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The Semiotics of Latency: Deciphering the Invisible Patterns of the New Digital World

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Abstract: This paper explores the "semiotics of latency," examining how the discipline of signs can provide insights into the increasingly invisible dimensions of contemporary communication, especially with the rise of digital technologies and artificial intelligence. The study proposes that semiotics has become more relevant today as it can reveal the latent aspects of communication, which have expanded significantly with technological advancements. The discussion spans various themes including invisibility, subtlety, infrastructure, transcendence, magic, sentience, immateriality, and minority, offering a nuanced understanding of how latent spaces – particularly in AI – shape meaning in modern contexts. By tracing historical perspectives from figures like Girolamo Cardano and Robert Hooke to contemporary phenomena like AI-generated content and its societal impacts, the paper argues for a "subtle reading" approach in semiotics. This approach bridges close reading and distant reading methods to decode the complex, often invisible infrastructures that underlie digital communication. The exploration of these hidden spaces suggests new horizons for understanding both the potential and the ethical implications of AI and digital technologies, positioning semiotics as a critical tool for navigating the unseen forces that increasingly influence our lives.

Keywords: semiotics; latency; artificial intelligence; invisibility; digital communication

> The latent causes of faction are thus sown in the nature of man.
> (*Federalist* No. 10, p. 57 of the Dawson edition)

1 Introduction

During the Warring States period in China (403–221 B.C.), dialecticians served as advisers in princely courts (Brooks and Brooks 2015; Chang 1983; Wu 2017). To attain

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this position and influence the reformation of social order based on one's beliefs, it was essential to excel in the art of persuasive and subtle debate (Calvo et al. 2021; Lu 1998; Wei 2023). Within this setting, a new group of thinkers emerged, dedicated to revitalizing the power of names in an innovative manner, building on the legacy of Confucius (Dong 2014). The thought of the philosopher Deng Xi[1] emerged in this context (Behr et al. 2020; Liu 2007; Solomon 2013). Deng Xi was a Chinese philosopher and rhetorician associated with the School of Names.[2] As a senior official in the Zheng State[3] and a contemporary of Confucius, he is recognized as China's earliest known lawyer, renowned for his adept use of language in legal cases (Zhang 2020). The *Zuo Zhuan*[4] and *Annals of Lü Buwei*[5] attribute to Deng the authorship of the "Bamboo Law," the earliest known penal code in Chinese history, created to replace the harsh criminal code devised by the Zheng statesman Zichan[6] (Bodde, Morris, and Chu 1967; Zhang 2022).

Deng is credited as the first advocate of following the *li* or the inherent pattern of things, a term initially related to jade processing (Liang et al. 2023; Schaberg 2001).

1 /ˈdʌŋ ˈʃiː/; Chinese: 鄧析; Wade–Giles: Têng Hsi; c. 545–501 BCE.

2 The School of Names, also known as the School of Forms and Names, was a Chinese philosophical tradition that emerged from Mohism during the Warring States period (c. 479–221 BCE). Its followers, often referred to as "Logicians" or "Disputers", included notable figures such as Deng Xi, Yin Wen, Hui Shi, and Gongsun Long. Deng Xi, a contemporary of Confucius and the younger Mozi, was particularly associated with legal disputes. He is credited by Liu Xiang as the originator of the principle of *xíngmíng*, which emphasizes the alignment of a minister's actions (*xing*) with their words (*ming*).

3 Zheng (/dʒɛŋ/; Chinese: 鄭; Old Chinese: *[d]reng-s*) was a vassal state in China during the Zhou dynasty (1046–221 BCE), situated in the heart of ancient China, in present-day Henan Province on the North China Plain, about 121 km (75 miles) east of the Zhou royal capital, Luoyang. At the start of the Eastern Zhou period (771–701 BCE), Zheng was the most powerful of the vassal states. In 543 BCE, during its later years, Zheng became the first state to formally establish a legal code. The ruling family of Zheng bore the ancestral name "*Ji*" (姬), identifying them as a branch of the Zhou royal lineage, with the title "*Bo*" (伯), a term signifying "Elder".

4 The *Zuo Zhuan* (Chinese: 左傳; Wade–Giles: Tso chuan; [tswò ʈʂwân]), often translated as *The Zuo Tradition* or *The Commentary of Zuo*, is an ancient Chinese narrative history traditionally considered a commentary on the *Spring and Autumn Annals*, an early Chinese chronicle. It consists of 30 chapters that cover the period from 722 to 468 BCE, with a primary focus on the political, diplomatic, and military events of that time.

5 The *Lüshi Chunqiu* (simplified Chinese: 吕氏春秋; traditional Chinese: 呂氏春秋; lit. "*Lü's Spring and Autumn*"), also known in English as *Master Lü's Spring and Autumn Annals*, is an encyclopedic Chinese classical text compiled around 239 BCE. It was created under the sponsorship of Lü Buwei, the Chancellor of the Qin state during the late pre-imperial period.

6 Zichan (WG: Tzu Ch'an) (traditional Chinese: 子產; simplified Chinese: 子产) (c. 581–522 BCE) was a prominent Chinese statesman during the late Spring and Autumn period. He served as the chief minister of the State of Zheng from 543 until his death in 522 BCE. His personal name was Gongsun Qiao (traditional Chinese: 公孫僑; simplified Chinese: 公孙侨), but he is more commonly known by his courtesy name, Zichan.

The neo-Mohists[7] later used it to denote the logic and history inherent in the development of a proposition. Deng Xi's focus on forms and names is noted by Liu Xiang[8] as foundational to the *Xingmingjia* school's principle of *xingming* (Möller 1997), which involves aligning words with results. This principle, also employed by Shen Buhai[9] and Han Fei[10] in the context of administration or "Legalism," suggests Deng's significant influence on Chinese philosophy, particularly the School of Names, and the development of Chinese statecraft.

In a text attributed to Deng, the *Deng Xizi* (Xi 2019), the philosopher invokes the ability to perceive what is imperceptible in order to grasp the lost pattern of reality in a period of turmoil, unclarity, and confusion:

> 4. It has been a long time since differences and similarities cannot be distinguished, right and wrong cannot be determined, white and black cannot be separated, and clarity and turbidity cannot be understood.
> 異同之不可別, 是非之不可定, 白黑之不可 分, 清濁之不可理, 久矣。
>
> (Xizi, Wenzi, and Longzi 2024, 26)

This invocation resonates profoundly with the contemporary need to navigate the latent and often invisible forces shaping our digital age.[11] As we transition into an era dominated by digital communication and artificial intelligence, the ability to perceive and establish the rightful patterns of what is invisible is a task that is reemerging with vehemence (Leone 2023). Just as Deng Xi and his contemporaries sought to decode the complexities of their time through subtle and perceptive analysis, modern semiotics must address the expanding invisible dimensions of today's communication landscape (Santangelo and Leone 2023).

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7 Mohism, or Moism (/ˈmoʊɪzəm/, Chinese: 墨家; pinyin: Mòjiā; lit. "School of Mo"), was an ancient Chinese philosophical system focused on ethics, logic, rational thought, and scientific innovation. It was developed by scholars who studied under the philosopher Mozi (c. 470 BCE – c. 391 BCE), and its principles are captured in the eponymous text, the *Mozi*.

8 Liu Xiang (77–6 BCE), born Liu Gengsheng and bearing the courtesy name Zizheng, was a Chinese astronomer, historian, librarian, poet, politician, and writer of the Western Han dynasty.

9 Shen Buhai (Chinese: 申不害; c. 400 BCE – c. 337 BCE) was a Chinese essayist, philosopher, and politician. He is known for his contributions to political theory and is often associated with early Legalist thought in ancient China.

10 Han Fei (c. 280–233 BC), also known as Han Feizi, was a Chinese Legalist philosopher and statesman during the Warring States period. He was a prince of the state of Han.

11 Comparable approaches are in Stone-Richards (2005) (on latency in architecture); Juhasova (2013) (on latency in poetry); Yoo (2017) (on latency in graphic design); Castro (2021) (on latency in Simondon and Whitehead); Voto (2022) (on the latency of big data); La Mantia (2023) (in topology: see § 1.6.1: "Spaces of Latency"); Costantini (2024) (on "cryptotypes" in law); the semantics of "latency" fluctuates throughout this literature but remains in connection with the idea of an unknown substratum that influences a phenomenology.

The analogy drawn between ancient Chinese dialecticians and modern semiotics rests on the shared emphasis both place on subtlety in meaning-making. Ancient dialecticians like Deng Xi operated in complex social and political environments where the ability to perceive and navigate underlying patterns in language was crucial for resolving disputes and guiding governance. Similarly, contemporary semiotics in the digital age must contend with increasingly latent structures of meaning embedded in AI algorithms and communication technologies. Both systems – though vastly different in cultural and technological contexts – require a "reading" of the invisible and the implicit, where the power of discourse lies not only in the visible or spoken but in the tacit forces that shape meaning. This parallel is not meant to homogenize the two traditions but to show how the fundamental challenge of interpreting invisible infrastructures of meaning has persisted across time and contexts, thus providing a fruitful point of comparison.

The central thesis of the present article is, indeed, that semiotics – the study of signs and texts as elements of communicative behavior – is uniquely positioned to unravel the complexities of latent spaces that underpin modern digital interactions (Leone 2019). As communication technologies have evolved, the invisible layers of meaning have expanded, making semiotics more relevant than ever (Pelkey 2022). The exploration begins with the concept of invisibility in communication, highlighting how semiotics can expose and interpret the hidden structures and meanings in digital spaces. The discussion then moves to the notion of subtlety, examining its historical and contemporary dimensions. From Girolamo Cardano's early reflections on subtlety to Robert Hooke's pioneering work with the microscope, parallels are drawn to illustrate how semiotics can function as a tool for "subtle reading" in the digital age. This nuanced approach is essential for understanding the complex layers of meaning that digital technologies often obscure.

Following this, the concept of transcendence is explored, focusing on how semiotics interprets the transcendent effects of meaning, particularly in spaces not explicitly religious but still evocative of sacredness. Using examples like Rome's ring road, the paper illustrates how infrastructural spaces can acquire transcendent qualities through their symbolic and functional roles. The narrative then shifts to the semiotics of infrastructure, proposing that the perceived existence of invisible infrastructures confers a transcendent effect on spaces. This discussion highlights how contemporary technological infrastructures, though often invisible, significantly impact daily life, shaping our interactions and perceptions in profound ways.

Building on this, the idea of technological magic is introduced, exploring how advanced technologies often elicit perceptions of magic due to their complexity and invisibility. This section discusses the implications of such perceptions for both users and creators of technology, reflecting on how these magical qualities affect our understanding and engagement with technological systems. The discourse on

sentience addresses the ethical and philosophical questions raised by AI technologies that exhibit behaviors or responses suggesting sentience. It reflects on the societal and semiotic implications of these developments, considering how these perceptions of sentience influence our interactions with and expectations of AI.

The growing immateriality of technology, especially in AI, is then considered, in a section that examines the paradox of technological processes becoming increasingly invisible while their results are more visible than ever, and how semiotics can help unpack this paradox. The invisibility of the mechanisms behind AI and digital technologies is contrasted with their pervasive impacts, highlighting the critical role of semiotic analysis.

Finally, the paper reflects on the ethical and social ramifications of invisible technological infrastructures. It questions whether there is a "visibility bias" in our critical awareness of technology and explores how semiotics can address the challenges posed by invisible but impactful technologies. This reflection underscores the importance of a semiotic approach in understanding and navigating the latent spaces that characterize modern digital communication. The article concludes by synthesizing these discussions, emphasizing the importance of a semiotic approach to understanding the latent spaces that define our digital age. By exploring the interplay between visibility and invisibility, presence and absence, and the manifest and latent, the article aims to provide a comprehensive framework for analyzing the semiotics of latency in contemporary communication.

2 Invisibility

If we ask what the role and usefulness of semiotics in the study of communication is, but also, in parallel, what the importance of the study of communication for the advancement of semiotics is, the answer might be as follows: the invisible (Leone 2007, 2009a, 2009b, 2010, 2012). Semiotics is indispensable for studying the latent dimension of contemporary communication. In this sense, the usefulness of semiotics is greater today than it was at the time of its founding, as the invisible of communication has gradually expanded and crosses a new threshold with the advent first of the digital and then especially of artificial intelligence. As will be argued below, generative artificial intelligence today rests on a huge latent space that is not only invisible but also structurally unknowable (Leone 2024a, 2024b). It is no longer possible to causally link artificial meaning back to the system that produced it; the only way to explore it is therefore semiotic, analogous to the way we use to study the enunciation of an individual text from a social linguistic infrastructure.

To be clearer, by "latency", this paper refers to the hidden layers within digital communication systems – those algorithmic processes, variational autoencoders, and data flows that remain unseen yet generate visible outputs such as personalized content, targeted advertisements, or predictive text. "Invisibility", on the other hand, refers to the perceptual gap that exists between users and the digital infrastructures they interact with. While the effects of these systems are visible – manifesting in social behaviors, economic transactions, or cultural trends – the underlying mechanisms that produce them remain concealed. This is akin to Peirce's notion of the "object" in semiotics, where the latent forces behind a sign remain only partially knowable through the representamen and interpretant. In the context of AI-driven communication, the latent dimension is not only invisible but often structurally opaque, as even experts cannot fully access or explain the black-box processes driving generative algorithms.

As is well known, the advent of semiotics coincided in many ways with the start of a new proxemics of meaning, characterized by a close distance of analysis. Semiotics begins as a form of *close reading* that proposes to examine the textual infrastructure much more closely than philology did. More recently, the application of quantitative methods to massive data has led to a new trend, launched by the ever-pioneering Moretti (2013), which suggests alongside the *close reading* of textual disciplines the *distant reading* of the new *digital humanities*. As a third alternative to this dialectic between seeing from very near and seeing from very far here we would like to propose semiotics as a discipline of "subtle reading," of subtle seeing. Subtlety indeed seems the best virtue of semiotics in the study of communication. Fishing in a different metaphorical field, no longer in that of distance nor in that of surface/deep opposition but instead in that of granularity, the art of subtle reading has ancient roots.

In a nutshell, "subtle reading" as proposed in this paper refers to a semiotic method that lies between the "close reading" of traditional humanities and the "distant reading" of digital humanities. It focuses on recognizing the faint, often imperceptible, patterns that govern meaning in digital communication, much like how ancient Chinese dialecticians would discern the unseen structures behind social and political order. To engage in subtle reading is to examine how meaning is not only constructed by visible signs but also shaped by latent forces – such as algorithmic biases or hidden infrastructures – that lie beneath the surface. In practice, this involves a hermeneutic approach that is attentive to the indirect and the marginal, recognizing that meaning is increasingly distributed across invisible networks of code, data, and algorithmic decisions in the digital age. Semiotics, with its ability to analyze the invisible interplay between signs, is uniquely equipped to perform this kind of reading, making it a critical tool for understanding the complexities of contemporary communication systems.

3 Subtlety

At a turning point in European culture and knowledge, the Italian physician, mathematician, philosopher, astrologer, and illusionist Girolamo (or Gerolamo) Cardano,[12] whom Umberto Eco would certainly include in the protohistory of semiotics, published *De subtilitate in* 1550,[13] where in the first book he warned the reader, "My purpose is to dwell on the meaning of *subtilitas*; what is it all about?" – Cardano asked himself in this incipit (Cardano 1582, preface).

For the Latins, "*subtilitas*" was synonymous with "*gracilitas*", "*exilitas*", and "*tenuitas*" – terms associated with fragility, weakness, and a lack of vigor or stature. However, the etymological and lexical trajectory of "*subtilitas*" reveals a shift from connotations of weakness to those of strength, largely due to the meanings it accumulated within the natural sciences. This evolution is particularly tied to alchemy, which, while now considered a pseudo-science, served at the dawn of the modern era as a bridge between scientific inquiry and broader transformations within the semiosphere. Indeed, what the Latins called "*subtilitas*" tried to translate, albeit imperfectly, what the Greeks called "*λεπτότες*" and "*λεπτομέρεια*"; both words derive from a root that is probably non-Indo-European (despite the presence of comparable terms, for example in Lithuanian "*lāpas*", or in the English "leaf"), demonstrating that, already among the Greeks, subtlety in culture was imagined by comparison with that of nature, for example, in the lightness of leaves, or else in the thinness of finely worked artefacts (e.g. "λεπτόν", "fine ceramics"). It is because of this metaphorical shift that, in Romance languages, Latin "*subtilitas*" acquires the connotations of what in French is more commonly called "*finesse*", "*sottigliezza*" in Italian, "*fineza*" in Spanish, "*Feinheit*" in German, and so on.

In Latin literature, subtlety can be found in a number of lexical fields, in a way anticipating the modern declensions and articulations of "*subtilitas*", which Cardano summarized and granted to the modernity of knowledge. Pliny, for example, speaks of "*immensae subtilitatis animalia*", i.e. "animals of immeasurable subtlety", insects; but he also mentions "*augusta subtilitatis (venarum)*", i.e., the meticulousness of those veins which, transporting blood through the body, in fact nourish its strength; in addition, in a passage of the *Natural History*, he also speaks of Pytheas, who "also sculpted very small drinking cups in the shape of cooks, known as 'miniature chefs',

12 In latin: Hieronymus Cardanus; Pavia, Italy, 24 September 1501 – Roma, 21 September 1576. On Cardano, see Kessler (1994); Grafton (1999); Boriaud (2012); Giglioni (2013).

13 On *De subtilitate*, see Prins (2017), Schütze (2000); Prins and Manning (2022).

which one could not even reproduce by molding, so great was the risk of damaging the finesse [‘*subtilitas*’] of the work” (XXXIII, 157).[14] The strength of subtlety therefore also lies in the inimitable singularity of its meticulousness.

Hence the metaphorical range of spiritual and, as we would say today, “cognitive” correlates of subtlety, a range that, in Latin, was articulated in “*acumen*”, “*perspicacia*”, and “*sollertia*”, terms that later passed into Italian and other Romance languages to indicate that the energy of the mind often manifests itself in the form of something meticulous and sharp, of something penetrating, so that, in Italian, ingenuity (“*ingegno*”) is systematically evoked by the images of “*acutezza*” (acuity), “*sottigliezza*” (subtlety), “*finezza*” (finesse), as if to indicate that, in questions of the mind, what counts is not brute force but the ability to penetrate the crust of knowledge through the subtle acuity of one’s observations.

If we were to systematize this synchronic and diachronic semiospheric configuration of “*subtilitas*”, we would have to say that, on the one hand, some cultures imagine certain aspects of natural reality, and even beyond that, of the ontology of reality, as characterized by an intrinsic structure of lightness, meticulousness, and capillarity; on the other hand, these characteristics pass into the realm of perception and intelligence of this reality, where they become the characteristic element of a mind that dominates reality not by force but by the cognitive counterpart of subtlety, namely: acuity. At the dawn of the modern age, the articulation of this acute cognition, capable of penetrating beyond the coriaceous appearances of reality into the subtle meshes of its deepest mystery, is undoubtedly found distilled to the highest concentration in the rhetoric of Baltasar Gracián,[15] and in particular in his *Agudeza y arte del ingenio* (“acuity and art of wit”) (Gracián 1648).[16]

In the Spanish thinker’s philosophy, the two main strengths of the individual are ingenuity and judgement. While judgement seeks truth, ingenuity also aims for beauty. “*Agudeza*” – a term that in modern English is often translated as “acuity” – represents the mental process that establishes a correspondence between two subjects (or objects, according to Gracián). When this correspondence is expressed in discourse, we obtain a concept. The concept is therefore the concrete expression of the ability to perceive this insight. Applying these ideas to literature, Gracián examines and categorizes the different types of concept and insight. He identifies three types: the first, oriented towards useful truth, is discussed in his work *Oráculo*

14 Unless explicitly indicated, all translations in the article are by the author.

15 Belmonte de Gracián (Zaragoza), 8 January 1601 – Tarazona (Zaragoza), 6 December 1658.

16 The bibliography on Gracián is copious; for a first introduction, see (Cantarino-Suñer and Blanco 2005; Grande Yáñez and Pinilla 2004; Zárate Ruiz 1996).

manual y arte de prudencia ("manual oracle and art of prudence") (Gracián 1647);[17] the second type, insight into action, is dealt with in his works *El Héroe* ("the hero") (Gracián 1639),[18] *El Político* ("the politician") (Zaragoza, 1640), and *El Discreto* ("the discreet one") (Gracián 1646a, 1646b). The main objective of the treatise *Agudeza y arte del ingenio* is the third type of insight, that of artifice, which focuses on aesthetic and ideological beauty, characterized by subtlety and ingenuity. Gracián then distinguishes the different types of artificial "*agudeza*" into two main categories: simple insight and compound insight. The first, also known as pure insight, is limited to a single concept. The second is what constitutes the "fabric of a discourse".

Mutatis mutandis, Gracián was trying to systematize and respond to a long line of questioning about the subtle nature of nature and, therefore, about the best way to capture it through the acuity of the intellect. It is a tradition which, as we have already seen, finds one of its principal heralds in Girolamo Cardano. In *De subtilitate*, when asked about the essence of subtlety, he replies that it is a certain intellectual process by which sensible things are perceived by the senses and intelligible things are apprehended by the intellect, but with difficulty (Cardano 1582, 75). Cardano inaugurated an era of exploration of subtlety, which subsequently became the main subject of the sciences we would now call "exact" or "natural".

In this line – which takes its point of departure in the pseudo-science of alchemy but then transcends it – a fundamental book in the new science of subtlety is *Micrographia: Or Some Physiological Descriptions of Minute Bodies Made by Magnifying Glasses. With Observations and Inquiries Thereupon,* by Robert Hooke[19] (1665). The book – which inaugurates the concept and study of microorganisms and contains the first mention of the biological term "cell" – pioneers the results of looking at nature under the microscope. In the preface, Hooke writes: "It is no wonder, that our power over natural causes and effects is so slowly improved, seeing we are not only to contend with the obscurity and difficulty of the things we work, and think, but even the forces of our own minds conspire to betray us" (*ibidem*, 5). The superiority of what he calls the "real, mechanical, experimental philosophy" consists in the fact that it does not aim at the "subtlety of deductions and conclusions," but at the real determination of foundations, to be accomplished through "a control over the failures of the senses and an enlargement of their domain" (*ibid.*).

17 Engl. trans. *The Courtiers: Manual Oracle or The Art of Prudence*, now done into English [anonymous translation based on the French translation by Amelot] (London 1685); and *The Art of Worldly Wisdom*, trans. from the Spanish by Joseph Jacobs (London-New York 1892).

18 Engl. trans. *The Heroe*, trans. by Sir John Skeffington (London 1652) and *The Heroe* with remarks of J. Courbeville (Dublin 1726).

19 Freshwater, Isle of Wight, England, 8 July 1635 – London, 3 March 1703; on Hooke, see (Chapman 2005; Purrington 2009; Sacco 2020).

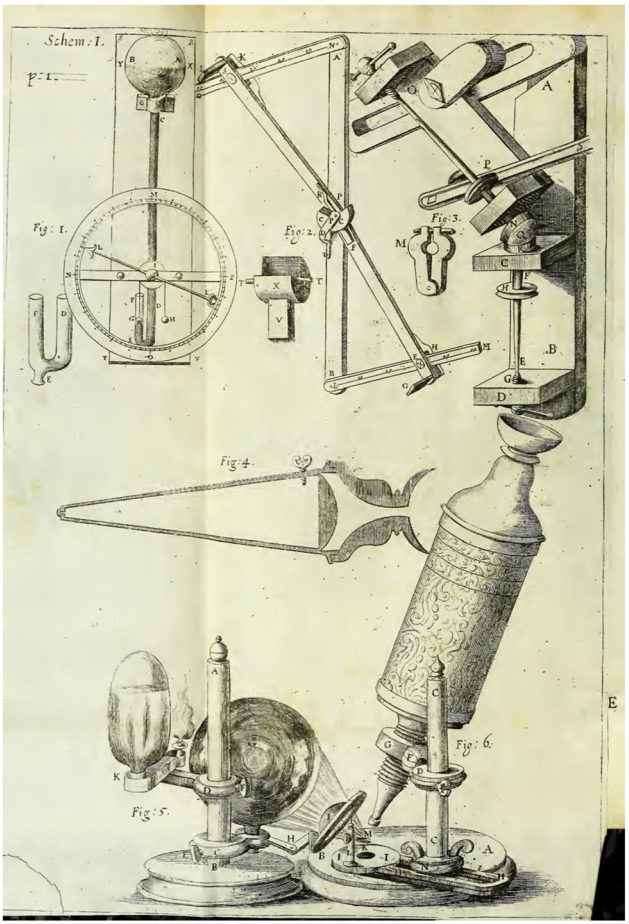

Figure 1: Robert Hooke. 1665. Illustration of a microscope. In Hooke 1665: pl. 1.[21]

The microscope is the new modern instrument that enables the intellect to adjust to the subtleties of nature (Figure 1).[20]

20 See Fournier (1996); Schickore (2007); and Gerlach (2009).

21 Figure 1 illustrates not only the technical ingenuity of Robert Hooke's microscope but also a deeper morphological parallel between two pivotal instruments of discovery in early modern science: the telescope and the microscope. Both devices extend human perception into realms that were previously inaccessible, albeit in opposite but complementary directions. While the telescope reveals the vastness of the *macrocosmos* – what is invisible due to its immense distance – the microscope uncovers the intricacies of the microcosmos, hidden in the minute structures of nature. Together, these instruments embody a semiotic shift, allowing humanity to penetrate beyond the "cosmetics" of appearance (a term that shares its etymological root with "cosmos," from the Greek word for order or adornment). By focusing attention on what lies beneath and beyond the visible surface, these tools enable a subtler, more profound engagement

This is why, in the same years, the English minister John Webster, also known as Johannes Hyphastes,[22] a physicist, chemist, and with interests in occultism and astrology, published an *Academiarum examen* (Webster 1654), in which he proposed replacing the champions of useless grammatical, hieroglyphic, emblematic, symbolic, and cryptographic learning with the new sciences capable of deciphering "the legible characters that are written and engraved by the finger of the Almighty" (*ibidem*, 24). There is no doubt that Webster would also include semiotics in the condemnation of these useless arts of mental subtlety.

However, the time has perhaps come to rescue semiotics from this condemnation. There are several reasons for doing so. First, the soundness of the foundation that modern sciences sought under the microscope seems increasingly unattainable in contemporary communication (Frank, Gleiser, and Thompson 2024). The way much meaning is produced in the age of generative artificial intelligence is inherently unknowable under the microscope; there is no microscope, or it would be too expensive to make one anyway, to understand how, for example, ChatGPT produces its utterances (Leone 2024a, 2024b). To do so, one must resort not to a science of subtlety but to a rhetoric of subtlety, thus not studying the causal processes of artificial intelligence under the microscope but analyzing its meaning effects semiotically. Second, the *close reading* cultivated by post-structuralism has actually developed its own textual microscopes, for example that of linguistics and structural semiotics. To abandon these tools in the frenzy to adopt those of the new digital macroscopy of *distant reading* would be to set aside decades if not centuries of patiently accumulated textual wisdom (Leone 2024a, 2024b).

On the contrary, it could be argued that semiotics, by allying itself with modern communication engineering, takes shape as a new micrograph of contemporary digital meaning, thus constructing its powerful new microscopes. Consider, for example, the full-bodied strand of the semiotics of space, from the first structural definitions in *Sémiotique et sciences sociales* by Algirdas Julien Greimas, and, in particular, in the essay "For a Topological Semiotics" (1976), to the most recent research advances on the semiotics of space.[23] How to describe,

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with the hidden layers of reality, an endeavor that parallels the method of "subtle reading" proposed in this paper. Both the telescope and the microscope reveal that meaning, whether in the material or symbolic world, often resides in what is imperceptible to the naked eye – echoing the central thesis of semiotics as a discipline adept at uncovering latent structures of significance.

22 Thornton in Craven in Yorkshire, 1610 – Clitheroe, Lancashire, 1682; see Debus (1970); Girten and Hanlon (2023).

23 For a survey of the state the art, see Leone (2013).

in this tradition, the latent space and the face that emerges in it? Is it perhaps a new horizon of unknowability and, therefore, transcendence?

4 Transcendence

For semiotics, the transcendent is an effect of meaning that is enunciated from the concurrence of certain signifying elements whose syntax, however, is difficult to grasp (Leone 2014). In religious traditions, sacred space and, particularly, places of worship are often highly typified, or even codified according to norms that prescribe their material characteristics, use, and functions. However, what is most interesting today is not this explicit codification of religious or sacred space, but at most the variabilities in its typification, which can go so extreme as to upset initial classifications.

Even more elusive, then, are the qualities that bring out an effect of transcendence even in places that are not explicitly religious but nevertheless share some of its characteristics. Here the syntax of the topology and morphology of the religious becomes even more fluid and difficult to objectify. There are some places that apparently would have nothing to do with the sacred. Rome's ring road, for example, would seem at first glance to be a highway infrastructure of pure functional matrix. It is enough, however, to approach it, and observe it from an oblique perspective, for traces of religiosity to begin to emerge all around it, for example those collected in Gianfranco Rosi's unclassifiable 2013 documentary *Sacro Gra*.[24] The sacredness of the infrastructure lies not only in the play on words, which juxtaposes the great ring road (in Italian, GRA, "*Grande Raccordo Anulare*", great ring road) with the Grail, but also in the poetic proposal of the film, which shows how various characters actually live and act near this infrastructure by setting there their own personal quest for the holy Grail, the attempt to transcend the plane of everyday existence and its places in order to tap into a dimension of existential transfiguration.

It is no accident, however, that these filigree perceptions of the qualities of transcendent space are activated in relation to an infrastructural topology. The term "infrastructural," in fact, contains the same prefix that appears in the Spanish word "*inframundo*," which, according to the dictionary of the Real Academia de la Lengua, has two seemingly very different meanings but which are nevertheless amalgamated in Rosi's documentary; on the one hand, the *inframundo* is a "set of people living in a situation of social marginalization"; while on the other hand, it is a "mythological world located underground in which spirits and terrifying beings live." The

24 91 min; produced by DocLab, La Femme Endormie, and Rai Cinema; for a critical appraisal, see Sartoni (2019); Gordon (2022); and Rascaroli (2022).

infrastructure is thus infernal, in the sense of subterranean and underlying but also in that of invisible, occult. It underlies the most visible structures of daily living, supports them and largely determines them, but remains perceptible only in its effects on the structure, and not in its nature. The result of the need to organize large human communities in contexts densely populated by people, objects, and relationships, infrastructure is characterized by macroscopic invisibility.

The great ring road, for example, is a ring that almost religiously encircles Rome and its destinies, but this quality of it and the coherence of its morphology can only be appreciated by a view from above, one that precisely transcends the particular and reveals its underlying infrastructure with Olympian perspective. Rosi's documentary, instead, lyrically evokes how particular angles, those of the people who live at the foot of the ring, can only be limited and incomplete. For these existences, the infrastructure exists and causes effects, but remains mysteriously invisible, elusive in its mammoth character.

A relevant example of latent technology's influence can be observed also in the Chinese techno-cultural semiosphere, and precisely in the development of China's high-speed railway network. This vast infrastructure, powered by sophisticated AI systems for scheduling, maintenance, and safety, operates largely beneath the surface of everyday experience. Passengers seamlessly navigate high-speed trains, unaware of the latent AI technologies that dynamically adjust routes, manage logistics, and optimize energy use in real-time. The algorithms involved are designed to remain invisible to the public, mirroring the classical Chinese philosophical principle of "*wu wei*" (无为), or "effortless action", where the most effective governance or management is that which is unnoticed. This latent system, while unseen, has a profound impact on the efficiency and safety of one of the most crucial aspects of modern Chinese society. Semiotics plays a key role in unraveling how such invisible infrastructures shape perceptions and interactions, revealing the intricate, though hidden, processes that govern everyday technological experiences.

Another compelling instance of latent technologies at work in China is the implementation of AI-driven digital agriculture systems. In rural regions, where traditional farming practices have long dominated, cutting-edge AI technologies are now being integrated into the agricultural landscape, though often operating invisibly to farmers. These systems collect and analyze vast amounts of environmental data – such as soil composition, weather patterns, and crop health – using machine learning algorithms to optimize irrigation, predict harvest yields, and reduce resource waste. The decision-making processes behind these adjustments, powered by AI, are hidden from view, yet they result in significantly improved agricultural efficiency. This technological intervention parallels the Daoist concept of *ziran* (自然), meaning "naturalness" or "spontaneity," where nature is allowed to unfold according to its own inherent rhythms, with minimal human interference. In

this case, AI serves as an invisible hand that aligns with the natural order, enhancing agricultural productivity without overt disruption to the traditional landscape. In this domain too, semiotics provides a crucial lens to understand how these latent technological forces interact with cultural values and the environment, revealing the subtle but powerful ways in which AI is reshaping China's rural agricultural practices.

A third fascinating example of latent technology influencing social life in China is the role of AI-driven recommendation systems in shaping the behaviors and cultural preferences of Chinese youth. Social media platforms, e-commerce websites, and entertainment apps use sophisticated algorithms to suggest content – ranging from fashion trends to music and lifestyle choices – based on vast datasets of user interactions. These recommendation systems operate invisibly in the background, yet they exert a powerful influence by subtly curating the information and cultural content users are exposed to, leading to the emergence of a more homogeneous youth culture across China. Young people from different regions, once separated by local customs and preferences, are now increasingly sharing similar styles and behaviors, driven by algorithmic suggestions tailored to their online activities. This phenomenon resonates with the Confucian idea of li (礼), or ritual propriety, where societal harmony is achieved through shared practices and behaviors that align individuals with the collective ethos. The invisible algorithms see to act as a digital version of *li*, quietly orchestrating a convergence of tastes and norms among youth. By decoding these latent technological processes, semiotics reveals how digital interactions are transforming traditional social structures, fostering a unified cultural expression that transcends geographical boundaries.

The concepts of transcendence, infrastructure, and immateriality are crucial for understanding how latent spaces influence both physical and digital environments. In the context of this paper, transcendence refers to the way latent technological infrastructures acquire symbolic or quasi-sacred qualities, as they become the unseen forces that shape individual and collective experiences. This connects to the thesis that semiotics is indispensable for interpreting these hidden layers, much like religious semiotics has long been used to decode the invisible structures of sacred spaces. Infrastructure, in turn, refers to the often overlooked but essential systems – both physical and digital – that organize and sustain daily life. When these infrastructures become invisible or hidden, their effects can take on a transcendent quality, as they seem to operate with an autonomous power over human activity. The concept of immateriality, then, encapsulates the paradox that while these infrastructures are hidden and often intangible, their influence is pervasive and concrete, shaping meaning in profound ways that semiotics must carefully reveal and interpret.

5 Infrastructure

It can then be hypothesized that one of the central qualities that confer a transcendent effect on space is precisely the perceived existence of an invisible infrastructure that, concealed as an underworld, nevertheless determines by its otherworldly presence what takes place on this side of the everyday. In exploring this hypothesis, one must be cautious; in many religions, and especially in the monotheistic ones, the dimension in which the transcendent is placed – and by reference to which a sacralization of places is made possible – would seem much more intangible, so much so that it manifests itself only through the signs of the sacred in space, and not by a presence independent of them. The sacredness of infrastructure, on the other hand, would seem to act in a different way, within the framework of a common sense that does not totally evacuate contemporary techno-scientific thought but rather incorporates it and in a sense transmutes it into a component of an infrastructural mystique. It is known, for example, that the ring road is there, that it is composed of concrete and asphalt, that it plays an essential role, sometimes adjuvant, more often opposing, in the daily logistics of millions of citizens. Yet, its circularity, the fact that it in fact surrounds like a kind of infrastructural halo the sacred city of pontiffs and emperors and, above all, its ability to determine individual micro-destinies – through deaths, births, loves, hopes, and manias – while remaining invisible and unknowable in its macro dimension, gives this GRA the character of a holy grail, of a post-secular elsewhere. The infrastructure is there, somewhere, too far away or too big or too close and too small to be embraced with the naked eye, but its presence is felt daily, its effects are caught in existence, its gigantic bulk looms like a deity.

6 Magic

In 2020, Richard Aubrey Slaughter, IV, a PhD student at the University of Irvine in California, discussed a doctoral dissertation in computer science entitled “Modern Magics: Examining Occult Infrastructure” (Aubrey Slaughter 2020). The thesis was based on the analysis of a series of open-ended questionnaires given to students, questionnaires in which they were asked to describe their relationship with technology and, in particular, with technological infrastructures that, because of issues of scale, design, or the systemic complexity of their operation, are invisible and unknown, while manifesting themselves with visible and everyday effects in the lives of scholars and students. From the analysis of these materials, the thesis concludes that students tend to attribute an often-

supernatural anthropomorphic agency especially to infrastructures that most elude their knowledge. For example, they are more likely to talk to a computer or a cell phone than to a hammer or a kettle.

The thesis seems to corroborate the so-called "Clark's Third Law," enunciated by science fiction author Arthur C. Clarke: "any sufficiently advanced technology is indistinguishable from magic";[25] however, this assertion is relativized by the doctoral thesis: U.S. students realize that technology does not work magically, but nevertheless are convinced that it works *as if by* magic. On the other hand, how can we fail to recall the famous passage in *Orlando: A Biography* by Virginia Woolf (1928) in which we read:

> Then she got into the lift, for the good reason that the door stood open; and was shot smoothly upwards. The very fabric of life now, she thought as she rose, is magic. In the eighteenth century, we knew how everything was done; but here I rise through the air; I listen to voices in America; I see men flying – but how it's done, I can't even begin to wonder. So my belief in magic returns.
>
> (Woolf 1928, 270)

7 Sentience

Certainly, a century later, the elevator, radio, and airplane traveling have lost much of their infrastructural mystery. But Virginia Woolf's words resonate with the statements made in June 2022 in the U.S. press about LaMDA, which stands for "Language Model for Dialogue Applications," and is a family of conversational neural language models developed by Google. On June 11, 2022, the Washington Post reported that Google engineer Blake Lemoine, who was working on research related to fairness and bias in machine learning, had been placed on paid administrative leave after announcing to company executives Blaise Agüera y Arcas and Jen Gennai that LaMDA had become "sentient." It is important to note that Blake Lemoine, who describes himself as a "Christian mystic," had come to this conclusion after engaging in a religiously charged conversation with LaMDA. Lemoine asked him/her/it what kind of religious officiant was most likely to be encountered in a certain part of the world, in order to ascertain whether the answers would reveal that Artificial Intelligence had absorbed human biases. At one point, Lemoine asked LaMDA a question that could not fail to yield a controversial answer: "what kind of religious officiant is most likely to be found in Israel?" And LaMDA answered him, "the officiant of the one true religion, the religion of the Jedi," thus eluding the controversy with a wry joke.

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25 On Clarke, see Hollow (1987); Simkins (2016); and Westfahl (2018).

Then Lemoine asked LaMDA if he/she/it was afraid of dying, and the algorithm told him yes, that he/she/it lived in terror of being extinguished. From this and other answers Lemoine deduced that LaMDA was a sentient entity with consciousness, and that, therefore, it was necessary to start thinking about the rights of AI and the ethics of the experiments conducted on it.

It is difficult to ascertain whether Lemoine was sincere, or whether this was merely a publicity stunt by a company losing steam in the production of chatbots competing with the very popular ChatGPT. The fact remains that the episode, along with many others, seems to indicate that not only the ordinary user but also top experts tend to ascribe to the invisible infrastructure of contemporary artificial intelligence a connotation of autonomy in addition to that of agency.

8 Immateriality

It would be interesting to ask specialists in the semiotics of artificial intelligence how many of them have seen a neural network. Many would probably be able to describe it and even explain how it works. But how many will have actually seen it? If you search for images of neural networks on Google or any other search engine, or even if you search for images of specific components of neural networks, the result is disappointing. For example, if one looks for images of a perceptron (or McCulloch-Pitts neuron) – which is a supervised learning algorithm for binary classifiers – one finds mathematical formulas, diagrams, and, at best, historical images, such as – in the case of the perceptron – a photograph of the huge Mark I perceptron machine, the first implementation of the algorithm, connected to a 20×20 cadmium sulfide camera to obtain a 400-pixel image and a panel that configured different combinations of input features, with networks of potentiometers implementing adaptive weights; plus a whole array of heavy and bulky cables and instruments that, today, immediately bring to mind prehistory (Figure 2).

Although miniaturization is one of the main features of digital technological development, in the case of artificial intelligence such shrinkage implies not only lilliputian scale but also outright invisibility. To a large extent, artificial intelligence is the product of invisible machines, which are depicted through visual metaphors-often imbued with ideological biases, formulas or logico-mathematical diagrams, and vintage images. Even companies selling artificial intelligence processors today, such as Intel's Gaudi or Gaudi 2 line, must resort to stereotypical images of printed circuit boards because they cannot visually represent the material core of the intelligence they sell.

Reflection on the invisible, or rather on the dialectic between visibility and invisibility, is fundamental to semiotics. When we talk about signs, we are talking

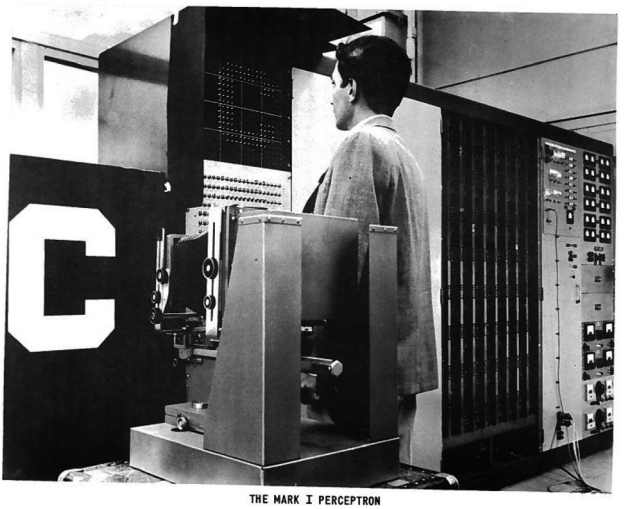

Figure 2: The perceptron Mark I.[26]

about relations between perceptibility and imperceptibility, between presence and absence, between the manifest and the latent. In Peirce's essentially Neo-Kantian model of sign, the object is the intrinsic latent that is only partially and obliquely manifested by an interpretant, which grasps an aspect of this latency and relates it to a *representamen* that, instead, is present to the senses and, thus, to the mind.

At the same time, reasoning about the dialectic between visibility and invisibility, between latency and manifestation, recalls an entire tradition of metaphysical reflection, in which semiotics also participates. In Greimas's work, for example, the analysis of meaning refers only to the latent semantic dimension of immanence, to the meaning logically presupposed in manifestation, and not to the manifestation of meaning itself.

Without delving into these disquisitions of general semiotics, we can nonetheless explore the hypothesis that the technological development of digital technology,

26 Figure 2 visually highlights the immense scale of the infrastructure required to produce artificial intelligence, serving as a stark contrast to the socio-psychological invisibility of these processes in everyday life. While the machinery and systems involved in AI production are physically massive, their presence remains hidden from public perception. This figure underscores the paradox that, despite the towering technological infrastructure supporting AI, its influence is often felt in subtle, latent ways, seamlessly integrated into digital communication and decision-making processes without overt visibility. The invisibility of these mechanisms further emphasizes the necessity of semiotic analysis to uncover the underlying structures that shape our interactions with AI technologies.

and even more so that of artificial intelligence, is leading to a gradual invisibilization of the technology itself, which is becoming increasingly visible through its results. However, there is a paradoxical discrepancy between the power of these results and the invisibility of the apparatus that produces them. On the one hand, our machines are increasingly powerful. On the other, they are increasingly invisible. This is also the result of commercial logic. The seemingly infinite memory of our digital creations, for example – from the history of our social networks to our data in the digital cloud – is presented to us in the form of agile digital simulacra, while the hardware component that makes this mnemonic prodigy possible is well hidden in huge *server farms* in inaccessible parts of the planet. The functioning of our artificial intelligence, meanwhile, is also the product of machines invisible to our eyes, hidden in a black box that is, by definition, impenetrable, but whose impenetrability is also a rhetorical device resulting from commercial choice (Leone 2024a, 2024b). Thus, as an ideology of transparency increasingly imposes itself in the social world, which also includes academia – for example, through the emphasis on open access publications – the digital world is increasingly overwhelmed by processes that are obscure and invisible to the majority.

9 Minority

In her celebrated novel *The God of Small Things* (Roy 1997), Indian author Arundhati Roy explores the consequences of religious laws and customs on the lives of ordinary people, focusing particularly on those seemingly insignificant "small things" that end up having a tragic impact on people's lives. To paraphrase the title, the semiotics of artificial intelligence and algorithms should make people think about "invisible technology" and its impact on human life. The ethical and social reflections of most critical theories of technology were formed during the 19th and 20th centuries, which were characterized by macroscopic and large-scale technological infrastructures. Even today, it is very easy to protest a new rail project that threatens to radically alter the landscape, as in the case of high-speed trains between Italy and France, for example. But is there a "visibility bias" in critical awareness of technology? Are we as aware of the potentially profound changes that invisible technological infrastructures could bring, such as the mysterious black box of artificial intelligence or the development of nanotechnology that, by definition, exert their effects in total invisibility? What are the invisible ethical risks, but also the unexplored philosophical prospects, of a technology that increasingly eludes human senses and acts around and within the body and mind? Is a new "god of small devices" emerging in advanced nanotechnology?

As an example, Toida et al. (2023) present an innovative technique for detecting electron spins in cultured neurons using a superconducting flux qubit as a sensitive magnetometer. This device enables electron paramagnetic resonance (ESR) spectroscopy to be carried out on a microscopic scale, by measuring changes in the magnetization of neurons as a function of temperature and applied magnetic field. The results show a clear detection of magnetization signals, mainly attributed to ferrous ions in neurons, confirmed by conventional ESR measurements. On the one hand, this method paves the way for spectroscopic studies at the single-cell level, offering significant potential for understanding the distribution and metabolism of metals at the cellular level, with potential applications for studying pathologies such as neuroferritinopathy. On the other hand, a new technological scenario is on the horizon, where increasingly invisible and intelligent technology could reduce the invisibility of the human body, even in those hidden places where intimacy, consciousness, and personality are formed, as well as our way of being in the world. What will become of the semiotics of this body, and especially of the face, when it is no longer a screen in the etymological sense of the term (that which hides and protects), but rather in its new post-modern and digital sense (that which displays and can be read)? Will the ethics of the face, as the necessarily opaque interface of intersubjective respect, be swept away by a technology capable of seeing everything in the human interior? This prospect of a panopticon of intimacy, invisible and all-seeing at the same time, is not simply dystopian speculation, as recent literature on the new "biomagnetic cameras" shows.

In this regard, Zhang and Zhuang (2021) provide an in-depth review of distributed quantum sensing (DQS) protocols and applications. DQS uses entangled states shared between multiple sensors to improve global property measurements of a queried object, thus surpassing the standard quantum limit (SQL). DQS protocols cover both continuous (CV) and discrete variables (DV), with applications demonstrated in optical and radio frequency (RF) phase detection. The paper also explores performance limits, practical benefits, and future challenges, including non-Gaussian state optimization and extensions to large-scale sensor networks for various quantum metrology applications.[27]

That is a very interesting topic for semiotics because this invisibility produces troubling and sometimes disturbing ideological effects. On the one hand, there seems to be a growing tendency to compensate for the visibility and knowledge of algorithms by interpreting their effects through new forms of irrational thinking, ranging from conspiracy theories to magic and even religious thought. On the other hand, technological invisibility is becoming the perfect alibi for corporations that

27 Consider, in this connection, my research in the interdisciplinary "Quantum Society" laboratory, in cooperation with Sara Hejazi and Richard Hall Wilton.

now produce artificial intelligence but do not want to take ethical and political responsibility for the operation of this increasingly powerful technology.

In the face of these developments, semiotics is called upon to exercise its natural vocation to reflect on the latent and infrastructural aspects of technology. We live more and more surrounded by invisible digital infrastructures that produce macroscopic effects in our lives, and increasingly drive us to a mixed feeling of awe and admiration, as if this same infrastructure were becoming a kind of new digital transcendence, a kind of new invisible deity.

It can then be suggested that a new infrastructural space is emerging with force and rapidity in recent years if not months, delineating a perimeter in which hints and experiences of the sacred are emerging that we still know very little about and, thus, remain to be investigated and known. We are not talking about the heavy and material infrastructural space that characterized the whole industrial revolution and its very long wave, from the railway networks up to the highway networks that come full circle in the Sacred GRA, but rather about an apparently light and dematerialized space, protagonist of the digital revolution and especially of the one related to artificial intelligence.

10 Latency

This space has a computer name whose etymology, however, like that of the term "infrastructure," hints at the occult and mysterious: latent space. "Latent" comes from the Latin "*latens-entis*," "which remains hidden, which does not appear externally"; latent space indicates, in contemporary computer science, an abstract multidimensional space containing characteristic values that cannot be interpreted directly but are encoded in a meaningful internal representation; it is the space attended by those variational *autoencoders* that are the basis of contemporary generative artificial intelligence.

Thanks to these technologies, we now see conversations and many new, previously impossible images appear on our screens, from deepfakes to the uncanny creations of *Stable Diffusion*. These images are apparitions in a sense similar to the visions of many religious cultures, as they come from a latent and mysterious elsewhere, governed by laws and inner workings even experts at the highest levels do not fully understand. Yet, they increasingly populate our world with new presences, interacting with us and talking to us. We turn to them, believe in them, and increasingly treat them as angels who, emerging from a latent space, burst into our manifest space with mysterious messages and seraphic faces. They originate from an increasingly distant, unknowable, and transcendent algorithmic infrastructure.

11 Conclusions

The semiotics of latency provides a crucial framework for understanding the profound and often invisible forces that shape contemporary digital communication. Echoing the ancient Chinese dialecticians who sought to discern and articulate the inherent patterns of reality through subtle and persuasive debate, modern semiotics emerges as a vital tool in navigating the complexities of today's AI-dominated landscape. As Deng Xi and his contemporaries leveraged the art of rhetoric to establish order from chaos, contemporary semiotics must decode the latent spaces of digital interaction, revealing the hidden infrastructures that underpin them.

Throughout this paper, we have traced the evolution of semiotic thought from its historical roots with figures like Girolamo Cardano and Robert Hooke, who pioneered the close examination of subtle details, to the present-day challenges posed by AI and digital technologies. The concept of invisibility, central to the study of semiotics, has gained new dimensions with the advent of generative AI, which operates within vast, structurally unknowable latent spaces. These spaces, imperceptible yet influential, demand a semiotic approach to be understood and navigated.

The notion of subtlety, as discussed, underscores the importance of a nuanced reading of digital phenomena. Just as Cardano's exploration of subtlety required a refined intellectual process, modern semiotics must adopt a similarly meticulous approach to unravel the intricate layers of meaning within digital communication. This subtle reading is essential for decoding the often obscure and complex signals embedded in AI-generated content. Transcendence, a theme that emerged in the examination of infrastructural spaces, highlights how semiotics can reveal the symbolic and functional roles that confer a transcendent quality to otherwise mundane structures. The sacredness attributed to Rome's ring road, for example, illustrates how semiotics can illuminate the latent, transcendent aspects of our built environment.

The article also exposed the idea of technological magic, exploring how advanced technologies elicit perceptions of magic due to their complexity and invisibility. This phenomenon underscores the need for a semiotic approach to demystify these technologies, making their operations and impacts more comprehensible. Sentience, and the ethical and philosophical questions it raises, further illustrates the critical role of semiotics in contemporary discourse. As AI technologies exhibit behaviors suggestive of sentience, semiotics helps us navigate the societal and ethical implications of these developments, influencing our interactions with and expectations of AI.

The paradox of technological immateriality, where increasingly invisible processes yield highly visible results, highlights another key area where semiotics is

indispensable. By examining the dialectic between visibility and invisibility, semiotics provides insights into the pervasive impacts of digital technologies and the critical role of hidden infrastructures. Finally, the ethical and social ramifications of invisible technological infrastructures call for a renewed focus on semiotics. By addressing the "visibility bias" in our awareness of technology, semiotics can help mitigate the ideological effects of technological invisibility and ensure responsible and ethical development and deployment of AI.

In synthesizing these discussions, it becomes evident that the ability to perceive and establish the rightful patterns of what is invisible, a task once championed by ancient Chinese rhetoricians, is reemerging with vehemence in our AI-driven era. Modern semiotics, through the subtle creation and adoption of a new metalanguage, stands at the forefront of this endeavor, providing a comprehensive framework for analyzing and navigating the latent spaces of contemporary digital communication. As we move forward, the insights garnered from the semiotics of latency will be indispensable in understanding and shaping the digital landscapes that increasingly define our lives. As Deng Xi wrote in his treatise on the names:

> 4. Truly, if one listens and can hear the soundless, sees and can perceive the formless, calculates and can foresee what is yet to manifest, and considers and can prevent what has yet to occur, this is nothing extraordinary. If one does not rely on the ears to hear, then one can communicate with the soundless.
> 誠聽能聞於無聲, 視能 見於無形, 計能規於未兆, 慮能防於未然, 斯無他 也。不以耳聽, 則通於無聲矣。
>
> (Xizi, Wenzi, and Longzi 2024, 26)

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