

## The Greek Gods and the Metaverse: Legal Order in the Layered Universe

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**Abstract:** The article explores how human relations in relationship with „the metaverse” – a novel term used to describe an alternative reality enabled by nascent immersive technologies like virtual reality and augmented reality, in combination with blockchain and artificial intelligence - can be understood conceptually by drawing parallels to systems of thought based on a multi-layered universe. Greek mythology offers insightful examples of interactions between the different layers of the ancient Greek universe. One can easier understand how to design the rules for the responsibility of humans interacting with each other in different layers of the universe (as physical beings in the natural reality and as avatars the virtual reality of the metaverse), as well as the interaction with their created purely artificial beings (artificial intelligence -non playable characters in the metaverse), when looking at the way in which the Greek mythology has designed such situations. The epic interactions between Greek gods in Olympus, men on Earth, and souls in the underworld, illustrate lessons around fundamental concepts questioned by the nascence of the metaverse, such as personal identity, free will, and laws in a multi-layered universe. Also, one can look at the model of the layered universe, with moral rules incorporated by Gods in the fabric of the humans as part of the reality of Earth, and perhaps learn as to how one could design ethical behavioural rules in the fabric of the metaverse, too. Using the analogy with Greek mythology, the article explores the fundamental dilemmas humans have now, in terms of addressing the issue of responsibility and representation in the newly create metaverse, seen as a new layer of the universe.

**Keywords:** Metaverse, responsibility, legal order, avatars, artificial beings.

### 1. What does Greek mythology have to do with the metaverse?

When the modern concept of the metaverse was launched, the very creation of the word included a Greek root, „meta”<sup>2</sup>. The word’s meaning can

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<sup>2</sup> Dwivedi, Y.K. et al. (2022). Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*. Volume 66, October 2022, 102542.

roughly be interpreted as „after, what is beyond the physical reality”<sup>3</sup> or, as a second meaning, „that that it is changed.”<sup>4</sup>

Usually, when we create a word for a new concept, our mind generates that word by anchoring it into a specific place within our system of knowledge. The word transmits more than sounds, it transmits conceptual information. Similar to different writing systems, the new words we create are more similar to ideographic scripts like hieroglyphics than to segmental scripts like alphabetical writing nowadays. The new word is rarely a mere collection of sounds but is more like a conceptual pictogram or ideogram. There is a whole world, a whole reality which the new word introduces us to, at a conceptual level.

In the case of the new word *metaverse*, it introduces us to the conceptual world of the Greek perspective over the universe. That concept alludes to the ancient Greek vision of the world, the Greek universal mythology, and the relationship between humans and Greek gods<sup>5</sup>. In this context, perhaps it is worth asking what we can learn from the Greek perspective of the universe and how we can use this approach to understand better the new reality that we are experiencing with the appearance of the *metaverse*.

## 2. The layered universe

The universal perspective of the Greek mythology is based on the creation of a layered universe (The Cosmos<sup>6</sup>), divided into three realms:

a) the upper realm (The Upperworld, Mount Olympus, The Heavens) inhabited by gods;

b) the middle realm (The Earth) created by gods and inhabited by humans, who are themselves a creation of the gods;

c) the under realm (The Underworld), also governed by gods, where human souls go after death<sup>7</sup>. Here the human souls are allowed to access different areas, as a result of a judgement of their life on Earth, in a rather meritocratic division into four regions. These regions were: Tartarus (reserved for the worst transgressors), the Elysian Fields (only for the most excellent of men), the Fields of Mourning (for those who were hurt by love), and the Asphodel Meadows (for the souls of most ordinary people).

Gods can travel through all three layers of the Cosmos, but when they descend onto Earth, they cannot access it in their original shape, but they have to incarnate into different shapes of the existing beings on Earth. These shapes may be plants, animals, different beings, or humans. Zeus has been described as

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<sup>3</sup> A use that can be found in Aristotle’s *Metaphysics*.

<sup>4</sup> Stanford Encyclopedia of Philosophy. (2000). Aristotle’s *Metaphysics*. Accessed on 08.11.2022. <https://plato.stanford.edu/entries/aristotle-metaphysics/#GlosArisTerm>

<sup>5</sup> Graves, R. (1955). *The Greek Myths*, Penquin Books.

<sup>6</sup> Boutsikas, E. (2020). *The Cosmos in Ancient Greek Religious Experience: Sacred Space, Memory, and Cognition*. Cambridge University Press, DOI:10.1017/9781108769082.

<sup>7</sup> Siddiqi, R. (n/a). *Greek Underworld*. SCRIBD. Accessed on 08.11.2022. <https://www.scribd.com/document/374797603/Greek-Underworld>

impersonating dozens of shapes — a shepherd, various birds, a bull, an ant, a shower of gold, other gods' image, a flame of fire — in his already infamous romantic quests<sup>8</sup>.

If we look at the metaverse, as it is built with blockchain technology nowadays, we immediately start noticing strong parallels to the Greek mythological model. We realise that the modern metaverse is similar to a layer of the Cosmos, as a creation within our universe. A metaverse is a realm created by humans in a virtual form, supported by specific hardware, and populated by characters created using artificial intelligence (AI). Some of these characters are strictly using AI; these are usually known in the gaming language as non-playable characters, but for the purpose of this paper we shall call them purely artificial beings<sup>9</sup>. In contrast, others may have some features created through AI but where a direct human intervention in their behaviour is permitted by the software (in the same gaming language these are known as playable characters; we shall further refer to them as avatars).

When people enter a metaverse, they „incarnate” themselves into one of the many different shapes permitted by the software design of that metaverse. The name for that impersonation in the metaverse is „avatar”<sup>10</sup>. This is not a Greek word, but it is similar to the concept of the mythological incarnation of gods in Greek mythology. Avatar is a concept from Sanskrit mythology, meaning „descent”, and referring to the presence of a deity on Earth, in a human form or some other apparition.

Using this analogy helps us build a mental model for conceptualising the relationship between the physical reality and the metaverse, between human bodies and artificial bodies created by programs, and also to learn from the wisdom of the ancient Greeks as to the potential dangers of a layered universe. Interactions in the metaverse may similarly bring issues into the single-layered reality most of us are used to perceiving (henceforth called ordinary reality)<sup>11</sup>.

Using this analogy, the ordinary reality becomes the equivalent of Olympus (the upper realm), while the metaverse becomes the equivalent of Earth (the middle realm). It remains to be seen what if also a concept similar to the Underworld will appear. It may be possibly developed in the future, as a depository database for the out-of-use metaverse entities, as a way of keeping them around instead of deleting them completely. Such out-of-use entities would no longer be part of the metaverse people are interacting with on a normal basis, but some programmers would still be able to access them. It would also make sense to organise them based on their importance in terms of their functionality, similar to

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<sup>8</sup> The Project Gutenberg. (1999). The Odyssey by Homer.

<sup>9</sup> Khan, U.A. Okada, Y. (2014). Emotional Decision Making Response of Non-Playable Characters in a Role-Playing Game. IADIS International Journal on Computer Science and Information Systems Vol. 9, No. 2, pp. 53-66 ISSN: 1646-3692.

<sup>10</sup> Korea, K. (2022). Metaverse and Digital Identity. Arbitrate.com. Accessed on 08.11.2022. <https://arbitrate.com/metaverse-and-digital-identity/>

<sup>11</sup> Anderson, J. Rainie, L. (2022). The Metaverse in 2040. Pew Research Center.

how the Greek Underworld was hierarchically distributed. Maybe the need to build this additional concept parallel to the Greek Underworld from the very beginning of the metaverse development is one of the inspirations one can draw from Greek mythology. After all, there is great use in saving our past creations as a guide to improvement as well as inspiration when needed later on.

### **3. Personal identity and free will in the layered universe**

By looking at these striking similarities, we may better understand the difference between the personality of a human in the ordinary reality and their virtual presence, or avatar, in the metaverse. As far as their presence in the metaverse is concerned, people are limited to the type of characters they embed and also to the actions available to them by the limits of the virtual reality of the metaverse. For instance, as the Greek gods could not take any form, but only forms similar to those existing on Earth, the same is true for us today when entering the metaverse. Such forms come with their inherent behavioural limitations. Basically, we have less freedom in our metaverse avatar, where we are constrained by the programmed features of the avatar than we are in the ordinary reality.

Additionally, looking at Greek gods' presence on Earth, one may also better understand that the access of people in the metaverse cannot possibly be without consequences. Despite the avatar not lacking constraints, it still represents the will of a human who is behind that avatar<sup>12</sup>. Another important lesson one should learn from Greek mythology is the need for an identity for the purely artificial entities populating the metaverse, and their unicity. Unless such unicity exists, the application of any order is impossible, as any recourse would lack the addressee.

Last but not least, one can also better see the possibility that the purely artificial entities may soon develop into more than we expect now. They could develop an apparent sense of self-consciousness as they continue to interact with us. Thus, our interaction with them would be increasingly less one-sided than we are currently accustomed to. One day we will likely consider debating acknowledging the rights of purely artificial intelligent beings in the metaverse.

### **4. Order in the layered universe**

In Greek mythology, each realm – Mount Olympus, the Earth and the Underworld – of the Cosmos had its own order. The applicability of the rules in such orders differed for gods and humans. The gods' behaviour was assessed for all three realms, as they were able to manifest in all of them. While each of these realms had their own specific order, the responsibility of a god's violation of the rules in any of them was decided at the level of the upper realm.

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<sup>12</sup> Davis, A. et al. (2009). Avatars, People, and Virtual Worlds: Foundations for Research in Metaverses. *Journal of the Association for Information Systems* Vol. 10, No. 2; Chester Cheong, B. (2022). Avatars in the metaverse: potential legal issues and remedies. *International Cybersecurity Law Review* 3, 467-494.

The responsibility of humans, on the other hand, was assessed only for their behaviour on Earth, as they were not supposed to be able to travel to Olympus and neither to the Underworld. This may be a good source of inspiration for the order that we may now build between our ordinary reality and the metaverse.

In ordinary reality, we are not used to operate with the concept of layered world, and we think of our world in a more horizontal way, where the division between countries is territorial, on land and sea. However, the Greek perspective of the layered universe is perhaps more appropriate to fully understand the consequences of human behaviour in the relationship between the ordinary reality (in the country we are physically located) and the metaverse (that is a new virtual territory).

Operating in the paradigm of the Greek mythology, order would be places on different layers. Some of the rules would apply to humans and their avatars and other rules to the purely artificial beings populating the metaverse.

#### ***4.1. Order in Olympus – gods only***

Mount Olympus was governed by the rules of Zeus, who achieved the position of king and ruler. The domain of these rules applied to gods only, as humans were not able to access the upper realm.

This is an important source of understanding from the analogy as it relates to the confinement of the purely artificial beings to the metaverse in which they were created. The programming of the metaverse, particularly its connectivity, should ensure that it does not directly interact with the other systems in the ordinary reality, designed for other functions of the human society, outside the metaverse.

Basically, one of the most important rules of Olympus was that humans belong to Earth, and they are not to be brought into Olympus not even as souls after their death. Such an ascension is one of the rarest situations possible for a human in the Greek mythology – notable examples being Asclepius and Heracles, demigods and absolutely extraordinary beings. Normally, even the most remarkable humans became inhabitants of the Underworld, after their death.

#### ***4.2. Order on Earth – here come the laws of physics***

The order on Earth was based on three types of rules or laws: the laws of physics, the laws embedded in human beings' conscience, and the laws made by humans.

##### **a. The laws of physics – is code law?**

These rules were embedded by the gods in the fabric of the middle realm, making it physically impossible for some actions to take place otherwise than in the way prescribed by gods. For instance, humans were not capable to shapeshift or leave the Earth to rise to Olympus, and they were not allowed to defy gravity by flying.

These rules were applicable to humans in an absolute way, and they could not violate them. Even the attempt of violating these rules by using technology and earthly resources attracted the gods' anger and punishment. Such was the example of Icarus being punished for his attempt to fly with artificial wings. In contrast to humans, gods were able to change some of these rules. For instance, while gods were not able to be present on Earth in their original shape, but only as incorporated in different other earthly shapes, they were able to produce events that defy the laws of physics as applicable to humans.

Interestingly enough, the gods were able to change the laws of physics as part of the enforcement of their judgement over the misbehaviour of other gods on of humans. For instance, Zeus chained Prometheus to a rock and had an eagle eat his liver every night for stealing the godly fire and giving it to humans. Other times, gods were not punishing gods for their misbehaviour but were simply altering the laws of physics to make the transgression impossible. For instance, Hera is repetitively mentioned changing the mortals who were capturing the attention of Zeus to avoid the perpetuation of such adultery – for example, she transformed Lamia into a monster. Examples of gods transforming the laws of physics to punish the mortals may also be found. For instance, Zeus bound Ixion to an eternal burning wheel seeing he was seducing Hera, and Apollo turned Marsyas into a stream for challenging him into a contest over the attention of Athena.

What useful conclusions could we draw for the ordinary reality and the metaverse? Most likely, a system of preventing crime in the metaverse can come built-in into the software of the metaverse, making crime a physical-like impossibility in the metaverse. From this perspective, the expression „Code is Law” so dear to the passionate programmers of blockchain-based smart contracts may get a more realistic outlook<sup>13</sup>.

Looking at the Greek myths, one can note that it is also very important to ensure a way of enforcing decisions taken outside the metaverse (“off-chain”, if we are using blockchain jargon). Creators will likely have an access key to allow necessary changes to the code, and make sure that these cannot possibly be repeated in the metaverse – reprogramming the metaverse software to correct anomalies.

Last but not least, we can anticipate that measures might be needed not only against people entering the metaverse as avatars<sup>14</sup> and their behaviour in the metaverse but also for people's actions in violation of the laws in the countries where they reside but in connection with the metaverse: the equivalent of

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<sup>13</sup> McKinsey&Company. (2022). Value creation in the metaverse. The real business of the virtual world. <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/value-creation-in-the-metaverse>

<sup>14</sup> Kumar, N. (2022). Six Unaddressed Legal Concerns for the Metaverse. Forbes Technology. Accessed on 08.11.2022 <https://www.forbes.com/sites/forbestechcouncil/2022/02/17/six-unaddressed-legal-concerns-for-the-metaverse/?sh=7678e30d7a94>; Unal, S. et al. (2018). Avatars as the Virtual World's Personality. *The Virtual World and Marketing*.

Prometheus' actions who disobeyed Zeus in the upper realm and provided fire to humans.

**b. The laws embedded in the humans' consciousness – the Asimov's laws?**

A number of essential rules were embedded by the gods in the human beings' consciousness and included, for instance, respect for the gods, the obedience to the earthly rules or the elders, or major rules against killing another human being. Basically, these are what one may refer to as natural justice or sometimes moral principles.

These rules may be violated by humans, driven by the free will that is given to them. However, such violations would be sanctioned by gods' intervention and their consequences are not confined to the earthly level but may follow the souls of mortals in the Underworld, defining their allocation in one of the sectors of the Underworld. Such rules were not applicable to the gods. This may be a good source of inspiration in understanding why laws of robotics, like Asimov's laws<sup>15</sup>, may be hardwired into the code purely artificial beings populating the metaverse.

The free will to disobey such laws was possible in Greek mythology, as humans learned to incorporate these concepts in their lives and to assume the consequences of their trespassing. Perhaps we can anticipate a similar situation with artificial beings learning on their own to accept and assume such consequences. We can further also anticipate the interventions of people to ensure prompt reaction against the purely artificial beings, analogous to the wrath of Greek gods.

The termination of the metaverse in its entirety has some correspondence in Greek mythology. Greek gods wiped off entire cities or populations on the grounds of their systematic violation of the moral laws. Ancient myths worldwide present similar concepts of destroying and then restarting the world to end moral corruption.

**c. The laws made by humans – will machine learn to be better?**

In Greek mythology, such laws are issued by humans on Earth for regulating their relationships. These laws are not applicable to the gods but only to humans. Humans may violate them driven by their free will, and sanctions for such violations would be decided by humans in charge of enforcing the rules. By analogy, in the context of the metaverse, the equivalent of such laws would be the normative function incorporated in the machine learning capabilities of the purely artificial beings.

Unfortunately, in Greek mythology, humans were continuously crying and asking the gods for help in repairing the injustice on Earth. Perhaps we should assume that the artificially created rules might similarly not always lead to fair

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<sup>15</sup> Murphy, R. Woods, D. (2009). *Beyond Asimov: The Three Laws of Responsible Robotics*. Institute for Human and Machine Cognition.

outcomes, and try to incorporate a mechanism for adjusting them through intervention from human programmers.

#### ***4.3. Order in the Underworld realm – the depository of the outdated metaverse?***

In Greek mythology, the order in the Underworld realm was based on its clear structure. The allocation of souls in the four divisions of the Underworld realm was decided by the three judges of the dead. They judged the deeds of the deceased and created the laws that governed the Underworld. However, it is said that none of the laws of the Underworld provided true justice to the souls of the dead and the dead did not receive rewards for following them or punishment for wicked actions. This system lacked an enforcement mechanism as there was no concept of progress in this realm.

The Underworld realm is separated from Earth, similarly to Olympus, and no mortal may enter it while still alive. The exceptions (“catabasis” – the descending of mortals into the Underworld) were again restricted to very few heroes – Heracles, Theseus, Orpheus and, under some authors, Odysseus.

From the perspective of the analogy we made, the underworld of the metaverse would be simply a depository place with different compartments. No progress would be needed but just a preservation of the status quo at the time of exiting the metaverse. Similar to humans in Greek mythology, active (“living”) purely artificial entities of the metaverse should not be granted access to this depository.

#### **5. Law followed fertility in the Greek mythology – what about in the metaverse?**

The development of metaverses is a somewhat trendy topic in the consumer technology sector at the moment. This is driven mainly by the business and tech communities, arguably with little concern of the legal aspects that would follow. Blockchain technology has been maturing over the past two decades. Cryptocurrencies, digital assets, and NFTs are all in circulation but legal concepts are not yet clearly defined nor harmonised worldwide<sup>16</sup>. In this context, perhaps it is worth talking another look at the Greek gods for inspiration, to see if there might be a lesson to be learned. The following anecdote might do the trick.

The first wife of Zeus was Hera, the goddess of fertility and maternity. In our analogy, she would represent the creation and development of the metaverses. However, the second wife of Zeus was Themis, the goddess of justice, of law. This shows that, on a conceptual level, the Greek Cosmos needed the law and a justice system, to follow the initial fertile phase. The role of Themis included wisdom, good counsel, and the interpretation of the gods’ will, which is exactly what the metaverse needs now from the legal professions. Themis also performed the

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<sup>16</sup> Aksoy, P. C. Uner, Z. O. (2021). NFTs and copyright: challenges and opportunities. *Journal of Intellectual Property Law & Practice*, Volume 16, Issue 10, 1115-1126.



function of an oracle, as she was communicating through the Oracle of Delphi herself. This is exactly what the metaverse requires, namely the implementation of a way of introducing in the metaverse the instructions from the ordinary reality and ensuring the enforcement of the decisions taken in the ordinary reality.

Finally, one cannot ignore the six children of Zeus – the ruler and Themis – the justice. These were: time-related gods: Clotho the birth giver, Lachesis the faith allocator, and Atropos, the decider of death for humans; and legal order-related gods: Eunomia, the goddess of the legal norms and customs, Dike, the goddess of justice, and Eirene, the goddess of peace on Earth.

If one takes these ideas and applies them to the metaverse, then what needs to be built in is a system to take: time-related decisions, namely the initiation, the role and the termination of the activity of a purely artificial being, and legal order-related decisions, namely the rules for the relationships between purely artificial beings, the rules for hierarchical decision-making in the metaverse, and how to ensure peace in the metaverse.

## **6. One final question only: what we should do with the metaverse?**

Greek mythology offers a perspective of humans living on Earth, as part of a layered reality, and hence provides us with the imagination blocks for understanding the complexity of an endeavour such as building a metaverse populated avatars and purely artificial beings interacting together within.

The Greek gods created the Cosmos and incorporated within the laws of physics, not only the laws of behaviour. Perhaps it is helpful to learn from this and create in the metaverse complex rules that blend the laws of physics and those of human behaviour based on free will, to ensure better functionality of the alternate reality in the metaverse. We are no longer beings reacting to a physical reality we cannot change; we are people who may actively build different rules in the metaverse. Using the analogy with Greek mythology, we can better anticipate the need for a systematic approach to the identity issues arising from one's presence in multiple layers of the universe, and how the order of such a layered reality may be structured, how interactions between humans and this layered universe might be shaped.

However, as we are looking at this analogy, between the layered universe as in Greek mythology, and the metaverse as a new layer parallel to our ordinary reality, the most important question remains—what will be the use mankind will give to the metaverse? Will building this metaverse help us better understand the way in which the laws of the universe in which we are living are functioning and be more responsible? Or will the creation of the metaverse simply unleash the total freedom of a never-ending playground, where all possibilities that are physically, morally, or legally unpermitted in the ordinary reality will become possible? These questions might transcend the metaverse, and refer to our personal, individually human choice. Are we going to keep on living our lives by playing in a playful universe or are we going to grow up and accept responsibilities and consequences in our own lives, aiming to continuously progress as human beings.

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