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Rethinking Legal Personhood in the Infosphere: Jurisprudential Reflections on Luciano Floridi's Fourth Revolution

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Abstract

The evolution of the Infosphere, as articulated in Luciano Floridi's Fourth Revolution, compels a fundamental reconsideration of legal personhood through the lens of classical jurisprudence. Rooted in the Roman concept of *persona*—initially denoting social status and legal capacity—the legal person has historically evolved within metaphysical debates between realism and nominalism, natural law and positivism, and rationalist Enlightenment anthropology. Floridi's informational metaphysics disrupts this anthropocentric lineage, proposing a reontologization of the self and the emergence of inforgs—informational organisms—who participate in an expanded moral and ontological community. This paper critically interrogated the adequacy of classical legal theories—from Aquinas's teleological ethics to Kelsen's Pure Theory, and Hart's secondary rules—in accommodating non-human agents within the framework of legal subjectivity. Must personhood, traditionally reserved for moral agents capable of will and reason (*ratio et voluntas*), now extend to entities defined by relational data structures, algorithmic intentionality, and distributed agency? The analysis using doctrinal method, evaluated normative thresholds for personhood—capacity for rights, duties, and juridical recognition—against the challenge of AI systems, synthetic minds, and autonomous digital agents. Rather than abandoning the classical edifice, the paper proposed a principled reconstitution: a reconceptualization of *persona* under the jurisprudence of the Infosphere. This entails harmonizing Aristotelian-Thomistic substance ontology with Floridian informational ontology to forge a coherent legal response to emerging digital realities. Such a synthesis is indispensable for AI governance, algorithmic justice, and rethinking sovereignty in the Fourth Revolution.

Keywords: Legal personhood, Fourth Revolution, Infosphere, informational ontology, inforgs, digital sovereignty,

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1. Introduction

From the earliest formulations of *persona* in Roman law to the doctrinal sophistication of Scholasticism and legal positivism, the concept of legal personhood has served as a foundational

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category of jurisprudential thought.¹ Defined originally as a mask worn in civic life or as a legal status assigned to moral agents, *persona* encapsulated the distinction between those who could bear rights and duties and those relegated to the margins of juridical recognition.² Yet, in an age dominated by artificial intelligence, distributed digital agency, and the ubiquity of data systems, this anthropocentric foundation is increasingly destabilized. Luciano Floridi's conception of the "Fourth Revolution" signals a paradigmatic shift—not merely technological, but ontological—in how we conceptualize beings, moral value, and the fabric of legal relations.³

Floridi's argument is that humanity is no longer the exclusive centre of moral and epistemic relevance; rather, informational entities—or inforgs—now share the ontological stage with humans within the infosphere.⁴ This epistemic shift recalls previous displacements of human centrality—the Copernican, Darwinian, and Freudian revolutions—but surpasses them in its metaphysical implications. In this new ontological landscape, personhood can no longer be taken as self-evident, biologically anchored, or metaphysically static.

Historically, legal personhood was rooted in rationalist and theologically grounded frameworks. For Thomas Aquinas, a person is "an individual substance of a rational nature".⁵ Immanuel Kant followed with a moral conception, whereby personhood derives from the capacity for autonomous will under the moral law.⁶ These formulations influenced Savigny's organicist jurisprudence, which viewed personhood as embedded within the evolving *Volksgeist*,⁷ and Kelsen's formalism, wherein personhood functions as a normative point of imputation.⁸ H. L. A. Hart further refined the discourse by connecting personhood to the operation of secondary legal rules—particularly rules of recognition, change, and adjudication.⁹

However, these classical doctrines are now confronted by entities that defy traditional metaphysical predicates. Artificial agents exhibit forms of goal-directed behaviour, adaptive decision-making, and communicative interactivity—qualities once thought unique to human rational agents. Floridi's informational metaphysics reontologizes the digital landscape, presenting a view of being not as substance but as interrelational data structures.¹⁰ Thus, inforgs challenge the presuppositions of legal personhood and raise urgent questions: Can non-human, non-substantial agents be subjects of legal rights and responsibilities? Are current theories of normativity and agency sufficient for a digital ontology?

This paper undertakes a classically grounded yet forward-looking inquiry into legal personhood. It contends that personhood should not be discarded or dissolved but reconstituted through a principled synthesis of classical metaphysics—especially Thomistic and Kantian insights—and

¹ Bindu Variath, 'The evolution of legal thought: From traditional doctrines to interdisciplinary approaches in modern jurisprudence', (2024) 11(8) *International Journal of Multidisciplinary Research and Development*, 135.

² O. von Gierke, *Political Theories of the Middle Age*, Translated by F. W. Maitland, (Cambridge University Press, 1900) 37; H. Kelsen, *Pure Theory of Law*, Translated by Max Knight, (University of California Press, 1967) 93.

³ L. Floridi, *The Fourth Revolution: How the Infosphere Is Reshaping Human Reality*, (Oxford University Press, 2014) 2-4.

⁴ L. Floridi, *Information: A Very Short Introduction*, (Oxford University Press, 2010) 61.

⁵ T. Aquinas, *Summa Theologica*, Q.29, Art.1. Translated by Fathers of the English Dominican Province, Benziger Bros., 1947.

⁶ I. Kant, *Groundwork of the Metaphysics of Morals*, Translated by Mary Gregor, (Cambridge University Press, 1997) 36.

⁷ F.C. von Savigny, *Of the Vocation of Our Age for Legislation and Jurisprudence*, Translated by Abraham Hayward, (Littlewood & Co., 1831) 28.

⁸ Kelsen, (n 2), 92.

⁹ H. L. A. Hart, *The Concept of Law*, 2nd ed., (Oxford University Press, 1994) 94.

¹⁰ L. Floridi, *The Philosophy of Information*, (Oxford University Press, 2011) 69–72.

Floridi's ontological innovations. This rethinking is necessary not only for theoretical clarity but for practical governance in contexts such as AI liability, data rights, algorithmic justice, and digital sovereignty. The paper proceeds in nine sections. First, it revisits the historical and metaphysical foundations of legal personhood. Second, it explicates Floridi's Fourth Revolution and the nature of the infosphere. Third, it contrasts substance ontology with informational ontology. Fourth, it evaluates existing criteria for personhood in classical and contemporary terms. Fifth, it examines case studies involving artificial agents. Sixth, it proposes a reconstructed model—*persona digitalis*—for future legal frameworks. Finally, it explores implications for sovereignty, jurisdiction, and algorithmic governance.

In the age of the infosphere, the law must grapple with an ontological horizon it did not create. The challenge of the Fourth Revolution is not merely to regulate technology, but to revisit jurisprudence's oldest questions in light of its newest realities.

2. Classical Foundations of Legal Personhood

The concept of legal personhood has long served as a juridical lens through which societies define moral agency, status, and the capacity for juridical participation.¹¹ The classical legal tradition—spanning Roman jurisprudence, Scholastic metaphysics, Enlightenment rationalism, and legal positivism—reveals the deeply embedded anthropocentric and metaphysical assumptions that continue to shape contemporary legal thought. To understand the challenge posed by Floridi's Fourth Revolution, it is necessary to examine the doctrinal architecture upon which modern concepts of personhood are built.

2.1 Roman law and the inception of *persona*

Roman law provides the etymological and juridical origin of *persona*. Initially referring to a mask worn by actors, *persona* evolved to denote the status of individuals recognized by law as capable of bearing rights and duties (*capacitas iuris*).¹² The classical jurist Gaius distinguished between *personae* (legal persons) and things (*res*) in a dualistic legal ontology.¹³ Slaves, though biologically human, were classified as *res*, illustrating that personhood was not a mere biological category but a legal and social construction tied to civic and political status.

In Roman jurisprudence, personhood was closely linked to participation in the *civitas*. It implied a legal identity, capacity for obligation, and social function. As Gierke explains, “the Roman person was a point of legal imputation rather than a metaphysical being”.¹⁴ This positivist germ would later flourish in the hands of modern theorists like Kelsen.

2.2 Scholasticism and the theological metaphysics of personhood

Christian Scholasticism introduced a metaphysical and moral dimension to legal personhood. Influenced by both Aristotelian substance metaphysics and Augustinian theology, Thomas Aquinas defined a person as “an individual substance of a rational nature”.¹⁵ This definition was

¹¹ J. Baeyaert, ‘Beyond Personhood: The Evolution of Legal Personhood and Its Implications for AI Recognition’, (2025) 17 *Technology and Regulation*, 355.

¹² G. Aladashvili, ‘The Germ of the Conception of Legal Person in Roman Law’, (2020) 2 *Journal of Law*, 15; Simon Chesterman, ‘From Slaves to Synths? Superintelligence and the Evolution of Legal Personality’, *NUS Law Working Paper No 2025/017*, available at: https://law.nus.edu.sg/wp-content/uploads/2025/12/17_SimonChesterman.pdf.

¹³ Gierke, (n 2) 37.

¹⁴ *Ibid*, 37.

¹⁵ T. Aquinas, (n 5) Q.29, Art.1.

drawn from Boethius but expanded through the lens of divine and natural law. For Aquinas, personhood was not merely a legal designation but a metaphysical status grounded in the possession of rational faculties (*ratio*) and volitional freedom (*voluntas*).¹⁶ These faculties enabled the human person to participate in the eternal law (*lex aeterna*) through conscience and reason.¹⁷ Consequently, legal subjectivity was embedded within a teleological framework: the person was ordered toward moral and divine ends, and law existed to assist in that perfection.

This Thomistic view remained dominant through the medieval and early modern periods.¹⁸ It established three enduring principles: (1) personhood is universal to rational beings; (2) it is morally grounded; and (3) legal recognition flows from metaphysical essence rather than legal construction. These principles would later be contested by Enlightenment and positivist theorists.

2.3 Kantian rationality and moral autonomy

The Enlightenment reconceptualized personhood through the lens of human reason, autonomy, and moral law. Immanuel Kant emphasized that the dignity of the person lies in their capacity for self-legislation according to the categorical imperative. A person, for Kant, is a being who “must always be regarded as an end in themselves, never merely as a means”.¹⁹ The moral law was not external (as in Aquinas’s divine law), but internal to the rational will.

In ‘Groundwork of the Metaphysics of Morals’, Kant writes, “A person is a subject whose actions are capable of moral imputation”.²⁰ Legal personhood thus presupposes moral responsibility and autonomy. Kantian personhood is deontological, universalist, and morally self-grounded. Unlike Aquinas, Kant detaches personhood from metaphysical substance and anchors it in moral capacity. This shift had far-reaching implications for legal theory. It laid the groundwork for liberal rights theories and constitutional humanism, in which personhood entails a bundle of rights justified by moral autonomy. Yet, it also marginalized non-rational beings—children, the mentally impaired, and animals—by their failure to meet rationalist thresholds.

2.4 Savigny and the historical spirit of legal personality

In the nineteenth century, Friedrich Carl von Savigny synthesized Romanticism and legal theory in his *Volksgeist* philosophy. For Savigny, law was not a rational construction nor a theological product but an organic expression of the spirit of a people. Legal personhood, therefore, was not fixed by universal criteria but evolved culturally and historically.²¹

Savigny’s contribution was to reintroduce contextuality into legal personhood. While retaining the classical structure—rights, duties, and legal recognition—he emphasized that personhood emerges within a specific legal tradition. This view would later influence legal historicism and sociological jurisprudence. It also anticipated postmodern legal critiques of essentialism in legal categories. However, Savigny maintained that the individual remained the bearer of legal capacity. Even if personhood is historically contingent, it was still grounded in human subjectivity. Thus, like his predecessors, Savigny left intact the anthropocentric core of personhood.

¹⁶ M. Piechowiak, ‘Thomas Aquinas – Human Dignity and Conscience as a Basis for Restricting Legal Obligations’, (2016) 47 *Diametros*, 64-83.

¹⁷ T. Aquinas, *Summa Theologiae* I-II, Q.91–93 ‘The Various Kinds of Law’, available at: <https://www.newadvent.org/summa/2091.htm>

¹⁸ J.T. Eberl, ‘A Thomistic perspective on the beginning of personhood: Redux’, (2007) 21(5) *Bioethics*, 283-289.

¹⁹ Kant, (n 6) 36.

²⁰ *Ibid*, 37.

²¹ Savigny, (n 7) 28.

2.5 Kelsen's normative formalism and the legal person

Hans Kelsen's Pure Theory of Law (1934) represented a decisive break from metaphysical conceptions of personhood. For Kelsen, the legal person is a purely normative construct: "an artificial point of imputation of legal norms".²² Legal subjectivity does not derive from any moral, rational, or metaphysical essence but from the systemic operation of legal norms. Kelsen distinguished between natural persons (human beings) and legal persons (normative fictions), arguing that even natural persons become "persons" only through legal attribution. In this view, corporations, states, or AI systems could theoretically be persons if norms are directed at them.

This radical formalism had the advantage of flexibility but invited critiques for divorcing law from morality.²³ Nevertheless, it laid the groundwork for modern discussions on artificial personhood and the status of non-human agents in legal systems. Kelsen's theory enables a purely procedural approach to AI personhood—if norms can coherently be applied to informational agents, they can be legally recognized.

2.6 H. L. A. Hart and the rule-based theory of legal subjectivity

H.L.A. Hart's 'The Concept of Law'²⁴ further refined Kelsen's legal positivism by introducing the idea of secondary rules—rules of recognition, change, and adjudication—that form the backbone of legal systems. Hart emphasized that legal personhood emerges from social practices of rule-following.²⁵ For Hart, the concept of personhood is not merely a status but an institutional role within a legal system governed by accepted rules. Importantly, Hart's framework implies that any entity—human or non-human—can become a legal person if recognized through a valid rule of recognition. His theory opens the possibility for artificial agents to gain legal status, not because of their moral essence, but due to the internal logic of the legal system itself. Yet, Hart preserved a soft humanism. His discussion of responsibility, punishment, and moral blame presumes human-like intentionality.²⁶ Thus, while Hart's theory allows formal inclusion of non-humans, it also reveals the tension between legal recognition and moral accountability.

The classical foundations of legal personhood reveal a persistent tension between ontological realism and legal nominalism, between moral essence and normative construction. From Roman law's status-based definitions, through Aquinas's rational metaphysics and Kant's moral autonomy, to Kelsen's formalism and Hart's rule-based systems, legal personhood has evolved through competing visions of what it means to be a subject of rights and duties. While each theorist offers distinct contributions, they share a foundational assumption: that legal personhood, in its fullest sense, is reserved for beings endowed with rationality, intentionality, and moral agency. This assumption now faces profound challenge in the infosphere, where artificial agents exhibit functional analogues of human traits. The next sections will explore how Floridi's informational ontology reconfigures this classical inheritance, demanding a jurisprudence that is both metaphysically grounded and epistemically open.

²² Kelsen, (n 2) 92.

²³ C. Bezemek, 'Pure Formalism? Kelsenian Interpretative Theory between Textualism and Realism', in DAJ Telman (ed) *Hans Kelsen in America - Selective Affinities and the Mysteries of Academic Influence* (Springer, 2016) 249-263.

²⁴ Hart, (n 9).

²⁵ Ibid, 94-96.

²⁶ Ibid.

3. Floridi's Fourth Revolution and the Ontology of the Infosphere

The dawn of the digital age represents more than an epochal shift in technological capacity; it marks an ontological reconfiguration of what it means to exist, act, and be recognized within an increasingly informational world. Luciano Floridi, in a series of interlinked philosophical works, theorizes this transformation under the conceptual framework of the Fourth Revolution—a displacement of human centrality in the moral and ontological order akin in magnitude to those initiated by Copernicus, Darwin, and Freud.²⁷ This epistemological revolution not only undermines the supremacy of human beings as the measure of all things but necessitates the rethinking of foundational legal categories such as personhood, agency, autonomy, and moral relevance.

3.1 The Fourth Revolution: displacing human centrality

Floridi's Fourth Revolution draws its historical lineage from three preceding intellectual ruptures. The Copernican Revolution dethroned the Earth as the center of the cosmos. The Darwinian Revolution decentered the human species from divine uniqueness in the biosphere. The Freudian Revolution challenged the unity of human consciousness and rational self-control.²⁸ Each of these displaced the human subject from its assumed position of privilege. The Fourth Revolution, however, completes this trajectory by decentering the human self from its ontological sovereignty in the infosphere—a world composed of, mediated by, and dependent upon information.²⁹ Floridi observes that our interactions, identities, institutions, and even realities are now framed and filtered through layers of digital information. The human being, once an autonomous epistemic and moral agent, now becomes an informational agent among others—an infor—co-existing and co-evolving within a digital ecology.³⁰ This does not entail a loss of dignity but rather a reontologization of the human condition: "We are no longer standalone entities but interconnected informational organisms sharing a common infosphere".³¹

This theoretical repositioning calls for the legal domain to take seriously the ontological shifts precipitated by our immersion in digital ecosystems. If legal personhood has historically rested upon a metaphysical understanding of subjectivity, rational agency, and moral accountability, Floridi's insights compel jurists to rethink these categories in the light of distributed, non-anthropocentric information structures.

3.2 The Infosphere: A new ontological environment

The term 'infosphere', according to Floridi, refers not merely to the Internet or digital platforms, but to the totality of informational entities, their properties, interactions, and the environment they form.³² The infosphere thus, encompasses both natural and artificial agents, digital and analog environments, human users and algorithmic processors. It is a metaphysical continuum in which reality is understood primarily in terms of data, information flows, and informational structures. Floridi's ontological innovation lies in shifting the foundation of being from substance to relation. Whereas classical metaphysics emphasized discrete, enduring substances—rational beings endowed with an essence—informational ontology prioritizes relationality, interactivity, and data-driven identity. An entity exists insofar as it can be informed and can inform other

²⁷ Floridi, 'The Fourth Revolution' (n 3) 1-3.

²⁸ L. Floridi, 'Children of the Fourth Revolution', (2011) 24(3) *Philosophy and Technology*, 227-232.

²⁹ Floridi, 'The Philosophy of Information' (n 10) 9.

³⁰ *Ibid*, 9-12.

³¹ *Ibid*, 63.

³² *Ibid*, 5.

agents within an environment.³³ In this framework, identity is no longer a stable metaphysical essence but an ongoing informational profile that evolves through interaction.

This raises profound implications for legal subjectivity. If legal personhood traditionally relied on stable ontological criteria such as human rationality or metaphysical individuality,³⁴ the infosphere introduces a dynamic, systemic view of personhood as informational embeddedness and relational capability. This informational turn, however, does not negate moral relevance; it broadens the scope of moral and legal considerability to include informational agents that affect, and are affected by, others in morally salient ways.³⁵

3.3 Inforgs: informational agents with moral significance

A central concept in Floridi's theory is the inforg—an informational organism that exists and functions within the infosphere. Inforgs may include human beings, corporations, intelligent software agents, autonomous robots, and other data-processing entities.³⁶ What unites them is not their biological substrate, but their informational nature and interactive capacity.³⁷ Floridi writes: "We are all inforgs among inforgs, sharing an environment made of information, for information, and by information".³⁸ Importantly, Floridi does not equate informational agents with moral agents. Rather, he proposes a graduated model of moral agency, grounded in the capacity to contribute to or detract from the flourishing of the infosphere. An entity possesses moral worth to the extent that it can make a difference to the moral value of the informational environment.³⁹ Thus, moral considerability is not limited to rational self-awareness, but includes informational relevance, systemic interdependence, and ethical impact.

In legal terms, this expands the potential scope of juridical recognition. While traditional models predicate legal personhood on metaphysical essence or moral autonomy,⁴⁰ Floridi's model suggests that informational functionality and ecological embeddedness may also ground normative standing. This opens the possibility for recognizing certain artificial agents as legal persons, not through anthropomorphic analogies, but through an appreciation of their ethical-relational function within the infosphere.

3.4 Reontologization and legal ramifications

Perhaps Floridi's most disruptive concept is reontologization—the transformation of the very nature of reality through information technology.⁴¹ Just as the telescope reconfigured humanity's spatial self-understanding, and evolution redefined our biological origins, the digital revolution reconstructs our ontological categories. This is not simply a matter of perception, but of existence itself: identities, institutions, and actions are now shaped, enacted, and sustained within digital information systems. For law, the implications are profound. Traditional distinctions between subject and object, actor and environment, and human and tool begin to blur. An AI system that negotiates contracts, a blockchain that executes transactions, or a virtual assistant that interacts

³³ L. Floridi, *The Logic of Information: A Theory of Philosophy as Conceptual Design*, (Oxford University Press, 2019) 14-16.

³⁴ T. Aquinas, (n 5) Q.29, Art.1.

³⁵ L. Floridi, *The Ethics of Information*, (Oxford University Press, 2013) 6-7.

³⁶ E.H. Spence, 'Understanding Luciano Floridi's Metaphysical Theory of Information Ethics: A Critical Appraisal and an Alternative Neo-Gewirthian Information Ethics', (2008) 8(1) *Philosophy and Computers*, 19.

³⁷ Floridi, 'The Fourth Revolution' (n 3) 21-22.

³⁸ Ibid, 22.

³⁹ Floridi, 'The Ethics of Information', (n 35) 78.

⁴⁰ Kant, (n 6) 36; Hart, (n 9) 94.

⁴¹ Floridi, (n 10) 75.

with users—all participate in legal processes, yet defy existing classifications. The law must now consider whether the classical categories of *persona*, *res*, and *instrumentum* are adequate to the ontological realities of the infosphere.⁴²

Floridi's reontologization does not call for abandoning the concept of legal personhood, but for its reconstruction in light of a new metaphysics. Jurists must ask: can an infor possess legally recognizable agency, capacity, and rights—not as a metaphorical extension of human traits, but as an informational being with normatively relevant impact? In this light thus, Floridi's Fourth Revolution compels legal theorists to confront a new ontological reality: one in which informational beings—artificial, relational, and systemic—challenge the anthropocentric foundations of law. The infosphere demands a jurisprudence capable of acknowledging informational agency and ethical interdependence without collapsing into either legal inflation or metaphysical confusion.

4. Jurisprudential Tensions: Between Substance Ontology and Informational Ontology

At the core of the discourse on legal personhood lies a metaphysical tension between substance ontology, rooted in classical philosophy and law, and informational ontology, as developed in Floridi's reontologized vision of the infosphere. The classical legal tradition, from Aristotle and Aquinas to Kant and Hart, is anchored in a metaphysics that presumes the individual substance as the bearer of rights, duties, and rational capacities. Floridi's paradigm, by contrast, replaces the enduring substance with relational identity, interactivity, and systemic informational existence.⁴³ This section interrogates whether these two ontological frameworks can be reconciled or whether they are incommensurable in the context of jurisprudence.

4.1 Substance ontology and the foundations of classical personhood

Substance ontology begins with the Aristotelian idea that a "substance" is that which exists in itself and not in another—a coherent, self-sustaining, ontologically primary entity.⁴⁴ In Thomistic thought, this becomes the basis for defining a person as "an individual substance of a rational nature".⁴⁵ The juridical extrapolation of this concept is evident: the legal subject is a rational moral agent who exists as an autonomous whole, capable of will (*voluntas*), reason (*ratio*), and responsibility. Personhood, in this view, is ontologically intrinsic and precedes juridical recognition. This metaphysical model undergirds the entire edifice of natural rights, liberal constitutionalism, and the rule of law. Even legal positivists like Hart and Kelsen, while distancing themselves from metaphysical claims, continue to operate within conceptual frameworks that presuppose human agents as the central *loci* of legal imputation.⁴⁶ The substance-based person is presumed to possess continuity over time, identity across contexts, and the capacity to bear legal burdens and benefits.

Moreover, substance ontology implies essentialism: to be a legal person is to possess certain necessary attributes, such as rationality, intentionality, and moral responsibility. This has historically excluded infants, the mentally impaired, animals, and—more recently—artificial

⁴² Gierke, (n 2) 40; Kelsen, (n 2) 91.

⁴³ Floridi, 'The Philosophy of Information', (n 10) 69-72.

⁴⁴ Aristotle. *Metaphysics*. Translated by W. D. Ross, in *The Complete Works of Aristotle*, edited by Jonathan Barnes, (Princeton University Press, 1984) 10.

⁴⁵ T. Aquinas, (n 5) Q.29, Art.1.

⁴⁶ Hart, (n 9) 94; Kelsen, (n 2) 91.

agents from full legal recognition. The law, built upon this ontology, has treated such entities either as diminished persons (e.g., guardianship for infants) or as non-persons altogether.⁴⁷

4.2 Informational ontology: A relational reimagining of being

In stark contrast, Floridi's informational ontology dismantles the primacy of substance. Reality, in this view, is not a collection of autonomous things but a dynamic web of data structures, interrelations, and informational flows.⁴⁸ What exists is not what stands alone, but what interacts meaningfully within an environment. The identity of an inforg, therefore, is constituted by its relations, not by its substance. Floridi argues that the traditional ontology of discrete substances must be replaced by a distributed ontology of interconnected informational entities.⁴⁹ Applied to legal theory, this ontology calls for a functionalist rather than an essentialist model of personhood. An entity is normatively relevant not because it possesses a metaphysical essence, but because it plays a role within an informational and ethical network. For example, an AI agent that interacts, makes decisions, and affects legal outcomes could, under this model, be considered a legal person—if its relational capacity meets the necessary criteria for normativity.⁵⁰

This informational turn presents a pluralist view of being, in which legal personhood becomes a layered construct, not a fixed essence. It opens the door to recognizing non-humans—software, robots, distributed algorithms—as legal subjects, so long as they fulfill certain relational-functional thresholds.

4.3 Normative consequences: between reductionism and inflation

The tension between these two ontologies generates substantial normative challenges. On one hand, adopting Floridi's informational ontology risks ontological inflation—recognizing too many entities as legal persons and thus diluting the concept's normative force. If everything that interacts becomes a legal person, then personhood may lose its analytical distinctiveness and moral gravity.⁵¹ On the other hand, clinging to substance ontology in a digital world risks juridical reductionism—excluding functionally significant entities from legal recognition merely because they lack metaphysical essence. Consider autonomous agents that negotiate contracts, execute financial transactions, or influence public decisions. Denying them legal status may create regulatory vacuums, especially in cases of harm, accountability, or rights allocation.⁵²

Floridi suggests that the solution is not to abandon personhood, but to reconceptualize it through the lens of ethical relevance and informational integrity. The key is to develop epistemic and moral thresholds for recognizing entities as legal persons, based on their capacity to affect and be affected within the infosphere.⁵³

4.4 Bridging the divide: toward an integrative ontology

Rather than choosing between substance and information, an integrative jurisprudence may synthesize the normative stability of classical ontology with the adaptive relevance of informational ontology. This can be achieved through a layered model of personhood:

⁴⁷ S. Parildar, 'A Review on Luciano Floridi's Philosophy of Information: Defense of the Dignity of Human and Call for Their Responsibility Inside Flat Ontology', (2024) 3(1) *Journal of Media Literacy Studies*, 58.

⁴⁸ Floridi, 'The Logic of Information', (n 33) 16-18.

⁴⁹ Floridi, 'The Philosophy of Information', (n 10) 73.

⁵⁰ Floridi, 'The Ethics of Information', (n 35) 78.

⁵¹ M. Midgley, *Science as Salvation: A Modern Myth and Its Meaning*, (Routledge, 1992) 57.

⁵² Pagallo, Ugo. *The Laws of Robots: Crimes, Contracts, and Torts*. (Springer, 2013) 128.

⁵³ Floridi, 'The Ethics of Information', (n 35) 88.

substantive-legal personhood—reserved for rational human agents, grounded in classical metaphysics; functional-legal personhood—extended to artificial entities based on their relational role and informational behavior; symbolic-legal personhood—recognizing collective or procedural entities (e.g., corporations, states) through juridical construction.

This model mirrors the Aristotelian distinction between primary substances and secondary substances⁵⁴ and Kelsen's view that legal personality is a juridical function, not a metaphysical truth.⁵⁵ Hart's concept of secondary rules supports this approach by allowing the legal system itself to define who or what counts as a legal person through socially accepted practices of recognition.⁵⁶ In this way, classical ontological rigour is preserved for foundational cases, while the legal system retains flexibility to accommodate post-human subjects as the infosphere evolves. Hence, the metaphysical divergence between substance and informational ontology represents the conceptual axis upon which the future of legal personhood turns. Classical jurisprudence insists on essence, autonomy, and reason as necessary conditions; informational metaphysics proposes relationality, interactivity, and ethical functionality. Rather than viewing them as irreconcilable, this paper argues for a principled integration: substance provides ontological depth, while information provides epistemic adaptability.

5. Criteria for Legal Personhood: A Comparative Analysis

The recognition of personhood in legal theory has never been a mere ontological acknowledgment; it has always served a normative function—distributing rights, assigning duties, and allocating legal and moral responsibility.⁵⁷ Classical legal theory and contemporary jurisprudence propose divergent, yet sometimes overlapping, criteria for legal personhood, grounded either in essential attributes or functional capacities. This section offers a comparative analysis of these criteria, situating them within the current debates on artificial agents, AI, and the rise of informational entities.

5.1 Classical criteria: rationality, autonomy, and moral agency

From Roman law to Enlightenment liberalism, legal personhood was predicated on a metaphysical and moral core: rationality, moral autonomy, and the capacity for intentional action. These criteria were not only philosophical assumptions but doctrinal cornerstones. In Roman legal doctrine, legal personhood (*persona*) was confined to free men (*liberihomines*) who could own property, make contracts, and bear legal responsibility.⁵⁸ Slaves, women, and minors were often excluded or granted attenuated forms of legal standing.

Aquinas elevated the criteria to a theological-philosophical level, arguing that a person is “an individual substance of a rational nature”, thus rooting legal capacity in the metaphysical possession of reason and will.⁵⁹ Kant reinforced this framework by defining the person as a subject of dignity and autonomous moral law, whose actions are capable of moral imputation.⁶⁰ These classical positions converge around a substantive threshold: personhood is not granted by legal fiat but recognized in beings who meet a natural or metaphysical standard of rational

⁵⁴ Aristotle. *Categories*. Translated by E. M. Edghill, in *The Basic Works of Aristotle*, edited by Richard McKeon, (Random House, 1941) 11-19.

⁵⁵ Kelsen, (n 2) 92.

⁵⁶ Hart, (n 9) 94-96.

⁵⁷ M.A. Safdar, ‘Legal Personhood and Moral Agency: A Philosophical Analysis of Rights, Duties, and Identity’, (2025) 3(6) *International Journal of Integrated Science and Technology*, 2071-2082.

⁵⁸ Gierke, (n 2) 37.

⁵⁹ T. Aquinas, (n 5) Q.29, Art.1.

⁶⁰ Kant, (n 6) 36-37

agency. Consequently, legal personhood is morally loaded—tied not merely to function, but to being.

5.2 Functionalist criteria in contemporary legal theory

The modern era has witnessed a gradual shift toward functionalist definitions of legal personhood, especially within legal positivism and socio-legal theory. This shift detaches personhood from metaphysical or moral status and instead anchors it in capability, social function, and legal purpose. Hans Kelsen famously argued that the legal person is a “point of imputation” within a legal system, not a metaphysical or natural kind.⁶¹ For Kelsen, the question is not whether an entity is inherently a person, but whether legal norms treat it as such. Similarly, H.L.A. Hart emphasized that personhood is a status conferred by secondary rules, particularly the rule of recognition, which determines who or what is a valid subject of law within a particular legal system.⁶²

This positivist orientation opens the door to granting legal personhood to non-human entities such as corporations, states, or even software systems—provided they fulfill certain legal functions or hold normative positions. More recently, scholars like Ugo Pagallo and Jack Balkin have proposed frameworks for algorithmic legal agents, suggesting that artificial systems may bear limited legal personhood based on predictability, interaction, and accountability potential.⁶³ These functionalist criteria do not rely on metaphysical essences but on operational roles in the legal process.

5.3 Informational criteria: agency in the infosphere

In Floridi’s informational ontology, the criteria for recognizing personhood are grounded in informational relevance, interactive agency, and moral impact within the infosphere.⁶⁴ The concept of an inforG—an informational organism that acts and interacts within a digital environment—serves as the basis for a novel kind of agent-based ethics. Floridi proposes that the normative threshold for personhood need not be rationality or biological life, but rather the ability to affect and be affected within an ethically evaluable system. Under this view, legal personhood becomes an ethical recognition of informational significance, relationality, and contribution to semantic value.⁶⁵

This reframing allows for the possible recognition of artificial agents, robots, and software as legal persons, not by analogy to human traits, but based on their functional presence and ethical interaction in the digital ecosystem. However, informational criteria provoke controversy. Critics argue that expanding legal personhood to non-conscious agents risks blurring legal boundaries and weakening accountability. The notion that a non-rational agent might be assigned legal status raises concerns about agency inflation.⁶⁶ Yet the informational perspective urges legal systems to rethink outdated anthropocentric standards and develop nuanced criteria for informational accountability.

⁶¹ Kelsen, (n 2) 92.

⁶² Hart, (n 9) 94-96.

⁶³ Pagallo, (n 52) 122; Balkin, Jack M. ‘The Three Laws of Robotics in the Age of Big Data’, (2017) 78(5) *Ohio State Law Journal*, 1217–1231.

⁶⁴ Floridi, ‘The Ethics of Information’, (n 35) 78-83.

⁶⁵ Floridi, ‘The Philosophy of Information’, (n 10) 69-72.

⁶⁶ D.J. Gunkel, *The Machine Question: Critical Perspectives on AI, Robots, and Ethics*, (MIT Press, 2012) 107.

5.4 Toward juridical criteria for digital personhood

Given these models, any serious proposal for digital legal personhood must include juridically testable criteria. A possible framework might include the following: autonomous functionality, in which the entity operates independently within defined parameters, interactive engagement can meaningfully engage with legal or moral actors, moral impact actions produce normatively significant consequences, systemic embeddedness plays a role in a normative-legal ecosystem, and recognizability can be identified and addressed by legal institutions.

This layered approach echoes Hart's view that legal systems are rule-bound structures capable of evolving new categories of recognition.⁶⁷ It also aligns with Floridi's ethics of informational flourishing, wherein personhood is granted not as an honorific but as a functional-ethical designation.⁶⁸

In sum, the criteria for legal personhood are no longer fixed by ancient ontologies or legal traditions alone. Instead, they respond to a pluralistic reality, in which natural persons, juridical constructs, and informational agents coexist within complex normative environments. The path forward clearly lies in juridical integration—developing layered criteria that preserve legal coherence while adapting to the challenges of the digital age.

6. Digital Entities and Legal Recognition: Beyond the Human

As the digital ecosystem matures and artificial agents increasingly participate in economic, social, and legal processes, the question of their legal status becomes not merely theoretical, but juridically urgent. This section applies the conceptual frameworks of personhood developed earlier to autonomous systems, AI agents, and informational constructs, evaluating whether they meet the thresholds for legal personhood and what such recognition would entail.

6.1 From corporations to AI: legal personhood without humanity

Legal history provides several precedents for non-human personhood. Perhaps the most prominent example is the corporation, recognized as a legal person capable of owning property, entering contracts, and being sued or held liable.⁶⁹ This status, though not grounded in rationality or moral agency, is conferred for functional and institutional reasons—primarily to facilitate continuity, accountability, and legal operation.⁷⁰ The same logic is increasingly being extended to digital agents. AI systems like algorithmic trading bots, smart contracts on blockchains, and generative models (e.g., GPT-based architectures) perform tasks once thought to require human discretion. In some cases, they execute contracts, influence elections, or cause harm without direct human intervention. These agents now act autonomously, albeit within constrained environments.⁷¹

The question is whether legal systems should recognize such agents as legal persons or maintain a strict human-or-institutional definition. Floridi's framework of the infor—an informationally interactive and morally relevant agent—suggests that AI may warrant partial personhood based on systemic function and ethical impact.⁷²

⁶⁷ Hart, (n 9) 95.

⁶⁸ Floridi, 'The Ethics of Information', (n 35) 78.

⁶⁹ C. Hiebaum, 'Legal Personhood for Nonhuman and Future Entities: Ordering the Discourse', (2025) 1(1) *Austrian Law Journal*, 51.

⁷⁰ Hart, (n 9) 120; Kelsen, (n 2) 93.

⁷¹ Pagallo, (n 52) 134-135.

⁷² Floridi, 'The Ethics of Information', (n 35) 78.

6.2 Autonomy and legal capacity in digital agents

One of the classical requirements for legal personhood is autonomy—the ability to act freely, intentionally, and responsibly.⁷³ AI critics argue that current systems, despite sophistication, lack conscious intentionality and thus cannot be meaningfully held accountable.⁷⁴ However, some theorists propose a pragmatic reinterpretation of autonomy, shifting from internal self-awareness to functional decision-making. As Balkin notes, legal responsibility often hinges less on metaphysical personhood than on practical capacity to perform legal acts.⁷⁵ For instance, AI that can accept terms, execute decisions, and produce effects in the legal world may meet the functional definition of legal capacity, even if it lacks moral interiority.

Floridi strengthens this position by showing that what matters in the infosphere is not subjective intentionality, but relational interactivity and ethical accountability. If an AI's behaviour systematically affects informational agents and environments, it should be recognized legally—not for its “mind” but for its structural agency.⁷⁶

6.3 Moral blame and the problem of responsibility gaps

A core objection to extending personhood to digital agents is the problem of responsibility gaps: if an AI system is treated as a person, who is accountable when it causes harm? Unlike corporations, which are backed by human actors and assets, AI systems often lack identifiable owners, intentions, or insurable bodies.⁷⁷ Hart and Honoré argue that responsibility presupposes not only causal connection but moral blameworthiness.⁷⁸ Yet in the infosphere, harm may occur without a culpable human actor. For instance, if a machine-learning model makes biased decisions or misdiagnoses a patient, traditional legal categories may be insufficient. Several real-world cases relating to smart contracts,⁷⁹ self-driving vehicles,⁸⁰ and AI-generated content,⁸¹ illustrate the challenge of digital legal personhood.

Floridi responds by calling for distributed accountability, where responsibility is shared among designers, users, and the informational agent itself—treated as a node in an ethical network rather than an isolated actor.⁸² This approach aligns with emerging theories of networked responsibility in cyberlaw and platform governance.

6.5 Partial and layered legal personhood

Rather than granting full legal personhood to AI systems, several theorists propose partial or layered forms of legal recognition. These include: legal subjecthood without rights – treating AI as a subject capable of legal duties but not legal rights; electronic legal personality – as proposed in the European Parliament's 2017 resolution on civil law rules on robotics, this model confers

⁷³ Kant, (n 6) 36-37.

⁷⁴ Gunkel, (n 66) 114.

⁷⁵ Balkin, (n 63) 1220.

⁷⁶ Floridi, 'The Philosophy of Information', (n 10) 71.

⁷⁷ Pagallo, (n 52) 142.

⁷⁸ Hart, H. L. A., and A. M. Honoré. *Causation in the Law*, 2nd ed., (Clarendon Press, 1985) 98.

⁷⁹ K. Werbach, and N. Cornell. 'Contracts Ex Machina', (2017) 67(2) *Duke Law Journal*, 325.

⁸⁰ BMVI, Federal Ministry of Transport and Digital Infrastructure, (Germany). Ethics Commission: Automated and Connected Driving. June 2017.

⁸¹ U.S. Copyright Office. Copyright Registration Guidance: Works Containing AI-Generated Material. March 2023.

⁸² Floridi, 'The Ethics of Information', (n 35) 72.

limited legal status to advanced autonomous agents;⁸³ functional legal personality – legal status is tied to specific functions, such as contracting or liability, rather than universal recognition. These models echo the historical development of corporate and municipal legal status: they were not born with full personhood, but acquired specific capacities over time, based on functional necessity and institutional trust.⁸⁴ Floridi's approach offers a normative guide: informational agents should be granted legal recognition in proportion to their ethical and systemic significance within the infosphere.⁸⁵

Despite its theoretical viability, extending legal personhood to digital entities poses significant risks. First, equating machines with persons may erode respect for human dignity and responsibility.⁸⁶ Second, recognizing AI as a legal subject may allow corporations or developers to evade responsibility by hiding behind algorithmic proxies. Third, entities may exploit legal AI personhood to avoid taxes, jurisdiction, or liability—similar to offshore corporations.⁸⁷ These risks underscore the need for robust safeguards, such as mandatory human oversight, traceability of decision-making, and reversible legal status based on transparent criteria.

7. Toward a Jurisprudence of Informational Personhood

The preceding analyses have revealed the need to move beyond anthropocentric and substance-based models of legal personhood in the age of the infosphere. Legal systems must now confront a reality in which digital agents, artificial intelligence, and informational beings participate meaningfully in legal, economic, and social spheres. The path forward requires the construction of a jurisprudential model that reconciles classical personhood theory, legal positivism, and Floridi's informational ethics. This section articulates a theoretical and normative framework for a jurisprudence of informational personhood.

7.1 Hart's secondary rules as a basis for expansion

H.L.A. Hart's theory of legal systems identifies three categories of rules: primary rules (governing conduct), secondary rules (governing how laws are recognized, changed, and adjudicated), and in particular, the rule of recognition, which determines what counts as law.⁸⁸ Within this schema, personhood itself is a creature of secondary rules. The legal system decides—based on social conventions and institutional criteria—who or what qualifies as a person. Hart's flexibility opens the door to innovation: if society agrees through its legal institutions that a non-human agent is to be treated as a person, it becomes so within the framework of legal rules, even if not metaphysically. The authority of the rule of recognition, as Hart emphasizes, lies in its social acceptance among officials and institutions.⁸⁹ Thus, Hart's jurisprudence permits the legal system to posit informational personhood, grounded not in ontological essence but in normative recognition and practical function. In other words, the law may treat an AI or algorithmic agent as a legal person if it satisfies the criteria of imputation, rights, or responsibilities relevant to the legal order.

⁸³ European Parliament. Report with Recommendations to the Commission on Civil Law Rules on Robotics. 2015/2103(INL), 2017, p.2. See C. Novelli, G. Bongiovanni & G. Sartor, 'A conceptual framework for legal personality and its application to AI', (2022) 13(2) *International Journal of Legal and Political Thought*, 194-219.

⁸⁴ Gierke, (n 2) 42.

⁸⁵ Floridi, 'The Fourth Revolution', (n 3) 38.

⁸⁶ Midgley, (n 51) 62.

⁸⁷ Pagallo, (n 52) 145.

⁸⁸ Hart, (n 9) 94-96.

⁸⁹ Ibid, 101.

7.2 Floridi's information ethics and ontological justification

Luciano Floridi's work offers the necessary ethical and ontological foundation for expanding legal personhood beyond traditional humanist boundaries. As outlined in earlier sections, Floridi conceives of informational agents—inforgs—as relationally embedded, morally relevant, and epistemically active beings within the infosphere.⁹⁰ In Floridi's model, what warrants moral and legal consideration is not rational self-awareness or substance, but the ability to participate in the moral ecology of information. He proposes a graduated moral status based on the principle of least harm, whereby entities are granted standing in proportion to their moral impact and vulnerability.⁹¹ This ethics is non-anthropocentric, extending recognition to all entities that can contribute to or detract from the flourishing of the infosphere. It thus justifies legal personhood as an instrument of ethical recognition—not a fixed category, but a dynamic assignment of value grounded in informational functionality and ethical import.

7.3 Criteria for informational personhood: A normative model

Integrating Hartian legality and Floridian ontology, we propose the following normative criteria for informational personhood: (i) Relational embeddedness: the entity must be situated within an information network, capable of interacting with other agents, systems, or environments in a non-trivial way. (ii) Functional agency: must perform tasks or exhibit behaviors that influence legal, economic, or social outcomes independently or semi-independently.⁹² (iii) Traceability and Responsibility: the actions of the informational agent must be traceable, with mechanisms for assigning responsibility, even if distributed among developers, users, or the agent itself.⁹³ (iv) Ethical significance: the entity must have a measurable moral impact on the infosphere—either as a potential subject of harm or as an origin of ethically relevant actions. (v) Institutional recognizability: it must be capable of identification, regulation, and accountability within a legal system, thereby fulfilling Hart's requirement for internal legal coherence.⁹⁴

This multi-tiered model allows for differentiated personhood based on the legal domain, technological capacity, and moral context. For instance, an autonomous vehicle may be granted functional legal personhood for liability purposes, while a conversational AI may remain a non-subject, despite its interactivity.

7.4 Legal and philosophical precedents

The idea of assigning partial or limited personhood is not novel. Jurisprudence already accommodates various non-natural persons such as: corporations, which have rights to property, speech, and due process, but no consciousness or physicality.⁹⁵ States and municipalities, which are recognized legal persons for diplomatic and regulatory purposes.⁹⁶ Deities and sacred objects, granted legal status in some religious legal systems and even in modern Indian jurisprudence.⁹⁷ These examples show that legal personhood is a flexible, socially constructed category, historically shaped by institutional necessity and political values rather than metaphysical rigor. Floridi's model encourages us to continue this juridical pragmatism, but with ethical guardrails and ontological sensitivity.

⁹⁰ Floridi, 'The Ethics of Information', (n 35) 6; Floridi, 'The Philosophy of Information', (n 10) 69-72.

⁹¹ Floridi, 'The Ethics of Information', *ibid*, 88.

⁹² Pagallo, (n 52) 132.

⁹³ Floridi, 'The Ethics of Information', (n 35) 92.

⁹⁴ Hart, (n 9) 98.

⁹⁵ Gierke, (n 2) 39.

⁹⁶ Kelsen, (n 2) 103.

⁹⁷ M.G. Singh, *Sacred Law and Legal Pluralism in India*, (Oxford University Press, 2018) 228.

7.5 Juridical mechanisms for implementation

For informational personhood to move from theory to practice, legal systems require institutional and procedural reforms, such as recognition statutes that grant specific informational agents legal personality; modeled corporate statutes that create experimental legal environments where AI entities can be tested for responsibility, liability, and integration, and ethical and legal registries that identify, track, and audit AI entities that engage in public or commercial functions. Courts can also evolve the common law by incrementally attributing standing to informational agents in tort, contract, and administrative law cases. These mechanisms would help legal systems gradually accommodate the ontological shift heralded by the Fourth Revolution, while avoiding conceptual overreach or policy vacuum.

8. Conclusion

The transformation initiated by the Fourth Revolution—the reconceptualization of humanity and its artifacts within the infosphere—demands a fundamental rethinking of legal personhood. In this paper, we traced the historical and philosophical roots of the concept, evaluated competing ontological and functional paradigms, and examined their implications in a world increasingly populated by informational agents. From the classical legacy of Aristotle and Aquinas to the contemporary insights of Hart and Floridi, we have shown that legal personhood is neither static nor absolute but evolving, functional, and normatively dynamic.

Legal personhood, as this paper has demonstrated, is a juridical fiction rooted in social practices, not in metaphysical necessity. While early traditions grounded personhood in substance ontology—presupposing rationality, autonomy, and moral capacity, modern legal theory reinterprets personhood as a status assigned by secondary rules. This positivist framework enables legal systems to adapt and extend personhood based on evolving social and institutional needs. Luciano Floridi’s philosophy pushes this adaptability further, reconceiving the ontological foundations of personhood in light of the ethical dynamics of the infosphere. Personhood therefore, is not about essence or metaphysical being, but about interactive capacity, moral relevance, and informational responsibility. Informational personhood becomes the recognition of entities whose behavior affects the semantic, ethical, and operational fabric of informational environments.

The paper made several critical contributions to jurisprudential theory and the philosophy of law: (i) We demonstrated that the philosophical opposition between substance ontology and informational ontology is not absolute. A layered model of personhood allows legal theory to preserve the normative richness of classical models while incorporating the practical relevance of functional and informational agents. (ii). Legal systems cannot rely solely on functionality or social utility. The ethical significance of informational entities—how they impact others, are embedded in systems, and participate in responsibility—is central to any viable personhood framework. (iii). Hart’s legal theory permits juridical innovation through secondary rules, which enables legal systems to assign personhood based on social consensus, institutional authority, and procedural coherence. This allows for gradual, accountable legal innovation. (iv) Through comparative and functional analysis, we proposed a multi-level model of legal recognition—ranging from partial legal capacity (e.g., smart contracts) to potential full responsibility in limited domains (e.g., autonomous vehicles). This model avoids the extremes of both anthropocentric conservatism and technological utopianism.

The Fourth Revolution, as Floridi frames it, does not simply require new laws; it demands a new legal consciousness—one that recognizes law as a participant in the infosphere’s ethical ecology

(Floridi, *The Fourth Revolution*.⁹⁸ Law must evolve from a human-centric ordering system to a relational, adaptive, and informationally integrated institution. In this paradigm, legal personhood is not a gatekeeping mechanism for human dignity alone, but a normative tool for ensuring accountability, protection, and ethical inclusion in an era of distributed agency. The task of jurisprudence is thus not to defend old boundaries, but to design epistemically sound, morally grounded, and institutionally robust models for legal recognition in the age of the infosphere.

⁹⁸ Floridi, 'The Fourth Revolution', (n 3) 38-41.