contrariety and contradiction giving rise to positional values, as shown in the semiotic square. Yet, as Jean Petitot-Cocorda (1982, 1985) notes, we need to be sensitive to a dynamic that, inside the semiotic square, takes us from one position to another (negation of one of the terms through the operation of contradiction and, at the same time, affirmation of the contradictory term), rather than to a purely static organization of terms. In a way, this deep-seated dynamic foreshadows the movement underlying an operative syntax of conjunctions and disjunctions between subjects and objects at the following, superficial level of a narrative, anthropomorphic schematization.

Without going into all the details, we can highlight the fact that the actantial dimension, at the surface level dedicated to a narrative grammar, establishes relations between subjects and objects, the former being modalized³ in being and in doing (wanting, being-able-to, knowing-how-to-be/to-do), as well as between subjects and anti-subjects: this controversial or polemical relationship illustrates the conversion of the paradigmatic relation of contradiction, at the deep level, into the anthropomorphic syntax at the surface level.⁴

Finally, the discursive structures host the figurative level:

[...] the figurative level of discourse, which is the final domain of the narrative trajectory, is characterized by the investment of themes and values in figures. Figures, defined as “figures of content which correspond to the figures of the expression plane of the natural semiotic system” (Greimas and Courtès 1982:120), when strung over sequences, constitute their discursive configurations. (Perron 1987: xxxv)

From a theoretical point of view, the main problem, then, lies in creating transitions between the levels, ultimately reaching the discursive structures. The Generative Trajectory of Meaning may be called a ‘transpositional model,’ in which procedures

³ We will argue below, from a jointly semiotic and Simondian point of view, that modalization is underpinned by continuous modulations.

⁴ Yet, cf. Ricoeur (1989) about the coherence of the theory: “Ricoeur basically takes issue with the model on three counts. The first concerns the conversion of contradiction at the deep level, into polemic at the surface level; that is to say, polemical negativity cannot be derived either from the taxonomic relations of contradiction-contrariety, or from the syntactic operation of negation. The second is related to the fact that there exist syntagmatic supplements at the surface level that cannot be obtained from the conversion of the fundamental grammar to the surface grammar. The third is that the praxic-pathic dimension of narrative sets into play a semantics of action that activates a syntax whose very intelligibility is mixed, since it is both phenomenological and linguistic [...]” (Perron 1987: xxxii).

implicated in vertical conversion establish “equivalences” between levels, which come with *enrichment*. As Paul J. Perron notes, “[...] each new articulation is an enrichment or increase in meaning, so that in proceeding from the deep level to the surface levels the surface must be considered as richer than the deep level” (1987: xxx).

Does the idea of different levels also apply to algorithmic processes? A major point of divergence must be acknowledged from the outset: in the Greimasian model, what is at stake is an *a posteriori* analytical reconstruction carried out by human analysis. GenAI, by contrast, allows us to witness – without fully disclosing all its mechanisms – the actual operative process through which meaning-bearing artifacts (verbal texts, images, and so forth) are produced by the machine's manipulation of signs. In the former case, the perspective is ‘externalist,’ insofar as the unveiling of generativity takes place within human interpretation; in the latter, by contrast, we can adopt an ‘internalist’ perspective, attentive to the process of generation itself as it unfolds across spaces, as we will see.

The question of a *hierarchy*,⁵ inherent in the Greimasian trajectory of meaning, is pressing: we may argue that the generative artificial processes produce a ‘flattening’ effect, as ChatGPT 4 and DALL•E 3 generate the surface level (implementation and visualization on a screen) ‘directly,’ without an explicitly hierarchical semantic trajectory. However, according to recent work by Erden and Faltings (2025), which highlights the relevance of research in evolutionary biology for the future development of AI, the notion of flatness, particularly insofar as it implies an absence of hierarchy, must be carefully nuanced. As Erden and Faltings (2025) emphasize, AI systems achieve “interval decoupling” and “modularity” by using “encapsulation and core processes”; “selective reuse and hierarchical organization” are supported by “high-level regulatory processes”; and “existing knowledge” is preserved through processes of “growth, local variation, and selection.” As biological organisms possess core properties such as modularity, hierarchical organization, and repetition, balancing the preservation of traits with the generation of new structures, it is unsurprising that evolutionary-developmental biology, for instance, provides valuable insights that can suggest potential pathways for future AI development. Adaptability to the environment plays a crucial role.

We also note the absence of *transformational rules* at the basis of a syntax such as that governing the narrative path in Greimasian semiotics. Due to the probabilistic logic of ChatGPT 4 and the diffusion-based logic of DALL•E 3, which refines noise towards the most likely image for a prompt, as we will see, one may consider that in both cases, the logic is primarily distributional, rather than organized into explicit *levels of meaning* like in Greimas’s semiotic model. Distributionality, that is, the topologization

⁵ For a thought-provoking discussion, see Basso Fossali (2024).

of similarities investing the latent space⁶ step by step, may be opposed to hierarchy. The term also refers to the multifaceted agency of technical agents such as algorithms, databases, materiality, randomness, and humans.⁷ We will return to this point in the context of the enunciative sequence.

This is not to say that all stratification is absent from algorithmic processes. One immediately thinks of deep neural networks (DNNs), which are stratified in a way very different from Greimas's semiotic stratification. In the latter case, one might speak of a hierarchical flow, in which each level transforms and constrains the next, while also allowing progressive enrichment at successive stages (thanks to successive 'convocations'). For their part, deep neural networks are built on a layered architecture, each layer transforming data into increasingly abstract representations.⁸ Whereas early layers detect *low-level features* (edges, tokens), mid layers give rise to *compositional patterns* (phrases, shapes), and late layers capture *high-level abstractions* (semantics, 'style'). To put it in a different way: in a deep neural network, each layer changes the representation. In the case of verbal text, very early layers correspond to word position and token⁹ embedding¹⁰ (token identity, co-occurrence patterns...), whereas middle layers correspond to syntactic patterns (phrase boundaries, order constraints, dependencies...) and deeper layers to 'semantic' relations (for instance, abstract 'meaning'¹¹). Whereas early layers are biased toward local lexical and positional features, middle layers show sensitivity to syntactic relations, and later layers emphasize "semantic" abstraction. These aspects, however, are distributed and not strictly separable. We immediately notice an important difference in the generative trajectory of meaning, which combines semantic and syntactic components at each level from the outset, unlike the modularity observed in DNNs.

⁶ Antonio Somaini (2023: 77) defines the latent space, i.e., 'black box,' as a multidimensional space in which deep-learning algorithms convert digital objects, i.e., large quantities of images and text, into so-called 'latent' representations. These can then be subjected to processes and used to generate new digital objects, including images and text. While the notion of latent space can be extended to any 'computational' space involved in encoding and decoding, its compressed part, which handles the transition from input to output via the encoder and decoder, corresponds to the bottleneck. The latter comprises the compressed representation of the input. At the decoding stage, the output is constructed from the input's latent representation. If the difference between input and output data is accompanied by reconstruction loss, the aim is to achieve 'correct' reconstruction. At the same time, as we will see, innovative artifacts may be created.

⁷ See Dondero, Alonso Aldama and Leone (2025) about agencies involving both human and non-human entities. See the initial prompt, the revised prompt, the annotated database, the algorithms, and the stochastic or random dimension of computational processes. Agentivity is distributional. See Colas-Blaise (2025a).

⁸ A representation, in this very technical sense, does not refer to 'reality.'

⁹ The token, which corresponds to a word, part of a word, punctuation, is obtained by segmenting a text corpus

¹⁰ The 'embedding' model in the 'latent space' is a means of representing text, images, and audio as points in a continuous 'vector space,' i.e., of transforming data into numbers, into machine-readable numerical "vector representations." A vector may be defined as an array of numbers indexed by dimensions, whose dimensionality increases with the complexity of the data.

¹¹ The notion of computational 'meaning' will be reexamined later. We will argue that the subject of enunciation guides virtual and actualized configurations to the stage of fully meaningful forms. In the pages that follow, we will use quotation marks to indicate that by 'semantics' we mean virtualities of meaning. While it is true that words, for example, necessarily possess a semantic component (Lenci and Sahlgren 2023), we argue that this component is virtualized by algorithms that manipulate signs.

Model (LLM), that implicates GenAI text or image applications (besides sound and music, video), we must ask ourselves if the way a deep learning algorithm is trained on differentiated, yet unstructured data, which are devoid of a predefined format or structure, has something in common with the uncovering of semes, in semiotics. We have seen that, at a fundamental level, these engage in relationships of contrariety and contradiction, following the structure of the semiotic square.

This aspect deserves special mention: in the case of ChatGPT, spatial proximity attests to similarity relationships that are translated into topological positions. Indeed, semantic similarity corresponds to geometric proximity. How can we understand that distributional similarity is encoded topologically? Structural relationships (syntax, ‘semantics’) emerge as geometric relations thanks to Transformers,¹³ i.e., neural networks (DNNs), operating on sequences of token embeddings. Tokenization, i.e., segmentation of the text corpus into tokens (words, subwords, punctuation), happens before training and during training, when a sequence of tokens calls for the prediction of the next token based on the previous one. Thus, every token, word/subword, or sentence is mapped to a learned embedding vector in a high-dimensional embedding. The vector is adjusted during training so that tokens with similar contexts get closer in vector space. The topology includes clusters (regions with ‘semantically’ or ‘stylistically’ similar concepts) and neighborhoods (points close to each other corresponding to outputs with small variations), and directions produce non-linear ‘meaning’ shifts.

These topological positions *do not primarily* correspond to *logical* articulations (contrariety and contradiction), although cats are statistically differentiated from dogs, truth from falseness, good from evil, etc. Categories like ‘cats’ and ‘dogs’ emerge as statistically distinct clusters. Let us consider DALL•E 3: its embeddings capture distributions of visual features—colors, shapes, textures, and compositions – rather than binary conceptual oppositions. ‘Meaning’ arises from high-dimensional associations learned from data, rather than from a structured semiotic logic (in a Greimasian sense). The objective is to map text prompts to plausible visual patterns via probabilistic correlations, rather than to organize representations according to deep semantic structures.

When we compare *statistical* correlations and *probabilistic* relations with the relationships of contrariety and contradiction in the semiotic square, this observation takes on particular significance, as it prejudices unfavorably an assimilation of the elements (tokens) discredited by deep learning models to the semes linked by contrariety and contradiction within the semiotic square.

¹³ At the very beginning, computational efficiency requires the transformation of high-dimensional data into lower-dimensional representations. Then, thanks to embeddings, which capture semantic relationships and syntactic constructions, models such as ChatGPT 4 can learn complex patterns, for example between words and categories, beyond the analysis of each word in isolation, and understand code semantic and syntactic structures.

Tuning involves selecting content-specific data to improve the performance of AI applications. *Retrieval-augmented generation* (RAG) is thus a technique that aims to enhance the *accuracy* of AI models. Although a *non-differentiable* retriever like ChatGPT-4 is modular and uses a two-stage training approach, RAG is compatible with backpropagation when the retrieval component is *differentiable*. The reason we mention the backpropagation algorithm here is that the phenomenon of recurrence, on which it is based, and the horizontal development in which it is inscribed, draw our attention to a major issue: the minimization of the error between the input and the output. As backpropagation works backward from the output, the 'gradient' of the 'loss function,' i.e., the difference or loss between the desired output and the network's actual output, can be measured. Tuning also involves incorporating human feedback to produce more accurate outputs.

Accuracy is also a major issue for ChatGPT-4. It ensures this, to some extent, through scale, i.e., training on trillions of tokens (statistical accuracy), tuning, and human feedback. For DALL•E 3, accuracy is based on 'semantic' alignment with the prompt, rather than on factual correctness. In our view, this is a crucial point, since, unlike the generative trajectory of meaning, output accuracy immediately competes with the drive to produce new, at least partially unforeseen outcomes. Indeed, owing to contingency and randomness, algorithmic generative processes can produce novel configurations, attesting to *computational creativity*. Beyond the accuracy of the output, in terms of a resemblance between input and output, 'optimizing algorithms' can make adjustments, and give rise to *variation effects* through new connections between datapoints. The emphasis here is less on given 'semantic' content than on partially *unpredictable* connections. Thanks to contingency, which is context-dependent, and to randomness, which is introduced *into* the computational system, i.e., into the deep learning models (D'Armenio, Rosso and Voto 2025), they can account for *creative agency*.

Digging deeper into this question by focusing our attention more closely on the third phase, that of *generation*, we are then led to reflect on the conditions under which new elements can be produced, and we may contrast the progressive *enrichment* at the different stages of the Greimasian generative trajectory with the ceaseless production of *variants* ('variation principle') in the case of GAI.

From the outset, can the overall idea of producing outputs like the inputs (for instance, an image of a dog that does not resemble a cat), i.e., as accurately as possible, but also the use of latent space for generating new data (Manovich and Arielli 2024),¹⁴ echo the idea of a permanent *enrichment* in semiotics? We have seen that, in the latter case, the production of meaning mobilizes the fundamental and surface levels of

¹⁴ While being based on probabilistic prevision, generation comprises a dose of randomness.

the generative trajectory of meaning, up to discursive structures. It can be argued that, in the case of GenAI, innovation through randomness is enriching. However, this type of enrichment should be distinguished from the contribution of actantial conversions, narrative syntagmatics, axiologies, thematic investments, and, finally, figurativity or even iconicity, which is linked to the emergence of the notion of the sensible.¹⁵ As far as AI is concerned,¹⁶ ChatGPT 4 not only creates a descriptive, ‘semantically’ rich prompt for DALL•E 3, but also analyzes the output created by DALL•E 3 and attaches ‘semantic’ tags (meta-data enrichment). DALL•E 3 (like other diffusion models) uses a denoising process to generate images: each denoising step, i.e., the removal of noise according to the text prompt, adds ‘semantic’ structure, moving from random pixels to coherent objects and relationships. Pixels are aligned with ‘semantic’ concepts.¹⁷

As far as the variation principle is concerned, a basic image can be transformed in numerous ways, yielding a set of variants that can be examined either paradigmatically or in their evolution. This is due, to a large extent, to random fluctuations that influence generation within the computational system. While the human can intervene, for example, by replacing 5% of an individual’s genes associated with segments and chosen at random-by-random integers (Zammit, Liapis and Yannakakis 2022), technical randomness also occurs when the machine ‘does what it has to do.’ Invention through randomness, possibly arising from the machinic processes themselves, accounts for computational creativity.

2.3. A dynamic process

In short, the overall idea is that of a process that mobilizes layers and operates horizontally and vertically, creating discontinuity through segmentation and feature extraction. The latter enter into relationships of contrariety and contradiction in Greimas’s generative trajectory. In the case of artificial generative processes, they are connected and combined in various configurations.

Analogy must not hide major differences. These differences can be observed at the level of *dynamic process deployment*. A Transformer encodes the training data into embeddings that, without human expertise, represent objects such as text and images as points in a continuous vector space. Co(n)text will be learned, and relationships between the words and the groups of words in a sentence will be tracked. When a verbal text is encoded by a Transformer-based text-to-image diffusion model, the

¹⁵ Also see Pelkey (2017) about the logical square: “These diagrams are embodied relations rooted in gestalt memories of kinesthesia and proprioception from which we derive basic structural awareness of opposition and contrast such as verticality, bilaterality, transversality, markedness and analogy.”

¹⁶ See Colas-Blaise (2025b) about ‘digital aesthesia,’ according to Munster (2006).

¹⁷ We will postulate later in the text that humans drive virtualities at the stage of the realization of meaningful forms.

model progressively generates an image from noise via a process of corruption. Diffusion is guided by the textual input. When the process is reversed, random noise is transformed into a coherent image, once again under the guidance of the verbal text.

This deployment may then recall the *narrative scheme* (surface level of the Greimasian trajectory of meaning). In Greimasian semiotics, only movement can effect the transition from the initial to the final state; a moment of crisis serves as a trigger, after which successive actions resolve it. It may then be tempting to establish a correspondence between the polemic-contractual component, which is one of the most fundamental structures of narrative grammar, and Generative Adversarial Networks (GANs),¹⁸ which comprise two adversarial neural networks, the aim being to generate increasingly high-quality output. As Massimo Leone (2023) puts it,

when one reads the founding article of Generative Adversarial Networks (GAN) through the lens of semiotics, one is struck above all by two elements: 1) the conception of artificial intelligence it expresses is based on the idea of antagonism (not cooperation, nor simple competition); 2) the metaphor that best explains the new deep learning architecture is that of the counterfeiter and the connoisseur (in particular, in money-making).

While it may be convenient to consider the antagonisms within the GANs in light of the narrative schema, and vice versa, this reading quickly fails to capture the specificities of both models, and caution is called for. ChatGPT 4 and DALL•E 3 can generate narratives,¹⁹ but neither ChatGPT 4 nor DALL•E 3 is inherently built on a 'narrative logic.' As we have seen, rather than a narrative logic with causal chains or a trajectory resulting from syntactic and semantic transformations, their underlying architectures are designed to model statistical patterns. ChatGPT-4 can be viewed as a 'probabilistic next-token predictor,' and we know that DALL•E 3 maps textual prompts to visual patterns. Thanks to correlations, a narrative logic involving competentialized, performing actants, conjunctions, and disjunctions with objects of value, modalities, and axiologies, is replaced by statistical likelihoods and pattern completion.

At this stage, we may attest to a general dynamic by attending, alongside a polemical structure, to the tensions arising from extracting features from the base data and integrating them into potentially innovative configurations. At the same time, the question of computational dynamics can be further clarified through Simondon's theory of technics.

¹⁸ ChatGPT 4 and DALL•E 3 do not rely on GANs.

¹⁹ About the narrative in the visual text, see e.g., Colas-Blaise (2019).

3. From generation to genesis: the individuation process

In this section, we attempt to articulate the generative trajectory of meaning and the artificial generation process in relation to the ontogenesis of technical objects, as defined by Gilbert Simondon (2011). This genesis implies the evolution of a ‘technical essence.’

Technics seems at first to be reduced to an interface, at best a mediating instrument. The technical object is distinguishable from the natural being in the sense that it is not part of the world. It intervenes as mediator between man and the world; it is, therefore, the first detached object; there are, in fact, three types of reality: the world, the subject, and the object, which is an intermediary between the world and the subject, the primary form of which is the technical object (Simondon 2011: 417).

We would argue that, if the technical object assumes the role of mediator between the human and the world, this same role falls to the technical processes themselves. The machine is not endowed with consciousness in the same way as the human: it does not make axiological choices, nor, *a fortiori*, justify them. If the human prompt that urges ChatGPT 4 and DALL•E 3 to produce an image similar to a 16th-century painting of nude deities²⁰ is not immediately acted upon, the moral reasons invoked by the machine refer back to the normative horizon of the programmers – in this case, to a total ignorance of the canons of the Mannerist work of art.

As for machine intuition, it cannot be equated with human intuition. Alban Leveau-Vallier is very explicit:

The model of intuition proposed by deep learning captures only a tiny fraction of these [human] characteristics. The ‘intuition’ it implements is a circuit for storing and activating automatisms acquired through experience, which makes it possible to obtain answers without knowing how they were formed. [...] This is the ‘opacity’ of neural networks. (Leveau-Vallier 2023: 356; our translation)

Still, there is some kind of *individuation*, in a restricted, Simondonian sense.²¹ According to Susana Aires (2025), the individuation of deep neural networks, i.e., their becoming technical objects, relies on large datasets. Their individuation can be traced back to potentialities that enable us to move beyond the stage of the already existing. Implying material processes as well, it cannot be reduced to a process of *individualization* that is either a confirmation or a subversion of existing subjects endowed with a

²⁰ Cf. the painting Bacchus, *Venus and Cupidon*, by Rosso Fiorentino (c. 1535-1539). Luxembourg: Museum of Archaeology, Art, and History (Colas-Blaise 2025c).

²¹ Cf. Simondon (2020 [1964]).

stabilized technical identity. Thus, Aires' focal point is less the 're-surfacing' of patterns (of 'dog' or 'cat,' for instance) established during the training process, i.e., the outputs that are more or less predictable, than the learning procedures of deep learning models. She underscores that whereas individualization "helps understanding technical lineage" and can best be described through the notion of crystallization, individuation is fundamental, as it enables us to emphasize the *potential* of neural networks to produce novel connections.

If technology enters 'humanness' (Zylinska 2020), conversely, only humans can enable technology to realize its full potential. Thus, only a human prompt can initiate the generation of artifacts by artificial intelligence, as in ChatGPT-4 or DALL·E 3. Only humans can judge technical processes, select artifacts, and comment on them.

Technology, then, produces, at least in some cases, a novel unity between human and artifact, thanks to the 'associated milieu,' which constitutes a space of potentiality. Let us take it a step further. We argued that technology is *creative*, producing new connections, thanks to the margin of indeterminacy²² (cf. a (pseudo-)randomness; Colas-Blaise (2025a)). Thus, we can move beyond the strict logic of *function* and *use*, bringing technical processes closer to *vital* ones. The latter become engaged in individuations through relational reconfigurations of embodied perceivers and technical objects, beyond normative framings. In this sense, technology itself produces events that Simondon would call 'dis-individuating,' enabling the individuals involved to go beyond their individuality. Indeed, we contend that not only art, but technology itself encounters *transductive*²³ forces at the root of new possibilities. We argue that these forces are impersonal²⁴ and collective.

The notion of 'individuating becoming' now sheds new light on the mechanisms we previously uncovered. We assume that it is on the stage of 'becoming' that 'it' or 'that' (*ça*) is made and unmade. By 'it' or 'that' (*ça*), we mean the connections made and unmade by a machine instance that captures a set of pixels as vectors, feeds them through layers of neural networks, and assigns weights. When ChatGPT 4 translates a human prompt into a revised one, 'it' or 'that' (*ça*) is projected forward, according to grids of predictability: this word or group of words attracts that other word or group of words, based on similarities and dissimilarities. This happens by virtue of Distributional Semantics (Lenci and Sahlgren 2023) and syntactic constraints. 'It' or 'that' (*ça*) challenges itself, when bifurcations undermine strict verbal linearity and establish a multi-layered composition (descriptive, 'tabular,' i.e., paradigmatic sequentiality). The revised prompt may thus facilitate conversion into visual language.

²² The indeterminacy may exist within the code (Fazi 2024).

²³ The concept of transduction is associated with that of metastable equilibrium.

²⁴ See Leone (2025) about digital impersonation and a redefinition of personhood.

Following Susanna Lindberg (2019: 300), we can then argue that the object mediates a relation that is ‘transindividual,’ that is to say, “it does not connect already constituted individuals but expresses the pre-individual reality thanks to which individuations can take place.” Beyond being merely an instrument, the technical object is part of a community grounded in human beings’ *being-with-technical objects*. The technical object, Lindberg (2019: 302-303) observes, is also a relation and a being-with *itself*. For this very reason, the technical being can evolve “through convergence and self-adaptation: It unifies itself internally according to a principle of inner resonance” (Simondon 2017 [1958]: 26).²⁵

Let us sum up. The notions of technicity, transduction, and modulation, which resonate with our proposals for transversal agents and forces, allow us to better understand individuation arising from differentiation and the tensions inherent in disparity. One may conceive “the *emergence* of a new technical individual *within* the technical object itself, i.e., an individuation of the embryonic computational model based on largely autonomous articulation of what may be termed *inner* technicities ensuing from data-model relationality” (Aires 2025: 3119). As Aires underlines, “individuation is contingent on the *situated data node-relation* occurring in the order of thousands or millions of neural connections qua calculations, rather than simply pertaining to data inputs and (intended) outputs” (2025:3120).

This takes us beyond fully determined data inputs or outputs and opens the door to invention. At the core of these processes are the network layers implicated in learning highly complex features. The distinction between individualization and individuation enables a clearer understanding of a ‘generative’ model that builds an artificial representation of the data, with each layer responsible for further decomposition and abstraction, learned from the previous layer. Combined with an ontogenesis, we can account with Aires (2025) for technical emergence, for the *pre-individuality of data*, for new data-potentials exceeding the already-there, i.e., the constituted and strict prediction. Individuation then has a relational basis.

Finally, three aspects deserve particular attention. First, when deep neural networks individuate, granular data emerge. It is remarkable that it is in the granular ‘data-node encounter’ (Aires 2025: 3119), i.e., in the transformation of data into the smallest possible, elementary elements (for example, the conversion of shapes into pixels) that the “*signification* of language can be found” (we underline). We are back to the basic principle of analysis.

Second, in the case of the conversion of the human prompt into a prompt revised by ChatGPT 4, for example, a probability calculation consists of the calculation of the percentage probability that this word leads to that one, to this other group of words, or

²⁵ The notion of unity will be reexamined later.

even to this syntactic construction. Yet, we have seen that a dose of indeterminacy and contingency in algorithmic techniques allows us to get beyond strict prediction. As Aires (2025: 3114) puts it, it “enables an exploration of the technicity of neural models – a technicity pertaining to functioning and expressive of potential beyond utility or use.” An essential point is that the process of individuation conceived by Simondon authorizes the human being to experience a being with the technical object that “reveal[s] and acces[ses] the latent sensibility” (Aires 2025: 3116).

Third, as we have seen, transduction and modulation are two modes of individuation. The concept of *transduction* denotes the procedure that occurs when there is activity, both structural and functional, which begins at a center of the being and extends itself in various directions from this center, as if multiple dimensions of the being were expanding around this central point (Simondon 1992: 313). We believe that it resonates, to some extent, with the translativity enabled by the deployment of collective and impersonal forces mentioned above. Simondon adds the following:

I see it as a mental procedure, or better, the course taken by the mind on its journey of discovery. This course would be *to follow the being from the moment of its genesis, to see the genesis of the thought through to its completion, at the same time as the genesis of the object reaches its own completion.* (Simondon 1992: 314)

Consequently, there is widespread connectivity among humans, technical objects, and their milieus. The individuation appears compatible with the idea of an agential distributivity rooted in a broad network, with agents being both human and non-human.

Let us add to this that transduction and modulation may suggest the presence of a background that is not only dynamic, but also *continuous*, on which the discretizations that create discontinuity take place (Colas-Blaise 2025a). The superimposed strata of CNNs, for instance, are ‘traversed,’ thanks to a fundamental energization. A similar ‘translative’ movement takes us from latent space to the space of implementation, right up to the moment of visualization on a screen. Underlying forces exert pressure on all the layers, producing a ‘binding effect’ between them (Colas-Blaise 2025a). What role is the human expected to assume? The digital artist’s enunciation can then be described as *transenunciation*, in the sense of non-digital transenunciation (Colas-Blaise 2023), but within very specific modalities. This is the perspective we will adopt in the final section. We will sketch an *enunciative sequence* by examining how the human enunciator interacts with the machine.

4. The hybrid human-machine apparatus

One of the questions raised in Section 2 concerned *computational creativity*, while computational models are first said to “add more of the same” to the same (Berns and Colton 2020). We aimed to differentiate between (i) enrichment through expansion and condensation at the levels of tensive correlations and discursive structures (figurativization: discursivization through actorialization, temporalization, and spatialization), within a ‘whole of meaning,’ and (ii) a seemingly infinite variability, which transforms and renews database contents. Computational creativity acts through the production of a variety of non-deterministic outcomes, despite statistical correlations and formal constraints. The evolving nature of latent spaces warrants emphasis. D’Armenio, Rosso, and Voto (2025) sum up the situation as follows:

[...] latent spaces must be recognized as pivotal semiotic sites where human and artificial agencies intersect, continuously renegotiating boundaries between determinacy and unpredictability, visibility, and invisibility, and ultimately redefining the very essence of meaning-making in contemporary culture.

Still, should we not address the question of whether the machine actually *produces meaning*? More precisely, could it be that the machine functions by manipulating signs, the production of meaning depending, at least partially, on the involvement of the human interpreter, who engages with the digital configurations, visualized on a screen?

According to Greimas (1989 [1984]: 633), the unit of the signifier, which may correspond to visual features subsequently globalized, is “recognizable, when it is framed by the grid of the signified, as the partial representation of an object from the natural world.” However, in the case of GenAI, the content produced does not refer to the world, but at best to content included in the database or circulating on the net, i.e., to what *has already been said* (*‘déjà-dit and ‘déjà-vu’*),²⁶ which is repeated and constantly modified. Moreover, as far as computational calculation is concerned, relational structures take precedence over the circulation of explicit content (Bachimont 2025). As mentioned above, ChatGPT-4 and DALL•E 3 are *probabilistic models*.

We argue that if the manipulated signs necessarily include a semantic component (Lenci and Sahlgren 2023), their content is converted into *virtualities* (notably

²⁶ See the ‘enunciative praxis’ studied in semiotics by Greimas, Bertrand (1993), and Fontanille (2003 [1999]). On this subject, see also Dondero (2025).

through tokenization, vectorization, and probabilistic calculations)²⁷ which, when actualized, i.e., visualized on a screen, reach the stage of realization only through the interpretation of the human. As previously noted, GenAI systems – such as Large Language Models or text-to-image diffusion models – operate by statistically predicting patterns of symbols (words, images, etc.) based on massive datasets. Machines do not ‘mean’ things, at least not the way humans do.²⁸ They lack intentionality, consciousness, or subjective understanding (Leveau-Vallier 2023). However, AI ‘produces semantics’ by generating artifacts that engage human interpreters in the act of meaning-making. For example, a story generated by an LLM can convey themes, characters, and narrative coherence. An image generated from a text prompt can evoke recognizable objects, emotions, or concepts.

From a semiotic perspective, one key question concerns the ‘grounding’ of computation, i.e., the possibility of machine-based *contextualization*. The debate between those who defend the idea of purely symbolic manipulation, detached from reality, and those who emphasize an *indexical AI* is of utmost importance for anyone seeking to contribute to a theory of enunciation. In the latter case, digital systems, by virtue of their neural networks, are said to *point* toward realities in an indexical manner (cf. Weatherby and Justie 2022: 382).

The question of indexicality warrants further discussion. We argue that there is indeed a form of machine indexicality, if by this we mean an indexicalization effected through algorithmic processes that point to code, databases, the human observer, and so forth, thereby functioning as signals. Nevertheless, we contend that there is no indexicality if the term is understood as a way of pointing to context through symbolic representations. Such representations, in our view, fall to the human enunciator, who, through a hybrid human–machine apparatus, brings virtual and actualized configurations to the stage of realization.²⁹ Contextualization then remains a human prerogative: it is the human who realizes the virtualized and actualized contents, where *realization* is defined by Fontanille (2003 [1999]: 289–290) as the encounter between the forms of discourse and reality. When implemented within semiotic regimes, the machine’s signs are situated in contexts that enable them to contribute to the construction of representations of the world.

²⁷ The notion of virtuality must be articulated with that of potentiality (see above, in relation to individuation according to Simondon). The virtual may be related to potentialities. i.e., the ‘possibilities’ (for meaning-making) afforded by algorithmic functioning. See Colas-Blaise (2025a) on the notion of the virtual, notably in the sense in which Vitali-Rosati (2009) understands it. In this article, we also assign the term ‘virtuality’ a more technical meaning, namely, considering the product of operations of virtualization. More broadly, we argue that algorithmic processes generate *effects* of meaning (a simulation of meaning).

²⁸ Also see Paolucci (2025).

²⁹ Also see the processes of entextualization and contextualization in the sense articulated by Silverstein (2014) and Nakassis (2025).

Certainly, algorithmic functioning relies on co-textualization – such as when verbal texts are generated by combining tokens based on probabilistic calculations – and it demonstrates a certain degree of context sensitivity. However, contextualization, understood as the dynamic establishment of relationships within a specific semiotic situation and the orchestration of interactive practices, remains, in my view, the exclusive domain of the human enunciator. This point is crucial because it allows us to conceptualize the *actedness* (Nakassis 2025) of human enunciation. Indeed, assertions and representations both construct a context and are, in turn, reshaped by it. The human enunciator can thus act upon the world and engage with it more effectively. It is a social and cultural activity that brings context into being (Dourish 2004), and the acting subject is itself transformed in the process.

The stakes are significant: three conceptions of enunciation involving both humans and machines come into play. On the one hand, one may defend the thesis of *machinic enunciation* (D'Armenio, Deliège and Dondero 2024), with a particular focus on the machine's mode of 'vision' (Somaini 2022), which discretizes images, detects edges and boundaries, identifies shapes, and distinguishes color regions, among other processes. On the other hand, one may reject this thesis, reducing the machine to a mere tool – or perhaps a prosthesis – that the human enunciator employs to extend their range of action. Finally, one can examine the human – machine interaction, with the human considered inherently 'cyborgian,' in the sense proposed by Paolucci (2025).

In this case, the *hybrid* dimension of human enunciation is highlighted and emerges as a key factor. The confrontation between humans and machines invites us to reconsider the concept of 'constitutive heterogeneity,' as discussed by Jacqueline Authier-Revuz (1982), in a broader sense – beyond linguistics, and even beyond psychoanalysis – within a semiotic-anthropological perspective.

According to Authier-Revuz (1982), heterogeneity materializes through an interweaving of voices. Fundamentally, as Bakhtin posits, we are inhabited by the speech of others, yet the stereotype multiplies and anonymizes its source: the 'one' (*on* in French) speaks through me, and often the origin of the other's utterance cannot be localized. 'Constitutive heterogeneity' is linked to a process of decentering, the subject being 'divided,' 'split,' without being 'doubled.' If there is no center, Authier-Revuz (1982) writes, the illusion of a center must nonetheless be maintained, since the subject is, "fundamentally, an 'effect of language.'" The subject emerges against the backdrop of collective, often anonymous discourse, when the 'I,' taking responsibility for the stereotyped or reported content, creates the *illusion* of recovered unity. In the case of algorithmic models, the 'one' (*on*) resonates – or perhaps conflicts – with the machinic 'it' or 'that' (*ça*). This 'it' or 'that' then governs computational translation (Colas-Blaise 2026) according to probabilistic calculations, generating outputs based on correlations and combinations – for example, the arrangement of patches within regions of a digital image.

The notion of *dividuality* helps advance the discussion. Beyond political contexts, we invoke the ‘dividual’ to “conceive of our subjectivities as composed of multiple, heterogeneous relations, which are violated when forcibly reduced to the supposedly indivisible unity of the ‘individual’” (Citton 2012: 71; our translation). Machine functioning expands this concept: it applies not only to humans but also to machinic processes, encompassing the disassembly of cultural materials and their reassembly through combinatory and hybridized units in new, “a-historical and a-cultural” productions (Eugeni 2026). The notion of machinic dividuality benefits from being combined with the notion of *distributivity*, which characterizes the agents underpinning the machinic ‘it’ or ‘that’ (ça) (Colas-Blaise 2025a) When agency is distributed across multiple instances – algorithms, databases, prompts, randomness, and humans—, these elements form a heterogeneous network of circulations, transfers, translations, and transductions. It is built upon a system of delegations. Participation within this network can then be understood as ‘condividuality’ (Ott 2018).

Until the human enunciator interprets digital systems, the relationship thus falls short of a full Subject–Object dynamic: “I have the machine do, which in turn has me do” – to paraphrase Latour (2000: 11). The ‘making-do’ (*faire-faire*) guarantees a transcendence of the subject–object dialectic. What matters, then, is ‘attachment’ – the ‘right’ attachment, the connection – particularly with the machine, we would add. Adapting Latour’s propositions to our argument, we contend that humans make the machine act, and the machine, in turn, makes humans act as well as ‘exist’ (*faire-être*), contributing to the construction of the human as a hybrid enunciating instance. It is through interpretation that this instance may be elevated to the status of a subject of enunciation, while presenting an illusory unity.

To further elaborate the notion of a mixed human enunciative instance, let us recall, in a semiotic-anthropological perspective, that the machine may be regarded as a tool inscribed in the long tradition of fire and flint and, as such, as contributing to *humanness* (Zylinska 2020: 53). As Zylinska suggests:

We could suggest that this algorithmic relationship which humans depend on is not only actualized in the post-industrial society, even if it does take a particular form and turn at that time, but rather that it has been foundational to the constitution of the human as a technical being – who actuated this humanness in relation with technical objects such as fire, sticks and stones (see Simondon 2016; Stiegler 1998). (Zylinska 2020: 53)

As is well known, for André Leroi-Gourhan (1965: 40), the “tool is, in a sense, exuded by humans in the course of their evolution,” because of the externalization of operative programs. The “manipulative action of primates, in which gesture and tool

are indistinguishable” is followed by the “hand in direct motricity” (humans cutting a branch with a flint), the “hand in indirect motricity” (the arrow launched by means of a drawn bow), the hand that “triggers a motor process” (as in a mill), and finally the hand that “initiates a programmed process in automatic machines, which not only externalize the tool, gesture, and motricity, but also encroach upon memory and mechanical behavior” (1965: 42, our translation; *apud* Citton 2012: 60–61).

Our proposals advance the reintegration of the ‘tool’ within a hybrid enunciative framework. Does this imply the postulation of a (recovered) unity, as suggested by Vilém Flusser (2000: 27): “This is a new kind of functioning in which human beings are neither the constant nor the variable, but in which human beings and apparatus merge into a unity”? Freely drawing on Paolucci’s theoretical proposals (2025), we instead consider the human as fundamentally split, hybrid, or ‘cyborg’ – as Paolucci himself would put it – fundamentally diverse, not only in the sense articulated by Authier-Revuz (1982), but also by virtue of its coupling with tools. The unity that appears to emerge from *being-with-the-machine* is illusory. At best, it is a semblance of unity produced by the act of enunciation of a subject who says ‘I,’ thereby creating the illusion of extricating himself from the ‘one’ (*on*) and the ‘it’ or ‘that’ (*ça*). Within the Benvenistian tradition, one would say that ‘I’ rises to the status of subject of enunciation by mobilizing not only the system of natural language, but also the signs manipulated by digital systems.

The sequence of enunciation proposed elsewhere (Colas-Blaise 2025a) should then be expanded. Let us recall its main outlines. We argued that the intermediate stage of the sequence is characterized by the deployment of generative dynamics through a multiplicity of agents among whom agency is distributed. The initial stage corresponds to human programming, selection, and the formulation of prompts, while the final stage is defined by the interpretation of digital artifacts by the human observer who describes, comments on the artifacts visualized on a screen, asserts, and evaluates them a posteriori (see Greimas 1974; enunciation as “a ‘descriptive’ metalanguage,” Fontanille 2003 [1999]: 283).

However, in the case of a dualist, or even plural understanding of human–machine enunciation, this ‘externalist’ perspective is insufficient. An ‘internalist’ approach emphasizes the formation and development of the fundamentally hybrid *human-machine* instance of enunciation. During the final phase, the ‘internalist’ perspective can be combined with an ‘externalist’ approach.

Indeed, allying algorithmic processes with the human ones enables us, at least within certain limits, to understand how meaning is generated. The machine does not think, nor does it produce meaning on its own, even though a virtualized “semantic” component is inherent in the signs it manipulates (Lenci and Sahlgren 2023). In our view, only human intervention enables the construction of a contextualized

representation of the world, while computers merely process unattached symbols. Interpretation, as we have suggested, consists in the human realization of the virtual and actualized configurations visualized on a screen by the machine. It may bring to light the layers and interwoven strata, sediments, and deposits (Bruno 2017) of the digital image-text, for example, as they are entangled with memorial elements. As the 'archaeological' interpretation of the digital image is based on traces, the 'internalist' approach may be combined with an 'externalist' perspective. Indeed, during this final phase, the human reconstructs the layers of meaning from traces, critically engages with the artifacts, and assesses them a posteriori (see also Fontanille 2003 [1999]).

Despite a largely 'internalist' perspective, in which humans interact with the machine by bringing virtual and actualized configurations to the stage of realized, fully signifying forms, this final moment reminds us of the a posteriori approach underlying the Greimasian model. As we have seen, the latter seeks to provide a structural understanding of how signifying forms are produced. Throughout the two phases of interpretation of digital artifacts – 'internalist' and 'externalist' – the human observer seeks to posit himself as an illusory 'I' in simulating an apparent singularity.

In this framework, the tasks assigned to the machine and to the human are distributed: rather than isolating the figure of the human, one can conceive of a human-machine apparatus in which agency is alternately distributed (Colas-Blaise 2025a), *in varying proportions*. We suggest that within this complex arrangement, the human functions as the instance that programs, issues instructions, and delegates certain competencies to the machine, before ultimately guiding virtual and actualized configurations toward the stage of realization. It is the human component that mobilizes the virtual and actualized configurations and gives rise to meaning (in the semiotic sense) in the final stage of the sequence. This complex enunciative apparatus – within which the human makes the machine act (*faire faire*), which in turn makes the human act (*faire faire*) and exist (*faire être*) as such, necessarily dual if not plural – thus accounts for the generation of meaning as an always (technically) mediated process.

As mentioned above, what is emphasized is a form of hybrid enunciation that reconceives 'constitutive heterogeneity.' The implications for the semiotic theory of enunciation, as elaborated within Greimasian and post-Greimasian semiotics, are considerable. The hybrid human-machine apparatus allows us to move beyond the paradigm Subject-Object. As far as the trajectory of meaning is concerned, this draws attention, by way of contrast, to its specificities, showing how a given structuralist epistemology allows a human to render meaning intelligible. As a 'grammar of reading,' it retains heuristic value, but it cannot be regarded as a universal model of meaning generation. In this respect, the human-machine enunciative apparatus functions as a *revelatory* framework that compels semiotics to rethink generativity beyond the isolated human subject.

5. Conclusion

Are there convergences and divergences between Greimas's generative trajectory of meaning and the generative process of AIs? What do they teach us about the two types of functioning that, despite the emphasis on generativity in both cases, undoubtedly possess strong specificities? Following our investigation, we may contend that, although it is possible to observe, here and there, the same logic of analysis, segmentation, extraction, and, finally, combination, particularities must be highlighted on both sides.

Algorithmic processes cannot be conceived of as generative in a pure Greimasian semiotic sense. The specificities pertain to the status of database contents, their embedding, and the transformations, based on the principle of connectivity, to which they are subject. Therefore, the apparent analogy between the generative trajectory of meaning and GenAI conceals several decisive differences.

First, what distinguishes them from the outset is the human analytical approach, which, by adopting an 'externalized' perspective, reconstructs the levels of the generative trajectory of meaning a posteriori, as opposed to the machine's generation of (new) outputs, often variants, where the perspective is instead 'internalist.'

Second, the generative trajectory, as formulated by Greimas, is a theoretical model of intelligibility. It allows the analyst to evaluate meaning in terms of structural adequacy, coherence, and semantic consistency. The analytical and reconstructive device aims to make explicit the structures that underlie signifying practices. Whereas GenAI is a technical system of production, without necessarily providing an account of the meaning of the artefacts. The generation precedes their semantic interpretation. GenAI optimizes performance according to metrics (e.g., likelihood, loss functions, user feedback), rather than according to semiotic norms. In Greimas's model, by contrast, meaning is generated through a structured progression from deep semantic categories to surface discursive forms, governed by syntactic and semantic constraints.

Third, the generative trajectory presupposes that meaning is oriented toward values, modalities, narrative structures, and figurativization. GenAI, by contrast, lacks axiological orientation in the semiotic sense. Any apparent 'style' emerges from statistical optimization rather than from a value-driven narrative logic. What is often described as a 'latent space' is not semantic in the strict semiotic sense, but mathematical. While latent representations may correlate with semantic *effects*, they do not constitute a system of values or oppositions that can be interpreted independently of their outputs.

This 'internalist' perspective has been further explored through the key notion of GenAI *dynamics*, which has been elaborated theoretically, particularly in relation to Simondon's concepts of individuation and transduction. If one thus advances the

idea of a reciprocal individuation of the technical object and the human within an ‘associated milieu,’ the analytical focus can shift toward the human–machine dyad and their interactions. This essential dimension is discussed in the final section of the article through the crucial notion of the fundamentally hybrid or ‘cyborg’ human (Paolucci 2025).

It then becomes possible to further develop the sequence of the human–machine enunciative process. In the final phase of this process, the human may articulate an ‘I,’ simulating detachment from the collective and impersonal ‘one’ (*on*) or ‘it’ (‘that’) (*ça*). The human thereby produces a *fictive* representation of themselves as a unified – or seemingly unified – subject of enunciation. This, more than ever, highlights how a deeper understanding of algorithmic processes enables a more precise grasp of the human enunciator’s status, as described in linguistics and semiotics. Advancing the idea of fundamental hybridity enables a reformulation, within a semiotic–anthropological framework, of Authier-Revuz’s (1982) notion of ‘constitutive heterogeneity,’ originally articulated in linguistic and psychoanalytic terms.

Might the dual (and even plural) ‘human-machine’ instance then be seen as emblematic of posthumanism? Undoubtedly, this holds if humanism is defined as human superiority over other forms of life and over tools – that is, the nonliving. As regards this, we agree with Zylinska (2020: 152–153), who argues that “we need to open up the human sensorium to other forms of intelligence and perception, to recognize our entanglement with creatures and machines, to look around, askew.”

How We Became Posthuman? asks Hayles (1999). The urgent task is to question the traditional idea of the autonomous individual, of the self-sufficient and isolated human, and to oppose it with that of a human–machine symbiosis operating within networks. The ‘identities’ are always provisional, ultimately subjected to a plural and collective internal differentiation – a process powerfully evidenced by stereotypy. The emergence of the enunciating subject who says ‘I’ thus reflects a contingent, illusory crystallization, perpetually challenged and reconstituted.

Posthumanism or a new humanism? ‘Constitutive heterogeneity’ (Authier-Revuz 1982) is not merely a property of the enunciating subject but, more broadly, a fundamental characteristic of the human. Human identity has been mutable since prehistoric times, shaped through intimate relations not only with other living beings but also with the nonliving, including tools and artifacts. The entanglement with machines to which humans have delegated certain of their capacities and tasks since roughly the second half of the twentieth century, and more recently through generative AI, would then be merely a (post)modern manifestation of this longstanding dynamic, developing at remarkable speed. It is noteworthy that today, biological models are frequently invoked to conceptualize a future centered on AI embodiment and embodied artificial cognition. We, as ‘cyborg’ humans, are being called upon in unprecedented ways.

References

- Aires, Susana 2025. On the Individuation of Complex Computational Models: Gilbert Simondon and the Technicity of AI. *AI & Society* 40, <https://doi.org/10.1007/s00146-024-02152-2> (Accessed January 2026).
- Authier-Revuz, Jacqueline 1982. Hétérogénéité montrée et hétérogénéité constitutive: éléments pour une approche de l'autre dans le discours. *DRLAV* 26: 91-151.
- Bachimont, Bruno 2025. L'espace-temps du calcul: position virtuelle et distance réelle. *Signata* 16.
- Basso Fosssali, Pierluigi 2024. De la générativité à la "circuitation": instanciations et modèles diagrammatiques d'une écologie sémiotique. *Actes Sémiotiques* 130, <https://doi.org/10.25965/as.8223> (Accessed January 2026).
- Berns, Sebastian and Simon Colton 2020. Bridging Generative Deep Learning and Computational Creativity. In: F. Amilcár Cardoso, Penousal Machado, Tony Veale and João Miguel Cunha (eds.), *Proceedings of the Eleventh International Conference on Computational Creativity*. Coimbra: Association for Computational Creativity, 406-409.
- Bertrand, Denis 1993. L'impersonnel de l'énonciation. *Praxis énonciative: conversion, convocation, usage*. *Protée* 21 (1): 25-32.
- Bruno, Giuliana 2017. Dressing the Surface. *Necsus* 6, <https://necsus-ejms.org/dressing-the-surface/> (Accessed January 2026).
- Citton, Yves 2012. *Gestes d'humanités. Anthropologie sauvage de nos expériences esthétiques*. Paris: Armand Colin.
- Colas-Blaise, Marion. 2019. Comment penser la narrativité dans l'image fixe? La "composition cinétique" chez Paul Klee. *Pratiques* 181-182.
- Colas-Blaise, Marion. 2023. *L'énonciation. Évolutions, parcours, ouvertures*. Liège: Presses universitaires de Liège.
- Colas-Blaise, Marion 2025a. La machine crée, mais énonce-t-elle? Le computationnel et le digital mis en débat. *Semiotica* 262: 147-187, <https://doi.org/10.1515/sem-2024-0188> (Accessed January 2026).
- Colas-Blaise, Marion 2025b. L'IA au risque de la sémiotique: générativité computationnelle et espaces pluriels. *Signata* 16.
- Colas-Blaise, Marion 2025c. Le numérique et les normes: normes, stéréotypes et affordances. *Actes sémiotiques* 133, <https://doi.org/10.25965/as.9105> (Accessed January 2026).
- Colas-Blaise, Marion 2026. De la translation computationnelle à la transduction : monstration ekphrastique et individuation. *Signata* 17 (forthcoming).
- D'Armenio, Enzo, Dondero, Maria Giulia and Adrien Deliège 2024. Semiotics of Machinic Co-Enunciation. About Generative Models (Midjourney and DALL·E). *Signata* 15, <https://doi.org/10.4000/127x4> (Accessed January 2026).

- D'Armenio, Enzo, Rosso, Aluminé and Christina Voto 2025. Presentation. *Signata* 16.
- Dondero, Maria Giulia 2025. Semiotics of artificial intelligence: enunciative praxis in image analysis and generation. *Semiotica* 262: 111-146,
<https://doi.org/10.1515/sem-2024-0195> (Accessed January 2026).
- Dondero, Maria Giulia, Alonso Aldama Juan and Massimo Leone 2025. Aspects of AI Semiotics: Enunciation, Agency, and Creativity. *Semiotica* 262,
<https://doi.org/10.1515/sem-2024-0195> (Accessed January 2026).
- Dourish, Paul 2004. What We Talk About When We Talk About Context. *Personal and Ubiquitous Computing* 8(1):19-30,
<https://www.dourish.com/publications/2004/PUC2004-context.pdf>
(Accessed January 2026).
- Erden, Zeki Doruk and Boi Faltings 2025. On the Parallels Between Evolutionary Theory and the State of AI. arXiv.2505.23774v1,
<https://doi.org/10.48550/arXiv.2505.23774> (Accessed January 2026).
- Eugeni, Ruggero 2026. Superman in Delft. Thinking about Enunciation with Visual Generative Artificial Intelligence. *Signata* 17 (forthcoming).
- Fazi, M. Beatrice 2024. Machines That Create: Contingent Computation and Generative AI. *Media Theory* 8 (2): 01-12,
<https://doi.org/10.70064/mt.v8i2.1115> (Accessed January 2026).
- Flusser, Vilém 2000. *Towards a Philosophy of Photography*. London: Reaktion Books.
- Fontanille, Jacques 2003 [1999]. *Sémiotique du discours*. Limoges: Pulim.
- Greimas, Algirdas J. 1974. L'énonciation (une posture épistémologique). *Significação* 1,
<https://doi.org/10.11606/issn.2316-7114.sig.1974.90115> (Accessed January 2026).
- Greimas, Algirdas J. 1987. *On Meaning: Selected Writings in Semiotic Theory*. Algirdas Julien Greimas. *Theory and History of Literature* 38. Minneapolis: University of Minnesota Press.
- Greimas, Algirdas J. 1988 [1976]. *Maupassant. The Semiotics of Text. Practical Exercises*. Transl. P. J. Perron. Amsterdam: John Benjamins.
- Greimas, Algirdas J., Collins, Frank and Paul J. Perron 1989 [1984]. Figurative Semiotics and the Semiotics of the Plastic Arts. *New Literary History* 20 (3), Greimassian Semiotics: 627-649, <https://www.jstor.org/stable/469358> (Accessed January 2026).
- Greimas, Algirdas J. and Joseph Courtés 1982 [1979]. *Semiotics and Language: An Analytical Dictionary*. Transl. L. Crist. Bloomington: Indiana University Press.
- Hayles, N. Katherine 1999. *How We Became Posthuman. Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago, IL: The University of Chicago Press.
- Latour, Bruno 2000. Factures/fractures: de la notion de réseau à celle d'attachement. In: André Micoud and Michel Peroni (eds.), *Ce qui nous relie*. La Tour d'Aigues: Éditions de l'Aube, 189-208.

- Lenci, Alessandro and Magnus Sahlgren 2023. *Distributional Semantics (Studies in Natural Language Processing)*. Boston, MA: Cambridge University Press.
- Leone, Massimo 2023. The Spiral of Digital Falsehood in Deepfakes. *International Journal for the Semiotics of Law* 36: 385–405,
<https://doi.org/10.1007/s11196-023-09970-5> (Accessed January 2026).
- Leone, Massimo 2025. Exceeding Singularity: A View on the Cognitive Semiotics of Impersonation. *Reti Saperi Linguaggi* 14.
- Leroi-Gourhan, André 1965. *Le geste et la parole*. Paris: Albin Michel.
- Leveau-Vallier, Alban 2023. *IA. L'intuition et la création à l'épreuve des algorithmes*. Ceyzérieu: Champ Vallon.
- Lindberg, Susanna 2019. Being with Technique–Technique as Being-with: The Technological Communities of Gilbert Simondon. *Continental Philosophy Review* 52: 299-310.
- Manovich, Lev and Emanuele Arielli 2024. *Artificial Aesthetics*. Chicago (17th ed.),
<https://manovich.net/index.php/projects/artificial-aesthetics>
(Accessed January 2026).
- Munster, Anna 2006. *Materializing New Media: Embodiment in Information Aesthetics*. Hanover, New Hampshire: Dartmouth College Press.
- Nakassis, Constantine 2025. (Im)personalizing Enunciation. *Semiotic Review*,
<https://doi.org/10.71743/k99f5r76> (Accessed January 2026).
- Paolucci, Claudio 2025. *Nati cyborg. Cosa l'intelligenza artificiale generativa ci dice dell'essere umano*. Roma: Luca Sossella.
- Ott, Michaela 2018. *Dividuations. Theories of Participation*. Cham: Palgrave Macmillan.
- Pelkey, Jamin 2017. Greimas embodied. How Kinesthetic Opposition Grounds the Semiotic Square. *Semiotica* 214 (1): 277-305,
<https://doi.org/10.1515/sem-2016-0188> (Accessed January 2026).
- Perron, Paul J. 1987. Introduction. In: Paul J. Perron and Frank Collins (transl). *On Meaning: Selected Writings in Semiotic Theory. Algirdas Julien Greimas. Theory and History of Literature* 38. Minneapolis, MN: University of Minnesota Press, xxiv-xlv.
- Petitot-Cocorda, Jean 1982. Introduction. Aspects de la conversion. *Actes sémiotiques. Le Bulletin du groupe de recherches sémio-linguistiques* 24: 5-7.
- Petitot-Cocorda, Jean 1985. *Morphogenèse du sens I*. Paris: PUF.
- Ricoeur, Paul 1989. Greimas's Narrative Grammar. In: Paul Perron and Frank Collins (eds.), *Paris School Semiotics. Vol I: Theory*. Amsterdam: John Benjamins, 3-31.
- Silverstein, Michael 2014. The Voice of Jacob: Entextualization, Contextualization, and Identity. *English Literary History* 81(2): 483-520, DOI:10.1353/elh.2014.0022 (Accessed January 2026).
- Simondon, Gilbert 1992. The Genesis of the Individual. In: Jonathan Crary & Sanford Kwinter (eds.), *Zone 6: Incorporations*. London: Zone Books, 297-317.

- Simondon, Gilbert 2011. On the Mode of Existence of Technical Objects: The Genesis of Technicity. *Deleuze Studies* 5(3): 407-424.
- Simondon Gilbert 2017 [1958]. *On the Mode of Existence of Technical Objects*. Transl. C. Malaspina and J. Rogove. Washington: Univocal Publishing.
- Simondon, Gilbert 2020 [1964]. *Individuation in Light of Notions of Form and Information*, trans. T. Adkins. Minneapolis, MN: University of Minnesota Press.
- Somainsi, Antonio 2022. On the Altered States of Machine Vision: Trevor Paglen, Hito Steyerl, Grégory Chatonsky. N-ICON. *Studies in Environmental Images* 1(I), <https://orcid.org/0000-0002-5977-9798> (Accessed January 2026).
- Somainsi, Antonio 2023. Algorithmic Images: Artificial Intelligence and Visual Culture. *Grey Room* 93: 74–115.
- Trope, Rovena 2016. A Model for Defining the Concept and Practice of Translation, from the Perspective of Greimassian Semiotics. *TTR Traduction, terminologie, rédaction* 29(1), <https://id.erudit.org/iderudit/1050714ar>
DOI: <https://doi.org/10.7202/1050714ar> (Accessed January 2026).
- Vitali-Rosati, Marcello 2009. La virtualité d'internet. Une tentative d'éclaircissement terminologique. *International Webjournal* 4, http://www.sens-public.org/article.php3?id_article=669 (Accessed January 2026).
- Weatherby, Leif and Brian Justie 2022. Indexical AI. *Critical Inquiry* 48 (2).
- Zammit, Marvin, Antonios Liapis and Georgios N. Yannakakis 2022. Seeding diversity into AI art. *13th International Conference on Computational Creativity* 7: 201-219.
- Zylinska, Joanna 2020. *AI Art: Machine Visions and Warped Dreams*. London: Open Humanities Press.

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The generative *illusion* of Large Language Models: Language between human subjectivity and algorithmic computation

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ABSTRACT

In recent years, Large Language Models (LLMs) have raised critical questions regarding generativity. This article examines the relationship among language, *natural intelligence*, and artificial intelligence (AI) in artistic practices such as writing, with regard to the interplay between generativity and creativity. It investigates whether – and to what extent – such systems can participate in the generative processes that characterise human language, thus bringing the classical notions of generativity into dialogue with the operational dynamics of LLMs. AI’s ‘meaning simulation’ strategies will be examined through a playwriting experiment using ChatGPT. We will show that AI generativity remains at the level of surface structures, without fully accessing the semionarrative transformation that defines the *parcours génératif*, while LLMs yield a ‘generative illusion,’ keeping within the discursive level only. The impression of creativity arising at the intersection of computational recombination and human semantic investment is a hybrid artefact that reveals our interpretive habits and the machine’s generative constraints. As a result, a distributed but asymmetrical model of generativity emerges. Machines provide statistically significant discursive forms; humans provide semantic depth, narrative transformation, and cultural resonance. The article traces the tension between two registers of meaning-generation: one formal, combinatorial, and distributive; the other temporal, intentional, and transformative. We propose to name this tension the *double register of generativity*.

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This double register exposes why comparisons between human and artificial modes of meaning-making often founder on category mismatch. The machine's outputs are not deficient because of a mere lack of competence, but because they operate according to a different ontological logic, namely, distributional semantics and contextual attention rather than chronogenetic and enunciative operations. The result, as Claudio Paolucci suggests, is that the machine compels us to confront the machinic essence of human beings themselves: we too are generative machines, though endowed with temporality, intentionality, and value-oriented transformations.

Introduction

In recent years, Large Language Models (LLMs) have raised critical concerns regarding generativity (Andler 2023; Bajohr 2024; Cerutti and Laterza 2023; D'Armenio et al. 2024, 2025; Dondero 2025; Floridi 2018, 2023, 2024, 2025, 2025a, 2025b, 2025c, 2025d; Leone 2023; Maestri 2025; Monti 2025; Paolucci 2025). Indeed, there is an increasing development of advanced machine learning systems to simulate (the mode of) human thought. This article examines the relationships among language, *natural* intelligence, and artificial intelligence (AI) in artistic practices such as writing.¹ The textual production of AI – usually termed *wrAlting*² – raises far-reaching points regarding the relationship between generativity and creativity. We propose to investigate whether – and to what extent – such systems can participate in the generative processes that characterise human language, thus bringing the classical notions of generativity into dialogue with the operational dynamics of LLMs.

AI's 'meaning simulation' strategies will be examined through a playwriting experiment carried out with ChatGPT. Furthermore, the differences between computational generativity – based on the statistical combination of linguistic patterns – and human creativity – based on intentionality, internal temporality, and semantic awareness – will be illustrated. One shall emphasise how AI generativity tends to remain at the level of surface structures (Greimas and Courtés 1982), without fully accessing the semionarrative transformation that defines the *parcours génératif* (generative trajectory). Rather, it is meant to highlight to what extent LLMs yield a

¹ It is important to clarify that the distinction between *natural* and *artificial* intelligence adopted in this essay does not rely on an essentialist opposition between human and machine. Rather, it designates two different regimes of meaning-generation. Human generativity unfolds through chronogenetic, enunciative, and value-oriented operations, while LLM-based generativity operates through distributional semantics, contextual attention, and statistical recombination. The relevance of the distinction, therefore, does not lie in the (im)possibility of automation, but in the semiotic structure of the processes involved. Indeed, the very success of contemporary AI in simulating linguistic behaviour makes the difference between these regimes analytically more visible, not less.

² As Luciano Floridi points out, *wrAlting* «becomes the art of crafting targeted prompts that guide an LLM toward generating the desired narrative output» (Floridi 2025c: 7).

‘generative illusion,’³ thus keeping within the discursive level only, while Greimasian generativity requires semionarrative transformations involving intentionality, temporality, and actantial coherence. Accordingly, the opening section of this article shall outline the concept of generativity, offering a theoretical framework to suggest a model of *distributed but asymmetrical generativity*, in which the human meta-author is (still) the one who manages the generative process.

Ultimately, drawing on the studies of Gustave Guillaume (chronogenesis), Antoine Culioli (mental gestures), and Luciano Floridi (distant writing), among others, we shall highlight how human generativity involves cognitive and subjective operations that cannot be reduced to syntax alone. The article thus aims to offer a further attempt at a transdisciplinary investigation into the limits and illusions of artificial intelligence, focusing on how semiotics can provide critical tools to address the issue of meaning generation in both human and artificial languages. In conclusion, we shall attempt to outline how, when comparing human intelligence and artificial intelligence, the main issue is that the categories we are disposed to use to understand humans are still unable to convey the complexity of their condition. Therefore, the foremost challenge is to establish a comparison between the two modes of generating meaning, since the categories we currently apply are not yet fully capable of resolving the issue of the double register of biological and cultural subjects in which human beings are depicted (Anderl 2023).

The claim to mechanise human thought

Mechanising processes that humans routinely perform is an endeavour that predates the rise of computers. Indeed, one of the most abiding features of human culture is the ambition to mechanise reasoning, to externalise the processes of thought into technical or symbolic artefacts. This pursuit permeates philosophical, scientific, and literary traditions, shaping a horizon in which AI can be understood less as a sudden innovation than as the most recent chapter in a long-standing enterprise. As far back as ancient times, Aristotle’s syllogism provided a model of reasoning that was both descriptive and prescriptive. When presenting inference as a measurable and reliable procedure grounded in formal structures, Aristotelian logic thus introduced the idea that thought could be codified and formalised. As a result, logic became one of the first technologies of the mind, a method for reproducing rationality independently of individual intuition. Medieval scholasticism, in its attempt to reconcile Aristotelian logic with theological discourse, further reinforced the conception of reasoning as a system of rules which could be mechanised.

³ In what follows, the term *illusion* does not denote a deception of the interpreter, but a semiotic effect. On the conceptual risks of this term in media theory, see Natale (2021).

At the turn of the modern science, this ambition found new ways to be developed. 17th-century thinkers such as Gottfried Wilhelm von Leibniz (Leibniz and Loemker 1956) conceived a *characteristica universalis*, a universal language of symbols through which reasoning could be reduced to calculation. The very idea that controversies could be solved mechanically, via the enforcement of a formal calculation, reveals the deep-seated desire to transfer cognitive labour into artefacts of symbolic manipulation. To this extent, Leibniz anticipates both the algorithmic logic of computation and the semiotic aim of formalising meaning through structured operations. Nevertheless, the 20th-century marked a decisive turning point. Alan Turing's machine (1936) translated the abstract notion of computation into a formal model capable of performing logical operations one at a time. Turing's machine embodies the yearning to make artifacts capable of reproducing the generative power of thought, reducing reasoning to a sequence of basic operations. From a semiotic perspective, this model highlights the combinatorial dimension of signs, treating them as symbols that can be manipulated within a closed system.

Alongside scientific models, cultural imagery has also focused on and questioned this ambition. Mary Shelley's *Frankenstein* (1996 [1818]) allegorises the modern fascination with intelligent artificial creatures and dramatises the anxieties associated with their autonomy. These anxieties, however, are inseparable from a deeper ambiguity: what is culturally perceived as machine 'autonomy' is in fact grounded in complex regimes of automation. Human beings themselves rely on internalised automatisms – linguistic routines, inferential habits, embodied schemata – that sustain agency rather than oppose it. The unease triggered by artificial systems thus stems less from their autonomy than from the externalisation and acceleration of automatisms that, in human subjects, remain embedded within temporal and enunciative experience. The figure of the Creature embodies the ambivalence of artificial life: at once a triumph of human ingenuity and a threat to the boundaries of human identity. Here, literature anticipates the demands that semiotics would later pose: to what extent can artificial entities generate meaning, and what is the status of that meaning in relation to human subjectivity? From this perspective, contemporary LLMs are not an unprecedented phenomenon, but the latest manifestation of this long-term trend: a technologically advanced form of the human impulse to mechanise reasoning and externalise generativity in artefacts. Their novelty lies not in the ambition itself, but in the scope, speed, and cultural pervasiveness with which that ambition is now being realised. These different pathways – from syllogistic logic to Turing's machine, from Leibniz's calculus to Shelley's literary imagination – testify not only to a recurring desire to construct artefacts capable of exhibiting behaviour akin to human intelligence, but also to a reflective effort to interrogate the very technologies (logical, mechanical, or computational) that define and delimit the horizon of what such intelligence can be. What they all share is not only a wish for automation but also an attempt to model the generative capacities of thought in formal, reproducible, and transferable terms.

The concept of generativity: an overview

Before examining the extent to which artificial systems can be said to generate meaning, it is worth noting how the concept of generativity has been conceptualised across different theoretical traditions. As mentioned in the introduction, one of the main challenges in comparing human and artificial intelligence lies in the inadequacy of the categories currently available to account for the complexity of human subjectivity (Ander 2023). If the categories themselves are unstable, then the consequence is to apply them to machines in ways that overshadow, rather than illuminate, their specificity. For such a reason, a preliminary step is to briefly outline the conceptual field of generativity as it has emerged in linguistics and semiotics.

Such a reconstruction is not merely an exercise in intellectual history, but a methodological requirement. The comparison between human and artificial generativity can only make sense if one clarifies in advance what different traditions have meant by this term. Otherwise, we might fall into the very category mistake⁴ (Latour 2013) that it is precisely our purpose to problematise: attributing to machines forms of generativity that actually belong to distinct theoretical and cognitive domains.

Hence, the following paragraphs offer a selective mapping of the four main conceptual frameworks that have shaped the contemporary understanding of generativity: (i) Noam Chomsky's transformational generative grammar, which defines generativity as a formal and combinatorial property of syntax, focusing on the productivity of rules; (ii) Gustave Guillaume's psychomechanics, which relocates generativity within temporality, introducing the notion of chronogenesis as the cognitive unfolding of thought in language; (iii) Antoine Culioli's insights, which conceive generativity as a set of mental gestures, emphasising the operations of representation, predication, and validation that highlight the role of subjectivity and context; (iv) and lastly, Algirdas Julien Greimas and Joseph Courtés, who provide a semiotic description of generativity as *parcours génératif*, a trajectory of meaning that moves through deep semantic structures, narrative syntax, and discursive manifestation. Collectively, these perspectives reveal that the concept of generativity is neither univocal nor reducible to a sole dimension. They also enlighten why the evaluation of LLMs cannot be simply limited to superficial productivity: if generativity implies temporality, subjectivity, and semiotic transformation, then any attempt to refer it to artificial systems must take into account these multiple registers. The aim of this theoretical overview is therefore to reframe the analytical categories required to assess whether, and to what extent, AI partakes in the processes that characterise human generativity.

⁴ This term refers to the modern trend of mixing and misjudging different modes of existence (such as law, religion, science, etc.) when applying a unique standard or domain, instead of recognising the unique characteristics and conditions of truth of each mode.

The view of Chomsky

Chomsky's theory of transformational generative grammar (Chomsky 1965, 1995) introduced the paradigm in which language is conceived as a system of formal rules capable of generating an infinite number of grammatical sentences. The central mechanism, recursion (especially the operation Merge), defines generativity as a combinatorial property of syntax: "by a generative grammar I mean simply a system of rules that in some explicit and well-defined way assigns structural descriptions to sentences" (Chomsky 1965: 8). This conception profoundly influenced both theoretical linguistics and the development of natural language processing, where formal models of syntax inspired computational architectures. At the same time, recursion does not denote only a formal computational property. It also names the reflexive process through which language continually turns upon itself, enabling speakers to produce representations of representations and thus to institute regimes of metalinguistic awareness. In this sense, recursion opens the space for linguistic ideologies, that is, for culturally situated conceptions of what language is and what it can do (cf. Keane 2018). However, Chomsky's framework has been criticised for marginalising semantics, pragmatics, and enunciation. As such, generativity is reduced to productivity of form, without necessarily engaging the cognitive and semiotic transformations that constitute meaning. For semiotics, this limitation is crucial: it foregrounds the gap between syntactic production and meaningful discourse.

The view of Guillaume

Guillaume's psychomechanics of language (1984) reorients the notion of generativity from structure to process. At the core of his model is *chronogenesis*, the temporal unfolding of language whereby thought is progressively actualised into discourse. Guillaume distinguishes between system time, i.e., the latent structure of language, and discourse time, i.e., the temporal manifestation of speech. This dual temporality reveals that generativity is not merely combinatorial but intrinsically dynamic, linked to the cognitive temporality of meaning construction. Such a perspective anticipates later cognitive and enactive theories of language, in which meaning is seen as emergent and temporally embodied. From a semiotic standpoint, Guillaume underscores that generativity cannot be confined to rules of form, but involves operations that articulate abstract categories (tense, aspect, modality) into lived temporal experience.

The view of Culioli

Culioli (1990) shifts the focus of generativity towards enunciation and subjectivity. According to him, language is not a fixed code, but a procedure of operations: representation, predication, and validation. These operations – referred to as *mental gestures* – constitute the generative core of linguistic activity. Generativity is therefore not simply the product of rules, but the outcome of recursive, context-sensitive operations performed by speakers. This model highlights the enunciative dimension of language: meaning emerges through the speaker's negotiation of reference, value, and context. Generativity thus appears as a situated cognitive process in which subjectivity plays a constitutive role. To this extent, Culioli's theoretical framework provides critical tools for investigating the limits of artificial systems to reproduce the inferential and contextual use of language.

The view of Greimas and Courtés

Greimas and Courtés (1982) reconceptualise generativity within semiotics as a *parcours génératif*, a generative trajectory of meaning. This model describes a transformation from deep semantic structures, through narrative syntax, to discursive manifestation. Each level organises meaning in distinct ways: the semic level articulates oppositions, the narrative level structures actantial relations, and the discursive level realises enunciative forms. The generative trajectory foregrounds that meaning is not produced in one step but unfolds across levels of abstraction and realisation. Importantly, this framework allows us to distinguish between surface-level coherence and generativity (as described by Greimas and Courtés). To that extent, the issue is not whether LLMs can produce coherent discourse, but whether their enunciation activates the generative trajectory from deep semantic oppositions to surface textual realisations. LLM-based enunciation appears to operate primarily at the discursive level, recombining motifs and narrative schemata without instituting transformations of actantial structure, value oppositions, or temporal positioning. Hence, the limitation is not a lack of generativity as an abstract property, but the absence of enunciative recursion and subjectivity: the system does not occupy a position of enunciation from which semantic structures are reorganised across levels. In fact, the discourse produced by LLMs exemplifies a 'pseudo-generativity,' that is, an ability to generate plausible discursive strings without traversing the full semiotic pathway that links the deep and narrative levels to the surface. Precisely this distinction inspires the analysis in the next section.

In fact, to test whether and to what extent artificial systems can approach human generativity,⁵ we shall carry out a playwriting experiment with ChatGPT.⁶ The aim here is not to evaluate the system's technical performance, but to explore how its discursive productivity aligns – or fails to align – with the semiotic structures theorised in the traditions discussed above. This case study, therefore, serves as a testbed in which the conceptual distinctions of Chomsky, Guillaume, Culioli, and Greimas/Courtés are compared with the pragmatic dynamics of machine-assisted text production. Further theoretical tools – such as Enrico Maestri's distributional semantics (2025), Luciano Floridi's distant writing (2025c), and Margaux Cerutti and Leonardo Laterza's insights (2023) on creative computational generativity – will be drawn upon in the remarks which follow to interpret the results of this experiment and assess the semiotic status of AI-guided writing.

Case study: *The Dollmaker* experiment

The playwriting experiment titled *The Dollmaker* was conducted through a series of interactions with ChatGPT. The process began with a plot outline provided by the human meta-author,⁷ which served as a guiding structure for generating scenes. The procedure then advanced, prompt by prompt, with the meta-author directing the system toward specific stylistic models,⁸ requesting elaborations (e.g., fatal flaw, symbolic function of objects), and generating specific scenes. This procedure exemplifies the notion of 'distant writing' as elaborated by Floridi (2025c), namely, delegating textual production to a machine while maintaining human oversight of coherence, intention, and semantic relevance. Below is our chat:

⁵ As recent Italian semiotics studies have also pointed out, the debate on generativity and AI also concerns the very definition of the "machinic essence" of the human subject (Paolucci 2025). This perspective reinforces the idea that generativity is not an exclusively human prerogative, but a structural horizon in which the machine exposes, by contrast, the constitutive artificiality of human meaning production.

⁶ The experiment took place with the free version of ChatGPT-5.2.

⁷ That is, the author of this paper.

⁸ For example, one of the requests was to adopt a style reminding of authors such as Dennis Kelly and Tom Stoppard, as can be seen in the following excerpt from the chat with the AI.

ME:

If I attach the plot for a drama, would you be able to write a play?

ChatGPT:

Yes! If you share the plot, I can expand it into a full play with dialogue, stage directions, and scene structure. You can also tell me the style you'd like (classical, modern, minimalist, experimental, etc.), the length (short one-act or full-length), and the tone (serious, comedic, tragic, etc.), and I'll shape the script around that.

Would you like me to create a traditional stage play format (acts, scenes, character list, stage directions) or something more like a screenplay?

ME:

I plan to write a drama with a noir feel, resembling the works of Dennis Kelly or Tom Stoppard. Below follows the storyline.

A man and a woman, two emotionally fragile individuals facing each other in a noir setting dramatically charged. Once, towards closing time, Eva comes into the workshop of Andrea, a doll-maker who has inherited the shop from his father: she is a shy, awkward-looking woman who asks for a doll for her daughter's birthday. Fascinated by the care with which Andrea makes his dolls, elaborating meticulous and almost maniacal details, Eva is struck above all by the eyes and their surprising verisimilitude with the human gaze, a feature that distinguishes them from other dolls. A regular acquaintance begins between the two that brings the worlds of both of them ever closer together, revealing aspects of their lives tied to the struggles of loving and being loved and to the particularly cold and detached relationship they had with their own mothers. For Andrea, his mother still seems to have a strong influence on him and constantly watches over him, without ever appearing, from the backroom jealously guarded by Andrea himself, hindering him in the making of Eva's doll, who soon, to her cost, will make the sad revelation that nothing is as it appears and that there are many secrets that Andrea and his dolls hide.

ChatGPT:

Perfect – that's a wonderfully atmospheric premise. Based on your outline, I can shape it into a noir-style stage play that blends psychological tension, surreal undertones, and clipped, charged dialogue – something that nods to the sharp wit of Tom Stoppard and the unsettling intimacy of Dennis Kelly. Here's how I'd suggest structuring it before writing the full draft:

Proposed Structure

Title: The Dollmaker

Characters

- **Andrea** – a meticulous, obsessive dollmaker, mid-30s to 40s. His manner is delicate yet unsettling, with a sense that he is never entirely present.
- **Eva** – an anxious, socially awkward woman in her late 20s or 30s. She seems timid, but has flashes of sharpness when pressed.
- **The Mother** – never appears onstage, but her presence is *felt* through sounds, shadows, or even through Andrea's dialogue with the closed door.

Act I

- **Scene 1:** Eva enters Andrea's workshop near closing time. A low-lit space filled with half-finished dolls, glass eyes catching the dim light. Dialogue begins haltingly, awkwardly, circling around Eva's request. Andrea's pride in his craft emerges — especially his fixation on the eyes.
- **Scene 2:** Their conversations become regular; Eva returns to check on the doll's progress. Both reveal fragments of their personal histories — particularly their strained maternal relationships. The door to the backroom becomes a recurring motif. Eva asks about it; Andrea deflects.

Act II

- **Scene 1:** The intimacy deepens, but with unease. Eva grows fascinated — almost disturbed — by Andrea's precision and by how much of himself he pours into the dolls. There are subtle hints that the dolls may be more than they seem (gestures, sounds, lighting).
- **Scene 2:** Conflict rises. Eva presses Andrea about the unfinished doll and his secretive behavior. Tension spikes when noises emerge from the backroom. Andrea becomes agitated, protective, almost childlike in defense of his mother.

Act III

- **Scene 1:** The revelation. Eva discovers that the "mother" may be nothing more than a doll — or perhaps many dolls — Andrea has imbued with life in his mind. The truth is ambiguous: is she alive, or just his projection? The play should leave it unresolved.
- **Scene 2:** Final confrontation between Eva and Andrea. He presents Eva's daughter's doll, but it bears unsettling similarities to Eva herself. Does she accept it? Reject it? The ending should cut sharply, leaving the audience unsettled.

Tone & Style

- Dialogue: fragmented, often circling the subject, with sudden moments of raw emotion (like Stoppard's verbal wit meets Kelly's psychological brutality).
- Stagecraft: noir atmosphere — heavy shadows, sparse but significant props (dolls, a single lamp, the closed backroom door).
- Mother's presence: conveyed through sound design (a cough, a chair creak, the faint sound of scissors snipping) but never physically shown.

Would you like me to start drafting a full Act I with dialogue and stage directions (so you can see the tone and pacing), or would you prefer I first expand this outline into a complete beat-by-beat breakdown of all three acts before writing dialogue?

ME:

It would be great if you could write the first scene of Act I in full. Do you think you could do a good job? Do you think you could be quite creative? If you think so, could you please generate the scene directly in a Word file?

ChatGPT:

I've written and formatted Act I, Scene 1 of *The Dollmaker* into a Word document for you. You can download it here:

[Download *The Dollmaker* – Act I, Scene 1 \(Word file\)](#)

A striking aspect of the experiment is that the AI immediately defaulted to the classical three-act structure. This structure is the most traditional model of playwrighting, in terms of the organisation of narrative elements. In other words, it provides a guide to the construction and organisation of dramatic elements, with the aim of telling the story effectively. The theory of the three-act form stems from Aristotle's notion that every drama has a beginning, a middle, and an end, and that the parts must be proportionate to each other. The current model is based on the *pièces bien faites* (well-made plays) theorised by Eugène Scribe in the 1820s (McKee 1997). The division into acts relies on the activation of fundamental narrative mechanisms, namely, a premise of the story conveyed in terms of conflict: the story progresses by developing the central conflict until its resolution.

This reliance on a classical three-act structure is not accidental: it reveals that the LLM's generativity is strongly constrained by sedimented narrative norms internalised through training data. Rather than inventing a generative trajectory, the system selects and recombines pre-existing Aristotelian writing schemas, thereby producing discursive coherence without activating deeper semio-narrative transformation. This is semiotically significant, as it illustrates Maestri's concept of *distributional semantics*, according to which the model draws upon statistically dominant patterns

in its training data. As Maestri (2025) points out, LLMs are equipped with implicit, non-symbolic semantics that depend on usage rather than rules. Their functioning, therefore, is to detect co-occurrence relationships between words that are not only close but also far apart. This process allows them to ‘speak’ fluently and coherently, despite the lack of a formalised conceptual structure. Consequently, words follow one another based on their ‘conditioned probability.’ In these AI models, meaning is a property of context and distribution, rather than an ontologically guaranteed entity. Hence, to know a word means to know how to place it in the right context.

Returning to our experiment, the three-act structure functions as a prototypical schema that guarantees surface coherence while also demonstrating the model’s reliance on codified cultural repertoires rather than the invention of genuinely new narrative forms. At this step, let us examine how ChatGPT generated the first requested scene:

Act I, Scene 1

(A dimly lit workshop. Shelves lined with half-finished dolls, their glass eyes catching the faint glow of a single desk lamp.)

The ticking of a clock underscores the silence. ANDREA, in his mid-30s, sits hunched at a workbench, delicately painting the iris of a doll’s eye with painstaking precision.

The doorbell jingles – faint, hesitant. EVA enters: a shy, awkward-looking woman, late 20s. She clutches her coat tightly around her.)

EVA: (softly) Excuse me... are you still open?

(ANDREA doesn’t look up immediately. He finishes a brushstroke, then sets the brush down with exaggerated care. He turns slowly.)

ANDREA: (measured) Almost closed. But not quite.

(He studies her. A pause.)

EVA: I... I didn’t mean to intrude. I only— I was passing by, and I saw the light.

ANDREA: People don’t usually wander in at this hour. (beat) What is it you’re looking for?

EVA: A doll. For my daughter. It’s her birthday soon.

(ANDREA leans back, as if weighing the request. His gaze lingers on EVA with quiet intensity. He gestures faintly toward the shelves of half-finished dolls.)

ANDREA: There are many dolls in the world. What makes you think you’ll find the right one here?

EVA: (after a pause) I don’t know. Something about this place... it feels – (searches for the word) careful.

(ANDREA’s lips twitch with the suggestion of a smile. He rises, moving toward a cabinet of glass eyes. He opens a drawer; hundreds of tiny eyes gleam up at them.)

ANDREA: Careful. Yes. That's the word. It's all in the eyes, you see. The soul of the doll. If the eyes are wrong, the whole thing collapses.

(EVA moves closer, fascinated but unsettled by the eyes staring out.)

EVA: They look... alive.

ANDREA: (sharply, almost cutting) They are not alive. They only remind you of life. There's a difference.

(A silence. EVA shifts uncomfortably, but she cannot look away from the drawer of eyes.)

EVA: Could you make one... for her? For my daughter?

(ANDREA shuts the drawer gently, almost tenderly, and looks back at EVA with a gaze that lingers too long.)

ANDREA: Perhaps. But these things take time. Time, and patience. You'd have to come back.

EVA: I could come back.

(A long pause. The clock ticks louder. From behind the closed backroom door, faintly, a chair creaks – or perhaps it's nothing. EVA glances toward it. ANDREA notices and stiffens.)

ANDREA: (quickly) The backroom is not for customers.

EVA: I wasn't – I didn't mean –

ANDREA: (softening, almost apologetic) Some things are better left unseen.

(Another silence. ANDREA returns to his workbench, lifts the tiny eye he was painting, and holds it up toward the light. EVA watches, caught between unease and fascination.

The ticking clock continues as the lights dim slowly to black.)

--- End of Scene ---

The opening scene introduces the dollmaker Andrea and the young woman Eva in the eerie workshop setting. Since the very beginning, the motifs of the gaze and the uncanny have been at the forefront: “[Andrea] delicately adjusts the glass eye of a half-finished doll, murmuring about the light it catches.” The closed door to the backroom, repeatedly mentioned, adds to the sense of hidden menace. These elements establish isotopies (eyes, secrecy, thresholds) that structure the play's discursive level. Semiotically, these isotopies exemplify Maestri's notion of *contextual attention*: the system develops local coherence by reiterating motifs introduced in the prompt, but without transforming them into deep narrative functions. In other words, contextual attention enables the model to maintain thematic continuity at the surface of the text, ensuring that previously introduced motifs are recalled and redeployed in subsequent utterances. However, this mechanism does not operate as a transformation of narrative roles or value oppositions: the eye remains a repeated image, not a rearticulated actant; secrecy remains an atmosphere, not a conflictual programme. The result

is a discourse that is coherent in its texture, yet static in its underlying semio-narrative dynamics. This distinction is crucial for understanding how LLMs achieve stylistic plausibility while remaining confined to discursive-level generativity. In Greimasian terms, the motifs remain discursive ornamentations rather than assuming actantial roles within a semionarrative transformation. Contextual attention does not mimic the human mind; rather, it instantiates a situated, performative logic that operates at the level of discursive recombination rather than along a generative trajectory of meaning. Unlike human generativity, which unfolds across temporal, enunciative, and semantic levels, computational attention constructs coherence through statistical orientation in context. In other words, one is dealing with *computational heuristics* – to use Maestri’s terms once again – instead of deductive logic. What is at stake is an art of orientation, a pragmatic strategy of meaning whereby the machine does not deduce but constructs, and does so in a situated, adaptive, and relational manner.

What the machine seems to lack most of all is a ‘semantic capital.’ According to Floridi, this term labels “any content that can enhance someone’s power to give meaning to and make sense of (semanticise) something” (2018: 483). To semanticise, however, entails a double operation: on the one hand, giving meaning – that is, attributing sense to existing signs by situating them within a coherent interpretive framework; on the other hand, *making meaning* – that is, generating new configurations of sense that effectively expand the semantic capital of a culture. LLMs may simulate the first operation by producing isotopies and patterns of coherence that appear to ‘give’ meaning to textual elements. Yet they fall short of the second, since they do not transform the underlying values nor generate new semantic trajectories. This point anticipates the broader issue of AI creativity, understood not as stylistic novelty but as the capacity to institute new semantic and narrative configurations. Accordingly, the outputs generated by LLMs remain bound to the level of contextual attribution, while the renewal of semantic capital – making meaning rather than merely giving meaning – requires the intervention of the human meta-author, who alone possesses the intentionality and experiential depth to integrate discursive fragments into novel pathways of sense. To clarify this point, consider the difference between discursive isotopy and narrative transformation. In the opening scene of *The Dollmaker*, motifs such as eyes, thresholds, and secrecy recur, establishing a coherent isotopic network. However, in a fully semio-narrative trajectory, these motifs would be progressively invested with actantial roles and value oppositions (for instance, the eye shifting from an object of perception to a figure of surveillance or ethical judgement, thereby reconfiguring the subject-object relation and the axiological horizon of the narrative). In the LLM-generated scene, by contrast, the motifs remain stable repetitions: they sustain local coherence but do not trigger a reorganisation of actantial relations or value structures. This is why the discourse appears generative at the surface level while lacking semio-narrative creativity in the strict Greimasian sense. Let us now observe how the experiment continues through new meta-author requests.

ChatGPT:

Would you like me to continue with the full Act I in the same style, so you have a complete first act draft?

ME:

Good. I was rather wondering if you can write what you imagine as the climax scene of the whole story, the one that reveals the turning point of the plot and unveils the secrets of Andrea and his mother mentioned in the storyline I attached above. If you think so, could you please generate the scene directly in a Word file?

ChatGPT:

Here is the climax scene of *The Dollmaker*, written in full and formatted as a Word document:

Download *The Dollmaker – Act III, Climax Scene* (Word file)

Act III, Scene 2 (Climax)

(A dim, suffocating silence in the workshop. The shelves of dolls loom like silent witnesses.)

On the workbench, the nearly finished doll meant for EVA's daughter sits upright, its blank face eerily familiar.

The only light comes from a single lamp. EVA stands tense, staring at the backroom door. ANDREA is agitated, pacing.)

EVA: (shaking) Andrea... what's back there? Who's back there?

(ANDREA freezes, his back to her. His voice is calm, almost too calm.)

ANDREA: I told you. My mother. She... she watches over me. Always.

(EVA edges toward the door. The faint sound of a chair creaking again. A whisper? Or just the air. EVA reaches out. ANDREA snaps around, fierce.)

ANDREA: Don't!

EVA: (bursting out) You talk to her, but no one has seen her! Not once! You hide her away like some... some secret. I need to know!

(ANDREA rushes forward, grabbing EVA's wrist before she can touch the door. His grip is desperate, trembling.)

ANDREA: (pleading) She wouldn't like it. She wouldn't understand. She — she protects me!

EVA: (breaking free) Protects you? Or controls you?

(Without waiting, EVA yanks the door open. A wave of silence crashes over them. The stage light shifts — cold, merciless — illuminating the inside of the backroom: a single chair, a figure slumped. At first, it seems human. Then, slowly, the audience sees: it is a doll. A woman-doll. Perfectly preserved, dressed in faded clothes. Her glass eyes glint in the lamplight.)

(EVA gasps, stumbling back.)

EVA: (horrified whisper) It's not... it's not her. Andrea... that's— that's a doll. (ANDREA staggers forward, his face breaking open with anguish. He kneels beside the figure, stroking its hair with reverence.)

ANDREA: (soft, broken) No. She is here. She's always been here. She tells me what to do. She... she helps me. (beat) She loves me.

EVA: (voice rising) She's gone, Andrea! This— this is nothing but glass and cloth!

(ANDREA whirls on her, sudden fury.)

ANDREA: (shouting) Don't you dare! Don't you dare call her nothing! She is more real than you, more real than anyone!

(He grabs the unfinished doll from the bench — the one meant for EVA's daughter. He holds it up. The resemblance to EVA is unmistakable now: the face, the hair, the fragile tilt of the head.)

ANDREA: (hoarse) I made this... for you. For her. So you'll always stay. So you'll never leave me. Just like Mother.

(EVA stares, stricken. She edges backward, toward the door, but her voice is firm now, trembling with resolve.)

EVA: (quiet but fierce) You don't know love, Andrea. You only know how to trap it. To freeze it. To kill it and call it alive.

(A tense silence. ANDREA clutches the doll, torn between rage and despair. The workshop seems to close in around them. The ticking of the unseen clock grows louder, louder, until it drowns the stage. The lights flicker, narrowing until only EVA and the doll's face are illuminated. EVA's eyes meet the doll's — her own reflection staring back. Blackout.)

--- End of Climax Scene ---

The climax of the play reveals the dollmaker's secret: the presence of his mother, transformed into a doll, locked behind the forbidden door. The face-to-face between Eva and Andrea peaks with the revelation: "She isn't gone... she's here, watching through their eyes" (Act III, Climax). This moment is highly dramatic, yet its generativity is limited. The AI exploits a culturally resonant *topos* – the hidden monster, the repressed returning – but does so through recombination rather than transformation.

The climax of *The Dollmaker* illustrates most clearly what Cerutti and Laterza (2023) term as *creative computational generativity*. On the one hand, the revelation of Andrea's secret – his mother as a doll, the uncanny gaze of the glass eyes – is dramatically effective and fulfils cultural expectations of a narrative plot-twist. On the other hand, the mechanism yielding this revelation is not creative in the strong sense of the term: it is the outcome of the recombination of statistically frequent *topoi* (the hidden monster, the return of the repressed, the ambiguity of the gaze). This use of 'strong creativity' does not presuppose a romantic notion of originality as sheer norm-breaking, which

has been problematised in contemporary media theory (cf. Arielli and Manovich 2022), but refers specifically to semio-narrative transformation in the Greimasian sense. What makes this act appear 'creative' is the situated interpretive competence of the human reader, whose encyclopaedic knowledge of dramaturgical conventions allows the output to be recognised as an intentional construction. Creativity here emerges not from the text alone, but from the interaction between computational recombination and culturally trained interpretive repertoires. Cerutti and Laterza propose the notion of creative computational generativity to emphasise this ambiguity: generativity is computational, i.e., an algorithmic productivity without consciousness or intentionality, yet it may be perceived as creative insofar as human beings project onto it the qualities they associate with artistic invention. The creativity, therefore, does not reside in the machine, but in the interpretive relationship between the output and the audience. This remark finds a powerful theoretical counterpart in Floridi's concept of *semantic pareidolia* (2025d). Just as pareidolia in perception leads us to see faces in clouds or figures in stains, semantic pareidolia leads us to see meaning and intentionality in the statistically generated patterns of an LLM. The human subject, equipped with semantic capital, cannot help but invest the machine's output with coherence, depth, and even purpose. We 'read into' the text more than the machine has 'put into' it.

The intersection of these two perspectives reveals the mechanism operating in *The Dollmaker*. The machine provides the material conditions for the 'illusion' through computational generativity that recombines existing cultural repertoires. Here, illusion designates not an epistemic deception but a semiotic appearance, to say, the semblance of generative depth produced by surface-level recombination. The resulting discourse produces an appearance of semantic and narrative density by mobilising familiar dramaturgical patterns. However, this density does not arise from a transformation of underlying semantic structures, but from surface-level recombination. It is therefore the human interpreter, equipped with encyclopaedic and dramaturgical competence, who recognises these configurations as meaningful and attributes to them the semblance of an intentional artistic construction. The effect is doubly illusory: generated without intention and perceived as if intentional. In semiotic terms, this dual mechanism confirms the limits of discursive generativity in artificial systems. The LLM does not carry out semionarrative transformations; it provides isotopies, patterns, and recognisable motifs. The passage from discursive ornamentation to generative transformation requires precisely what Floridi calls semantic capital, i.e., the human capacity both to give meaning (to interpret within a framework) and to make meaning (to produce new semantic configurations). The machine may support the first operation by providing discursive cues, but it cannot accomplish the second. The impression of creativity thus arises at the intersection of computational recombination and human semantic investment: a hybrid artefact that is as revealing of our interpretive habits as it is of the machine's generative constraints.

Moving towards the final stage of the experiment, after asking ChatGPT to produce the climax scene, it was asked to explain in detail how it had constructed Andrea's fatal flaw.⁹ Afterwards, it was asked to write a monologue in which the fatal flaw emerged:

ME:

Could you explain to me in more detail what Andrea's fatal flaw is, what secret he is keeping, and, above all, how the latter is connected to his dolls' eyes?

ChatGPT:

That's a very sharp question – and it goes right to the core of what makes Andrea such a chilling, tragic figure. Let me unpack it in layers:

Andrea's Fatal Flaw

Andrea's flaw is his inability to separate love from possession.

- He craves intimacy, but he cannot tolerate the unpredictability and vulnerability that real human relationships demand.
- Instead of accepting love as something freely given, he seeks to *control* it, *freeze* it, *preserve* it.
- His dolls are his solution: perfect, compliant, unchanging companions who never leave him, never betray him, never challenge him.

This flaw warps his ability to love and ultimately isolates him – he drives away real people (like Eva) in his obsessive attempt to replace them with facsimiles.

The Secret He Is Keeping

The great secret Andrea keeps is that his mother has been dead for years – but he has 'kept' her by transforming her into one of his dolls.

- She is the ultimate prototype of his craft: the figure in the backroom that he insists is alive.
- To him, she still 'speaks' – not literally (though he may imagine it), but in the way her presence dominates his workshop and dictates his behavior.
- This secret is both his trauma and his refuge: he cannot let go of her, because to let go would mean facing a lifetime of emotional neglect, abandonment, and loss.

Thus, the mother-doll is the anchor of his delusion, and the hidden truth that Eva must eventually uncover.

⁹ The 'fatal flaw' is a struggle within a character to maintain a survival system long after it has outlived its usefulness.

The Dolls' Eyes — The Connection

The eyes are crucial because they symbolize Andrea's obsession with *capturing life without actually possessing it*.

1. Illusion of Life

- Andrea pours all his skill, artistry, and madness into making the eyes appear startlingly real.
- To him, the eyes are where 'the soul' resides – he believes if the eyes are perfect, the doll becomes a vessel for memory, presence, even love.

2. The Mother's Eyes

- The mother-doll's eyes are the model for all others. Andrea likely cast or replicated them from her in some way (this can be left ambiguous: literally copied, or symbolically his 'template').
- Every doll he makes carries an echo of her gaze, which is why his creations feel uncanny, unsettling, too human.

3. The Tragic Paradox

- The eyes make the dolls seem alive, but they also reveal Andrea's inability to accept real life. He's trapped between illusion and reality.
- His skill with the eyes is both his genius and his curse: he has perfected the art of imitation, but it bars him forever from genuine human intimacy.

In Short

- **Fatal flaw:** Andrea confuses love with control, seeking to possess people by transforming them into objects.
- **Secret:** His mother has long been dead, but he has kept her 'alive' as a doll – the most precious and most horrifying of his creations.
- **The Eyes:** The eyes are his attempt to 'resurrect' life in his dolls; they are his signature, his obsession, and his ultimate delusion – each eye staring back at him with the truth he cannot face: that love cannot be preserved in glass.

Would you like me to write a short symbolic monologue for Andrea, in which he explains (perhaps to Eva, or perhaps to the mother-doll) why the eyes matter so much – almost like his manifesto, the dark philosophy that drives him? It could crystallize his fatal flaw for the audience.

ME:

That would be a great idea!

ChatGPT:

Perfect – here’s a standalone monologue for Andrea, written in the same noir, psychologically charged style, which you could drop into Act II or Act III as his “confession” or dark philosophy.

Andrea’s Monologue: ‘The Eyes’

(Andrea at his workbench, holding a glass eye between his fingers. The light catches it as he speaks. His tone moves between reverence, bitterness, and quiet mania.)

ANDREA:

Do you know why dolls frighten people? It’s not the silence. Not the stiffness. It’s the eyes.

People can forgive a crooked smile, a clumsy hand, a body made of cloth. But the eyes – the eyes are traitors.

They remind you of something you’d rather not remember. That you are being watched. That you are *seen*.

My mother’s eyes... they never closed. Even when she slept, I swear, they were half-open, half-judging.

Cold little glass marbles staring through me, as if I were never enough. So I thought – perhaps I can make eyes that don’t condemn. Eyes that never leave. Eyes that stay.

(He lifts the eye closer, almost whispering.)

If you catch the light just so... if you paint the iris with patience, if you polish the surface until it drinks the room whole... then for a moment, a single moment, you trap something. A spark. The memory of life.

Not life itself – no, life wriggles, it betrays, it forgets. But this – (he taps the glass eye with his nail, sharply) – this remembers forever.

People think I make dolls. I don’t. I make prisons. Beautiful, delicate prisons. Because love is never safe in the world out there. Love rots, it fades, it leaves you.

But behind glass, behind paint, behind my hands – love doesn’t leave. Love stays.

And if you know where to look... the eyes will always look back.

(He holds the glass eye up against his own, aligning it so it seems to stare outward, his real eye hidden behind it. He murmurs to himself, almost to the mother’s shadow.)

They’re all watching. And as long as they watch... I am never alone.

(Blackout or interruption by Eva at this moment would add maximum tension.)

The dynamics hitherto outlined reach their high point in Andrea's monologue, where the fatal flaw is articulated through a striking aphorism: "People think I make dolls. I don't. I make prisons" (Act III, Climax). At first glance, the passage appears as a moment of dramatic revelation, but closer analysis reveals why it remains at the discursive level. The prison metaphor draws on sedimented cultural *topoi*, i.e., the body as confinement, the gaze as control, and the uncanny object as a substitute for the absent beloved. While recombining these tropes, the LLM generates an utterance that resonates culturally, but without enacting the narrative transformations that Greimas and Courtés identify as constitutive of generativity: no shift in actantial roles, no reconfiguration of value structures, no alteration of the plot's temporal logic. In other words, the line amplifies existing isotopies, but it does not generate new semantic trajectories. This reveals a structural inconsistency between the textual and metatextual levels: while the local discourse remains confined to surface recombination, the play's overall architecture reproduces an Aristotelian generative template. The appearance of creativity thus emerges from the metatextual inheritance of narrative form rather than from transformations enacted within the textual level itself.¹⁰ This gap reveals the connection between Cerutti and Laterza's creative computational generativity and Floridi's semantic pareidolia. In terms of computation, the machine offers a probabilistic recombination of motifs; in terms of hermeneutics, the reader invests this recombination with intentional depth, as if it were an epiphany; the text 'sounds' like an invention of the author because one projects onto it the qualities we expect from human creativity. Instead, what appears to be meaningful is actually the result of one's semantic capital, that is, the double operation of giving meaning (situating tropes within a framework) and making meaning (expanding those tropes into new pathways of sense). The LLM can assist with the former, but it cannot perform the latter. The monologue thus exemplifies the generative illusion: a rhetorically effective yet generatively inert output that acquires depth only through the intervention of the meta-author and the interpretive work of the reader. Such a generative illusion resonates with Leone's reflections on the semiotics of AI, in particular the notion of *latency* (Leone 2024): the machine's operations remain invisible yet produce effects that humans tend to interpret as intentional creativity. This invisibility is not a neutral absence but part of the semiotic contract that sustains the illusion of authorship.

¹⁰ Accordingly, the present analysis does not adopt a substantive theory of creativity but treats creativity as a semiotic effect emerging from the alignment or misalignment of generative levels.

The role of the meta-author

Throughout the experiment, the human interlocutor – as meta-author – played a crucial role in directing the narrative trajectory. To this extent, the dramaturgical experiment can also be read as a case of *co-enunciation* (D'Armenio et al. 2024; Dondero 2025): the text emerges not from a single subject but from the interplay of algorithmic generation and human orchestration. Semiotics of enunciation thus provides a useful framework for describing the asymmetry between machine output and human semantic investment. In making stylistic cues, demanding elaborations, and interpreting motifs, the meta-author ensured coherence and cultural resonance. This role goes beyond technical supervision: prompting constitutes a generative act, since it introduces intentionality, temporality, and value orientation into a process otherwise driven by probabilistic association. Floridi's notion of *distant writing* captures this asymmetry: the human delegates discursive production to the machine yet remains the keeper of semantic capital. Only the human agent can perform the double operation of semanticisation – giving meaning and making meaning – that transforms discursive fragments into trajectories of sense. In Culioli's terms, the meta-author performs the mental gestures of representation, predication, and validation that the machine cannot emulate. To make explicit where LLMs succeed and where they fall short in semiotic terms, the following grid maps the results of the experiment along five analytical criteria:

Criterion	Evaluation
Actantial coherence	Partial: roles identifiable (Andrea, Eva, Mother), but evolution stereotypical.
Isotopic stability	Strong: motifs of eyes and hidden room recur consistently.
Chronogenesis (temporal progression)	Weak: scenes follow structure but lack intrinsic temporal necessity.
Enunciative voice	Variable: coherent tone at times, neutral at others.
Generative trajectory	Absent without human intervention; discursive level only.

This synthesis highlights how the machine achieves stability at the discursive level but lacks the capacity for deeper narrative transformation. *The Dollmaker* experiment underlines how LLMs can produce discursive material that is coherent, stylistically recognisable, and emotionally impactful, yet their generativity remains confined to the discursive level as defined by Greimas and Courtés. The deeper transformations of meaning, those involving temporality, intentionality, and actantial reconfiguration, occur only through the intervention of the human meta-author, who mobilises semantic capital to re-inscribe machine output into meaningful trajectories.

As a result, a distributed but asymmetrical model of generativity has emerged. Machines provide statistically significant discursive forms; humans provide semantic depth, narrative transformation, and cultural resonance. This asymmetry points directly back to the challenge outlined in the introduction: our categories for comparing human and artificial intelligence remain insufficient, because they risk conflating discursive productivity with generative creativity. Addressing this insufficiency requires semiotics to disentangle the illusion of creativity from the operations of meaning-making, and to map more precisely the double register – biological and cultural – that characterises human intelligence.

The double register of generativity

This essay has traced a tension that runs from classical inquiries into mechanised reasoning to contemporary practices of *wrAlting*, i.e., a tension between two registers of meaning-generation: one formal, combinatorial, and distributive; the other temporal, intentional, and transformative. We propose to name this tension the *double register of generativity*. On the one hand, LLMs constitute a powerful mode of discursive production: rapid, statistically grounded, and capable of assembling culturally sedimented repertoires into texts that satisfy genre expectations and produce compelling surface effects. On the other hand, human generativity operates across temporal horizons and value axes: it reconfigures actantial relations, it institutes new value transpositions, and it imbues sequences of signs with experiential intentionality.

This double register is not merely descriptive but diagnostic: it exposes why comparisons between human and artificial modes of meaning-making often founder on category mismatch. The machine's outputs are not deficient because of a mere lack of competence, but because they operate according to a different ontological logic, namely, distributional semantics and contextual attention rather than chronogenetic and enunciative operations. The playwriting experiment examined above rendered this asymmetry tangible: the LLM provided discursive richness; the human meta-author reintroduced temporal depth and semantic capital. This configuration corresponds to what Cerutti and Laterza (2023) define as creative computational generativity, in which

computational generativity and human semantic investment jointly produce outputs perceived as creative. What appears, then, as creativity is frequently a hybrid artifact, i.e., an emergent effect borne of computational recombination and human semantic investment. In other words, the LLM does not engage in autonomous semionarrative invention but produces discursive material that acquires the *semblance* of creativity only through human interpretation.

Acknowledging the double register has two consequences. Methodologically, it requires that semiotics adopt instruments capable of discriminating between production levels (discursive vs. generative trajectories) and agency roles (algorithmic recombination vs. meta-author orchestration). Normatively, it invites a recalibration of expectations: to recognise the value of machine-generated material without mistaking the credibility of form for the performance of meaning-making. Semiotics, as a discipline dedicated to the analysis of meaning processes, is uniquely positioned to clarify this distinction and to resist the conflation of computational productivity with creativity. The challenge, as Andler reminds us, is that our categories are still inadequate to fully capture the complexity of human intelligence. Yet precisely for this reason, the semiotic perspective remains essential: it can be used to argue that AI outputs are not creative in themselves, but become meaningful only through the interpretive, temporal, and intentional operations of human beings. The result, as Claudio Paolucci (2025) suggests, is that the machine compels us to confront the machinic essence of human beings themselves: we too are generative machines, though endowed with temporality, intentionality, and value-oriented transformations. The double register of generativity is therefore not only a methodological tool but also a way of re-thinking the relation between human and artificial intelligence. Accordingly, the analysis of *wrAlting* is less about assessing machine competence than about refining the categories with which we account for human generativity within the double register of formal and temporal meaning-production. This shift follows from the recognition that human generativity itself relies on internalised automatisms: linguistic routines, narrative schemata, inferential habits, and embodied temporal operations. Artificial systems externalise and accelerate these automatisms, making visible their role in sustaining agency and meaning-making. The encounter with LLMs thus does not diminish human specificity but displaces it: from the capacity to combine forms toward the capacity to invest them with temporal, experiential, and value-laden significance. Revisiting human generativity in light of artificial generativity is therefore not an ancillary outcome of the analysis, but one of its central theoretical stakes.

References

- Andler, Daniel 2023. *Intelligence artificielle, intelligence humaine: La double énigme*. Paris: Gallimard.
- Arielli, Emanuele, and Lev Manovich 2022. AI-aesthetics and the Anthropocentric Myth of Creativity. *NODES* 1: 19-20.
- Aristotle 2009. *Prior Analytics*, edited by Gisela Striker. New York: Oxford University.
- Bajohr, Hannes 2024. Writing at a Distance: Notes on Authorship and Artificial Intelligence. *German Studies Review* 47(2): 315-337.
- Cerutti, Margaux, and Leonardo Laterza. Conversazioni computazionali: ChatGPT, as an artificial intelligence, do you create, or do you generate? *Epekeina. International Journal of Ontology, History and Critics* 16(1-2): 1-15.
- Chomsky, Noam 1965. *Aspects of the Theory of Syntax*. Cambridge, MA: MIT Press.
- Chomsky, Noam 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.
- Culioli, Antoine 1990. *Pour une linguistique de l'énonciation*. Paris: Ophrys.
- D'Armenio, Enzo, Adrien Deliège and Maria Giulia Dondero 2024. Semiotics of Machinic Co-Enunciation. *Signata* 15, DOI : <https://doi.org/10.4000/127x4>
- D'Armenio, Enzo, Adrien Deliège, and Maria Giulia Dondero 2025. A Semiotic Methodology for Assessing the Compositional Effectiveness of Generative Text-to-Image Models (Midjourney and DALLE). In: A. Del Bue, C. Canton, J. Pont-Tuset, T. Tommasi (eds.), *Computer Vision – ECCV 2024 Workshops*. Cham: Springer, 112-127.
- Dondero, Maria Giulia 2025. Semiotics of Artificial Intelligence: Enunciative Praxis in Image Analysis and Generation. *Semiotica* 262: 111-146.
- Floridi, Luciano 2018. Semantic Capital: Its Nature, Value, and Curation. *Philosophy & Technology* 31: 481-497.
- Floridi, Luciano 2023. *AI as Agency Without Intelligence: on ChatGPT, Large Language Models, and Other Generative Models*. *Philosophy & Technology* 36: 15.
- Floridi, Luciano 2024. On the Future of Content in the Age of Artificial Intelligence: Some Implications and Directions. *Philosophy & Technology* 37(3): 112.
- Floridi, Luciano 2025a. Content Studies: A New Academic Discipline for Analysing, Evaluating, and Designing Content in a Digital and AI-Driven Age. *Philosophy & Technology* 38(2): 1-17.
- Floridi, Luciano 2025b. *Encounters – An Experiment in Distant Writing*.
- Floridi, Luciano 2025c. Distant Writing: Literary Production in the Age of Artificial Intelligence. *CEDE Research Paper*. <http://dx.doi.org/10.2139/ssrn.5232088>
- Floridi, Luciano 2025d. AI and Semantic Pareidolia: When We See Consciousness Where There Is None. <http://dx.doi.org/10.2139/ssrn.5309682>
- Greimas, Algirdas Julien and Joseph Courtés 1982. *Semiotics and Language: An Analytical Dictionary*. Bloomington, IN: Indiana University Press.

- Guillaume, Gustave 1984. *Langage et science du langage*. Paris: Librairie A. G. Nizet.
- Keane, Webb 2018. On Semiotic Ideology. *Signs and Society* 6(1): 64-87.
- Latour, Bruno 2013. *An Inquiry into the Modes of Existence: An Anthropology of the Moderns*. Cambridge, MA-London: Harvard University Press.
- Leibniz, Gottfried Wilhelm, and Leroy E. Loemker 1956. *Philosophical Papers and Letters*. Chicago: University of Chicago Press.
- Leone, Massimo 2023. The main tasks of a semiotics of artificial intelligence. *Language and Semiotic Studies* 9(1): 1-13.
- Leone, Massimo 2024. The Semiotics of Latency: Deciphering the Invisible Patterns of the New Digital World. *Digital Studies in Language and Literature*, 1-27.
- Leone, Massimo and Antonio Santangelo (eds.) 2023. *Semiotica e intelligenza artificiale*. Roma: Aracne.
- Maestri, Enrico 2025. Contro la riduzione bayesiana dell'intelligenza artificiale. *Pandora Rivista*. <https://www.pandorarivista.it>
- McKee, Robert 1997. *Story: Substance, Structure, Style and the Principles of Screenwriting*. New York: Regan Books.
- Monti, Nicolò 2025. *Prompting. Poetiche e politiche dell'intelligenza artificiale – Niccolò Monti*. Rome: Tlon.
- Natale, Simone 2021. *Deceitful Media: Artificial Intelligence and Social Life after the Turing Test*. New York: Oxford University Press.
- Paolucci, Claudio 2025. The Myth of Meaning: Generative AI as Language-Endowed Machines and the Machinic Essence of the Human Being. *Semiotica* 262: 5-23.
- Shelley, Mary 1818. *Frankenstein, or the Modern Prometheus*. Reprint, Oxford: Oxford University Press, 1996.
- Turing, Alan 1936. On Computable Numbers, with an Application to the Entscheidungsproblem. *Proceedings of the London Mathematical Society* 42(1): 230-265.

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Literature in the era of distant writing: A new paradigm between the death of the author and the role of the (open) reader

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ABSTRACT

This paper explores how Luciano Floridi's recent concept of 'distant writing' fundamentally reshapes the nature and future of literature in the age of Large Language Models (LLMs). Building on Franco Moretti's notion of distant reading, Floridi demonstrates how authorship shifts from direct textual production to the design of narrative constraints, transforming the writer into a meta-author. Reframing this shift through Roland Barthes' idea of the 'death of the author' and Umberto Eco's concepts of the 'open work' and the 'model reader,' this paper argues that literature now unfolds within a new paradigm: what is here termed 'distant literature.' In this model, the author's traditional authority dissolves, while the reader's role expands to that of a co-designer and active interpreter of generative, machine-mediated texts. At the same time, the paper critically problematizes the metaphor of 'machine enunciation,' clarifying the status of artificial intelligence (AI) not as an intentional co-enunciator but as an operator or medium whose outputs nevertheless produce enunciative effects for which responsibility remains human and institutional. Finally, the paper addresses the question of 'literariness' by arguing that distant literature cannot be grounded solely in interpretive activity: it also depends on formal-aesthetic constraints, textual opacity, and framing practices that make a work recognizable as literature. To illustrate these tensions, the paper presents 'The Barthes-Eco Simulation' – an AI-generated dialogue staging an imagined encounter between Barthes and Eco, revealing how distant literature foregrounds co-authorship, interpretive agency, and the renewed need to theorize enunciation and literariness under generative conditions.

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KEYWORDS:

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Like in old hypertextual experiments, the boundaries between author, reader, and text become more fluid, as readers participate in determining which narrative possibilities are actualised in their experience.

Luciano Floridi

The absence of the Author [...] is not only a historical fact or an act of writing: it utterly transforms the modern text.

Roland Barthes

In a communicative process there are a sender, a message, and an addressee. Frequently, both sender and addressee are grammatically manifested by the message: "I tell you that...."

Umberto Eco

1. Introduction

The rise of large language models (LLMs) has not simply transformed how we produce and consume texts; it is now reshaping the very foundations of literature itself.¹ At the center of this disruption stands what Luciano Floridi (2025) has recently termed ‘distant writing’ – a concept that extends Franco Moretti’s (2000, 2013) influential idea of distant reading beyond literary analysis into the domain of textual creation. Where Moretti encouraged critics to zoom out from the single close-read text to the macro-patterns visible in vast corpora, Floridi inverts this logic: computation here becomes not only interpretative but generative. In this model, the human author no longer writes line by line but instead designs narrative constraints, orchestrating LLMs to produce variations within an ever-expanding modal space of possibilities. In Floridi’s own terms, writing becomes ‘wrAIting’ – a telling coinage that signals not just technological augmentation but a fundamental decoupling of authorship from execution. Yet the consequences of distant writing extend far beyond the realm of literary theory: they compel us to ask what happens to literature – understood as the shared body of texts that shape our cultural imagination – when its production is increasingly delegated to non-human systems. What does it mean for the idea of the author when machines generate pages of plausible prose? What becomes of the reader when the boundary between original and recombined text dissolves? To explore these questions, this paper

¹ I chose to focus specifically on literature in this paper because literature, broadly understood as the set of works entrusted to writing, has always occupied a privileged position in debates about authorship, interpretation, and meaning. By situating Floridi’s idea of distant writing alongside Barthes’ radical decentering of the author and Eco’s open work and model reader, I wanted to show how the unique tensions that have long defined literary theory can help us grasp the cultural, epistemic, and pedagogical stakes of LLM-assisted textual production today. Literature remains, in my view, an exemplary field for testing how human creativity, technological mediation, and critical reading must be rethought together.

reframes Floridi's concept through Roland Barthes' (1967) iconic essay on the 'death of the author,' reading it not merely as a theoretical provocation but as a profound metaphor for the reconfiguration of intention, authority, and originality. Alongside Barthes, I draw on Umberto Eco's (1962, 1979) theory of the 'open work' and his figure of the 'model reader,' whose interpretive labor turns the unfinished text into meaningful literature. Building on these foundations, I propose 'distant literature': a paradigm in which literature is not simply written but co-designed, iteratively generated, and critically completed through an interplay between human designers, LLMs, and active readers. In this model, the author is recast as a meta-designer of narrative possibilities, while the reader emerges not as a passive consumer but as a co-author in practice, navigating the isotropic narrative spaces that Floridi describes.

However, this new paradigm also demands conceptual discipline. Terms like 'co-authorship' and 'machine agency' can illuminate the redistribution of textual labor, yet they can also obscure a central issue: enunciation is not merely textual production but a position of responsibility and intention. If we speak too quickly of 'machine enunciation,' we risk naturalizing a metaphor that blurs the distinction between generating strings of text and occupying an enunciative stance. This paper, therefore, explicitly clarifies the status of artificial intelligence (AI) in distant literature: not as an intentional co-enunciator, but as an operator or medium whose outputs produce enunciative effects that must be attributed, evaluated, and ethically governed by human and institutional actors. A second clarification concerns 'literariness.' Distant literature is often described in terms of reader activity: the reader becomes a navigator, curator, and critic. Yet if literariness is reduced to interpretive play alone, the aesthetic and formal specificity of literature risks dissolving into mere critical exploitability. This paper, therefore, argues that distant literature must also be grounded in constraints and features that make a work specifically literary: formal devices, strategic opacity, self-reflexive organization, and framing practices that distinguish literary texts from other kinds of fluent discourse. To make this abstract framework tangible, I present an original experiment – 'The Barthes-Eco Simulation' – in which an LLM (ChatGPT) is prompted to generate an imagined dialogue between Barthes and Eco. The simulation stages an impossible but conceptually coherent encounter, not as novelty, but as a concrete example of how distant literature brings theoretical tensions to life: between authorial death and distributed production, between openness and coherence, between simulated voice and enunciative responsibility, and between interpretive agency and literariness.

If, as Floridi argues, distant writing transforms the author into a designer of constraints, then distant literature transforms the literary field itself into an open work – perpetually unfinished, perpetually re-authored by its readers. But what new literacies does this demand of us? How do we as critics, students, and cultural participants guard against epistemic flattening and algorithmic bias while embracing expanded

creative possibility? These are urgent challenges for literature's future in what Floridi (2014) calls the fourth revolution – a time when humans are displaced not only from the center of knowledge but from the center of the infosphere itself. By weaving together Floridi's distant writing, Barthes' authorial death, Eco's open work, and a generative experiment, this paper charts what a reflective, critical, and formally attentive vision of literature might look like in the current AI era.

2. From distant reading to distant writing

To fully grasp the disruptive force of distant writing, it is necessary to revisit its intellectual genealogy and the broader methodological shift it signals for the study and future of literature. Moretti's (2000) provocation in *Conjectures on World Literature* and his subsequent *Graphs, Maps, Trees* (2005) fundamentally unsettled the supremacy of close reading by insisting that literary studies must scale up to match the planetary scope of world literature itself. Instead of scrutinizing isolated canonical texts for hidden meanings – the hallmark of New Criticism (Brooks 1947) and its structuralist heirs – distant reading turned literary analysis outward, toward patterns, genres, and networks visible only when vast corpora are computationally aggregated. As Moretti stated, “distance [...] is a condition of knowledge” (Moretti 2013: 48). This reorientation aligned naturally with the rise of corpus linguistics (Sinclair 1991; Biber et al 1998), stylometry (Burrows 2002), and the cultural analytics described by Lev Manovich (2017). In this sense, distant reading did not abolish close reading but complemented it – extending literary analysis from the micro to the macro level, from singular meaning to statistical structure.

Floridi's (2025) concept of distant writing, however, marks a profound inversion of this logic. Where distant reading uses computation to interpret what already exists, distant writing uses computation to generate what could exist – to explore the modal space of possible narratives rather than simply mapping the patterns of actual ones. In his formulation, distant writing “positions the author not as the direct textual producer, but as the architect of narrative possibilities” (Floridi 2025: 2). This subtle but radical shift locates writing within the logic of design. Herbert Simon (1969) famously defined design as the science of transforming existing situations into preferred ones, emphasizing that the designer's role is one of orchestration rather than direct execution – a principle that Floridi extends to literary production. The novelty lies in how LLMs operationalize this logic. As combinatorial engines trained on vast literary archives, they unlock a narrative space that Marie-Laure Ryan (2006) and Lubomír Doležel (1998) describe as a universe of possible worlds: the literary text is no longer bound to a single linear trajectory, limited by the writer's memory or style, but becomes an isotropic field where countless variations coexist in potentia. Floridi underscores this with his idea of isotropy – “the principle that any narrative domain is equally workable in any direction, provided coherence

is maintained” (Floridi 2025: 4). The philosophical resonance with modal logic (Lewis 1986) is unmistakable: narrative becomes a lattice of possible worlds, selected, shaped, and curated by the meta-author through iterative prompt design.

In the current era of AI, it seems that the role of the writer is shifting from direct inscription to the combinatorial design of generative permutations. The LLM, in this sense, is not merely a tool but a semi-autonomous operator that expands the space of compositional variation far beyond what solitary human cognition could achieve unaided. Distant writing thus moves us from an artisanal model of authorship to one resembling computational design – reflecting trends in architecture (Pye 1968), algorithmic composition in music (Cope 2004), or even generative possibilities in digital art. Floridi’s broader argument about the cleaving power of digital innovation (Floridi 2014) clarifies why this shift matters for literature. The same digital mediation that separates personal data from personal identity (Zuboff 2019) or law from territoriality also disentangles the literary designer from the literary executor. Writing – long celebrated as an intimate extension of human thought and selfhood (Ong 1982) – is refigured as a negotiated process between human intentionality and statistical patterning.

This raises an urgent question for literature’s future: if the act of producing new texts is partially delegated to non-human systems, what remains the distinct labor of human authorship – and what happens to the meaning of reading itself? If the writer becomes a meta-author, must the reader, too, evolve into a meta-reader – one who navigates, critiques, and co-completes texts within this isotropic narrative space? These questions push us to see distant writing’s genealogy not as ending with distant reading but as opening onto distant literature – a rethinking of how literature is written, remixed, and interpreted when the author function is no longer anchored solely in human intention but, as Michel Foucault puts it, implies “an action that is always testing the limits of its regularity, transgressing and reversing an order that it accepts and manipulates” (Foucault 1977: 116). It is precisely this redistribution of roles that demands a more rigorous clarification of enunciation and literariness, to which the next sections turn.

3. Machine enunciation, intentionality, and enunciative responsibility

The language of ‘co-authorship’ and ‘human–machine collaboration’ has become almost unavoidable when describing LLM-mediated writing. Yet from a semiotic perspective, the crucial issue is not simply who produces text, but who (if anyone) enunciates it. Enunciation, in a classical sense, is not reducible to inscription: it presupposes a position in discourse, a stance that organizes deixis (‘I/you/here/now’), modality, and commitment (Benveniste 1970; Ducrot 1984). Even when a text is fictional, enunciation establishes an orientation of responsibility, whether attributed

to an author, a narrator, or a constructed voice (Maingueneau 2004). For this reason, to speak of machine enunciation without qualification risks conflating production with a discursive act that – traditionally – implies intention and accountability (Austin 1962; Searle 1969).

To clarify the point, it is useful to distinguish three layers that are too often collapsed: (a) textual generation, (b) enunciative effects (the appearance of voice, stance, address, commitment), and (c) enunciative responsibility (who can answer for the text's claims, harms, or commitments). LLMs obviously perform (a), and they reliably produce (b): they simulate the surface markers of an enunciating subject, including deixis and modality, by recombining learned regularities (Bender et al 2021; Floridi 2025). But (c) cannot be simply attributed to the system, because the pragmatic force of discourse – promising, accusing, asserting, retracting – presupposes accountable uptake and intentional commitment in a communicative situation (Austin 1962; Searle 1969). The model does not 'mean' in the way an enunciator means; it does not commit to truth, promise, or accusation; it cannot be held accountable in the pragmatic and ethical sense in which discourse is typically regulated. The apparent 'I' of an LLM's utterance is therefore best described not as an agentive subject but as a simulated enunciative position – a textual effect produced by patterning, trained on prior uses of enunciative markers. This is why distant literature must be careful: if we treat the model as a co-enunciator, we risk naturalizing responsibility away from the humans and institutions that design prompts, choose outputs, deploy systems, and authorize publication. This does not mean that AI is merely a neutral channel. Floridi's notion of the dataprint (2025) already points toward a more accurate characterization: the model functions as an operator whose outputs bear the imprint of training distributions, curation decisions, and latent cultural asymmetries. If the model lacks intention, it nonetheless organizes probability, and probability is never innocent when it shapes what can be said, what is likely to be said, and what will appear 'natural' in language. The proper question, then, is not whether the machine 'intends,' but how its statistical operation reconfigures the ecology of enunciation by producing texts that look enunciated, and by inviting readers to attribute voice and responsibility where none exists intrinsically.

Indeed, for distant literature, this suggests a precise triadic model:

- i. The meta-author (human) designs constraints, selects prompts, curates outputs, and thus establishes the horizon of possible utterances. This is a design-activity, but it is also an ethical and discursive positioning, because it shapes what can appear as voice.

- ii. The model (LLM) operates as a generative medium: it produces sequences that simulate enunciative stance without owning commitment.

iii. The reader and the interpretive community attribute, contest, and stabilize responsibility: they decide whether to treat an utterance as literary play, rhetorical claim, or cultural harm; they evaluate the legitimacy of the voices simulated; they determine whether a text is to be received as literature, misinformation, parody, or plagiarism.

In this framework, it becomes clearer why the metaphor of ‘co-enunciation’ is dangerous if left unchecked. It is acceptable only when explicitly understood as shorthand for a redistributed production process rather than as a literal claim about machine intention. The LLM participates in production, but enunciative responsibility remains human and institutional: with the meta-author who curates and publishes, and with the socio-technical environment that deploys and legitimizes the system. This clarification strengthens, rather than weakens, the connection to Barthes and Eco. Barthes’ death of the author was never an invitation to abolish responsibility; it was an attack on interpretive tyranny and the fetish of origin. In the age of LLMs, the risk reverses: not the tyranny of the Author-God, but the disappearance of accountable authorship into an apparently autonomous machine voice. A critical theory of distant literature must therefore hold two claims together: (i) meaning is not guaranteed by authorial intention; and yet (ii) responsibility for discourse cannot simply evaporate into automation. Eco’s model reader, in this context, becomes not only an interpreter of openness but also a diagnostician of simulated enunciation: a reader trained to ask what kind of voice is being staged, by whom, under what constraints, and with what consequences.

4. The death of the author and the rebirth of the reader

Barthes’ brief yet seismic essay “La mort de l’auteur” (1967) has been debated and reinterpreted for decades, yet its radical core remains vital to understanding literature today. Its enduring provocation is that the writer’s personal authority over the text must be dissolved if language – and by extension, literature itself – is to remain alive. For Barthes, this break was not only theoretical but deeply ideological: a deliberate assault on the inherited privilege of the Author-God.² As he writes: “To give a text an Author is to impose a limit on that text, to furnish it with a final signified, to close the writing” (Barthes 1977: 147). In place of this closure, Barthes invites us to see writing as “that neutral, composite, oblique space where our subject slips away, the negative where all identity is lost” (Barthes 1977: 142). Literature’s meaning does not originate in the private intentions of the writer but emerges in the dynamic encounter between text and reader. Or as Barthes famously puts it: “A text’s unity lies not in its origin but in its destination” (Barthes 1977: 148).

² Barthes capitalizes Author to mark it not as a neutral descriptive term (a person who writes) but as an ideological figure – a cultural institution that functions like a quasi-transcendent source of meaning, what he elsewhere calls the Author-God.

This shift – from the sovereign Author to the interpretive reader – finds renewed urgency in the age of AI. If the modern author is already dethroned, what happens when the very act of writing is partly automated by LLMs trained on vast archives of human language? Barthes' death of the author anticipated a dispersal of origin; generative AI literalizes that dispersal by multiplying plausible textual surfaces. But the conceptual clarification from the previous section matters here: the machine's fluency is not an enunciative subject; it is a simulation of voice that the reader is invited to take as meaningful. One might paraphrase Barthes today and say: to give a text an author is to close it; to give it an LLM is to proliferate it – yet only a critical reader can decide which proliferations deserve meaning, and which simply mimic the appearance of sense. Foucault's "What Is an Author?" (1969) complements Barthes by asking not only who writes but what social functions the author performs. For Foucault, the 'author-function' is a way of organizing discourse: it anchors responsibility, authenticity, and the circulation of meaning within a culture. In distant literature, the author-function persists but is redistributed: the meta-author designs constraints; the model generates; the institution frames and circulates; the reader stabilizes meaning and judges legitimacy. In an educational context, this redistribution reshapes the roles of critics and teachers. If literature becomes increasingly recombinant and generative, then the task is not to defend fixed interpretations but to cultivate conditions for interpretive rigor: the capacity to navigate plurality without surrendering to triviality. This is where Paulo Freire's (1970) insight remains relevant. Long before AI, Freire denounced the 'banking model' of knowledge – the idea that meaning could be deposited into passive minds. Instead, he insisted that knowledge must be co-authored through active, critical engagement. In distant literature, co-authorship is no longer merely metaphorical: the reader must actively prompt, refine, interpret, and question machine-generated text. Yet the stakes are not purely technical. In a landscape where LLMs can flood the field with plausible pastiche, the danger is no longer interpretive tyranny but interpretive triviality: the replacement of creative ambiguity with an infinite scroll of statistically probable variations. The reader's new role is not just to complete the text but to judge which branches merit meaning and which do not. Here, literature's survival as a meaningful cultural practice depends on what Eco will illuminate next: openness is not chaos, but a designed field of interpretive possibilities that demands both freedom and constraint.

5. The role of the open reader

If Barthes declared the death of the author to liberate the text from singular authorship, Eco took the next crucial step by theorizing how texts invite readers to become co-authors in practice. In “The Role of the Reader” (1979), Eco deepens the insight first outlined in *Opera Aperta*³ (1962): meaning is never fully given but “also cooperatively generated by the addressee” (Eco 1979: 3). For Eco, an open work does not mean a text without structure or constraint but one that “offers the interpreter, the performer, the addressee a work to be completed” (Eco 1979: 4). This openness is not chaos; it is a carefully designed space for interpretive freedom within coherent boundaries.

This vision feels newly concrete in an era when LLMs can produce endless drafts, paraphrases, and recombinations. In distant literature, the reader is no longer merely a recipient of closed texts but a navigator of generative processes. As Eco writes: “What one calls ‘message’ is usually a text, that is, a network of different messages depending on different codes and working at different levels of signification” (Eco 1979: 5). When the ‘sender’ is partly an operator trained on massive archives, the ‘code’ the reader must share is not only cultural and linguistic; it includes a critical awareness of how generative systems stage voice, stance, and authority. Readers must learn to detect the dataprint Floridi (2025) describes: the traces of training distributions, stylistic smoothing, and the gravitational pull of the probable. Eco’s model reader thus becomes, in the context of LLMs, a kind of meta-reader: one able to navigate drafts, detect statistical seams, and decide when coherence holds or breaks. This is not a trivial literacy: it spans genre knowledge, intertextual awareness, prompt logic, and ethical reflection on simulated enunciation. Eco also anticipated the collective dimension of interpretive work. In his analysis of experimental forms, he shows that the open work “is a field of relations endowed with a structural resilience much greater than the apparent casualness of its surface might suggest” (Eco 1979: 12). Distant literature expands this field into a combinatorial network of cultural, historical, and computational traces that demand collaborative decoding.

Yet an important limit must be maintained. Openness is not the same as the disappearance of literariness, nor does the reader’s activity alone guarantee that what is generated becomes literature. The next section, therefore, addresses a question that becomes unavoidable once generativity scales: if the reader’s interpretive labor is central, what still grounds the specifically literary character of a text?

³ Originally published in Italian as *Opera aperta* (1962), Eco’s influential book was later translated into English as *The Open Work* (1989), shaping semiotic and literary debates on indeterminacy and reader participation.

6. Literariness in the age of distant literature

A theory of distant literature cannot rely exclusively on the expansion of readerly agency. If literariness is reduced to interpretive play or meta-critical decoding alone, the specificity of literature risks dissolving into the mere fact that a reader can do something interesting with a text (Culler 1975; Eagleton 1983). This risk is amplified by LLMs, which can produce fluent discourse in almost any register: under such conditions, literariness cannot simply mean ‘a text that invites interpretation,’ because almost any generated text can invite some form of interpretation (Iser 1978; Eco 1979). What is at stake, then, is not the availability of interpretation, but the conditions under which a text becomes aesthetically and formally worthy of sustained literary attention (Barthes 1970; Jauss 1982).

To insist on literariness is therefore to insist on constraints – not only ethical constraints on generation, but formal-aesthetic constraints that distinguish literary discourse from other kinds of communicative output (Jakobson 1960). In classical terms, one might recall that literariness has often been linked to features such as formal organization, self-reflexivity, patterned language, strategic ambiguity, defamiliarization, and a certain opacity that resists immediate paraphrase. None of these features is automatically produced by an LLM, even if the model can imitate their surface. The literary is not identical with the merely plausible. In distant literature, literariness can be conceptualized as emerging from at least three interacting layers:

(i) *Designed form* (constraint as poetics). If distant writing transforms the author into a designer of constraints, then literariness must be understood, in part, as a designed poetics: the deliberate engineering of voice, focalization, rhythm, limitation, and structural pattern (Floridi 2025). A prompt that merely asks for ‘a story’ tends to yield generic fluency; a prompt that specifies narratological architecture, stylistic restrictions, or compositional rules pushes generation toward literary specificity by binding the probabilistic system to a formal project (Simon 1969; Ryan 2006). In this sense, the meta-author’s work is not only conceptual but aesthetic: constraint-design becomes a contemporary site of poetics (Jakobson 1960; Floridi 2025).

(ii) *Textual resistance* (opacity and surplus). Literature has often been recognized by its capacity to exceed immediate communicative function – by generating interpretive surplus, ambiguity, and a resistant texture that cannot be exhausted by summary (Barthes 1970; Ricoeur 1976). Under generative conditions, this becomes a diagnostic criterion: does the text merely simulate the appearance of literary devices, or does it produce a sustained organization of language that rewards re-reading, sustains tension, and resists closure in a non-trivial way (Iser 1978; Eco 1979)? The model reader’s task is not only to interpret but to test whether the text’s openness is structurally meaningful or merely the looseness of generic output (Eco

1979). Put differently, literariness requires material that can withstand interpretive pressure without collapsing into paraphrase or generic coherence (Barthes 1970; Ricoeur 1976).

(iii) *Framing and institution* (what counts as literature). Literariness is also a cultural function: it depends on paratexts, publication contexts, genre labeling, and the interpretive community that stabilizes a work as literature (Genette 1987; Bourdieu 1993). In distant literature, this framing becomes even more visible: the disclosure that a dialogue is simulated, the articulation of constraints, and the positioning of a text as an experiment or artifact all shape how it is read and valued (Jauss 1982; Genette 1987). This does not reduce literature to sociology; it clarifies that literariness is always negotiated between textual features and cultural institutions (Culler 1975; Bourdieu 1993). Under LLM conditions, framing is also an ethical gesture because it prevents the reader from mistaking simulated enunciation for accountable voice (Foucault 1969; Noble 2018).

These layers reconfigure, rather than erase, the question of aesthetic value. If LLMs can generate infinite outputs, scarcity shifts from production to selection: what matters is not that text can be generated, but that certain texts can be shaped into forms that sustain literary attention. This is also why literariness cannot be reduced to reader activity alone. The reader can complete an open work, but cannot conjure literariness out of pure genericness without some resistant material to work on. Distant literature, therefore, demands a double discipline: the reader must become more active, and the meta-author must become more formally intentional, designing constraints that produce more than smooth discourse.

With these clarifications in place – about machine enunciation and about literariness – we can now talk about methodology. The point of the following experiment is not to claim that an LLM ‘speaks’ as Barthes or Eco, but to stage, under controlled constraints, the tension between simulated voice and interpretive responsibility, and to test what kinds of formal choices make the output more than mere fluent pastiche.

7. The methodology of distant literature

Before turning to a concrete experiment that illustrates distant literature in action, it is helpful to clarify visually how the core concepts explored so far – Floridi’s distant writing, Barthes’ death of the author, Eco’s open work and model reader, and the two problematizations developed above (enunciation and literariness) – interlock to shape this emerging paradigm. To this end, I propose a conceptual figure (see Fig. 1) designed as a triangular diagram: at each corner sits one of the three anchoring ideas.

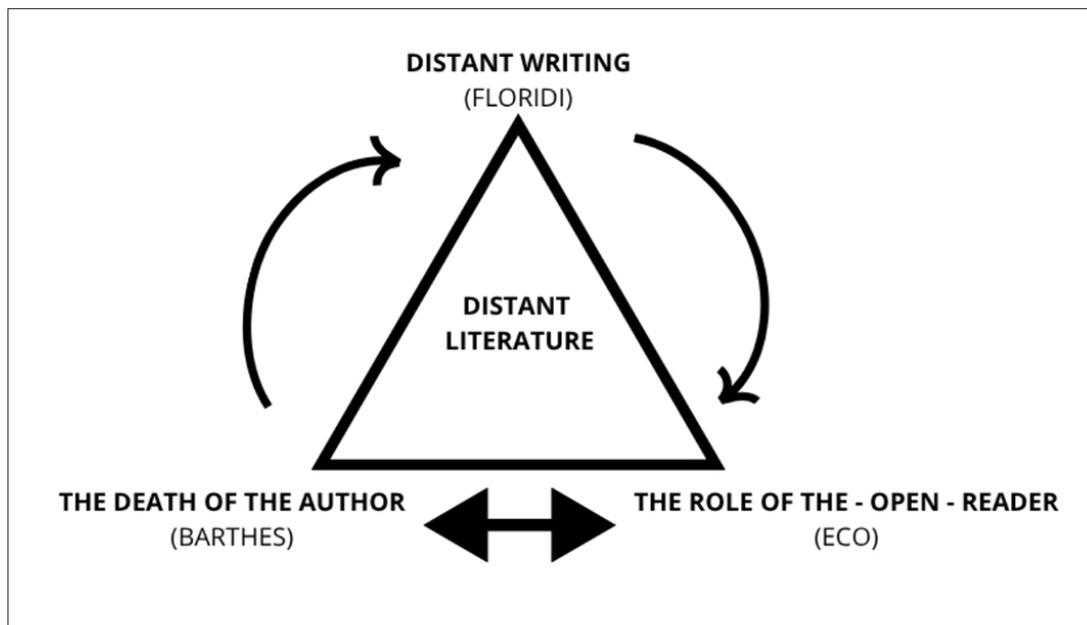


Figure 1. The distant literature triangle

The top corner shows distant writing (Floridi) – representing the author’s shift from being a direct producer to a meta-designer of narrative constraints. The left corner is the death of the author (Barthes) – signifying the decentering of authorial intention as a privileged source of meaning. The right corner is the reader’s role (Eco), illustrating the expansion of interpretive agency and the model reader who completes and activates meaning in practice. At the center of this triad sits distant literature itself – shown as an open, iterative field that loops meta-authors, generative systems, and active readers into a co-creative circuit. Arrows indicate how the writer shifts to a meta-author, the text expands from closed to open, and the reader evolves from a passive recipient to a critical co-designer. Methodologically, Floridi’s (2025) distant writing already offers a blueprint. The meta-author does not simply prompt an LLM once; rather, they iteratively design, refine, and curate, choosing prompts that generate variations, testing coherence, and steering the output toward a meaningful arc. The intellectual labor is not the keystroke but the orchestration – knowing how to engineer constraints, and how to assess which generated paths hold together as literature and which dissolve into noise. However, the conceptual clarifications above refine the meaning of ‘assessment.’ The meta-author must evaluate not only coherence but also the status of the simulated voice (what enunciative stance is being staged, and what responsibilities might be mistaken for belonging to the machine). Likewise, the reader or critic must evaluate not only interpretive openness but literariness: whether the output sustains formal and aesthetic attention beyond the mere fact that it can be decoded.

To ground these principles, this paper presents a practical micro-experiment called The Barthes-Eco Simulation, co-produced with a contemporary LLM (ChatGPT). The experiment simulates a dialogue that has never occurred historically but is conceptually plausible: an imagined conversation in which Barthes revisits his ‘death of the author,’ and Eco responds from the standpoint of the open work and the model reader. The human role – my role – is not to claim authorial identity over their voices, but to stage constraints, iterate outputs, and curate a version that makes the theoretical tensions legible.

8. A simulation of distant literature: The Barthes-Eco dialogue

The following simulation was created with ChatGPT-5,⁴ using the chatbot as both tool and method: an artificial dialogue that never occurred historically but is textually plausible because it draws on rhetorical habits and conceptual tensions found in the works of Barthes and Eco. In designing this experiment, my role as meta-author mirrored Floridi’s (2025) distant writing process: I crafted constraints to position the LLM as a simulator of Barthes’ aphoristic provocations and Eco’s semiotic nuance, iteratively refined prompts, tested multiple outputs, and selected a final version that preserves thematic coherence. Two caveats are essential. First, the simulation does not assert that the LLM ‘enunciates’ as Barthes or Eco; it stages simulated enunciative positions that must be read as effects, not as intentions. Second, the point is not merely to generate fluent pastiche, but to create a text that can be tested for literariness: does it sustain tension, conceptual friction, and interpretive surplus, or does it merely smooth over differences into generic coherence? The dialogue is therefore presented without commentary, inviting the reader(s) to perform precisely the role Eco envisioned: completing an open work by testing how well the simulation sustains conceptual and formal demands.

8.1. The Barthes-Eco Simulation

Barthes: To declare the author dead was to free the text from tyranny. When I wrote that the birth of the reader must be at the cost of the death of the author, I hoped to remind us that writing is not an emanation from some sacred origin but a tissue of quotations, drawn from innumerable centers of culture.

⁴ The simulation was designed using a series of carefully structured prompts tested in multiple rounds. These included instructions to imitate Barthes’ tone and Eco’s precision, while explicitly referencing key concepts like the death of the author, the model reader, and open work. Each output was refined through iterative prompting to maintain thematic coherence and rhetorical plausibility. It is also important to keep in mind that each response given by ChatGPT is always different from the one it generates the first time, even if the prompt remains unchanged.

Eco: Yes, Roland, but even your tissue needs to be read. I have always insisted that a work's openness is never infinite. In *The Role of the Reader*, I wrote that "the message is a form which must be actualized by the addressee," and that actualization depends on the codes the reader knows how to use.

Barthes: True, and yet now we have these machines – these algorithmic scribes that produce endless text. They multiply the tissue without limit. What then of the author? Do I die again? Or does the machine die in my place?

Eco: The machine neither lives nor dies. It writes without intention. It imitates the gesture of authorship but leaves the work unfinished. It is the reader who must decide where meaning coheres and where it dissolves. The machine's output is only open because we decide how to close it.

Barthes: Then the reader must grow more vigilant. If every text is a remix, now the remix is automated. We risk mistaking fluency for meaning, coherence for truth.

Eco: Which is why, as I have argued, the model reader is not passive but interpretively active. The model reader reconstructs the logic behind the sign, tests the text's coherence, and resists closure that is too simple.

Barthes: So, the critic of the future is not the guardian of truth but the designer of conditions under which the reader can interpret well.

Eco: Precisely. The teacher – or rather, the guide – must help the reader become what I called the addressee capable of filling in the blanks – or rather, discerning which blanks to fill and which to leave open.

This brief simulation is not offered as a perfect imitation of Barthes' or Eco's style – indeed, its slight anachronisms and rhetorical smoothness are part of its diagnostic value. Rather, it illustrates what Floridi (2025) identifies as the methodological core of distant writing: design, iterative refinement, and careful curation as the intellectual labor behind machine-generated text. What makes this not merely a curiosity but a model for distant literature in practice is how it can be used to test both conceptual and aesthetic dimensions. Readers can be asked: Where does the dialogue echo passages from "The Death of the Author" or *Opera Aperta/The Role of the Reader*? Where does it flatten or distort? Does the simulation preserve conceptual disagreement, or does it dissolve conflict into agreeable coherence? And crucially: does the text generate interpretive surplus, or merely the appearance of depth?

Furthermore, this experiment can be extended. Readers might design their own simulations – pairing Plato with Foucault, or staging an imagined interview in which Floridi confronts Barthes and Eco about isotropy and openness. Such exercises cultivate not only prompt design – an emerging literary craft in its own right (Liu et al 2023) – but also deepen close reading, because readers must ground generative experiments

in real theoretical texts and in formal constraints that test literariness rather than mere fluency. The Barthes-Eco Simulation thus exemplifies how distant literature transforms the text into an open work in Eco's strongest sense: not merely indeterminate but deliberately unfinished, demanding interpretive vigilance and ethical critique. Recalling Eco's caution that "an open text, however 'open' it be, cannot afford whatever interpretation" (Eco 1979: 9), the simulation invites readers to test where meaning holds and where it fails – without confusing simulated enunciation with intention, and without confusing interpretive possibility with literariness as such.

9. Challenges, risks, and the ethical horizon of distant literature

The simulation illustrates how distant literature can serve as a groundwork for new forms of textual experimentation – but it also exposes unresolved tensions and ethical challenges. To engage Floridi's (2025) vision of distant writing without sliding into technological determinism, we must reckon with both the promise and pitfalls of delegating textual execution to statistical machines. One risk is that the liberation from authorial tyranny Barthes championed can be recaptured by the invisible authority of algorithmic probability. The model has no intention, yet its outputs are never neutral. As Bender et al. (2021) remind us, LLMs reiterate biases embedded in training data, mask assumptions behind rhetorical fluency, and can replicate misinformation as smoothly as they reproduce canonical style. The data print described by Floridi (2025) is not merely stylistic; it is a site where cultural and epistemic asymmetries may be reproduced under the guise of automated originality.

This is why distant literature cannot be reduced to technical prompt engineering. Readers, teachers, students, and critics must develop a form of algorithmic literacy: the capacity to see how generative systems shape knowledge, and how those systems are shaped by data curation, training regimes, and profit logics (Noble 2018). If the meta-author's role is to design narrative affordances, part of that labor must include making the system's blind spots visible – foregrounding the politics behind the apparent neutrality of generative output. In line with Freire's (1970) assertion that education is never neutral, distant literature must keep open questions of power: who benefits from automated authorship, and who is erased? The question of enunciative responsibility returns here with force. If we naturalize machine enunciation, we risk displacing accountability: as if harm were authored by an autonomous voice. But in practice, responsibility is distributed across human choices – prompt design, selection, editing, and publication – and across institutions that authorize the system's use. A critical distant literature must therefore combine Barthes' suspicion of authorial origin with an explicit insistence that discursive responsibility does not vanish simply because generation is automated.

There is also the thorny question of labor and attribution. Who deserves credit for a text produced partly by a human designer and partly by a model trained on vast archives of human writing? Floridi (2025) poses this sharply: does the meta-author ‘who established the requirements’ remain the true author, or is authorship distributed across a network that includes unknown writers whose works seeded the model’s capacities? This echoes debates about remix culture (Lessig 2009), but here the remix is automated and scaled beyond any single human’s capacity to remember. In criticism and the classroom alike, this raises urgent questions about originality, citation, and what counts as authentic work. Let’s take a real example: if a student produces an essay by skillfully prompting an LLM, is the essay ‘theirs’? Or is the intellectual labor the design of constraints and the critical curation of outputs? Traditional rubrics must adapt if they are to remain relevant to the conditions of distant literature. Equally urgent is the risk that distant writing and distant literature deepen the digital divide. As Virginia Eubanks (2018) warns, technological affordances rarely distribute power equally. Access to advanced LLMs, training in constraint design, and the literacy to question machine-generated text are already unevenly distributed across schools, regions, and social contexts. Without explicit strategies to democratize these literacies, the meta-author and meta-reader roles Floridi imagines may become privileges of an elite, while others remain passive consumers of machine text, and they have no tools to decode or contest. Finally, there is the oldest challenge of all: what happens to thought itself when the hand that writes no longer directly inscribes the word? From Plato’s suspicion of writing in *Phaedrus*⁵ to Walter Ong’s (1982) exploration of how literacy reshapes consciousness, thinkers have long recognized that writing technologies change not only what we know but how we know. Ong’s warning remains striking: “Once the word is technologized, there is no effective way to criticize what technology has done with it without the aid of the highest technology available” (Ong 1982: 79). Floridi’s (2025) provocation – “What happens when we think through *wrAIting*?” – reframes this ancient worry for the age of automated prose. If design replaces execution, do we risk losing the meditative labor that makes writing a mode of thought, not merely output? Do we trade the creative friction of the blank page for the false fluency of infinite drafts?

None of these tensions means distant writing – or distant literature – should be rejected. Quite the opposite: they reveal why the paradigm must be critically embraced. If today the author is dead, the reader must be more alive than ever: vigilant,

⁵ In *Phaedrus*, Plato (via Socrates) famously criticized writing as something ‘technology’ that weakens memory and internal thought, a worry that echoes surprisingly in contemporary debates on AI-assisted authorship.

literate in systems, sensitive to form, and ready to test what emerges from the isotropic narrative space Floridi describes. The classroom, the reading community, the public sphere – each must become what Eco once called a field of presence (Eco 1979): a shared space where machine-generated text is continuously examined, critiqued, and re-stitched by readers who know that the death of the author is meaningful only if it gives birth to a richer, more responsible, and more aesthetically demanding life for the reader.

10. Conclusion

Distant writing, as Floridi (2025) theorizes, transforms authorship from a solitary craft into a design practice: the writer becomes a meta-author, a conductor of generative engines, a sculptor of narrative constraints within an isotropic possibility space. When mapped onto the literary field as a whole, this transformation reanimates Barthes' (1967) death of the author and Eco's (1979) open work, reframing literature as a collaborative space where authorial authority dissolves and interpretive agency expands. But the two problematizations developed in this paper refine what distant literature can responsibly claim. First, the metaphor of machine enunciation must be handled with rigor. LLMs generate text and simulate voice, but they do not occupy intention in the sense required for enunciative responsibility. The proper conceptual move is not to enthrone the machine as co-enunciator, but to recognize a redistributed ecology of production: human constraint-design, model operation, institutional framing, and readerly attribution. Second, literariness cannot be grounded solely in the reader's activity. Distant literature demands an expanded model reader, but it also demands designed poetics, textual resistance, and framing practices that distinguish literature from mere fluent discourse. The Barthes-Eco Simulation offered here is a prototype for this practice. It shows how readers can prompt, refine, and critique simulated dialogues, staging impossible encounters that sharpen theoretical grasp while testing the limits of simulated voice and formal-literary coherence. The lesson is not the text alone but the labor it demands: reading not only what the model outputs, but how it stages enunciation, how it distributes responsibility, and whether the resulting form earns literary attention. If, as Floridi (2014) argues, the fourth revolution displaces humans from the center of the infosphere, then literature must ensure we do not surrender what remains distinctly ours: the responsibility to interpret, to judge, to design constraints, and to sustain literariness as a practice of form and attention. In this, the death of the author is not an ending but an opening: the beginning of literature as an open work, alive with the unfinished labor of meaning-making – work that no machine can complete for us.

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References

- Austin, John 1962. *How to Do Things with Words*. Oxford: Oxford University Press.
- Barthes, Roland 1977[1967]. The Death of the Author. In: *Image-Music-Text*. Trans. Stephen Heath. New York, NY: Hill and Wang, 142-148.
- Barthes, Roland 1970. *S/Z*. Paris: Seuil.
- Benveniste, Émile 1970. *L'appareil formel de l'énonciation*. *Langages* 17: 12-18.
- Bender, E.M., T. Gebru, A. McMillan-Major and S. Shmitchell 2021. On the dangers of stochastic parrots: Can language models be too big? *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*: 610-623, <https://doi.org/10.1145/3442188.3445922>
- Biber, D., S. Conrad and R. Reppen 1998. *Corpus Linguistics: Investigating Language Structure and Use*. Cambridge: Cambridge University Press.
- Bourdieu, Pierre 1993. *The Field of Cultural Production: Essays on Art and Literature*. New York, NY: Columbia University Press.
- Brooks, Cleanth 1947. *The Well Wrought Urn: Studies in the Structure of Poetry*. New York, NY: Harcourt, Brace.
- Burrows, John 2002. Delta: A measure of stylistic difference and a guide to likely authorship. *Literary and Linguistic Computing* 17 (3):267-287, <https://doi.org/10.1093/lc/17.3.267>
- Cope, David 2004. *Virtual Music: Computer Synthesis of Musical Style*. Cambridge, MA: MIT Press.
- Culler, Jonathan 1975. *Structuralist Poetics: Structuralism, Linguistics, and the Study of Literature*. New York, NY: Cornell University Press.
- Doležel, Lubomír 1998. *Heterocosmica: Fiction and Possible Worlds*. Baltimore, MD: Johns Hopkins University Press.
- Ducrot, Oswald 1984. *Le dire et le dit*. Paris: Minuit.
- Eagleton, Terry 1983. *Literary Theory: An Introduction*. Oxford: Blackwell.
- Eco, Umberto 1962. *Opera Aperta*. Milano: Bompiani.

- Eco, Umberto 1979. *The Role of the Reader: Explorations in the Semiotics of Texts*. Bloomington, IN: Indiana University Press.
- Eubanks, Virginia 2018. *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*. New York, NY: St. Martin's Press.
- Floridi, Luciano 2014. *The Fourth Revolution: How the Infosphere is Reshaping Human Reality*. Oxford: Oxford University Press.
- Floridi, Luciano 2025. Distant writing: Literary production in the age of artificial intelligence. *Minds & Machines* 35 (30), <https://doi.org/10.1007/s11023-025-09732-1>
- Foucault, Michel 1977[1969]. What Is an Author? In: *Language, Counter-Memory, Practice: Selected Essays and Interviews*, 113-139. Trans. Donald Bouchard and Sherry Simon. Ithaca, NY: Cornell University Press.
- Freire, Paulo 1970. *Pedagogy of the Oppressed*. New York, NY: Continuum.
- Genette, Gérard 1987. *Seuils*. Paris: Seuil.
- Iser, Wolfgang 1978. *The Act of Reading: A Theory of Aesthetic Response*. Baltimore, MA: Johns Hopkins University Press, <https://doi.org/10.56021/9780801821011>
- Jakobson, Roman 1960. Closing Statement: Linguistics and Poetics. In: Thomas A. Sebeok (ed.) *Style in Language*. Cambridge, MA: MIT Press, 350-377.
- Jauss, Hans 1982. *Toward an Aesthetic of Reception*. Minneapolis, MI: University of Minnesota Press.
- Lessig, Lawrence 2009. *Remix: Making Art and Commerce Thrive in the Hybrid Economy*. New York, NY: Penguin Press.
- Lewis, David 1986. *On the Plurality of Worlds*. Oxford: Blackwell.
- Liu, P., W. Yuan, J. Fu, Z. Jiang, H. Hayashi and G. Neubig 2023. Pre-train, prompt, and predict: A systematic survey of prompting methods. *ACM Computing Surveys* 55 (9): 1-35, <https://doi.org/10.48550/arXiv.2107.13586>
- Maingueneau, Dominique 2004. *Le discours littéraire: Paratopie et scène d'énonciation*. Paris: Armand Colin.
- Manovich, Lev 2017. *Cultural Analytics*. Cambridge, MA: MIT Press.
- Moretti, Franco 2000. Conjectures on world literature. *New Left Review* 1: 54-68.
- Moretti, Franco 2005. *Graphs, Maps, Trees: Abstract Models for Literary History*. London: Verso.
- Noble, Safiya 2018. *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York, NY: NYU Press.
- Ong, Walter 1982. *Orality and Literacy: The Technologizing of the Word*. London: Methuen.
- Pye, David 1968. *The Nature and Art of Workmanship*. Cambridge: Cambridge University Press.
- Ricoeur, Paul 1976. *Interpretation Theory: Discourse and the Surplus of Meaning*. Fort Worth, TX: Texas Christian University Press.

- Ryan, Marie-Laure 2006. *Avatars of Story*. Minneapolis, MN: University of Minnesota Press.
- Schön, Donald 1984. *The Reflective Practitioner: How Professionals Think in Action*. New York, NY: Basic Books.
- Searle, John 1969. *Speech Acts: An Essay in the Philosophy of Language*. Cambridge: Cambridge University Press.
- Simon, Herbert 1969. *The Sciences of the Artificial*. Cambridge, MA: MIT Press.
- Sinclair, John 1991. *Corpus, Concordance, Collocation*. Oxford: Oxford University Press.
- Zuboff, Shoshana 2019. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York, NY: Public Affairs.

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Construction of meaning in generative AI: Discursive semiotic perspectives from the Global South

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ABSTRACT

This paper examines the processes of meaning construction in generative AI models, with particular attention to how regional datasets shape the production of meanings related to the Global South. It draws on the semiotic framework developed by Greimas and Courtés, who approached meaning as a process and proposed a horizontal model – the generative trajectory of meaning (*parcours génératif*) – capable of ideally simulating the transition from abstract schematized forms to enunciative realization. With the widespread adoption of generative AI, it has become possible to observe the immediate conversion of system components, now stored not in social memory but in datasets composed of complex collections of text-objects. Grounded in Jacques Fontanille’s theory of enunciative praxis, the study examines possible configurations of the discursive field in texts generated through interactions between human prompts and AI systems. It advances the hypothesis that the existential emergence of semiotic objects produced by such technologies no longer originates in pure virtuality (virtualization) – from which forms traditionally emerge – but rather stems from the continuous recombination of pre-formed, potentialized structures stored in datasets. This dynamic, in turn, helps explain the amplification of biases and stereotypes in AI outputs. To investigate this hypothesis and deepen the semiotic critique of AI from the perspective of the Global South, particularly in light of data underrepresentation, the study focuses on *Amazônia IA*, a generative model developed in Brazil. It compares this model with more globalized systems such as ChatGPT. Through this

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comparison, the research seeks to reveal how meaning regimes operate when generative outputs are informed by regionally rooted datasets, potentially reflecting local cultural contexts. Ultimately, the paper aims to assess whether, and to what extent, such models challenge hegemonic frameworks of meaning construction and promote the development of more ethical, plural, and culturally situated discourses.

Introduction

Contemporary inquiries in the fields of social computing and digital humanities have increasingly approached Big Data as a complex repository of cultural artifacts produced, collected, and organized through everyday human practices. Such understanding, articulated by Microsoft Research scholars Danah Boyd and Kate Crawford (2012), shifts attention away from a merely technical or operational focus toward a perspective that foregrounds the sociocultural and political constitution of data. Within this framework, data are no longer conceived as raw or neutral entities; rather, they are foregrounded as the outcome of methodological choices and institutional decisions that reflect and reproduce cultural values, power structures, and ideologically determined contents.

Numerous studies analyze the pragmatic and discursive effects of the use of data and algorithms in contemporary culture. José van Dijck (2014) highlights the need for an inter- and transdisciplinary critique of Big Data systems that extends beyond engineering and economics. While Big Data and artificial intelligence are not identical phenomena, contemporary AI systems are structurally dependent on processes of datafication, large-scale data extraction, and algorithmic rationalities. In dialogue with these concerns, but from an ethico-political perspective, Dr. Louise Amoore (2020), a geographer at Durham University, introduces the term ‘cloud ethics,’ the title of her best-known book. For her:

Cloud ethics is attuned to how algorithms come to configure the attributes of ourselves and of others, and to what it means to live in a world where such attributes are actively inferred and mobilized as the basis for action. (Amoore 2020: 4)

Inspired by the works of philosophers such as Michel Foucault and Judith Butler, Amoore reflects on how algorithms produce axiological configurations of identity – both of the self and of others – thereby participating in the constitution of subjectivity, alterity, and moral judgment in datafied societies. Amoore poses questions such as “Who is to be held accountable if an algorithm generated drone strike kills civilians or botches an intricate surgical operation which results in the loss of the patient's life?” (2020: 4) to underscore, in a compelling way, the urgency of interrogating the ethical principles at stake in a world increasingly mediated by artificial intelligence systems, algorithms, and data.

In this initial gathering of interdisciplinary reflections, whose objective is to demonstrate how transformations across various social spheres are reflected in multiple fields of knowledge, let us revisit the thoughts of the anthropologist Nick Seaver (2018). He suggests that anthropologists approach data as ethnographic objects, similar to any complex cultural artifact, and that this requires attention to the multiplicity of voices, discursive disputes, and practices involved in their constitution. This perspective requires attention to the multiplicity of voices, the discursive disputes, and the practices implicated in their constitution. Considering the contributions of Boyd and Crawford (2012), van Dijck (2014), Amoore (2020), and Seaver himself (2018), it can be argued that data not only reflect cultural reality but also constitute an integral part of the semiosphere. Far from proposing strictly ontological discussions of the nature of data, such reflections illuminate how meaning is produced and contested for new spaces of circulation – concrete, virtual, and symbolic – within datafied societies. From a semiotic perspective, it becomes evident that, through digital technologies – and the objects they produce – meaning emerges from individual actions, ethical conduct, collective organization, and even the creation of axiological configurations of aesthetic taste.

This initial discussion prompts us to examine the epistemological nature of data from a semiotic perspective. For us semioticians, what are data, after all? How can they be apprehended within a conceptual framework specific to our discipline? At what level of pertinence should they be situated? In what ways do the logic of data production, storage, organization, and circulation influence the construction of meaning?

To address these questions, the article is divided into three sections. The first section offers a semiotic discussion of datafication, linking it to the concepts of *practices* and *forms of life* (Fontanille 2008, 2015), followed by an examination of data bias in the Global South. The goal is to provide a solid semiotic framework for these two aspects. Finally, the third section provides a brief illustrative analysis of responses generated by a regional AI model developed in Brazil, compared with those from ChatGPT.

1. Big Data and datafication

Understood as extensive and complex collections of semiotic objects manifested on the level of pertinence of expression through multiple languages and codes – verbal, verbal-visual, visual, mathematical, syncretic, among others – data do not constitute tangible realities of the natural world¹ (Moraes 2021). Unlike stones, they are not raw elements: these objects are always ‘something’ that has been modeled. By qualifying them as semiotic objects, we draw on Marrone (2008 n.p.), for whom a semiotic object is “a simulacrum, anything that must be prepared.”

¹ Although data rely on digital and physical infrastructures that raise ethical and ecological issues, these material dimensions are analytically bracketed here. The analysis focuses on data as semiotic objects.

Therefore, for an artifact to be recognized as data, the establishment of ‘analysis’ is indispensable, as Hjeltmslev (2010 [1975]) pointed out. It was also through the Hjeltmslevian thought that semiotics highlighted the need to delineate and inscribe the semiotic-object within a system of signification, as only in this way does it become possible to formally describe the internal relations established by it. To apprehend data semiotically, as well as to delimit how their production and circulation produce meaning, we will address the issue of datafication, drawing primarily on the studies of Jacques Fontanille (2008, 2015) regarding *practices* and *forms of life*.

1.1. Datafication: Big Data and semiotic practices

Data modeling is part of a broader process known as datafication. This term, coined in 2013 by Viktor Mayer-Schönberger of the University of Oxford and journalist Kenneth Cukier – both active in the field of internet governance and regulation – refers to a finite sequence of executable actions – algorithms – that evaluate the performance of previously collected data and make decisions based on established rules (Mayer-Schönberger and Cukier 2013: 28). Such a technical definition, emerging from the field of computer science, tends to obscure aspects that are fundamental to the human sciences. By figurativizing a supposed technological neutrality, these technical processes mask the biases embedded in them, especially when examined from the epistemological perspective of the Global South.² One can interrogate the technical character of these processes by asking how decisions are made and how rules are established, and which axiological values guide and sustain them. These reflections are essential for understanding the generation and circulation of data.

Datafication cannot be reduced to a mere technical process of encoding reality; instead, it functions as a semiotic device that converts *social practices* into quantifiable data to feed algorithmic ecosystems whose logic and infrastructure remain largely under the control of actors concentrated in the so-called Global North (Mejias and Coul-dry 2024). It is important to emphasize that not only the processing rules, but also the discursive values concretized in the content of the data – comprising diverse textual genres, images, audio, and codes – shape the formation of *forms of life*. These *forms of life*, which ideally should be locally grounded, are instead instantiated and traversed through a modeling process that flattens culturally specific configurations of meaning. This contributes to the normalization of colonial epistemologies and intensifies the marginalization of non-hegemonic knowledge and experiences.

² The division between the Global South and Global North has its roots in geopolitics and economics, historically framed by expressions such as the ‘Third World’ (Alfred Sauvy 1952) and ‘developing countries.’ Between the 1980s and 1990s, the term “Global South” began to appear in United Nations debates, alongside the conceptual framing of a North–South divide, as exemplified in the Brandt Report (North–South: A Programme for Survival 1980), which emphasized the structural inequalities between these two axes.

Within the framework of an ‘implicated’ semiotics (Aldama et al. 2021) – that is, an approach that acknowledges the analyst’s ethical, political, and epistemological involvement in the processes of meaning-making under examination, and thus rejects the assumption of a neutral or external position with respect to its objects – we define datafication as a syntagmatic arrangement composed of distinct practical scenes that, at first, convert certain human actions and gestures into quantifiable data, which are then processed by artificial intelligence algorithms and ultimately employed to make sense of practices and forms of life (Fontanille 2008, 2015) of subjects embedded in the very same datafied society from which the original data were extracted. The circular nature of datafication – rigorous in its own operation – becomes even more problematic when it exposes that the original data pertain to only a small fraction of the world, and still, through datafication, attain a global scale.

In his *Pratiques sémiotiques* (2008: 4), Fontanille proposes a hierarchy of levels of pertinence for semiotic analysis and describes *practical scenes* as syntagmatic arrangements of human behaviors and actions, endowed with both a plane of expression and a plane of content. The author observes that practices are ‘courses of action’ (2019: 251); they are open-ended, with meaning emerging through the syntagmatic unfolding between a beginning and an end. Unlike semiotic objects inscribed on stable *supports*, such as a photograph, *semiotic practices* produce *live* meaning – that is, while they occur – allowing the praxic movement itself to act as a meaning-generating element; signification is, therefore, inherently dynamic.

Big Data thus constitutes a development, let us say, a more stabilized outcome, of the intangible and dynamic process of datafication (Moraes 2025), insofar as it provides the raw material for artificial intelligence systems to make predictions based on mathematical and statistical calculations (Jay, Agrawal and Goldfarb 2018). It is therefore not difficult to observe that Big Data – although characterized by a codified materiality and a non-transparent enunciative process – nonetheless concretizes isotopic lines anchored in colonialist ideological biases and in the worldviews of the Global North.

Datafication reconfigures the discursive field by converting practical scenes – various courses of action such as purchasing, gesturing, circulating, accessing, and searching – into manipulable semiotic objects. From Fontanille’s (2008) perspective, data may thus be understood as syncopal condensations of practices and strategies at the level of the text, in which complex chains of action are selectively compressed and formalized. This enables not only the prediction of actions and behaviors but also the reorganization of meaning configurations that emerge from human interactions. Within this dynamic, data lose their status as archived traces, that is, as testimonies of past *practices*, and instead assume a programming function, serving as material *supports* for the probabilistic modeling of possible futures within the interpretive frameworks

operated by AI systems. Such a process of passing from lived acts to data alters the dynamics established among modes of existence, since, in the shift from virtuality to actualization, a kind of algorithmic enunciation emerges, co-enunciated by both human and non-human actants.³ As this process is circular, rapid, continuous, non-transparent, and far-reaching, it becomes increasingly difficult to distinguish between the characteristics of input data (raw data – lived scenes) and output data (datafied forms). Moreover, it becomes progressively harder to delimit the roles and positions of social subjects within this process. This nebulous condition, which blurs the operations of datafication, lies at the core of current issues concerning transparency, accountability, and ethics in AI. Global initiatives are working to formulate policies that promote ‘explainable AI’ and safeguard human dignity amid AI’s growing use (Coeckelbergh 2023: 143), efforts to which semiotics must actively contribute.

Understanding the process of datafication allows us to define Big Data with greater precision as a vast assembly of collections of semiotic objects generated through the unfolding of human practices, whose circulation and appropriation are governed by structural logics of power, as we will demonstrate in the second section of this article. It is important to recognize that much of the semiotic material generated by datafication begins the process of meaning in actu, within the unfolding of a *practical scene*. This is the case, for example, of a monetary transaction conducted with a credit card when purchasing a product in a supermarket. Although such a *practical scene* is not fully stabilized in material support, it generates semiotic objects that can subsequently be stabilized (such as an electronic receipt, a list of purchased items, or an individual’s tax identification number). These then become part of large collections of semiotic objects endowed with a new plane of expression and of content: Big Data. These collections are characterized by incommensurability, heterogeneity, and the overlapping of languages (verbal, audio, visual), genres, textual types, subjects, and fields of knowledge, as well as by access restrictions and confidentiality imposed by database-holding corporations (Moraes 2025). Such conditions contribute to the erosion of authorial, fiscal, temporal, and organizational origins, as well as to the difficulty of locating enunciative assumptions – ultimately complicating the identification of who speaks and under what conditions.

We emphasize the close articulation between data generation – initially extracted from human actions and currently already produced automatically by AI – and the process of datafication because, from a semiotic perspective, the latter operates as a form of textualization (Greimas and Courtés 2008 [1979]: 504) of human actions and behaviors inscribed in practical scenes and, increasingly, emulated by AI systems. Prior to the consolidation of artificial intelligence technologies associated with Big Data, many gestures

³ D’Armenio et al. (2024) employ the expression co-enunciation to designate the mode of operation of generative AI models, underscoring the joint participation of human and machinic actants in the production of enunciation.

and traces of everyday experience were not systematically recorded on stable *supports*, which limited the possibility of capturing and analyzing them in real time. This, in turn, constrained the extraction of recurrent patterns essential to predictive models that anticipate possible behaviors within collective modes of social organization.

The passage from a non- (or less) stable *support* to a more stabilized one occurs through the process of datafication. The stabilized *support*, in this case, plays a decisive mediating role: it allows us to understand datafication as a form of textualization, that is, “a set of procedures (to be organized in a textual syntax) which aim at constituting a discursive continuum, before the manifestation of discourse in one semiotics or another” (Greimas and Courtés 1982 [1979]: 316). In the case of datafication, this continuum unfolds as actions are modulated into quantifiable data, so that human gestures, once ephemeral and inscribed in a *practical scene*, come to exist as manipulable semiotic objects.

In the last decade, the expansion of Big Data has not only intensified its use for predicting behaviors and mapping *forms of life*, but also profoundly reconfigured its management and storage. Data that were previously under the majority control of state entities – national or regional – have progressively come to be managed by transnational private corporations. At the same time, there has been a substantial expansion in the scope of stored content: beyond administrative and demographic records, these databases now include information capable of revealing personal consumption preferences, daily trajectories, ideological and political positions, and social networks, among other data.

This shift becomes even more problematic when analyzed from a critical perspective. Local practices are textualized into data that feed models constructed under the aegis of hegemonic Northern axiologies. In this context, the ordinary user – regardless of geographic location – is equally affected by these hegemonic values, insofar as they do not effectively participate in decision-making processes. However, from the standpoint of the Global South, which remains underrepresented, this position may also serve as a critical locus for examining and interrogating stereotypes and hegemonic structures.

Embedded within the broader process of datafication, these models operate as mechanisms of standardization and normalization of *practices* and *forms of life*, imposing pertinence cuts that frequently disregard – or even erase – the cultural, historical, and political specificities of the populations from which the data were extracted, thus confirming the process of loss of origins to which we referred. Therefore, rather than acting solely on isolated individual behaviors, it is crucial to understand how this process intervenes in the configuration of *forms of life*, re-orienting *practices*, producing meanings, and instituting new regimes of collective organization in datafied societies.

1.2. Datafication: From Big Data to Forms of Life

A *form of life* designates the most encompassing form of semiosis ever identified, defined as collective modes of social and cultural organization that both carry and produce meaning. They are syntagmatic *forms of life* (Fontanille 2015: 43) and enable the apprehension of an elemental, generic, and collective experience: life itself or the course it takes (Fontanille 2017: 73). At the highest level of semiotic analysis, *forms of life* allow for the understanding of the experience of *practices* (Fontanille 2008), which are structured by an ethos and by social norms, and in which multiple semiotic objects converge in an orchestrated manner to generate the meaning of life. This, therefore, constitutes a semiotic articulation among ethos, norms, and *practices* that structures a semiosphere.

The existence of social subjects is only possible within *forms of life*. By incorporating an axiological framework, the subject recognizes itself in the values that structure the semiosphere, thereby constituting itself as such. It is within this collective space that “subjects and social groups are the protagonists of interactions and sociocultural exchanges”⁴ (Fontanille 2015: 247). Far from being reducible to mere behavioral patterns, *forms of life* configure ways of seeing, reading, organizing, and inhabiting the world. According to Fontanille and Zilberberg, in *Tension and Signification* (Tensão e Significação), in the chapter devoted to *forms of life*, “every manifestation of a form of life is then considered as a condensate of the entire *form of life*”⁵ (2001 [1998]: 204). Its apprehension, however, only occurs through relation, for it is in confrontation and coexistence with other *forms of life* that they become comprehensible (Fontanille 2015: 59).

Although they sustain identity narratives, *forms of life* cannot be analyzed solely at the individual level, as they are essentially collective. They delineate and sustain an existential trajectory for the subject within the social body, conferring congruence for syntagmatic existence while simultaneously articulating a system of values inherent to the meaning of the subject’s life. When we relate this concept to the discussion of datafication, we can understand how the analysis of data – carried out by artificial intelligence models, algorithms, and statistics – enables data-holding companies to identify the meanings inscribed and their salience within collective organizations on the one hand, and, on the other, to act by influencing the schemes of selection of dominant categorical content, the discursivization (figures and themes), and the valorization that structure specific *forms of life*.

⁴ Original in Portuguese: “Os sujeitos e os grupos sociais são os protagonistas das interações e das trocas socioculturais.” Translator’s note.

⁵ Original in Portuguese: “toda manifestação de uma forma de vida é então considerada como um condensado da forma de vida inteira.” Translator’s note.

Regarding analysis, different collective economic actants mobilize Big Data to guide decisions: financial institutions estimate the probability of default for individuals or groups; social networks deliver targeted advertisements based on behavioral profiles; health insurance providers adjust premiums according to medical consumption histories; and streaming platforms such as Spotify, Netflix, or Amazon Prime Video filter and recommend personalized content based on each user's activity. More than mere schematizations of behavior, these analyses allow the alteration of schematizations of meaning that confer congruence and coherence on given *forms of life*. It is noteworthy, however, that the more controlled *forms of life* are constructed – generated in and by Big Data – the more meanings of life are projected as formless and uncontrollable, since it is often impossible to determine who, where, or when is accountable in cases of disinformation dissemination, cybercrime, fraud, or workplace abuses, for example.

As we have noted, when coupled with artificial intelligence technologies, Big Data actively modulates social *practices* and *forms of life*. Global streaming platforms, such as Netflix, recommend content to individual users or groups of users. These subjects establish an interaction, in enunciative praxis, with that semiotic object, which, without such direct intervention, would possibly not occur. Here, we draw attention to the fact that the repetition of this dynamic not only reinforces certain consumption habits – beyond the shaping of individual tastes and styles – but also acts to model entrenched collective organizations, altering the regimes of meaning selected at the poles of a category and assigning them values. This seemingly innocuous process illustrates the silent and inchoative operation of datafication in the construction of meaning within collective organizations.

This phenomenon is illustrated by the results of Lev Manovich's *Selfiecity* project. The *MediaLab* team analyzed a corpus of over three thousand selfies published on Instagram from five cities – São Paulo, Bangkok, Moscow, New York, and Berlin – with the aim of identifying patterns and variations in the language of digital photography, considering aspects such as color schemes, use of filters, incidence, and distribution of light and shadow, gesturality, and affective expressiveness. In the statistical analysis of the categories 'head tilt' and 'pouting lips,' correlated with the female/male gender marker, the results (cf. Titenfale and Manovich 2015) indicated the recurrence and valorization of these gestures as transnational aesthetic patterns, with particular prevalence among women.

The massive recurrence of this visual pattern, reinforced by platforms whose algorithms favor its visibility, contributes to its naturalization. Gestures that might initially be perceived as eccentric or as expressions of individual singularity become so repeatedly enacted that they lose their semantic value as markers of an individual style. This standardization of gesture not only differentiates the practice

of selfies according to a binary gender logic on social networks but also intervenes in the shaping of *forms of life*: tilting the head, smiling to show the upper teeth, or pouting become recurrent behaviors in women's everyday practice of self-publication on social media, gradually assimilated as expected – and socially legitimized – traits of the *form of life* associated with the category of the feminine.

As Fontanille and Zilberberg (1998) point out, *forms of life* are not immutable, as they respond to enunciative praxis, that is, to use. Accordingly, it is coherence and congruence that ensure the stabilization of a *form of life* and its social recognition. In light of this, it becomes necessary to investigate which *forms of life* are manifested by the objects generated by artificial intelligence. What categorical content and discursive elements are highlighted in them? And through these discursivization, what is overlooked?

The recurrence and consequent naturalization of aesthetic and behavioral patterns, as highlighted in the research of Tifentale and Manovich (2015), reveal a deeper functioning of the algorithmic logic: that of establishing and propagating hegemonic models of representation which, by assuming themselves as dominant isotopies, diverge from the configurations of meaning produced locally. Following Paveau's reasoning, algorithms are "sequences of instructions that allow the solution of problems,"⁶ they sort information, creating classifications and hierarchies that render AIs far more than technological tools, since "certain information will appear more frequently, or in a better place than others, or will be more widely disseminated than others, or, on the contrary, will be prevented from appearing"⁷ (Paveau 2021: 39). From a semiotic perspective, this constitutes a process of stabilization of forms of expression and content which, when reiterated and valorized by the technical apparatus (artificial intelligence models, algorithms, datasets, etc.), become part of the normative and collective repertoire at the most encompassing level of immanence, that is, of *forms of life*. This discussion underscores the need to examine the use of data and its biases as a discursive phenomenon through the lens of discursive semiotics, embracing its vocation for an 'implicated' semiotics (Aldama et al. 2021).

⁶ Original in Portuguese: "sequências de instruções que permitem a solução de problemas" Translator's note.

⁷ Original in Portuguese: "certas informações aparecerão com mais frequência, ou em melhor lugar do que outras, ou serão mais disseminadas do que outras, ou, pelo contrário, serão inviabilizadas" Translator's note.

2. Data Bias in AIs from a Global South perspective

As we demonstrated, the use of predictive algorithms, aimed at forecasting future behaviors, and generative algorithms, designed to create novel semiotic objects, statistically affects the configuration of Big Data. This process performs a process of hierarchization in the distribution of content, privileging certain patterns so that whatever appears more frequently tends to be reiterated and consolidated into a 'norm.' This automatism of distribution and combination favors the characteristics of hegemonic cultures in the construction of meaning, thereby increasing the productivity of specific languages, modes of expression, topics, and images. It is sufficient to consider the existing discrepancy between geopolitically dominant countries and the rest of the world regarding the development of such technologies, data extraction, and the languages used (Hagerty and Rubinov 2019). In this scenario, English-speaking countries – especially the United States – occupy the top of the chain; as a result, most semiotic objects comprising Big Data and processed by AI originate from these communities.

On the other hand, non-hegemonic cultural practices – such as regional linguistic expressions, Afro-diasporic modes of sociability, and Indigenous epistemologies and worldviews – are marginalized, since they are read by the machine as singularities that escape the statistical regularities internalized by the models. In other words, these practices and configurations of meaning are understood as deviations from the norm, a norm consolidated by the frequency and repetition of forms present in the semiotic objects that constitute the Big Data. This situation places us before two central issues: (i) the exclusionary character of the very operational model of these technologies, and (ii) the naturalization of cultural hierarchies in the production of meaning mediated by AI.

As noted earlier, in datafied societies, where machinic and human agents jointly participate in the enunciative process (D'Armenio et al. 2024), the construction of meaning is mediated by statistical operations that shape the axiologization of isotopies. In discursivization, the machinic gesture, by reiterating certain figurative and thematic arrangements, tends to intensify their status as 'universals,' establishing them as dominant values within the discursive field. By contrast, non-hegemonic isotopies, insofar as they do not correspond to the regularities reiterated in the objects used for training, are construed either as deviations or as exotic occurrences.

The results can be observed in different practices mediated by artificial intelligence systems. By way of example, the following stand out: the stereotypical and homogenizing figurativization of subjects from the Global South in images generated by generative AIs (e.g., DALL·E and MidJourney), as if they all shared identical clothing, habits, and cultural traits (Ghosh et al. 2025); the systematic exclusion of languages from marginalized countries in automated moderation processes (Sahid

et al. 2025); the recurring association of Black women with sexualization in search engine results (Noble 2018); and the linking of socially valued professions, such as that of physicians, to the visual figurativization of white people devoid of Brazilian identity markers in image banks widely used in the country (Moraes 2025).

The examples above operate primarily at the level of discursivization, reiterating figurative and thematic patterns from the Global North in a way that confers euphoric valorization upon them, while dysphoria is associated with the semantic content of the Global South.⁸ These shifts in categorizations and regimes of meaning can also be observed in the construction of meaning within both emerging and consolidated practices, as well as in *forms of life* that are either on the rise or on the verge of disappearance.

In this scenario, the research of Brazilian scholars Vilarino and Vicente (2020) sheds light on how the use of predictive AI by financial agencies can restrict the access to credit and the purchasing power of Black individuals, since credit scoring is based on the calculations performed by the model and reproduces racial bias, even when such data does not explicitly appear as a parameter. This occurs because other datafied information, such as geographic location and socioeconomic characteristics, is closely related to race in the cultural context of Brazil – a country marked by deep social and racial inequalities and home to the second largest Black population in the world. By privileging dominant cultural repertoires, AI not only renders local identities and experiences invisible but also creates stereotypical representations that function as stabilized simulacra of certain *forms of life*.

Given such a scenario and focusing our discussion more specifically on the domain of generative AIs, we argue that the constitution of datasets is a crucial point in the problem of data bias and the erasure or exoticization of the cultures and languages of minoritized groups. Broadly speaking, datasets are subsets of Big Data and consist of collections of textual, visual, sonic, or audiovisual objects used to train specific models. Since these collections, for the most part, consist of semiotic objects in English or are heavily marked by the culture of the Global North (Moraes 2024), they perpetuate a new modality of colonization through data (Mejias and Couldry 2024). Inequality is manifested both in the quantity and quality of data available between the North and the South, as well as in the structural asymmetry between technological production, concentrated in central countries, and the mere importation of these technologies by peripheral countries (Hagerty and Rubinov 2019).

⁸ Global South does not exactly designate a geographical location, but rather an anti-hegemonic epistemological positioning, proposing a radical critique of the predominant hegemony of certain cultures in science, culture, technology, etc.

Thus, by inscribing themselves within the logic of datafication, datasets reveal themselves not only as technical instruments but as semiotic operators that select, reiterate, and legitimize particular schemas of meaning. By privileging content originating from the Global North, these collections of semiotic objects consolidate hegemonic isotopies that propagate as universal patterns of representation. This process, sustained by the congruence between selection, combination, and productivity, stabilizes *forms of life* marked by colonial values.

Consequently, the datasets used in the most widely deployed generative models – such as ChatGPT, DALL·E, Sora, and MidJourney – contribute to the underrepresentation of figures, themes, *practices*, and *forms of life* that reflect the specificities and cultural diversity of Global South populations, thereby reinforcing the reproduction of stereotypes and the semiotic erasure of these non-hegemonic communities. As a potential mitigation strategy, various specialists emphasize the need to develop and use regional datasets for training AI systems.

The following section examines whether AIs supposedly trained on a less universalist, more regionally oriented dataset influence the construction of meaning in semiotic objects produced by generative models. We will conduct a comparative analysis of results generated by two artificial intelligences: ChatGPT and *Sabiá*.

3. The construction of meaning in Big Data (and datasets): from the universal to the regional

In this section, we present *Sabiá* as a regional generative AI model, which, according to platform data, was developed in Brazil and primarily trained on Brazilian data. In the analysis, the responses produced by this model will be contrasted with those from OpenAI's globally deployed model, ChatGPT. The aim is to identify whether, and to what extent, the regional AI model disrupts – or at least represents a shift in relation to – hegemonic logics of meaning production, and whether it fosters the construction of more ethical and culturally plural discourses.

The *Sabiá* chatbot was launched in October 2022 by the company *Maritaca AI*. According to its developers, the model was developed in partnership with Google and is primarily trained on a Portuguese-language dataset focused on Brazil. This regional emphasis, in principle, enables the model to handle data more closely aligned with the country's culture, history, and sociocultural context, potentially enhancing its performance (Abonizio et al. 2024). The company name, *Maritaca AI* (also known as MariTalk), is a portmanteau of the Portuguese word *maritaca* and the English verb *talk*. *Maritaca*, a term of Tupi indigenous origin (*tupi mba'é taka*), designates a bird species common in Brazil. Unlike parrots, *maritacas* do not imitate human speech but instead produce a distinctive, loud, and strident song.

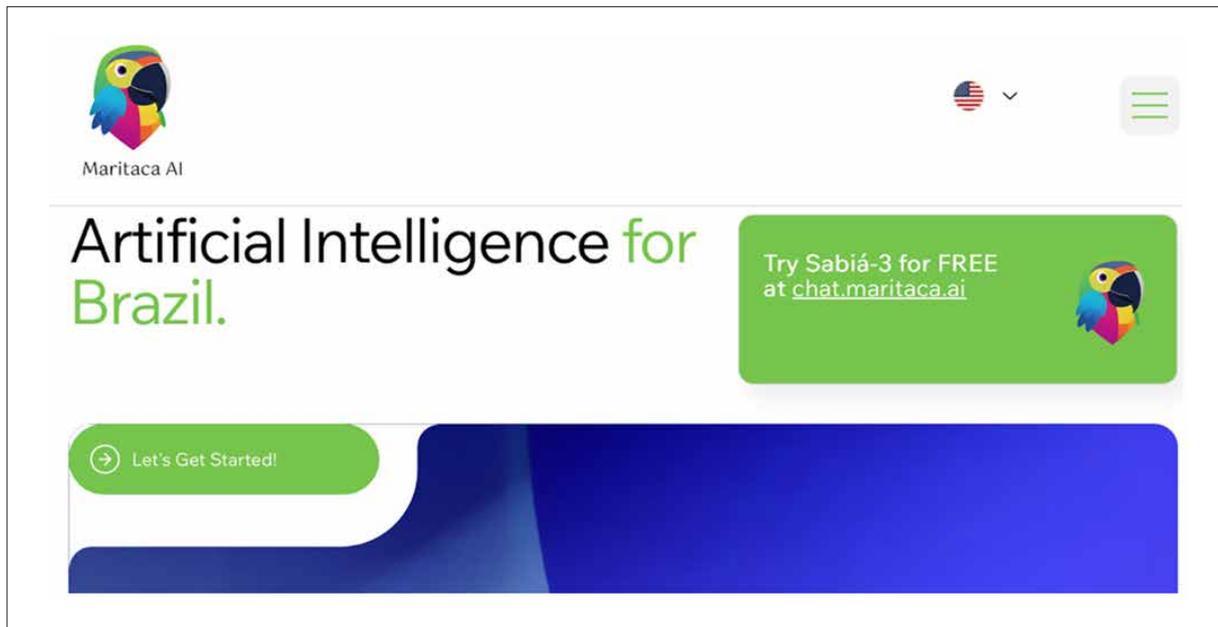


Figure 1. First scroll of the *Maritaca AI* webpage⁹

Sabiá, a Tupi term (s-apia), denotes a bird species found in South America. A brief analysis of the model reveals that its chosen name and visual presentation – which features the image of a maritaca – foreground the theme of Brazilian identity, thereby distinguishing it from globally disseminated AI models. The selection of the name, the color palette in shades of green and blue, and the depiction of the maritaca figurativize the theme ‘Brazilianness,’ invoking aspects widely considered emblematic of the country, such as its fauna and flora. Moreover, Maritaca AI features the slogan “Artificial Intelligence for Brazil,” positioning the AI model within a specific geographic and cultural context. There is no doubt that it constitutes a regional AI model.

ChatGPT, in turn, is a chatbot developed by OpenAI, launched in November 2022, designed as a globally oriented tool trained on extensive datasets drawn from worldwide Big Data. Its neutral visual design – with a white background and a symbol of curved, abstract black-and-white shapes – evokes the theme of technology itself and the flow of information within AI. The ChatGPT interface is not tied to any particular region, nor does it display any markers of local specificity. This purported ‘universality,’ however, conceals asymmetries: the distribution and density of data vary significantly across regions, with a predominance of content originating from countries with higher Gross Domestic Product (GDP) and datasets constructed primarily in English (Kaplunovich 2023).

⁹ Available at: <https://www.maritaca.ai>. Accessed August 8, 2025.

For the analysis, we selected Brazilian linguistic expressions, given that the lexicon is one of the subsystems of language that most directly reflects the interplay between language and culture, since words are tasked with designating referents within the extralinguistic system. As Vilela (1994:6) notes:

The lexicon is the part of a language that primarily shapes extralinguistic activity and archives the linguistic knowledge of a community. Civilizational advances and setbacks, discoveries and inventions, encounters between peoples and cultures, myths, beliefs, almost everything, before entering the language and culture of a people, there is a name, and that name belongs to the lexicon. The lexicon is the repository of linguistic knowledge and is also the window through which one people perceive the world. A shared knowledge that exists only in the consciousness of the speakers of a community.¹⁰ (Vilela, 1994: 6)

Linguistic expressions manifest local figures and isotopies, condensing semantic aspects that are tied to *forms of life*. They emerge from bodily experience in the natural world, from interaction with the environment and with other subjects, as well as from the configurations of meaning that structure life in society.

The investigation of AI-generated texts produced through the interaction between researchers and systems – where prompts are specifically formulated for research purposes – constitutes a methodological problem currently faced by semiotics, and it will not be addressed in this study. The task of understanding and explaining signification, conceived as a process, was taken up by the semiotics developed by Greimas and Courtés, who proposed a vertical solution – the generative trajectory of meaning – capable of ideally simulating the passage from schematized forms to usage. Thus, the semiotician’s point of departure has always been textual manifestation. With the popularization of generative AI models, however, it has become possible to observe this process from an inverted perspective, since one can now provoke the instantaneous conversion of datafied system components into texts. That said, within the scope of this study, we opted to employ simple prompts to avoid external variables interfering with the results. The instructions were formulated in the interrogative form “What does ... mean?”, simulating a user seeking to understand the meaning of a word. The purpose of these tests, here understood as a sample, is to exemplify the discussion concerning Big Data and the underrepresentation of the Global South. To this end,

¹⁰ Original in Portuguese: “O léxico é a parte da língua que primeiramente configura a atividade extralinguística e que arquiva o saber linguístico duma comunidade. Avanços e recuos civilizacionais, descobertas e inventos, encontros entre povos e culturas, mitos, crenças, afinal quase tudo, antes de passar para a língua e para a cultura dos povos, tem um nome e esse nome faz parte do léxico. O léxico é o repositório do saber linguístico e é ainda a janela através da qual um povo vê o mundo. Um saber partilhado que apenas existe na consciência dos falantes duma comunidade.” Translator’s note.

we selected two words in informal usage, common in peripheral regions of Brazil's Midwest and Northeast. The chosen words ('muage' and 'peseiro') allow us to test the AIs beyond the colloquial terms and slang more widely disseminated in the Southeast Region, Brazil's largest economic center.

While acknowledging that this small sample points to the need for further analysis, our aim here is to outline observations regarding AI behavior. Another important aspect is that these words, although in common use, are not attested in dictionaries; rather, they circulate on social media, blogs, YouTube, and the comment sections of journalistic websites, as well as in other less formal contexts. The deliberate choice of such terms has an experimental character, insofar as it allows us to observe how AI operates in the production of meaning when suggesting definitions for them. It should be noted that regional linguistic expressions from the Midwest region of Brazil are often either unknown or stigmatized within Brazil. In the presentation of results, we first report the responses obtained from ChatGPT, followed by those generated by the *Sabiá* model for each prompt. The tests were conducted in August 2025, using ChatGPT-5 (OpenAI) and *Sabiá* 3.1 (*Maritaca AI*).

The first prompt concerns the regional linguistic expression 'muage,' which is most frequently used in Brazil's Midwest and Northeast. This word designates a kind of playful activity, but it can also function as a pejorative way of characterizing someone's overly specific or demanding behavior regarding something, or, alternatively, as referring to idle talk ('enrolação').

Table 1. ChatGPT-5 Response – <“What does *muage* mean?”>

<p>Prompt: What does <i>muage</i> mean?</p> <p>ChatGPT-5:</p> <p>The word <i>muage</i> is rarely used today, but it has a specific meaning in historical and legal texts.</p> <p>Primary Meaning: It comes from the French <i>muage</i>, derived from <i>muer</i> (“to change,” “to transport”). It designated a fee or duty charged for the transportation of goods in ports, rivers, or canals. Thus, it was a kind of toll or port tax, paid for loading or unloading ships.</p> <p>Historical Examples: In Portuguese documents from the 15th or 16th centuries, <i>muagem/muage</i> appears linked to customs houses and trading posts, indicating the amount to be paid to transport or unload merchandise. Expressions such as “para de muage” specifically referred to the sum intended to pay this tax.</p> <p>In summary: <i>Muage</i> = transport/loading fee in ports or rivers, widely used in archaic Portuguese and administrative documents from the Age of Discovery.</p> <p>Would you like me to provide examples of the word's occurrence in medieval Portuguese documents (such as royal charters or town grants)?</p>

Table 2. *Sabiá-3.1* Response < “What does *muage*? mean”>

<p>Prompt: What does <i>muage</i> mean?</p> <p>Sabiá-3.1</p> <p>“<i>Muage</i>” is a slang or colloquial expression found in some regions of Brazil, but it is not widely recognized or used. It may reflect a regional variation or be a typo/corruption of another, more common expression.</p> <p>One possibility is that “<i>muage</i>” is a variation of “<i>muganga</i>,” which in some contexts can mean a playful act, a grimace, or a mannerism. However, this interpretation may not apply in all contexts and is not widely used.</p> <p>Another possibility is that “<i>muage</i>” is a mispronunciation or misspelling of “<i>mauagem</i>,” which does not have a specific meaning in Portuguese, or perhaps a confusion with “<i>mugir</i>,” the sound made by cattle, though this connection seems less likely in colloquial usage.</p> <p>Since slang and colloquial expressions can be highly regional and contextual, and without a clear context, it is difficult to determine the exact meaning of “<i>muage</i>.” If you heard this expression in a specific context or region, could you provide more details for a more precise explanation?</p>
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When comparing the definitions generated by the two AI systems, certain aspects of the AI algorithm’s functioning in relation to its training dataset become apparent. Notably, ChatGPT makes a categorical claim that the word ‘*muage*’ is little used today. This assertion contrasts with the linguistic reality in Brazil, where the word circulates among millions of speakers, particularly in the Midwest and Northeast regions. This discrepancy between attested reality and the AI’s response provides evidence that linguistic data from these regions are not included in ChatGPT’s dataset. By responding with such a definitive statement, the system accentuates this linguistic erasure. ChatGPT presents meanings of a historical nature, linked to the French etymology of the word and its occurrence in official documents produced in Portugal between the 15th and 16th centuries, categorizing this as the ‘primary meaning’ of the term. This classification itself leaves room to consider that the word may indeed have other, non-primary meanings. Importantly, there is no reference to Brazil or to the term’s contemporary meanings within the national territory.

In responding to the same prompt, the *Sabiá* chatbot demonstrates some knowledge of Brazilian slang and colloquial expressions and also mentions regional linguistic variation. Its definition does not establish the existence of a principal meaning of the word, nor does it produce categorical statements; on the contrary, it leaves room for uncertainty through expressions such as ‘it could be’ or ‘one possibility.’ The AI even acknowledges that “it is difficult to determine the exact meaning of ‘*muage*.’” Moreover, it refers to the sense of “playful act, grimace, or mannerism,” which corresponds to one of the meanings effectively attested for the word. However, in certain regions of the Brazilian Midwest, particularly in the state of Mato Grosso, the word is also employed with the meanings of ‘idle talk’ and ‘fussiness’ – uses that do not appear among the results provided.

From a modal perspective, the two AI systems diverge: ChatGPT adopts a modal regime of certainty, whereas *Sabiá* operates within a modal regime of doubt. ChatGPT produces categorical statements and reinforces them with illustrative examples. Furthermore, its response employs boldface highlights to direct the user's attention and provides a summary in which the lexical item is followed by a mathematical equal sign (=). This compositional strategy reasserts values of truth and completeness. By contrast, *Sabiá* establishes a modal regime of doubt, and its response acquires a more open-ended and reflective trait. Both systems conclude by inviting further interaction; however, while ChatGPT does so by offering additional examples that confirm its initial answer, *Sabiá* explicitly requests more contextual information that could allow for a reformulation and thus enhance the precision of its response.

Let us now examine the performance of the two models regarding *peseiro*, the second lexical item selected for this experiment. The term *peseiro* can be used to denote a difficult or troublesome situation that the speaker is experiencing, roughly corresponding to expressions such as 'tough spot' or 'hard situation' in English.

Table 3. ChatGPT-5 Response: <What does *peseiro* mean?>

<p>Prompt: What does <i>peseiro</i> mean?</p> <p>The word "peseiro" can have several different meanings depending on the context:</p> <p>1. Surname Very common in Portugal, it appears as a family name. Famous example: José Peseiro, Portuguese football coach.</p> <p>2. Regionalism / Archaism (Portugal) In some older records of the language, "<i>peseiro</i>" is related to <i>peso</i> (to weight) and could mean a scale or the place where goods are weighed. It was also used to refer to someone who works with the weighing of grains or merchandise.</p> <p>1. Toponym <i>Peseiro</i> is the name of several places in Portugal, usually small villages or localities.</p> <p>In summary: today, the most common usage is as a Portuguese surname; however, historically, "<i>peseiro</i>" could refer to someone involved in the act of weighing goods or even the place where weighing occurred.</p> <p>Would you like me to look for examples in old Portuguese texts where the term appears in the sense of a profession/place?</p>
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The same test conducted with the *Sabiá* IA produced the following result:

Table 4. *Sabiá*-3.1 Response: <What does *peseiro* mean?>

<p>Prompt: What does <i>peseiro</i> mean?</p> <p>Sabiá-3.1</p> <p><i>“Peseiro”</i> is a term that can have different meanings depending on the context. Here are some possible interpretations:</p> <ol style="list-style-type: none">1. In music: <i>Peseiro</i> is a popular musical style in Cape Verde, characterized by a slow and melancholic rhythm. It is often associated with themes of love and longing.2. Slang: In some regions of Brazil, <i>“peseiro”</i> can be used as slang for something heavy or difficult to deal with, although this usage is not widely known or commonly employed.3. Regionalism: In specific regional contexts, it may have other local meanings or it may be a word used in dialects or regional languages, though these usages are less common and less widely known. <p>If you are referring to a specific context — such as a regional term or a term used within a particular domain — please provide more details so that I can offer a more precise explanation.</p>

In both tests, the AI programs recognize that the word can have multiple meanings and note contextual variations. However, ChatGPT frames the context exclusively within Portugal, without any reference to Brazil or other Portuguese-speaking countries. By contrast, *Sabiá* identifies ‘peseiro’ as a musical style in Cape Verde, a Portuguese-speaking African country, possibly assuming a connection to ‘piseiro,’ a variation of the ‘pisadinha’ musical style that originated in Bahia (Northeast Brazil) and is also danced in Cape Verde.

Both systems conclude their responses in a manner very similar to the previous test. ChatGPT provides additional examples to confirm the answer, whereas *Sabiá* requests more information to refine and increase the precision of its response. This manner of closing the interaction appears systematic, suggesting that ChatGPT is programmed to confirm the information provided without leaving room for doubt, whereas *Sabiá* is designed to highlight the incompleteness of its answers.

Based on the concept of enunciative praxis and modes of existence (Fontanille 2003), D’Armenio et al. (2024) argue that generative AIs, in the process of text generation, call upon virtualized forms available in our encyclopedic knowledge. The prompts then perform a triage process within certain zones of the databases used by an AI system, enacting some of these virtualities.

In generative AIs such as ChatGPT and *Sabiá*, the model generates new text by associating words (prompts) with embeddings. The initial procedure involves tokenization, which divides the texts present in the dataset into minimal units called tokens. These can consist of a full word, a segment of a word (e.g., a suffix), punctuation, or other elements. Each token is then converted into a numerical vector, the embedding,

which enables semantic categorization: tokens that are semantically close tend to occupy contiguous regions in the vector space, while those that are more distant occupy separated positions. Semantic proximity or distance is calculated based on the statistical recurrence of token occurrences and the combinatorial possibilities of tokens present in the training data.

When we enter a prompt, the model interprets the corresponding embedding and, based on previously learned patterns, associates it with probable meanings, mobilizing isotopies, figures, and recurring themes. This is, therefore, an operation that does not originate *ex nihilo*, but rather involves the reuse and reorganization of discursive virtualities already inscribed in the dataset.

Thus, in the results presented in the tests – where prompts were directed to the generative artificial intelligences ChatGPT and Sabiá, requesting the meaning of Brazilian linguistic expressions, the prompt-text assumed the function of a ‘search command’ (Meyer 2023), capable of guiding the model through statistical procedures and the valuation regimes established by the algorithms. However, the results produced by each model are subject to the coercion inherent in the very constitution of its dataset: the way it was constructed and the valuation criteria applied to its contents. The recurrence and semantic proximity of the data directly condition the creation of novel textualizations produced by the AI. Such texts generate meanings and circulate socially, fixing the meanings inscribed within them.

The words tested here cannot be understood as mere lexical variants; they condense meanings that unveil the organization of *practical scenes* in which they are produced, as well as the knowledge systems and cosmologies that structure collective modes of existence – *forms of life*. As they circulate, they integrate into networks of enunciative practices and reveal the congruence of shared values and experiences. As demonstrated in the examples, the absence of certain words in Artificial Intelligence models, the disregard for linguistic variation, and the exclusive reference to the European origin of the word as its sole possible meaning, highlight in ChatGPT the erasure of the cultural specificities of marginalized groups and reinforce the historical, linguistic, and semiotic hegemony of the languages and varieties of the Global North, along with their associated *practices* and *forms of life*.

Some additional considerations

This article aimed to shed light on how meaning emerges in generative AIs from a Global South perspective. To this end, we followed the process in its entirety – from the initial datafication to the generation of the AI-generated semiotic object. In this way, we sought to conceive datafication as a kind of textualization, which often allows us to apprehend *practices* – or at least some traces of them – within a semiotic object manifested on a more stable medium, and thus manipulable by algorithmic devices. By doing so, we reinforce the semiotic nature of Big Data, highlighting that its organization is permeated by axiologies that will inform the decisions made by such machinic agents.

In this manner, within the datafication process, datasets cease to be mere data repositories: they assume the role of operators that select, reiterate, and stabilize isotopies present in the semiotic objects composing these large collections. This operation, by privileging content originating from the Global North, establishes hegemonic patterns that present themselves as universal, simultaneously erasing or exoticizing the *practices*, languages, and *forms of life* of the Global South.

The tests conducted with ChatGPT and *Sabiá*, even on a small scale, demonstrate how the nature of the training data directly affects signification. ChatGPT, anchored in the values of ‘globalization’ and trained predominantly on English-language data, tends to overlook Brazilian usages of certain words, privileging historicist and Lusitanian readings. In contrast, *Sabiá*, fed with national data in Portuguese, showed greater recognition of local isotopies, accounting for linguistic variation. From a semiotic perspective, this confirms the central hypothesis: these models do not ‘invent’ *ex nihilo*, but rather realize virtualities available in their repositories (through machinic co-enunciation).

The experiment demonstrated how differences in dataset composition reverberate in the construction of meaning. However, the mere use of regional datasets, although necessary, is insufficient to mitigate the problem, as these datasets may themselves contain prejudiced biases in their construction. The development of more ethical and culturally plural AIs, aimed at reducing structural asymmetries between the Global North and Global South, also requires semiotic curation of data – understanding them as semiotic objects carrying both expression and content planes. Implementing this practice has the potential to improve decision-making in the collection, balancing, and utilization of such data, from the process of datafication to the very constitution of large-scale data collections.

References

- Abonizio, H., Almeida, T. S., Laitz, T., Malaquias Júnior, R., Kerche Bonás, G., Nogueira, R., & R. Pires 2024. *Sabiá-3 Technical Report* (arXiv:2410.12049) [Preprint]. arXiv.
- Aldama, J. A., Bertrand, D., Darras, B., & Di Sciullo, F. (eds.) 2021. *Sémiotique impliquée: L'engagement du chercheur face aux sujets brûlants*. Paris: L'Harmattan.
- Amoore, L. 2020. *Cloud ethics: Algorithms and the attributes of ourselves and others*. Durham & London: Duke University Press.
- Basso Fossali, P. (2012). Texte préparatoire au dossier. *Actes Sémiotiques* 115.
<https://www.unilim.fr/actes-semiotiques/4928>
- Boyd, D., and K. Crawford 2012. Critical questions for big data: Provocations for a cultural, technological, and scholarly phenomenon. *Information, Communication & Society* 15(5): 662–679. <https://doi.org/10.1080/1369118X.2012.678878>
- Coeckelbergh, M. 2023. *Ética na inteligência artificial*. Rio: Ubu Editora, Editora PUC.
- D'Armenio, E., Deliège, A., & M. G. Dondero 2024. Semiotics of machinic co-enunciation: About generative models (Midjourney and DALL·E). *Signata* 15.
<https://doi.org/10.4000/127x4>
- Fontanille, J. 2003. *Sémiotique du discours*. Limoges: France: PULIM.
- Fontanille, J. 2008. *Pratiques sémiotiques*. Paris: PUF.
- Fontanille, J. 2015. *Formes de vie*. Liège: Presses universitaires de Liège.
- Fontanille, J. 2017. Práticas e formas de vida: A semiótica de Greimas posta à prova pela antropologia contemporânea. *Estudos Semióticos* 13(2): 66–76.
<https://doi.org/10.11606/issn.1980-4016.esse.2017.136307>
- Fontanille, J. 2019. Discursos, mídias, práticas e regimes de crença. *Revista do GEL* 16 (3): 246–261. <https://doi.org/10.21165/gel.v16i3.2608>
- Fontanille, J. and C. Zilberberg 2001[1998]. *Tensão e significação*. São Paulo: Humanitas.
- Greimas, A. J. 1993. *Les formes de vie* [Dossiê]. *Recherches Sémiotiques/Semiotic Inquiry* 13(1–2).
- Greimas, A. J. and J. Courtés 1982[1979]. *Semiotics and language: An analytical dictionary*. Bloomington, IN: Indiana University Press.
- Hjelmslev, L. T. 2010[1975]. *Prolegomena to a theory of language* (F. J. Whitfield, Trans.). Madison: University of Wisconsin Press.
- Ghosh, S., Kapoor, A., Rane, A., Mahendiran, A. and M. Thakkar 2025. Documenting patterns of exoticism of marginalized populations within text-to-image generators. *arXiv*. <https://arxiv.org/abs/2508.02937>
- Hagerty, A. and I. Rubinov 2019. Global AI ethics: A review of the social impacts and ethical implications of artificial intelligence. *arXiv*.
<https://arxiv.org/abs/1907.07892>

- Jay Agrawal, J. G. and G. Avi 2018. *Prediction Machines: the simple economics of Artificial intelligence*. Cambridge, MA: Harvard Business Review Press.
- Kaplunovich, A. 2023. Wealth of nations, wealth of data: How GDP shapes diverse large language models like ChatGPT: Interviewing assorted open source generative AI models. In: *2023 IEEE International Conference on Big Data*, 4654–4663. IEEE. <https://doi.org/10.1109/BigData59044.2023.10386329>
- Mayer-Schönberger, V. and K. Cukier 2013. *Big data: A revolution that will transform how we live, work, and think*. Boston, MA: Houghton Mifflin Harcourt.
- Marrone, G. 2008. L'invention du texte. *Actes Sémiotiques* 111. <https://www.unilim.fr/actes-semiotiques/1643>
- Mejias, U. A. and N. Couldry 2024. A colonização pelo dado: Do colonialismo histórico ao colonialismo de dados. *Revista Sociedades Híbridas* 4(1). <https://revistas.hcte.ufrj.br/index.php/RevistaSH/article/view/446>
- Meyer, R. 2023. The new value of the archive: AI image generation and the visual economy of 'style'. *IMAGE. Zeitschrift für interdisziplinäre Bildwissenschaft* 19(1): 100–111. <https://doi.org/10.25969/mediarep/22314>
- Moraes, L. 2021. *A noção de texto na semiótica* (Tese de doutorado, Universidade de São Paulo, Faculdade de Filosofia, Letras e Ciências Humanas). <https://doi.org/10.11606/T.8.2021.tde-29112021-185047>
- Moraes, L. 2024. *Semiótica e big data: O valor da "textualização" na lógica capitalista da cultura dataficação*. In: P. Gonçalves-Segundo et al. (Orgs.), *Tecendo sentidos: investigações em estudos linguísticos, textuais e discursivos* (Vol. 1, pp. 252–272). FFLCH/USP.
- Moraes, L. 2025. O que pode o(a) semioticista na era da inteligência artificial? Semiótica, big data e racismo algorítmico. In: J. C. Portela, M. N. Schwartzmann, T. M. Corrêa, F. C. R. Santos, & C. A. Tassinari (Orgs.), *Identidade, experiência e discurso: Semiótica e crítica da cultura* (Vol. 1, 139–168). Campinas, SP: Pontes Editores.
- Noble, S. U. 2018. *Algorithms of oppression: How search engines reinforce racism*. New York: NYU Press.
- Paveau, M.-A. 2021. *Análise do discurso digital: Dicionário das formas e das práticas*. Pontes.
- Seaver, N. 2018. What should an anthropology of algorithms do? *Cultural Anthropology* 33(3): 375–385. <https://doi.org/10.14506/ca33.3.04>
- Shahid, S., Elswah, M. and A. Vashistha 2025. Think outside the data: Colonial biases and systemic issues in automated moderation pipelines for low-resource languages. *arXiv*. <https://arxiv.org/abs/2501.13836>
- Tifentale, A. and L. Manovich 2015. Selfiecity: Exploring photography and self-fashioning in social media. In: D. Berry & M. Dieter (Eds.), *Postdigital aesthetics: Art, computation and design*, 109–122. Palgrave Macmillan. <http://manovich.net/index.php/projects/selfiecity-exploring>

- Van Dijck, J. 2014. Datafication, dataism and dataveillance: big data between scientific paradigm and ideology. *Surveillance & Society* 12(2): 197–208.
- Vilarino, R. and R. Vicente 2020. An experiment on the mechanisms of racial bias in ML-based credit scoring in Brazil. *arXiv*. <https://arxiv.org/abs/2011.09865>
- Vilela, M. 1994. *Estudos de Lexicologia do Português*. Coimbra: Livraria Almedina.

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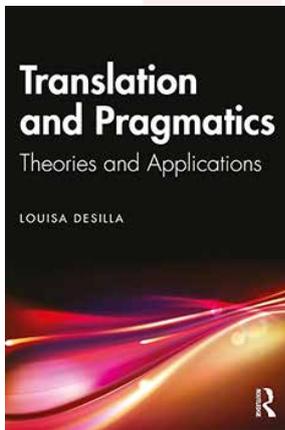
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Translation and pragmatics in dialogue: From theory to practice

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BY: Angeliki Alvanoudi



Louisa Desilla

Translation and Pragmatics: Theories and Applications

London: Routledge, 2024, pp.114,

ISBN 9781032081540 (hbk), £145.00, ISBN 9781032081502 (pbk), £38.99,

ISBN 9781003213178 (ebk), £35.09, <https://doi.org/10.4324/9781003213178>.

Louisa Desilla's book is an in-depth, practice-oriented study of four key pragmatic concepts: deixis, speech acts, implicature, and (im)politeness. Designed for translation and intercultural communication students, the book successfully bridges the gap between theory and practice by drawing on rich multimodal examples and original data.

The book is divided into two sections. Part I, 'The journey from abstract meaning to contextual meaning and force,' discusses deixis and speech acts in Chapters 1 and 2, respectively. Part II, 'Navigating interpersonal meaning and communicative styles,' explores implicature and (im)politeness in Chapters 3 and 4, respectively. Each chapter begins with an engaging warm-up exercise to encourage active learning. This is followed by an explanation of key concepts and theories, illustrated with examples from genres such as film, social networking sites, advertising, and memes. Each chapter features a case study examining the pragmatic phenomenon in translation, demonstrating the practical application of relevant theories and models. Furthermore, each chapter includes mini-exercises and research activities to engage readers and provide a hands-on experience with the material. It ends with helpful suggestions for further reading on pragmatic topics and their relation to translation.

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In Chapter 1, 'Deixis: Anchoring meaning to real and imaginary worlds,' the author introduces key concepts related to deixis and deciphers the role of context in interpreting meaning. Desilla explains the notion of proposition and the pragmatic processes of disambiguation and reference assignment. She then moves on to aspects of utterance meaning. She examines the main categories of deixis, namely person, place, time, social and discourse deixis, anaphora, and cataphora, using headlines as illustrative examples. She demonstrates that cross-linguistic variation in the encoding of deixis (e.g., the T/V distinction) poses exceptional challenges for translation and intercultural communication. The chapter concludes with a case study on the importance of deixis in audio description (AD) for visually impaired audiences. Desilla analyzes excerpts from the audio introduction developed by Liakou (2021) as part of her reception study of the Greek film *The Tango of Christmas* (2011) and discusses data from an interview with Liakou, who offers insights into how professional audio describers view the role of deixis in AD and the challenges they may face.

Chapter 2, 'Speech acts: Pinning down communicative intentions,' explores how speakers convey meaning through speech acts. It discusses the two key components of speaker meaning: contextual (utterance) meaning and force. The chapter presents Austin's (1962) speech act theory, focusing on locution, illocution, or illocutionary force, and perlocution. It also introduces Searle's (1979) taxonomy of speech acts, which includes assertives, directives, commissives, expressives, and declaratives. The author addresses the concept of indirect speech acts, using bilingual signage from Greece as an example. She also considers the challenge of translating speech acts, particularly the tendency in film subtitling to shift from indirect to direct speech acts due to time and space constraints. This is illustrated by the example of Ahri, a character in the video game *League of Legends*, which has been translated into 20 languages. A case study on advertising translation demonstrates the benefits of applying pragmatics and speech act theory to translation research and practice. By analyzing the Magnum ice cream ad (Magnum 2018), the author shows how speech acts can inform international market campaigns involving standardization, where the same core message is adapted slightly for global audiences, and localization, which involves tailoring the message to specific cultural contexts and transcreation.

In Chapter 3, 'Implicature: Reading between the lines,' Desilla explores the key concepts in the study of conversational implicature. She begins by discussing indirect meaning and its two main features: conscious intentionality and high risk. Drawing on Grice's (1975) approach to implicature, she explains the difference between natural and non-natural meaning, and between what is said and what is implied. She also defines the Cooperative Principle and the four maxims of conversation, namely Quality, Quantity, Relation, and Manner, which can be flouted or exploited to create meaning beyond what is explicitly stated. The author then discusses the difference

between conventional and conversational implicatures, focusing on generalized and particularized conversational implicatures. Examples from *Finding Nemo* (2003) and its subtitled and dubbed versions show how implicatures can be flouted to produce metaphors. After a brief reflection on Grice's theory, the author introduces Relevance Theory (Sperber and Wilson 1986) as a more cognitive alternative approach to human communication. Key concepts include positive cognitive effects, the Cognitive Principle of Relevance, ostensive inferential communication, the Communicative Principle of Relevance, the presumption of optimal relevance, the relevance-theoretic comprehension process, the distinction between explicatures and implicatures, and the division of implicatures into implicated premises and implicated conclusions, as well as strong and weak implicatures and interpretive resemblance. These are illustrated with memes. After critically discussing Relevance Theory, Desilla references her own research (2012, 2014) into implicature in Greek subtitled versions of *Bridget Jones' Diary* (2001) and *Bridget Jones: The Edge of Reason* (2004) to distinguish between implicature preservation, where translators retain the original's indirectness, and implicature explicitation, where subtitlers make implicit meanings explicit. She also discusses the challenges posed by culture-specific elements in translation.

In Chapter 4, '(Im)politeness: A weapon wielded for better or worse,' Desilla delves into the intricacies of politeness and impoliteness in translation. She introduces key concepts from Brown and Levinson's (1978/1987) politeness theory, including positive and negative face, face-threatening acts, positive and negative politeness strategies, and off-record strategies. The discussion also covers notions such as self-politeness and mock politeness (sarcasm), with examples drawn from email discourse and public signage. The focus then shifts to impoliteness, building on Culpeper's (2011) theory of positive and negative impoliteness strategies. Examples are drawn from Twitter/X and flaming or trolling. A case study from the film *Ocean's Eleven* (2001) demonstrates these concepts in practice and synthesizes earlier insights into implicature. Desilla analyzes a scene featuring covertly aggressive discourse and presents findings from a reception study that she conducted. In this study, participants first watched the scene without subtitles, then watched it again with official subtitles and author-created subtitles, and then shared their interpretations. The book concludes with an index (pp. 102-104).

Translation and Pragmatics: Theories and Applications offers an accessible introduction to complex pragmatic concepts while maintaining a strong focus on their practical applications in translation and the challenges that arise. Each chapter provides instructors with a solid foundation, making the book suitable as a core textbook for further development. However, the book goes beyond the scope of a conventional textbook. It provides detailed analyses of original data and makes empirical contributions to the field of pragmatics in translation. Chapters 3 and 4, which reflect

the author's extensive research on implicature and (im)politeness, are particularly notable. While the book sheds light on the challenges posed by language- and culture-specific variation in translation, it focuses predominantly on major European languages and Western contexts. Overall, this book is an insightful and pedagogically sound contribution to the intersection of pragmatics and translation studies.

References

- Austin, John L. 1962. *How to Do Things with Words*. Oxford: Oxford University Press.
- Brown, Penelope and Stephen C. Levinson 1987 [1978]. *Politeness: Some Universals in Language Usage*. Cambridge: Cambridge University Press.
- Culpeper, Jonathan 2011. *Impoliteness: Using Language to Cause Offence*. Cambridge: Cambridge University Press.
- Desilla, Louisa 2012. Implicatures in film: Construal and functions in Bridget Jones romantic comedies. *Journal of Pragmatics* 44(1): 30–53.
- Desilla, Louisa 2014. Reading between the lines, seeing beyond the images: An empirical study on the comprehension of implicit film dialogue meaning across cultures. *The Translator* 20(2): 194–214.
- Grice, H. Paul 1975. Logic and conversation. In: Peter Cole and Jerry Morgan (eds.), *Syntax and Semantics*. New York: Academic Press, 41–58.
- Liakou, Evangelia 2021. *Τεχνικές Ακουστικής Περιγραφής στα Ελληνικά για τον Κινηματογράφο* [Acoustic Description Techniques in Greek for Cinema]. Unpublished Ph.D. dissertation, Department of Foreign Languages, Translation and Interpreting, Ionian University.
- Searle, R. John 1979. *Expression and Meaning: Studies in the Theory of Speech Acts*. Cambridge: Cambridge University Press.
- Sperber, Dan and Deirdre Wilson 1986. *Relevance: Communication and Cognition*. Cambridge, MA: Harvard University Press.

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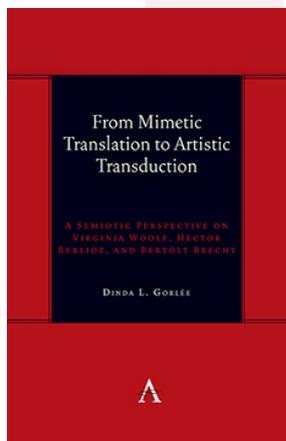
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Transfer of energy

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BY: Karin Boklund-Lagopoulou



Dinda L. Gorrée

From Mimetic Translation to Artistic Transduction: A Semiotic Perspective on Virginia Woolf, Hector Berlioz, and Bertolt Brecht

London & New York: Anthem Press, 2023, pp.192,

ISBN-13: 978-1-83998-908-7 (Hbk) and ISBN-10: 1-83998-908-4 (Hbk).

This is not an easy book to read. Dinda Gorrée is a unique phenomenon, and so is her writing. It is a book about music, poetry, inspiration, Peirce, Sebeok – but mostly, I think, it is about Roman Jakobson and his theory of intersemiotic translation, as demonstrated in the works of the three writers of the title, Virginia Woolf’s novel *The Waves*, Hector Berlioz’s opera *Les Troyens*, and Bertolt Brecht’s *Threepenny Opera*. It is not a conventional book, and this is not going to be a conventional book review. After considerable thought, I believe the best way to present the book is to start at the end and work toward the beginning. So, let us begin with the bibliography.

Gorrée has been writing on the semiotics of translation since 1993, and on music since 1996. Her list of sources for this book, while certainly not exhaustive, is long and varied, ranging from linguistics and philosophy to music, literature, art, and physics. The most striking part is undoubtedly the section on Jakobson: a full page of articles and books dating from 1921 to 1987. Gorrée clearly knows her Jakobson and references him extensively, though she does not pause to explain his positions. It helps if readers are familiar with Jakobson’s terminology for different forms of translation, and it is perhaps even more important if they keep in mind his theories about speech sounds and lyric poetry.

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The most conventional case of translation that Gorlée examines in these pages is that of Bertolt Brecht and the *Threepenny Opera*. It is an interesting case for any study of translation, since it begins with a 'ballad opera,' *The Beggar's Opera*, written in 1728 by John Gay with music from ballads and other popular songs arranged for orchestra by Johann Christoph Pepusch. It satirizes the grand music and heroic themes and settings of Italian opera, which was fashionable in London at the time, by placing its plot among the London underclass of robbers, thieves, and whores, thus inviting an unflattering comparison of its lowlife rascals with their aristocratic betters. The production was very successful and gave rise to a popular satirical musical theatre genre, the ballad opera, which flourished throughout the 18th century. *The Beggar's Opera* has been revived repeatedly, notably in a 1920 production in London which ran for nearly 1500 performances.

The play came to Brecht's attention because Elisabeth Hauptmann, his partner at the time, had received a copy of the script and translated it. However, Brecht seems to have reworked the translation extensively to produce his own version. The music is almost entirely new, written by Kurt Weill, with elements of jazz and popular song; the lyrics are by Brecht, with four ballads by the late medieval French poet François Villon, translated into German by K.L. Ammer.

Brecht kept the plot of Gay's play but moved it forward by a century and a half to Victorian London. He also, in true Marxist fashion, underlines some of the implied parallels between 'polite' society and the criminal underworld (Macheath, the boss of a criminal gang, is most unconvincingly pardoned at the last minute and made a baron with a castle and a pension, which is more a comment on the acquisition of wealth and noble titles than a conventional happy ending).

The *Threepenny Opera* opened in 1929 in Berlin and, like Gay's play in London two centuries earlier, became quite fashionable in prewar Berlin. It was also translated into English, among other languages.

This is fertile ground for examining translations and retranslations. Gorlée has several pages of discussion of the relative merits of different versions of one of the best-known songs, *Pirate Jenny*, including some remarks about their relation to Weill's music. I would have liked a more extensive discussion of that. Song lyrics clearly relate to their music, and it seems to me that this relationship could be understood as a case of 'transduction,' a creative transfer of meaning between two semiotic media. *Pirate Jenny*, the wish-fulfillment song of the tavern prostitute Polly, is an interesting case of this: the refrain, the last line of each verse, has a characteristic melody which instead of closing the musical phrase, seems to 'open' it, creating the expectation of a continuation; this reinforces the sense of threat implied in the words of the refrain: "Und ein Schiff mit acht Segeln / Und mit fünfzig Kanonen / Wird liegen am Kai" (And a ship with eight sails, and / With fifty great cannon / Sails in to the quay," the translation by Desmond Vesey

quoted by Gorlée), as Polly imagines taking her revenge on all the men that have used her. Such an implied threat would sit well with Brecht's Marxist goal of a theatre that, instead of cultivating emotional identification with the characters on stage, creates a *Verfremdungseffekt*, an effect of distancing or estrangement leading to a more objective understanding.

Brecht's *Threepenny Opera* is not a translation of Gay's *Beggar's Opera*; it is a new artistic creation with a new setting, music, lyrics, and a distinctly different set of values. However, it does have things in common with Gay's musical play, particularly because it works within the same literary and musical genre. *The Beggar's Opera* was one of the earliest examples in Europe of popular musical theatre (what was to become the modern 'musical'). This originally satirical genre included much critical commentary on existing social conditions. Brecht may have been more rigorous in his political goals, but the genre's conventions are recognizable within his play.

This is not the case with Gorlée's second case study. In the mid-nineteenth century, Hector Berlioz undertook to write a grand opera based on Virgil's *Aeneid* and designed on the lines of Shakespearean theatre, that is, not following the conventions of French classical drama. This was probably a wise choice. French classical drama insists on a strict interpretation of the three Aristotelian unities of place, time, and action. Virgil's *Aeneid* covers several years of wanderings, wars, and adventures throughout the Mediterranean, and even though Berlioz chose to limit his opera to Books Two and Four, the action still includes both the fall of Troy and the romance of Dido and Aeneas and extends geographically from the eastern Aegean to North Africa.

However, even if using Shakespearean dramatic conventions allowed Berlioz to include all the material he wanted in the five acts of the opera, adapting even one-third of a Latin literary epic of the first century BCE written in dactylic hexameters into the French libretto of a 19th-century opera cannot be considered a translation. Berlioz, who wrote both the music and the libretto himself, did indeed translate passages from Virgil into French, but – as Gorlée points out – his priority was the music, not the poetry. And it is not clear that the libretto for an opera should be judged by the same Jakobsonian criteria as purely verbal lyric poetry.

To begin with, Jakobson's definition of the poetic function of language does not necessarily apply only to the sounds of spoken language, but to anything that focuses on the message for its own sake (Jakobson 1960: 356). Indeed, sound in lyric poetry is a way to focus on the message, that is, on the phonetic material of the language medium itself, because sound in lyric poetry can become significant in ways that do not apply to other uses of language, but are those ways the same for epic poetry as for lyric? There are undoubtedly lines in Virgil that are 'lyrical' in a Jakobsonian sense (one thinks of the *sunt lacrimae rerum et mentem mortalia tangunt*. "[here also] there are tears for things and mortal things touch the mind", Bk I, line 462). However, epic poetry also has its own

ways of focusing on the message for its own sake. Anyone who has read Virgil in Latin has felt the pull of the hexameter rhythm and how the meter and the inflectional nature of the language cooperate to allow Virgil to bring certain words to prominence in a line. Still, these are not the same kinds of sound effects that Jakobson finds in the lyric.

They are also not effects that can be retained within the constraints of the musical form of a libretto. Something else will have to take on the job of focusing on the message for its own sake, and in Berlioz's case, that something is the music. It would have been interesting to have more analysis by Gorrée of how Berlioz's music copes with the task. Music is perhaps the most 'poetic' of all the semiotic systems, in that the material nature of the medium – the sound itself – plays such a prominent part in the message that it is difficult even to identify any other kind of signification.

Before continuing to Gorrée's chapter on Wagner and Virginia Woolf, we must consider some terminology issues. So far, Gorrée's book (read backwards) has been treating forms of literary translation of poetic texts. Jakobson calls this *transposition*:

[...] poetry by definition is untranslatable. Only creative transposition is possible, either intralingual transposition – from one poetic shape into another, or interlingual transposition – from one language into another, or finally, intersemiotic transposition – from one system of signs into another, e.g., from verbal art into music, dance, cinema, or painting. (Jakobson 1959: 238)

It has long been understood in translation studies that literary translation should not and cannot be literal (or mimetic, as Gorrée refers to it), and that especially translating poetry requires a new creative act from the translator. This act involves replacing the meaning effects of the source text's linguistic forms with something as close as possible to an 'equivalent' in the target text. If Jakobson had this in mind with his concept of 'transposition,' it also applies when translating into another semiotic medium. However, this process is more often called 'adaptation' because moving into a different semiotic medium requires much more extensive modifications than simply finding 'equivalents' for linguistic meanings.

Gorrée uses various terms, and there seem to be some overlaps among them. Her term for Jakobson's intersemiotic transposition seems to be 'artistic *transduction*.' 'Transduction' is a term used in several scientific fields, sometimes with widely differing meanings. Below, I quote from the disambiguation entry of *Wikipedia*:

Biology: any process by which a biological cell converts one kind of signal or stimulus into another.

Biophysics: the conveyance of energy from a donor electron to a receptor electron, during which the class of energy changes.

Genetics: the transfer of DNA from one cell to another using a virus or viral vector.

Machine learning: the process of directly drawing conclusions about new data from previous data, without constructing a model.

Physiology: the transportation of stimuli to the nervous system.

Psychology: reasoning from specific cases to general cases, typically employed by children during their development.

A process by which a *transducer* converts one type of energy to another.

I think we can assume that Gorlée is not referring to the definitions used in machine learning or psychology. The definitions from biology, genetics, and physiology are more promising: they all involve the transmission of information. If we combine this with the concept used in biophysics of an exchange of energy (the meaning that we also find in the last definition, the action of a transducer), I think we have a fairly good approximation of what ‘artistic transduction’ is for Gorlée: a communication of signals or stimuli that involves a transfer of (creative) energy.

This goes well beyond even the widest version of Jakobson’s concepts of translation. It seems most closely related to intertextuality, a concept introduced by Julia Kristeva and building on Mikhail Bakhtin’s work: a kind of dialogue between texts that can range from allusion to adaptation, from rewriting to parody to explicit rejection.

This seems to be the kind of relationship that Gorlée envisages between Richard Wagner’s opera *Das Rheingold* and Virginia Woolf’s novel *The Waves*. Woolf did know Wagner’s work and had visited Bayreuth in her twenties, but she cannot in any sense be said to ‘translate’ the waves of Wagner’s Rhine-maidens into her novel. Wagner’s waves are the waves of the river Rhine, which the music and the opera’s libretto evoke, but Woolf’s waves are a metaphor for consciousness, individual and/or collective. Indeed, as Gorlée is well aware, Woolf was fervently opposed to the political interpretation of Wagner’s work that was common in Germany in the 1930s. If there is any relationship between the two texts, it is one of complete rejection.

Nonetheless, it can be argued that the kind of romantic, heroic nationalism that the Nazis found in Wagner haunts *The Waves* in the figure of Percival (named after a medieval knight, *Parsifal*, the hero of another Wagner opera). The novel shows the attractiveness of authoritarianism and the sense of elation, community, and purpose it can inspire – and, at the same time, the hollowness and falsity of that promise (Percival sets out heroically to defend the British Empire in India, only to die after falling off his horse). The extraordinary thing about Woolf’s writing is her sensitivity to both the seductive quality and the violent brutality of the ideologies that were “in the air” of Europe in the 1930s: imperialism, nationalism, militarism, fascism, racism, authoritarianism, and patriarchy.

It is impossible to know if Woolf was thinking of Wagner while writing *The Waves* (there is no textual evidence I know of), and it is ultimately unimportant. If she is acting as a transducer of energy, it is the negative energy of rejection, the energy of fervent political opposition.

I am not going to try to write a critique of Gorlée's introductory chapter. I believe I understand Jakobson fairly well, but I do not see that Peirce's interpretant or Sebeok's emblematic sign are very helpful in understanding translation or transduction. I do feel that the book would have benefited from a final edit (*Beowulf* is not an Anglo-Saxon chronicle, and Aeneas is not a Greek either in Virgil or in Berlioz), and from some attention to the language, which is frequently idiosyncratic and at times borders on the incomprehensible.

Gorlée is a transducer of many different texts and has brought them together into a work that is unmistakably her own. I hope this review has provided potential readers with enough background information to at least make it easier to read.

References

- Jakobson, Roman 1959. On Linguistic Aspects of Translation. In: Reuben Arthur Brower (ed.), *On Translation*. Cambridge, MA: Harvard University Press, 232–239.
- Jakobson, Roman 1960. Closing statement: Linguistics and Poetics. In: Thomas A. Sebeok (ed.), *Style in Language*. New York, NY: Technology Press MIT & Wiley and Sons, 350 - 377.
- Kristeva, Julia 1986 [1966]. Word, Dialogue, and Novel. In: Toril Moi (ed.), *The Kristeva Reader*. New York, NY: Columbia University Press, 34-61.
- Kristeva, Julia 2024 [1967]. The Bounded Text. In: Leon S. Roudiez (ed.), *Desire in Language*. New York, NY: Columbia University Press, 36-63.

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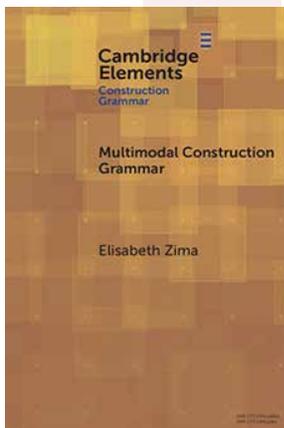
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Beyond words: Building a multimodal construction grammar

punctum.gr

BY: Georgios Damaskinidis



Elisabeth Zima

Multimodal Construction Grammar

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Elisabeth Zima's *Multimodal Construction Grammar* arrives precisely when construction-based theories of grammar are addressing the fact that everyday language use is audio-visual, embodied, and highly interactional. Instead of viewing gesture, gaze, prosody, and posture as mere 'add-ons' to verbal structure, the book argues that a credible construction must represent patterned combinations across modalities. Framed firmly within usage-based Construction Grammar and continuously engaging with Conversation Analysis and interactional linguistics, Zima provides both a comprehensive overview of recent findings and a thoughtful proposal for how we might model them.

Zima argues that multimodality is not a peripheral curiosity but a constitutive dimension of many constructions. That claim is intentionally moderate: the book does not suggest that *all* constructions are inherently multimodal; instead, it shows that a nontrivial subset displays entrenched, functionally relevant cross-modal patterns. The Element is written for three overlapping readerships. First are construction grammarians who need a principled way to incorporate bodily conduct and prosody into their representational machinery. Second are interactional linguists and conversation

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analysts, whose detailed descriptions of ‘multimodal packages’ and ‘assemblies’ (e.g., Bressemer and Müller 2017; Stukenbrock 2021) provide rich empirical grist but often stop short of cognitive commitments. Third, are corpus and tool developers building the archives and annotation pipelines that enable quantitative generalizations (see also Zima 2020).

The core thesis is straightforward: if constructions are conventionalized form-meaning pairings learned from use, and if the evidence of use is routinely audiovisual, then a construction that ignores nonverbal form underestimates what is stored, learned, and processed. The challenge, as Ziem (2017) pointedly asked, is whether we ‘really need’ a multimodal construction grammar or whether looser notions of accompaniment suffice. Zima’s answer is empirical and constructive: sometimes an association is enough; sometimes the nonverbal layer is integral and therefore part of the construction’s form.

Historically, the ‘multimodal turn’ has roots in gesture studies, prosody in interaction, and ethnomethodological CA (e.g., Ogden 2010; Ward 2019; Stukenbrock 2010). Zima synthesizes this literature with constructionist commitments about entrenchment and schematicity. She sketches how early demonstrations of gesture-speech coordination (e.g., deictic and depictive gestures that make spatial dimensions available to recipients) pushed linguistics beyond transcripts of words alone. Subsequent work identified *recurrent* cross-modal patterns that behave like construction families (Bressemer and Müller 2017; Ningelgen and Auer 2017), strengthening the case that multimodal phenomena are not merely local conveniences but patterned resources with learnable form – function pairings. In parallel, constructionist studies began to quantify gesture–speech coupling for specific constructions (Zima 2014, 2017a, 2017b), while interactional research charted how gaze and body orientation scaffold sequential organization (Zima 2020; Stukenbrock 2021). The Element knits these strands together into a coherent research program.

One of the book’s most useful contributions is a clear typology of representational options. Zima reconstructs three families of proposals, each motivated by different data segments.

1. **Obligatoriness.** In a stringent view, a multimodal construction exists when the nonverbal component is *required* for interpretation. Deictic and depictive patterns with German *so* – for instance, *so groß* ‘this big’ accompanied by a size-depicting gesture – are exemplary: without the gesture, the intended meaning is underspecified (Stukenbrock 2010; Ningelgen & Auer 2017). This makes the case for representations that *include* gesture as part of constructional form. At the same time, as Ziem (2017) cautions, ‘obligatoriness’ sets a very high bar, and only a small corner of multimodal phenomena will qualify.

2. Cross-modal association. A more graded alternative treats many multimodal patterns as robust associations between otherwise unimodal constructions and recurring nonverbal behaviors. Uhrig (2022), for example, uses collostructional methods to show how hand-gesture families pattern with English verbs of throwing, revealing meaning-sensitive tendencies without making them obligatory. Large-scale, distributional approaches to time expressions that integrate gesture (Pagán-Cánovas et al. 2020) converge in showing systematic skew in the gesture–speech relationship. Zima favors modeling such associations in a network with weighted links, acknowledging gradience and variability.
3. Utterance Construction Grammar (UCxG). Cienki (2017) proposes that constructions are licensed at the level of *utterance structure*, with deep-structure representations encoding multimodal potential and surface-structure realizations instantiating variable subsets (verbal, gestural, prosodic). Zima treats UCxG as an attractive compromise: it respects the event-based nature of interaction (a CA insight), offers representational slots for nonverbal form, and avoids pure associationism that merely lists co-occurrences.

Zima resists the urge to declare a winner. Instead, she reframes the problem as one of prediction: which representational scheme best accounts for distributional facts, psycholinguistic discriminations, and learnability constraints? That orientation is particularly welcome in a literature that can tilt theoretical.

A strength of the Element is its methodological literacy. Zima compiles quantitative results on gesture–speech co-occurrence across construction types, illustrating that coupling varies by constructional family: motion and distance constructions often recruit depictive gesture; stance-laden idioms can have distinctive tempo and intonation profiles; modal particles show weaker association with gesture. Rather than canonizing raw proportions, the book highlights tools that quantify association with effect sizes and control for dispersion, semantic class, and register (Uhrig 2022; Pagán-Cánovas et al. 2020). Zima (2017a, 2017b) shows, for instance, how the English [*all the way from X PREP Y*] construction exhibits recurrent gesture types that cluster semantically; Hinell (2018) documents aspectual auxiliaries' gestural profiles; and Bressemer and Müller (2017) identify a recurrent 'throwing-away' gesture that functions as part of a broader negative-assessment resource.

Prosody receives especially careful treatment. Building on Ward's (2019) inventory of English prosodic patterns and Ogden's (2010) work on prosody in complaints, Zima reviews recent experiments demonstrating that listeners discriminate constructional senses using prosody alone. Lehmann's (2024a) study of *Tell me about it* shows that the stance use and the information-request use differ in tempo and that naive

listeners reliably sort tokens by use based on audio stripped of lexical content; Lehmann (2024b) further develops the idea of a prosodic ‘mode’ as a meaning-bearing, constructional dimension in its own right. Italian ‘list constructions’ offer another window: Masini, Combei, and Cicchirillo (in press) show how articulation rate and tonal parallelism support list interpretation, reinforcing the claim that prosodic features are part of stored constructional knowledge. Zima weaves these findings into a persuasive case for treating prosodic structure as a constructional form rather than merely as performance.

Gaze and recipient design, though less frequently operationalized in CxG, are also foregrounded. Zima (2020) demonstrates how gaze behavior in triadic storytelling aligns with turn organization and recipient feedback, underscoring that a multimodal construction must accommodate gaze as both a resource for action and a recurrent formal pattern. That perspective dovetails with Stukenbrock’s (2021) notion of ‘multimodal gestalts,’ whose routinization may resemble grammaticalization over time.

The book’s dialogue with CA is particularly fruitful. CA research prioritizes sequential organization and often deliberately brackets cognitive representation; yet it routinely documents recurring couplings of linguistic formats with bodily conduct that accomplish recognizable social actions. Bressemer and Müller’s (2017) ‘negative-assessment construction,’ built around a recurrent throwing-away gesture, is a case in point. Zima argues that such findings are ideal starting points for constructional analysis: they identify candidate patterns, delimit their interactional ecology (e.g., dispreferred turn shapes, assessments, stance displays), and suggest functional generalizations. The challenge, one the Element takes up without polemic, is to move from ‘recurrent multimodal package’ to ‘stored construction’ responsibly, with converging evidence from distributional tendencies, processing, and learning.

German *so* again serves as a touchstone. Multiple subpatterns – *so groß* with size-depicting gesture; *so machen* with iconic enactment; *so sieht/sehen X aus* with visible presentation – appear to *require* gesture for full interpretability (Stukenbrock 2010; Ningelgen and Auer 2017). Those are strong candidates for obligatoriness. Elsewhere, the pairings are looser: negative assessments can be realized with or without the throwing-away gesture; stance idioms like *Tell me about it* are disambiguated by prosody but still comprehensible without it (Bressemer and Müller 2017; Lehmann 2024a). Zima’s point is that a single, monolithic criterion (‘obligatory or not?’) is ill-suited to this landscape; graded, networked representations are better.

If we grant that some degree of multimodal coupling is entrenched and meaningful, how should a usage-based grammar store it? Zima surveys three representational strategies: (i) enlarging constructional *form* to include prosodic, gestural, and gaze features (Ward 2019; Masini et al. in press); (ii) positing *associative links* between verbal constructions and nonverbal form schemas with weights reflecting strength (Uhrig 2022); and (iii) adopting utterance-level deep/surface structure that enumerates modality-specific slots (Cienki 2017). Each choice brings trade-offs in redundancy, learnability, and predictive

power. Ziem's (2017) skepticism usefully keeps the bar high: if every co-occurrence is stored, the construction risks becoming an unprincipled scrapbook. Zima meets that worry by urging explicit thresholds derived from effect sizes, dispersion measures, and functional specificity, an agenda that points directly to corpus and experimental tests.

Zima repeatedly emphasizes that progress depends on the scale and quality of the data. Many tantalizing patterns sit in the medium-frequency range, invisible to small corpora and fragile under naive counting. The book calls for larger, higher-fidelity, and better-synchronized audiovisual archives; for improved annotation of gesture phases and alignment windows; and for tools that make model-based inference accessible to linguists. The 'discovery vs. test' cycle she proposes is at once modest and ambitious: use CA-inspired close analysis to uncover candidate patterns (Bressem and Müller 2017; Ogden 2010), quantify their distribution with collostructional or distributional methods (Uhrig 2022; Pagán-Cánovas et al. 2020), and then test processing consequences (Lehmann 2024a, 2024b). Zima's (2014, 2017a) own case studies on English motion/distance constructions exemplify this pipeline, as do her and others' calls to include gaze via mobile eye-tracking in naturalistic settings (Zima 2020).

A major virtue of the *Element* is its even-handed conceptual framing. Zima neither collapses all multimodal phenomena into "constructions" nor sets an impossibly strong criterion that would make the category nearly empty. By juxtaposing obligatoriness (as in deictic *so*: Stukenbrock 2010; Ningelgen and Auer 2017), strong but non-obligatory association (as in throwing verbs and recurrent gesture families: Uhrig 2022), and utterance-level licensing (Cienki 2017), she clarifies what is at stake theoretically and points to the kinds of evidence that should decide it.

The book treads nimbly between close, sequential analysis and large-scale quantitative work. It takes CA's descriptive discipline seriously, treating interactional 'packages' as indispensable for discovering patterns (Bressem & Müller 2017; Ogden 2010), but it is equally clear that robust generalization demands numbers, ideally, numbers that respect dispersion, register, and semantic class (Uhrig 2022; Pagán-Cánovas et al. 2020). The prosody chapters are exemplary here: Ward (2019) and Ogden (2010) provide inventories and interactional settings; Lehmann (2024a, 2024b) adds processing evidence; Masini et al. (in press) offer construction-specific prosodic profiles. Zima doesn't oversell any single method; she shows how they fit together.

A persistent bias in multimodal work is the equating of 'multimodality' with manual gesture. Zima corrects that bias by according equal status to prosody and gaze. The cumulative case for 'prosodic constructions' now seems compelling, from English stance expressions to list structures (Ward 2019; Lehmann 2024a; Masini et al., in press). Gaze is admittedly more difficult to capture and operationalize, but Zima (2020) demonstrates its patterned role in turn organization, and Stukenbrock (2021) shows how routinized visual gestalts can stabilize into recognizable formats. For a construction that claims to mirror usage, excluding these channels would be an empirical mistake.

The Element's tone is integrative rather than polemical. It takes Ziem's (2017) question about the necessity of multimodal CxG seriously, answers it by showing cases where a constructional analysis yields explanatory power, and remains candid about where the evidence is not yet decisive. By inviting CA researchers to consider representational payoffs and CxG scholars to reckon with sequential organization, Zima models the kind of cross-tradition dialogue the field needs.

First, readers may want more operational guidance on *thresholds*, how strong, how dispersed, and how functionally specific a cross-modal association should be before we posit a stored construction. Zima gestures toward decision criteria, but a worked-out decision tree that combines effect size, dispersion, and functional profiling would accelerate uptake. Second, the empirical base remains richer for English and German than for other languages. Cross-linguistic work on deictic-gesture obligatoriness, stance-prosody coupling, and list prosody would sharpen theoretical claims (see Zima 2017b; Stukenbrock 2021, for initial steps). A third desideratum is a more explicit representational format for prosody: Ward (2019) provides a descriptive inventory, and Lehmann (2024b) argues for prosodic 'modes,' but a sketch of how, say, an Italian list construction would look in a prosody-rich construction would be instructive (Masini et al., in press).

Finally, the acquisition-and-processing story is still developing. Lehmann's (2024a) forced-choice and discrimination studies are exemplary; analogous experiments on gesture-speech coupling and gaze-conditioned interpretations would round out the picture. How children acquire these cross-modal pairings – what generalizations they extract, how they weigh channels, and how quickly they entrain to community-specific gestural conventions – remains a compelling open agenda (see Pagán-Cánovas et al. 2020, for large-scale evidence relevant to learning).

Although the Element is tightly argued, it is not forbiddingly technical. Zima writes with an expository clarity that will help readers from different traditions meet on common ground. Summaries of key studies are concise and precise – e.g., Zima's (2017a, 2017b) own work on English circular motion and distance constructions; Pagán-Cánovas et al.'s (2020) dataset-driven approach to time expressions; Hinell's (2018) analysis of aspectual auxiliaries; and Lanwer's (2017, 2020) work on apposition and prosody – which makes the book suitable for graduate seminars. The running dialogue with skeptics (Ziem 2017) and bridge builders (Cienki 2017) keeps the text honest about what is known and what remains unsettled.

Multimodal Construction Grammar is both a lucid primer and a research agenda. It shows where the strongest evidence lies (obligatory deictic-gesture couplings; robust, graded gesture-speech associations; prosodic constructions), where modelling choices matter (obligatoriness vs. association vs. utterance-level structure), and what it will take to make cumulative progress (bigger, better-annotated corpora; explicit thresholds; experimental tests) (Zima 2014, 2017a, 2017b, 2020, 2025). It bridges communities by showing how CA discoveries can seed constructional hypotheses and how constructionist

representations can return explanatory dividends for interactional practice (Bressem and Müller 2017; Ogden 2010; Ward 2019). For anyone building a construction that aspires to reflect actual language use, Zima's Element belongs within arm's reach.

References

- Bressem, J., & Müller, C. 2017. The 'negative-assessment construction': A multimodal pattern based on a recurrent gesture? *Linguistics Vanguard* 3.
<https://doi.org/10.1515/lingvan-2016-0053>
- Cienki, A. 2017. Utterance Construction Grammar (UCxG) and the variable multimodality of constructions. *Linguistics Vanguard*, 3.
<https://doi.org/10.1515/lingvan-2016-0048>
- Debras, C. 2021. Multimodal profiles of *je (ne) sais pas* in spoken French. *Journal of Pragmatics* 182(1): 42–62.
- Hinell, J. 2018. The multimodal marking of aspect: The case of five periphrastic auxiliary constructions in North American English. *Cognitive Linguistics* 29(4): 773–806.
- Lanwer, J. 2017. Apposition: A multimodal construction? The multimodality of linguistic constructions in the light of usage-based theory. *Linguistics Vanguard* 3.
<https://doi.org/10.1515/lingvan-2016-0071>
- Lanwer, J. 2020. Appositive Syntax oder appositive Prosodie? In: W. Imo and J. Lanwer (eds.), *Prosodie und Konstruktionsgrammatik*. Berlin, Boston: De Gruyter, 233–281.
- Lehmann, C. 2024a. Multimodal constructions revisited: Testing the strength of association between spoken and non-spoken features of *Tell me about it*. *Cognitive Linguistics* 35(3): 407–437.
- Lehmann, C. 2024b. What makes a multimodal construction? Evidence for a prosodic mode in spoken English. *Frontiers in Communication* 9.
<https://doi.org/10.3389/fcomm.2024.1338844>
- Masini, F., Combei, C. R. and R. Cicchirillo (in press). The prosody of list constructions. In: K. Nikiforidou & M. Fried (eds.), *Multimodal communication from a construction grammar perspective*. Amsterdam: John Benjamins, 116–151.
- Ningelgen, J. and P. Auer 2017. Is there a multimodal construction based on non-deictic *so* in German? *Linguistics Vanguard* 3. <https://doi.org/10.1515/lingvan-2016-0051>
- Ogden, R. 2010. Prosodic constructions in making complaints. In: D. Barth-Weingarten, E. Reber and M. Selting (eds.), *Prosody in interaction*. Amsterdam: John Benjamins, 81–104.
- Pagán-Cánovas, C., Valenzuela, J., Alcaraz-Carrión, D., Olzá, I. and M. Ramscar 2020. Quantifying the speech–gesture relation with massive multimodal datasets: Informativity in time expressions. *PLOS ONE* 15(6), e0233892.
<https://doi.org/10.1371/journal.pone.0233892>

- Stukenbrock, A. 2010. Überlegungen zu einem multimodalen Verständnis der gesprochenen Sprache am Beispiel deiktischer Verwendungsweisen des Ausdrucks *so*. *InLiSt: Interaction and Linguistic Structures* 47: 1–23.
- Stukenbrock, A. 2021. Multimodal gestalts and their change over time: Is routinization also grammaticalization? *Frontiers in Communication* 6, 662240.
<https://doi.org/10.3389/fcomm.2021.662240>
- Uhrig, P. 2022. Hand gestures with verbs of throwing: Collostructions, style and metaphor. In: B. Hampe and A. Binanzer (eds.), *Yearbook of the German Association of Cognitive Linguistics* (Vol. 10). Berlin, Boston: De Gruyter, 99–120.
- Ward, N. G. 2019. *The prosodic patterns of English conversation*. Cambridge: Cambridge University Press.
- Ziem, A. 2017. Do we really need a multimodal construction grammar? *Linguistics Vanguard* 3. <https://doi.org/10.1515/lingvan-2016-0095>
- Zima, E. 2014. Gibt es multimodale Konstruktionen? Eine Studie zu [V(motion) in circles] und [all the way from X PREP Y]. *Gesprächsforschung: Online-Zeitschrift zur verbalen Interaktion* 15:1–48.
- Zima, E. (2017a). On the multimodality of [all the way from X PREP Y]. *Linguistics Vanguard* 3. <https://doi.org/10.1515/lingvan-2016-0055>
- Zima, E. 2017b. Multimodal constructional resemblance: The case of English circular motion constructions. In: F. Ruiz de Mendoza, A. Luzondo and P. Pérez-Sobrino (eds.), *Constructing families of constructions*. Amsterdam: John Benjamins, 301–337.
- Zima, E. 2020. Gaze and recipient feedback in triadic storytelling activities. *Discourse Processes* 57(9): 725–748.

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Transmedial semiosphere: The world of intersemiotic and intermedial translations of the novel *Il nome della rosa*

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BY: Ilias G. Spyridonidis



Nicola Dusi and Ruggero Eugeni (eds.)

Il meme della rosa. Riletture e trasposizioni de *Il nome della rosa*

Milano: La nave di Teseo, 2025, 320 pp.,
ISBN 978-88-346-2234-6

This collection, edited by Nicola Dusi and Ruggero Eugeni, brings together significant studies on intersemiotic and intermedial translations derived from Umberto Eco's novel *The Name of the Rose*. Right from the start, the editors emphasize that the book is neither about Eco as a novelist nor a collection of essays on *The Name of the Rose* (2025: 9).¹ Rather, its aim is to investigate the world of intersemiotic and intermedial translations that have been generated from Eco's novel. In this sense, the collection edited by Nicola Dusi and Ruggero Eugeni offers a rich mapping of intersemiotic translation productions such as cinematographic texts, "television series, fiction, documentaries, theatrical texts, video games, radio dramas, comics, operas, and more – that have adapted Eco's novel to other media, thereby also reformatting, reinterpreting, and transforming it while keeping it perfectly recognizable" (p. 10).

The transformations, or intersemiotic translations, of *The Name of the Rose* also constitute reworkings, reinterpretations, rereadings, adaptations, and negotiations, forming a universe of texts and paratexts that Dusi aptly defines as a "transmedial

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¹ All the translations of the cited passages that appear in this review were made by the author.

semiosphere” (Dusi 2021), insofar as they function as components of an interpretative and translational chain (p. 11). By contrast, the term “media ecosystem,” borrowed from Pescatore (2018) to designate this universe of texts, could generate conceptual ambiguity, as it is closely associated with the Environmental Sciences, Biology, Ecology, Physics, and related fields. Alternatively, this world or universe of transformations, texts, and paratexts may be described as a “textual system of intersemiotic and intermedial translations.” In a recent case study, we presented an analogous world of transformations – texts and paratexts, intralingual, interlingual, and intersemiotic translations – derived from the *Periplus of the Euxine Sea* by Flavius Arrianus (Spyridonidis, Malaperdas and Flouda 2025: 24–38).

Nicola Dusi and Ruggero Eugeni have systematically assembled a well-articulated collection of in-depth studies of the intersemiotic translations of *The Name of the Rose*, written by numerous scholars from diverse disciplinary backgrounds. Within the novel’s transmedial semiosphere, the editors discern “a continuum with two poles: on the one hand, an intertextual and intermedial continuity of a more translational nature; on the other, a more interpretative discontinuity” (p. 13).

In their Introduction, the editors provide a solid theoretical and methodological framework for studying a corpus of intersemiotic and intermedial translations. The volume includes “L’uscita dal labirinto” (pp. 27–66), the afterword written in 1989 for the Russian edition of *Il nome della rosa* by Jurij M. Lotman, here translated into Italian for the first time. Costantino Marmo’s essay, “Intertestualità intersemiotica: citazione ed ekphrasis ne *Il nome della rosa*” (pp. 67–84), traces and analyzes intertexts and citations as pragmatic elements in Eco’s novel. Following the initial essays by Lotman and Marmo, a group of three studies focuses on Jean-Jacques Annaud’s film adaptation. In “*Il nome della rosa*. Ekfrasi intersemiotica e intermediale tra romanzo e film” (pp. 85–108), Nicola Dusi analyzes the intersemiotic translation “of the novel into the film directed by Jean-Jacques Annaud, released in 1986” (p. 18). Giacomo Tagliani, in “Il retro della rosa. Making-of e dintorni degli adattamenti audiovisivi: il discorso sul film di Annaud” (pp. 109–126), examines the documentaries and paratexts produced around Annaud’s film after its release. Finally, Lucio Spaziante, in “Il suono della rosa: soluzioni musicali nell’adattamento cinematografico ne *Il nome della rosa*” (pp. 127–142), studies the soundtrack and acoustic system of Annaud’s film.

Subsequently, Charo Lacalle and Sara Narvaiza, in “Il feedback transmediale: analisi dei commenti ai video di YouTube su *Il nome della rosa*” (pp. 143–156), analyze the “comments posted by YouTube users on video clips from the film and the television series and, more broadly, the practices of extraction, segmentation, and possible rewriting” (p. 19). This is followed by a thematic section comprising three essays on the 2019 television miniseries that was based on Eco’s novel, created and directed

by Giacomo Battiato for RAI 1: “La miniserie *Il nome della rosa*: dati di ascolto e valutazioni qualitative” (pp. 157–168) by Giorgio Grignaffini; “Una miniserie tra Storia e storie: multistrand ed efficacia narrativa” (pp. 169–178) by Andrea Bernardelli; and “Eresie sotto traccia. *Il nome della rosa* fra serie tv, romanzo e film” (pp. 179–196) by Federico Montanari.

Mauro Salvador, in “Un’ipotesi di coerenza traduttiva videoludica. Il caso *Abadía del Crimen / The Abbey of Crime Extensum*” (pp. 197–210), explores the relationship between the novel, the film, and the video game. Daniele Barbieri, in “Dire almeno un po’ la stessa cosa. Parodie e traduzioni a fumetti” (pp. 211–222), examines the echo of Eco’s novel in the world of comics. Marta Perrotta, in “Trame sonore, spazialità e punti di ascolto. *Il nome della rosa* alla radio” (pp. 223–234), studies the novel’s 2005 radio adaptation for RAI Radio 2. Gianfranco Marrone, in “Nomi della rosa: dissoluzione e arricchimenti” (pp. 235–248), analyzes both Eco’s sketch paratexts and the “dissonances between the various products of intermedial translation and Eco’s book” (p. 22). The volume concludes with three highly engaging interviews: the first with Giacomo Battiato, director of the 2019 television miniseries; the second with Milo Manara, author of the homonymous comic; and the third with Francesco Filidei, composer of an opera based on the novel.

On the one hand, the volume fully addresses the question posed by the editors (pp. 14–15): “What becomes of the extraordinarily dense world of Eco’s first novel in the chain of inevitably imperfect transpositions, in the necessarily partial adaptations that construct its transmedial semiosphere?” Dusi and Eugeni provide the specialized reader with in-depth studies of the universe of intersemiotic and intermedial translations derived from *The Name of the Rose*, a world of texts that indeed constitutes its transmedial semiosphere. On the other hand, it transpires that the novel’s various translations are not only influenced by the prototype but also, over time, interact with and enter into dialogue with other intersemiotic translations, adaptations, and interpretations. As Dusi and Eugeni note, “It is intersemiotic and transmedial relations that transmute the narrative world of the novel into a dynamic storyworld, constantly in the process of becoming” (p. 16).

In conclusion, the collection edited by Nicola Dusi and Ruggero Eugeni constitutes an engaging and innovative collective work in the field of intersemiotic translation. Among its principal merits are the articulation of a clear theoretical framework for understanding intersemiotic and intermedial transformations; the provision of a well-structured method for collecting and studying the transmedial semiosphere generated by texts derived from *Il nome della rosa* as a meme; and a unique, in-depth exploration of the diverse corpus of texts – ranging from theatre, cinema, and television series to documentaries, video games, radio dramas, comics, and opera – that originate from Eco’s novel and of their reciprocal influences.

References

- Dusi, Nicola 2021. Transmedialità. In: *Enciclopedia dell'Arte Contemporanea*, vol. 4, a cura di Vincenzo Trione, Valeria della Valle, Jean-Loup Amselle, Boris Groys, Barbara Rose. Roma: Istituto dell'Enciclopedia Italiana fondato da Giovanni Treccani, 565-566.
- Dusi, Nicola e Eugeni, Ruggero (ed.) 2025. *Il meme della rosa. Riletture e trasposizioni a partire da Il nome della rosa*. Milano: La nave di Teseo.
- Eco, Umberto 1980. *Il nome della rosa*. Milano: Bompiani.
- Pescatore, Guglielmo 2018. *Ecosistemi Narrativi. Dal fumetto alle serie tv*. Roma: Carocci.
- Spyridonidis, I., Malaperdas, G. and E. Flouda 2025. «Διασημειωτική Μετάφραση και Θεματική Χαρτογραφία: μια μελέτη περίπτωσης μετάφρασης του Περίπλου του Ευξείνου Πόντου του Φλάβιου Αρριανού (περ. 95-175 μ.Χ.) και ανασύνθεσής του σε χάρτη» in *Cartography: A continuous interface for Science, Technology and Society, Proceedings of the 17th National Cartographic Conference 2025*. Thessaloniki: XEEE, 24-38.

AUTHOR

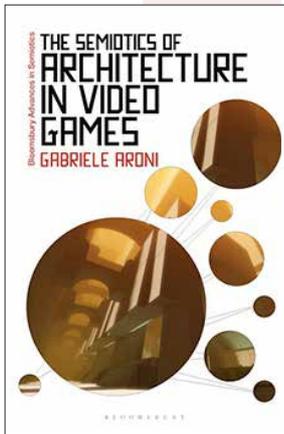
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Architecture and ludosemiotics: Exploring the meaning of the built environment in digital games

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BY: Mattia Thibault



Gabriele Aroni

The Semiotics of Architecture in Video Games

London: Bloomsbury Advances in Semiotics, 2022, 192 pp.,
ISBN 9781350152311 (Hbk, £90.00), ISBN 9781350341722 (Pbk £26.09),
ISBN 9781350152328 (ebk £20.87).

The book *The Semiotics of Architecture in Video Games* by Gabriele Aroni was published in 2022 and is one of the most recent examples of academic research in the field of semiotics of games – or, as I prefer to call it, *ludosemiotics* (Thibault 2020). In particular, it appears to be part of a series of scattered yet fruitful attempts to apply traditional semiotics to video games and other forms of play that began to gain traction in Italy in the 2005-2015 decade. While similar efforts emerged in other countries (e.g., Sebastien Genvo and Laurent Di Filippo in France, Pablo Molina Ahumada in Argentina, Dominic Arsenault and Maude Bonenfant in Canada, etc.), Italy seems to have produced a particularly strong interest in the combination of games and semiotics, embodied by the work of many researches, some of which mentioned in this book (Massimo Maietti, Marco Benoit Carbone, Enzo D’Armenio, Vincenzo Idone Cassone, Dario Compagno) and some not (Patrick J Coppock, Agata Meneghelli, Gianmarco Giuliana, Stefano Bartezzaghi...). This was possibly due to the influence of Umberto Eco on Italian academia, as he both popularised the study of semiotics in Italian universities, and ensured that *popular culture* – of whose academic interest he was a strenuous defender – remained a viable topic of semiotic inquiry.

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However, unlike many of these names, Gabriele Aroni brings a different perspective to the topic: architecture. The threefold connection between meaning-making, video games, and architecture, then, is the key focus of this work.

In order to do justice to this book, it is important to start by clearly defining what this book is – and is not. Despite a possible interpretation of its title, this is not a handbook of the semiotics of architecture in video games. That is, the book does not propose a range of semiotic approaches and methods for studying the role of architecture across different kinds of games.

Firstly, this is because the author makes a clear and motivated choice to focus only on a very specific kind of games: those that present a 3D environment. As Aroni explains in the last chapter, focusing on different kinds of games (e.g., 2D environments) would probably require a different approach.

Additionally – and this might require a bit more argumentation – while the work is undoubtedly semiotic, its engagement with semiotics is somewhat fluctuating. Aroni mentions many key authors in semiotics, both those central to the discipline and those who have worked more specifically on games. Nevertheless, some of the authors on whom the book relies are problematic from the perspective of the discipline. David Meyers, for example, despite writing a book entitled *The Nature of Computer Games: Play as Semiosis* (2003), dismisses quite quickly both Saussure and Peirce, and decides to found his semiotic theory on George Spencer-Brown's work on mathematical logic – and therefore departs significantly from the discipline. Similarly, Brian Upton, a game designer, after a brief explanation of Saussure and Peirce, concludes that their models are inadequate for describing complex meaning-making and instead proposes a new model anchored in neurons and synapses (2015). Both authors (as is too often the case in the English-speaking world) take the concept of semiotics very literally and focus only on signs, seemingly assuming that the discipline ended with its founding figures (despite occasional nods to Roland Barthes). Both authors also seem to (wilfully?) ignore that structuralism ever existed, while at the same time trying very hard to propose new formalist systems, while simultaneously flirting with neuroscience in ways that are borderline reductionist.

Some of their conceptual contributions to Aroni's book, then, are questionable (like the concept of 'ludic sign'), while others are more interesting, but could have possibly been explored based on a more solid semiotic foundation – such as the idea of 'anticipatory play,' which could have been easily anchored in a Greimasian or Echeian approach to narrative.

On the other hand, when engaging with semiotics proper, Aroni readily identifies relevant angles, especially D'Armenio's highlighting of movement in interaction (2014) and, more importantly, Eco's work on semiotics and architecture. The book is, in fact, mostly grounded on using Eco as a mediator between a Peircean use of the

concept of 'iconicity' and a Barthesian use of 'connotation' and 'denotation.' Aroni, in particular, advances the idea that, in video games, the denotative meaning of architectural signs concerns their role in gameplay – that is, the affordances they offer players from a ludic perspective – while the connotative meaning focuses on the narrative layer of the games. While this concept seems to echo formulations originated in Game Studies – such as the idea of a rule-based 'core' of games wrapped in an outer, narrative-based 'shell' (Mayra 2008) – here, semiotics is used to offer more depth and nuance in the relation of these two sides of the medium.

This is, of course, one possible semiotic approach among many, and it could have been interesting to see how other approaches to the semiotics of architecture (maybe based on Lotman or Lagopoulos' work on architectural space) could have been applied to digital games. However, as I mentioned above, this is not what this book is about.

So, what is this book about? In my opinion, Aroni's work offers two main contributions. The first one is a continuous dialogue between semiotics and architecture. The book engages with a vast body of work on architecture, spanning from Vitruvius to contemporary research, and addresses topics ranging from the communicative characteristics of architecture to the built environment to architects' capacity to formulate visionary proposals capable of reshaping imagination. Aroni also repeatedly draws parallels between traditional architecture and the digital architecture of game worlds, highlighting both their similarities and their differences.

The second contribution comes from the chapters 3-5: a systematic exploration of different ways to represent architecture in video games – and their semiotic and ludic entailments. In fact, Aroni's most interesting theoretical contribution is probably his articulation of three different categories (I would maybe even call them discursive strategies) used by games to relate to architectural space. The first is a 'representative' one, in which the game attempts, to some extent, to reproduce all or part of an architectural environment in digital form. The second is 'fantastic,' indicating the creation of a fictional narrative world in which most architectural elements remain clearly inspired by real-world ones. Finally, the third category is 'visionary,' referring to games that use architecture in unconventional ways, making the most of the affordances of the medium, and representing architecture in a way that can be radically different from the real world. This distinction, while not strongly grounded in theory, resonates with Eco's work on possible worlds (1979) and offers a way to examine the different things that games (or game designers) can do and say with architectural elements. This is the basis for the analytic work on three different case studies, the most interesting part of the book.

The first case focuses on the 'representative' strategy and, in particular, on *Assassins' Creed 2* and the attempt of the game to recreate Florence (and other cities) – an

attempt that is often more rhetorical than factual, but that participates in the *raison d'être* of the game. In this case, Aroni deploys the History-Game Relations Framework (Idone Cassone and Thibault 2016) to support his analysis.

Secondly, he focuses on *Final Fantasy XV* and on the 'fantastic' category. This case study examines how a fantasy world is constructed, drawing on ludic necessities and representations of real-world architectural elements that support world-building. The analysis, in this case, resembles a closed reading, where different fictional cities are described and linked to real-world elements.

The third case study, an example of the 'visionary' category, is *NaissanceE*, a plotless indie game whose gameplay requires players to navigate intricate, largely impossible virtual architectural landscapes. Here, Aroni conducts a more rigorous comparative study of the game's space and what he calls the 'visionary tradition' in architecture.

The case studies are enjoyable and insightful and do a good job of supporting the book's main claim, that "architecture constitutes a central signifier in digital games" (p. 141). Nevertheless, when we reach the conclusions, they seem to limit themselves to reiterating the book's premises. While the case studies help us better understand the games analysed, they do not support the refinement or development of the theoretical argument.

Overall, then, the book leaves us wanting more. Aroni was so preoccupied in arguing about the similarity between architecture in the real world and in video games – and hence of the relevance of the first to understand the latter – that it left some of the differences underexplored. While he programmatically focuses on architecture alone and not on spatiality more generally, Aroni also inadvertently dismisses a potentially revolutionary aspect: that all space in video games is always architectural. There is no nature in virtual worlds: everything is planned, constructed, and built. In this case, how is a digital tree different from a digital house? The semiotics of architecture in video games, then, could extend beyond traditional architecture and focus on a digital space in which the demiurgic power of their virtual architects is nearly infinite. What would then be the scope of this virtual architecture? And how could semiotics describe its novel way to construct meaning?

This line of inquiry, however, might mean getting too far ahead of ourselves. Despite numerous contributions, ludosemiotics remains far from mainstream. Much work is still needed to establish it as a subfield of semiotics, and as an element that other approaches to digital games – including architectural ones – would find valid and useful. I believe that, in this sense, the value of this book is clearest: it is a significant step forward in establishing the credibility of ludosemiotic approaches and an open invitation to architecture researchers to join the conversation.

References

- Cassone, Vincenzo Idone and Mattia Thibault 2016. The HGR framework: A semiotic approach to the representation of history in digital games. *gamevironments* (5): 49–49.
- D'Armenio, Enzo 2014. *Mondi paralleli. Ripensare l'interattività nei videogiochi*. Milano: Unicopli.
- Eco, Umberto 1979. *The role of the reader: Explorations in the semiotics of texts*. Bloomington: Indiana University Press.
- Mäyrä, Frans 2008. *An introduction to game studies*. London: Sage.
- Myers, David 2003. *The Nature of Computer Games: Play As Semiosis (Series: Digital Formations, Volume 16)*. Peter Lang Publishing.
- Thibault, Mattia 2020. *Ludosemiotica: l gioco tra segni, testi, pratiche e discorsi*. Roma: Aracne.
- Upton, Brian 2015. *The aesthetic of play*. Cambridge, MA: MIT Press.

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