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# Artificial Intelligence in Ancient Rome: Classical Roman Philosophy on Legal Subjectivity

**Abstract:** Conceiving of technology in its relation to modern society in terms of power imbalances dates back to antiquity. Particularly the understanding that there are ‘instruments’ of ‘instruments’ has its roots in the Aristotelian conception of slavery as a morally unacceptable institution both historically and today. In antiquity, slaves were seen as tools in symbioses: The prosthetic extensions of others, simultaneously persons and things. When we conceive of digital technology as a communicative artefact that is an extension of technological reason we face the same dilemma today. This paper seeks to draw historical connections between cybernetics and slavery around the general question: will AI technology result in a new type of slavery? As such this requires us to rethink the intricate concepts of humanness, subjectivity and sovereignty in Roman philosophy in order to apply them to the contemporary ethical questions on artificial agents and digitization of technology.

## Introduction

The anthropomorphization of machines and the mechanization of humans blur the lines between ‘humans’ and ‘things’, opening a plethora of metaphysical and ontological discussions. The involvement of artificial agents in the ‘political ecology’ requires us to rethink the concept of legal subjectivity. The mastery and control relationship in cybernetics has always been central. Such sovereignty relationship referred as *domenica potestas* in Roman philosophy, was the key concept around which the Roman society organized its labor relations. Roman law, reflecting the tension between natural law traditions and pragmatism, demonstrated the traditional dualism of *persona* and *res* in legal subjectivity.

In ancient Rome, slaves were not considered as ‘persons’. However, acknowledging the ‘humanness’ of slaves, Roman philosophy considered slavery being against the laws of nature and recognized the derivative legal subjectivity of the slaves. Such derivative subjectivity could be traced back to the Aristotelian idea that the slaves were inanimate tools, the prosthetic extensions of the owners or the ‘instruments’ of the ‘instruments’. As such, AI, being the extension of technological reason, faces the same dilemma today. Artificial agents that are almost ‘hu-

mans' with their epistemological decision making mechanisms, are owned by human masters as communicative artefacts. Being such 'actants' makes them capable of legal subjectivity.

As the historical connections between cybernetics and slavery resulted in the juxtaposition of the Roman slaves and artificial agents, this paper concerns itself with the dualist approach of Roman philosophy on legal subjectivity: being a person and a thing at the same time. Roman legal philosophy is not only the history of ideas, but also the future of legal relationships. Being the ultimate sci-fi of its era, the works of Roman jurists started to be considered as a model for the practical problems arising from AI technology.<sup>1</sup>

## Roman Philosophy on the Dual Characteristics of Slaves

There is a common and reasonable misunderstanding that slaves were not considered human in ancient Rome (Chopra and White 2011). In the classical era, legal subjectivity was not determined based on humanness. It was formed based on different social and political status given to the human beings concerned. These forms of status were *status libertatis* (the liberty status), *status civitatis* (the status of citizenship) and *status familiae* (the family status). As such, only free citizens of Rome who were not under the sovereignty of another family member could be considered as a legal subject, a person who can have rights or obligations. These forms of status did not have the same gravity when determining one's personhood. The *status libertatis* was considered as the most important element when defining legal subjectivity. As such, if one lost his or her freedom he or she faced *capitis demunitio maxima*, the maximum loss of personhood (Buckland 1950; Watsons 1987; Borkowski and Du Plessis 2020). The relationship between master and slave revolved around *domenica potestas*, which was the reason why slaves were subjected to the dominion of another; or better put: to the law of another. It referred to the patronage relation between the master and the slave, a type of sovereignty performed over a human being.

Nevertheless, the sources on classical Roman philosophy, notably the works of Cicero and the Stoicist school, demonstrate that even though slaves were not con-

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<sup>1</sup> The legal implications and the liability of AI with contractual and delictual nature are discussed in depth in another paper. As part of the general project, this paper contains the philosophical considerations and challenges that are necessary for the legal architecture of the AI technology. For more information about the practical implications, see Ucaryilmaz Deibel 2021.

sidered as persons in the legal and institutional sense, they were acknowledged as human beings. This was a dictate of natural law. In other words, the philosophical works reflected the obvious tension between how the status of slavery prevented legal personhood, making slaves the object of the legal system, and how at the same time their natural status of humanness could never be denied. Such concrete effect of the classical natural law tradition survived via Justinian's compilation of Roman law in the post-classical era, the *Corpus Iuris Civilis*.

This text did not only constitute a civil law codification of the Byzantine era but also a text book of law and legal philosophy, which demonstrated the different views of the classical legal philosophers. The first book of the compilation contained an explanation, stating "all legal rules are related either to persons or to property or actions" (*omne ius quo utimur vel ad personas pertinet vel ad res vel ad actione*) (Ins. 1.2.12, Goudy 1910) In this sense, the status of the slaves was expected to be addressed in the law related to property, as the slaves were thought nothing but a mere thing. As such, the classical jurists Ulpianus and Paulus presented us with a naturalistic understanding of personhood: *Servus nullum caput habet*, the slave has no personality. The word 'caput' which means head in Latin reflected the precarious nature of their existence: The slaves could never be subjects (Gaius, Ins. 1.86).

Classical Roman texts also addressed slavery as an institution within the book on persons, acknowledging they are as human as any free person can be. The slaves were not only *res*. They had full responsibility from their criminal actions, delicts, and the decisions they made. The sentence in Latin was not constructed with the word *aut* (or), but instead, the word *vel* (rather, or...) was used. This is generally accepted as a conscious linguistic decision as *vel* as a disjunctive conjunction indicates a contrast depending on a subjective choice whereas *aut* refers to an objective situation. In other words, *aut* indicates excluding the other possibility, whereas *vel* underlines interchangeability (Buckland 2010). To support this view, Theophilus clarified this statement in the 6th century as he acknowledged that the division between human beings and things was not definite (Theophilus, *Paraphrasis Institutionum* Ad. In.1.3.pr.). There was no black and white. Orlando Patterson sees this dualism of being a person and thing at the same time as a practical achievement that leaves no place for vagueness (Patterson 1982).

What Patterson emphasizes is that Romans developed numerous remedies to overcome this duality. They positioned their legal system as opposed to their natural law tradition to address the challenges based on simply policies. This story reminds us today of the status of AI as it establishes a basis from where to look at a future interchangeable interrelationship between *persona* and *res*. AI as a human and a thing and as person and property. In the contemporary world, the machines are acting like humans, realized as a dynamic and interchangeable relationship be-

tween master and machine wherein we are convinced the machines are like us. Not quite, of course, with this symbiosis of man and machine, a legal relationship is gradually materializing that inescapably returns us to the Roman roots of law – to when this relationship was not about machines and their masters, but about masters and slaves. Then, just as today, we are not just speaking philosophically, as with Hegelian dialectics, but literally about the return to the origin of contemporary law, which lies in how Roman society organized its trade and business around its laws of slavery (Wiener 1989).

Modern history of cybernetics – ergo robotics –, returns to us something that was always already central to history, and hereby legal philosophy and subjectivity is forced to face its roots. How is it that with the spread of AI throughout our lives come conceptualizations and practical implementations that have their origin 2000 years ago? It is redundant to state that such a focus on the Roman view on legal subjectivity from the lens of slavery and its relation to AI should not in any case be formulated or interpreted as a defense of slavery as an institution that lacks morality, both historically and today. This applies to how slavery exists in today's world for many millions of living people, to the law as well as to how we imagine the possibilities for AI gaining self-awareness (Pagallo 2011).

Roman legal philosophy owes tremendously to Greek thinkers, as Romans were never as philosophically minded as their Greek contemporaries. As such the Roman approach to slavery is distinctively similar to the works of Aristotle. In *Politica*, Aristotle discussed the slavery as either artificial or natural (Aristotle, *Politica* 1.1255a.). Natural slaves were the ones that were born slaves, they had the aptitude for physical labor. They did not share the cultural similarities with the Greek and they were obedient. On the other hand, some slaves were unnaturally under *domenica potestas*. They were war captures, or criminals condemned to slavery – *servi poenae* – and later demonstrated a fear of rebellion as a result of 'unnatural' slavery and of a clash of consciousness between masters and slaves (Smith 1983). Coming from Greek philosophy via Stoicism, Romans acknowledged slavery as *contra naturam*. As opposed to the Aristotelian view, they did not differentiate between types of slavery, rather they condemned all sorts of slavery relations as being against nature (Gaius., Ins. 1.52, Ins. 1.3.2–3, D.1.5.4.1 Florus 9 inst.).<sup>2</sup>

In ancient Greece and Rome, slaves were not seen different from masters. They were merely considered as his extremities. Aristotle uses the word 'organon' as he refers to the position of the slaves. They were the animate tools, the instruments that the master utilizes. In other words, their existence was derivative to the

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2 The expression reads as follows: "*Servitus est constitutio iuris gentium, qua quis dominio alieno contra naturam subicitur*."

existence of the master (Aristotle, *Politica* 1255b). The Romans adopted this view of Aristotle as ‘slaves as masters’ and designed their juridical system based on the secondary and derivative legal subjectivity of the slaves. This system is proposed to be adopted when it comes to the legal acts of AI in our contemporary world.

## AI: More Human than Human

Artificial intelligence (AI) is often used as an umbrella term and as such, has connotations that are reductive in regard of what counts as intelligence and by extension, ‘being human’. In this regard its challenge to the notion of humanness centers on ‘intelligence’ as the ability to think and to create. When AI has the ability to display a certain behavior that might have been epistemologically categorized as intelligent, we are describing it as more or less similar to the agency of a human beings (McCarthy 1990). Such an approach is obviously fallacious in the sense that it is overly simplistic in how it seeks to define and standardizing the notion of intelligence.

Treating intelligence as an engineering benchmark, however, reflects the *modus operandi* of machines to execute cognitive and analytical human-like functions. Accordingly, scientists distinguish between different scales and capabilities of AI. Sometimes this is presented with computers as the principle instrument whereby cognitive processes are investigated and imitated, but increasingly no such tools are mentioned but rather AI is imagined in terms of complex and distributed self-learning processes that lack clear supervision. Identifying output streams, aka machine learning is an essential part of such a *modus*. The idea is to let systems evolve and learn on their own, meaning that they will evolve in an exponential manner in terms of capability (LaGrandeur 2013).

Such a process therefore relies on its own previous knowledge and experiences, once again humanizing machines so that we can imagine them to be thinking and acting rationally. In this sense machine learning shows such anthropomorphism in how it imagines the famous Turing test and similar imitation games can be passed. If a machine has natural language processing, knowledge representation, automated reasoning and machine learning skills, it is considered as an agent thinking like a human being. A similar approach is seen in ‘deep learning’, which refers to the building and usage of neural networks as decision making nodes, mimicking human neurology (Kelleher 2018; Peters and Besley 2019).

In other words, we cannot understand what is going on in that machine-like brain as it increasingly is presented to us like a black box with nontransparent and incalculable internal dynamics (Teubner 2006). Therefore, artificial intelligence as a discipline is based on the premise that every aspect of learning can

be simulated by a machine. Simulation is the key concept here: Cameras as eyes, microphones as ears, speakers as mouth, sensors as skin and nose, which creates the humanness of the machine.

The questions can also be reversed as humans can also be considered machines. Our neurological activities include mechanical steps, making us organic, natural machines. Human beings are composed of information, where life is coded in their DNA. Information theory also suggests that feelings and intelligence is nothing but impulses. In other words, humans are conceptualized as feedback loops, as information that is generated within the constant interplay between biology and informatics. In this sense, AI refers to the artificial brain and robotics refers to the artificial biology.

There are many expectations about the end-result of this interaction between human and machine. Some visionaries are predicting that humans in the conventional sense will be extinct by the time of fully sentient AI. Whether or not that means we are enslaved by the AI is open for debate as one could argue that human intelligence would be persuaded to become part of ‘artificial general intelligence’. Such speculation, however, is not crucial to the argument proposed here. Such visions (like general AI) might turn out to be exaggerating the expectations about AI, deep learning, machine learning etc. in how it invariably relies on anthropomorphization of human-machine relations. Whether or not this might be a form of (science) fiction, such expectations have real consequences: The anthropomorphism of the machines comes with the mechanization of human beings.

Roman philosophy helps us to draw the analogy between slaves and AI with its legal and pragmatic understanding of the possible dual state of agents: One can simultaneously be a *persona* and a *res*. Slavery reflected a *sui generis* status as a compromise between the unique characteristics of humanness and property in the “liberal economy of Rome”. Roman philosophy provides us with the first examples of hybrids visible in the inter-changeable relationships of the master and the slave. Today, we are witnessing these hybrid structures as the association of human and non-human actors where personality serves as the element that allows for their structural coupling (Teubner 2006; Luhmann 2012).

It is instructive here to consider for a second the term cybernetics as a predecessor of AI and the information age (Kline 2015). The term cybernetic, as the predecessor of AI, first used by Norbert Wiener, comes from Greek *kubernetes*, steersman, referring to devices that could self-steer. The connection between slavery and cybernetics was therefore revolving around *dominica potestas*. What classical Roman philosophy shows us is that humanness was never an inherent property when determining legal subjectivity. While a sentient, human mimicking robot is *a fortiori* easy to analogize to a natural person, this is not necessary. There is no need to naturalize humanness or assume a human spirit as the foundation of legal

personality, as is the case with the Hegelian understanding of legal personality. No analogy between natural persons is required when we refer to how corporations, foundations and associations have legal personality which had already started to be established in Roman law.

In other words, personifying non-humans is a social reality today. Recently the Whanganui River in New Zealand was accepted as having legal subjectivity (Stone 1972; O'Donnell and Talbot-Jones 2018). This may well be a legal necessity for the future AI. Law attributes legal personality to flows of communications to stabilize social expectations (Teubner 2006). Teubner proposes the non-human objects to be personified as the Latourian concept of *actants*: Communicative structures to which “the apparatus of science has given a voice”. (Teubner 2006, p.510). Today, new hybrids and *actants* are entering the commercial scene and transforming the political ecology, challenging yesterday's anthropocentric view and transforming it to the ecocentric view of legal relationships (Latour 1996; Teubner 2006).

## Going Back to the Classical Debate

Legal subjectivity and the social challenges arising from AI are widely discussed in today's legal scholarship. The relationship between philosophy, law, technology and society might never have been this concrete. Yet, classical philosophy on the blurred lines between persons and things shows us that the challenges are not new. It is within that context that Roman law remedies are again relevant for today's predicament as they open up a perspective to break through the juxtaposition of the machine and the human that is making it difficult to manage the plethora of practical issues that come with the development of AI. This similarity is even visible in official documents, such as those by the EU expert group on the liability of AI which referred to Roman remedies as a possible solution to govern AI.<sup>3</sup>

However, such a practical perspective comes at a price, opening up the relation between master (*dominus*) and slave (*servus*) that clashes with our modern understanding of what is to be a fully emancipated liberal agent (Kant 1998). Sensible as this perspective is when trying to understand the relation between legal and technical subjectivity in practical terms, the problem begins when pushing this argument on to the question of the unity and the continuity of human nature. Such an argument might give the impression that the declassification and disqualification of human exceptionalism is a given, considering that it is based on an ‘inaccurate’ split of law/ethics and technology. After all, if humans with their laws

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<sup>3</sup> European Union Expert Group on Liability and New Technologies (2019).



and ethics were never isolated from technology, is the human as a bearer of right an illusion that modern science strips from us? Perhaps we never had the dignity, autonomy and reason we pride ourselves for to begin with? (Žižek 2004; Tamminen and Deibel, 2019)

In other words, we should be aware that such versions usually come with a concept of the liberal agent that is presented in a distinctly non-Roman conception of free will, dignity and autonomy that belongs to the history of liberal democracy's commitment to the freedom and equality of individual citizens. This is not how the Romans understood the individual, which matters when we enter the murky terrain of AI-consciousness and self-awareness and by extension begin chipping away at historically static or universal understandings of what is unique about 'the human' and whether or how we should be committed to moral autonomy of human individuals as the highest human good in liberal societies as organized around the rule of law.

Such a more fundamental philosophical debate about what it is to be human has different sides in its relation to technology. For example, there is a strong current in STS scholarship that finds these problems relevant to law through its critique of how law is usually understood as following technological developments. The idea that technological developments and societies are separate and independent is still around (Wyatt 2008). Instead, other STS scholars like Jasanoff argue that legal philosophy and technology mutually shape each other and this process does not revolve around two separable, independent worlds. Both the material and the social construction of technology and law need to be acknowledged (Jasanoff 2004).

This also applies to Roman philosophy and its relation to technology which presents us with a legal example of how the introduction of a novel technology did not simply change the legal rules of its time. Rather, it helped to shape the legal paradigm continuously. This included the practice and management of slavery as a Roman institution, which in this version of events turns into an illustration of how technology and law were the socio-technical infrastructures of its day and how both were always embedded in social contexts. Not only does it involve human actors deciding to use technology morally or not, legal ethics depend on relationships between human and technologies, existing in hybrid networks (Jones 2018).

Roman law of slavery was revolutionary in including 'hybrids' or 'actants' in commercial life (Latour 1996; Teubner 2006). Such perspective might inevitably result in the assignment of a *sui generis* legal subjectivity to AI (Solum 1992). What is important in such a future scenario would be considering this solution from the perspective of the classical Roman philosophy which requires not to be trapped in the early-modern conception of humanness. Legal subjectivity is not a uniform concept. Rather, it refers to a bundle of fundamental capacities such as having rights,



obligations, responsibility, accountability and so on. In this sense, in the future if AI will ever be granted some of these capabilities, its legal subjectivity will be based on the fiction that they have human-like characteristics. In other words, they would be *persona ficta*.<sup>4</sup>

## Conclusion

The inevitable cyborgization of humans would definitely be a change for tomorrow's post-humanist world, if not danger (Fuller and Lipinska 2014). This novelty brings classical questions about humanness into the spotlight again. What was human yesterday and what will it be tomorrow? In the near future it is predicted that some AI will be treated as business partners or family members instead of simple tools. Just like the slaves being integral to business-life in ancient Rome, the AI will *de facto* be capable of making decisions which will affect the subjectivity of others. Facing the new technological paradigm with the current development of AI, we can also decide to go back 2000 years to look for answers. We are invariably going to be confronted with similar questions as the ones that the Romans had. This is urgent, considering that we are dealing with a variety of debates over how to deal with the technology-driven dualism in the legal world.

In ancient Rome, slavery was never a definite status. The master could emancipate the slave any time. The emancipation (*manumissio*) resulted with a change of *cives* on the side of the slave who became a *libertinus* (the freedman). This ended the *domenica potestas*, that is the power of sovereignty of the master on the slave. Yet it created a new patronate relationship with the former master who became a *patronus* and the former slave, *libertinus*. Ultimately our analysis brings us closer to the Aristotelian idea of “slaves as masters, not others”. This shows two sides, changing *cives* and, in time, re-inventing the patronage relationship.

In this sense there is no contradiction with modern ideas but a continuity from antiquity to the legal theories of agency from Aristotle to Hegel's dialectic of lordship and bondage (Hegel 1977). Hegel, as a reader of ancient Rome, juxtaposed Roman philosophy to the political developments of his time. The narrative about the power relations between two people changing positions over time, ending bondage, reflects the concept of *manumissio* in Rome. Hegel's struggle of bondsman and the lordship is focused on consciousness before the social roles were

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<sup>4</sup> The theory of *persona ficta* was developed in Canon law, mostly attributed to post-glossator jurist Bartholus. The legal subjectivity of all non-humans such as companies, guilds, associations etc. is based on this theory.

changed. This idea is also applicable to our questions: Can the sophisticated AI be a quasi-*libertinus* after being granted a *sui generis* legal subjectivity? Is the AI more likely become enslaved by humans or will the consciousness of robots enslave humans?

The word *persona* in Latin comes from the ancient Greek word *prosperon*, often referred to the outward appearance of the man (van den Hoven van Genderen 2018): just like today's AI technology is an extension of the human intellect and intentions. Today the position of AI is frequently formulated as a false dilemma that would have us choose between robots as objects or robots as sentient entities. This logically implies that we are dealing with subjects, ones that eventually might legitimately ask to be fully emancipated entities on the premise that they have degrees of autonomy, dignity and a functioning consciousness. Even if we are modest about the notion of self-aware AIs, the opposite also applies. Nonetheless, this type of 'return of slavery' should not be understood as a toleration of any type of slavery whether it is race-/class-oriented or simply referring to our merger with machines. Quite the opposite, we should remain critical and be aware of its past as it exists in Roman legal philosophy.

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