

Simona Chiodo

Prometheus and the evolution of the relationship between humans and technology

Abstract

The aim of this article is making use of the literary figure of Prometheus as a promising tool to try to understand some essential aspects of our relationship with technology, namely, its own historical root in Western culture, as well as its evolution. After having reasoned on what changes moving from the ancient Prometheus, represented by Hesiod, Aeschylus, Plato, and Ovid, to Mary Shelley's modern Prometheus, I shall make use of some of these clues to try to reason on the future of technology, namely, on what kind of destination this trajectory may have.

Keywords

Prometheus, Technology, Western culture

Received: 22/09/2019

Approved: 16/01/2020

Editing by: GM

© 2020 The Author. Open Access published under the terms of the CC-BY-4.0.
simona.chiodo@polimi.it

As many different disciplines are acknowledging, from the sciences to the humanities, we are facing quite a revolutionary phase of human history: due to the exponential growth, both quantitative and qualitative, of novel technologies, human life itself is deeply changing, and in an exceedingly fast way, so that, as many authors state, we may be unprepared to consciously, and effectively, face our imminent future, in which we may become, for instance, cyborgs whose lives last even 200 years, and whose time is not occupied by work anymore.

It is always particularly difficult to understand the very phase we are going through, and, in order to try to do it at our best, we should use all the promising tools we have at our disposal. Indeed, during the last millennia, one of the best tools we have proved to have at our disposal is art, and in particular literature. The aim of this article is precisely making use of literature as a promising tool to try to understand some essential aspects of our relationship with technology, namely, its own historical root in Western culture, as well as its evolution. It can also show us, as it were, what kind of destination this trajectory may have. In doing so, I shall focus on one of the major cornerstones of Western literature: the figure of Prometheus, who, after his birth inside ancient Greek myth and literature, has gone through millennia, getting to the 19th century Mary Shelley's modern Prometheus, who is the protagonist of her famous novel *Frankenstein. Or, the modern Prometheus*.

In this article, I shall firstly reason on the ancient Prometheus, who is legitimately considered as the symbol of the relationship between humans and technology (see at least Dougherty 2006), and secondly on the modern Prometheus, who is legitimately considered as the symbol of its historical evolution. Finally, I shall attempt to get some clues that may be useful in order to try to understand our present relationship with technology (and maybe even some clues about where we are heading to).

1.

The first essential source to understand the meaning of Prometheus is Hesiod's *Theogony*, since it also clarifies his etymological meaning. Prometheus is said to be "artful [...], full of various wiles" (Hes. Theog. 510), "wily-minded" (Hes. Theog. 520), "helpful" (Hes. Theog. 610), and "very knowing" (Hes. Theog. 615), whereas his brother, Epimetheus, is said to be "of-erring-mind" (Hes. Theog. 510). Thus, we know that the name "Prometheus" makes reference to the following etymology: "knowing" (μανθάνω)

“before” (πρό), namely, “predicting”, which is indeed one of Prometheus’s powers. On the contrary, “Epimetheus” means “knowing” (μανθάνω) “after” (ἐπί).

Also the two brothers’ mythological story, which is not told in Hesiod’s *Theogony*, is quite instructive: when Epimetheus is asked by the Olympians to assign a given number of good qualities to the living creatures, he gives the animals all the good qualities, totally neglecting the humans. Thus, quite a sharp opposition between the two brothers is established: whereas Epimetheus is “of-erring-mind”, and neglecting the humans, Prometheus is so wise that he is even predictive (which is quite decisive, as I shall underline later), and he is also “helpful” to the humans. More precisely, Prometheus is so “helpful” to the humans that, according to some versions of the myth, he is even their creator, by modelling them from the mud and bringing them to life through the divine fire (which is most decisive, as I shall underline later), and he remedies Epimetheus’s forgetfulness by stealing Athena’s intelligence and giving it to the humans, causing Zeus’s worry about their increasing power.

If we go back to Hesiod’s Prometheus, then we can find the most important episode for the symbolic meaning of his figure:

When the gods and mortal men were contending at Mekone, then did he [Prometheus] set before him [Zeus] a huge ox, having divided it with ready mind, studying to deceive the wisdom of Zeus. For here, on the one hand, he deposited the flesh and entrails with rich fat on the hide, having covered it with the belly of the ox; and there, on the other hand, he laid down, having well-disposed them with subtle craft, the white bones of the ox, covering them with white fat. Then it was that the father of gods and men addressed him, “Son of Iapetus, far-famed among all kings, how unfairly, good friend, you have divided the portions”. Thus spoke rebukingly Zeus, skilled in imperishable counsels. And him in his turn wily Prometheus addressed, laughing low, but he was not forgetful of subtle craft: “Most glorious Zeus, greatest of ever-living gods, choose which of these your inclination within your breast bids you”. He spoke subtlety: but Zeus knowing imperishable counsels was aware, in fact, and not ignorant of his guile; and was boding in his heart evils to mortal men, which also were about to find accomplishment. Then with both hands he lifted up the white fat. But he was incensed in mind, and wrath came around him in spirit, when he saw the white bones of the ox arranged with guileful art. (Hes. Theog. 535-55)

Again, Prometheus wants to help the humans, by giving them the best portion of the ox. But Zeus understands his deceit, and punishes the humans by depriving them of the fire: “from that time forward, ever mindful

of the fraud, he did not give the strength of untiring fire to wretched mortal men, who dwell upon the earth” (Hes. Theog. 560). Then, Prometheus steals the divine fire to bring it back to the humans. Zeus finds it out, and severely punishes him.

We already have many details on which to reason. Let us do it in a logically ordered way. The most important element is, of course, the fire, which, across millennia, has been considered Western culture’s major symbol of technology. Indeed, as Prometheus’s myth tells, and as it is masterfully represented by Aeschylus in his *Prometheus bound*, the humans, without the fire, are doomed to live as ants underneath the earth, otherwise they are the animals’ easiest preys, as well as incapable of surviving the atmospheric agents (see Aesch. Prom. 556-7). But, through the fire, jointly with the other Prometheus’s gift to the humans, namely, the intelligence, they can survive animals and atmospheric agents, live under the sun, and even rule the earth. The detail which should not be neglected is that the fire is divine: Prometheus gives the humans the divine fire, the first time by taking it, and the second time by stealing it, from the Olympus. Moreover, the quality that successfully works jointly with the fire is divine as well, being the intelligence stolen from Athena. Thus, the very symbol of technology, namely, the fire intelligently used, is doubly divine, as it were. And its divine nature may have a complex meaning. The fire intelligently used is divine in that it is so powerful that the humans can rule the earth. Moreover, the fire intelligently used is divine in that it is precisely what makes the humans analogous to the gods. This is a major point, also in order to reason on the destiny of technology: the fire intelligently used, namely, technology, is precisely what can potentially make the humans god-like, or even gods themselves (I shall be back to this point in the last part of this article, when I shall try to use the clues given by the literary figure of Prometheus in order to reason on contemporary technology). Thus, the doubly divine nature of the very symbol of technology has at least two implications: the first establishes, as it were, a bridge from the humans to the earth, making the former ruling the latter, and the second establishes, as it were, a bridge from the humans to the heaven, making the former moving towards the latter.

Not by chance, another interesting detail is that, after Prometheus’s deceit, Zeus does not limit himself to punishing Prometheus, who is bound to a rock and continuously tortured by an eagle that eats his liver. Indeed, Zeus punishes also the humans, who are not directly guilty, by taking the fire away from them. This choice shows Zeus’s worry about the potential competition between humans and gods. Not by chance, Zeus’s

punishment coincides with depriving the humans of the fire, namely, of what can make the latter closer to the former.

Aeschylus underlines another meaningful detail: Prometheus knows a secret unknown to Zeus about what will cause the defeat of Zeus himself, namely, that his offspring will be more powerful than him, and will finally defeat him (see Aesch. Prom. 216). What is most interesting to us is that the god's potential defeat is known, and kept secret, precisely by the author of the humans' increasing technological power. That is to say, there is an interesting correlation between the humans' increase and the god's decrease – and what is most interesting is that the key of this correlation is precisely technology, namely, its human development: the more human technology develops, the more the difference between humans and gods gets indiscernible, if it is true that the very symbol of the relationship between humans and technology is precisely what contains within itself the gods' potential defeat (but I shall be back to this point in the last part of this article).

I have mentioned another important Prometheus's feature: his capacity of predicting, which is not only meant by the etymology of his own name, but also told by his own myth. Prometheus has the capacity of foreseeing the future. For now, let us start to reason on the possible meaning of this fact: the very symbol of the relationship between humans and technology can foresee the future. This can have several important meanings, starting from the following two:

1. One of technology's essential aims, and maybe its most essential one, is foreseeing the future in that, together with science on which it is founded, it is what the humans use in order to control the future (which is a crucial issue for any past, present, and future human being), namely, in order to make sure that what will happen will be identical, or at least analogous, to what happened (for instance, that the bridge we will build tomorrow will stand as the bridge we built yesterday);
2. Moreover, if it is true that the development of technology is, as it were, what makes the humans almost divine, or even divine, then we may say that the very essence of technology as a human tool is making the humans change even their own ontology, by moving, in particular, from an ontological dimension whose limits coincide with the present to an ontological dimension whose limits exceed the present, and expand towards the (potentially unlimited) future (again, I shall be back to this point in the last part of this article, when I shall try to reason on contemporary technology).

I have just mentioned the relationship between technology and human ontology. In Prometheus's myth, we can find another instructive clue about it: Prometheus is a Titan, and the Titans are the most ancient gods (see Hes. Theog. 424, where they are described as πρότεροι θεοί). Thus, they are more ancient than the Olympians ruled by Zeus. What is an instructive clue to us is that the very symbol of the relationship between humans and technology, who is also the one who gives the humans their most essential qualities, is so ancient that we may legitimately think that technological abilities are not something that the humans add to their own essential nature by evolving through the time, but something that qualify their essential nature from the very beginning – technology seems to be a human essential activity, just like eating and sleeping.

Both Plato and Ovid underline this aspect. According to Plato's *Protagoras*, the essential qualities Prometheus gives the humans are the divine abilities taken from Hephaestus and Athena:

[Prometheus] found that the other animals were suitably furnished, but that man alone was naked and shoeless, and had neither bed nor arms of defence. The appointed hour was approaching when man in his turn was to go forth from the earth into the light of day. And Prometheus, not knowing how he could devise man's preservation, stole the wisdom of practicing the arts of Hephaestus and Athena, and fire with it (it could neither have been acquired nor used without fire), and gave them to man. Thus man had the wisdom necessary to the support of life. (Plat. Prot. 321 c-d)

Here, we have at least three meaningful elements. Firstly, what Prometheus does is essential, being nothing less than the condition of possibility of human "preservation" (thus, we may say that technology is the condition of possibility of human "preservation"). Secondly, what is essential for human "preservation" is "the wisdom of practicing the arts of Hephaestus and Athena", namely, both practical abilities and intellectual abilities (thus, we may say that technology is defined, from the very beginning, as an art that is both practical and intellectual). And, thirdly, the key of "the wisdom of practicing the arts" is the divine fire, since "it could neither have been acquired nor used without fire" (thus, we may say that technology is what makes the humans almost divine, or even divine, since it is founded on no less than three divine elements: firstly, the divine fire and, secondly, Hephaestus's "wisdom of practicing the arts" and Athena's "wisdom of practicing the arts").

Yet, there is another meaningful element to add: Plato specifies that there is a missing quality, since "political wisdom he had not, for that was

in the keeping of Zeus. There was no longer any time for Prometheus to enter into the citadel of heaven where Zeus dwelt, who, moreover, had terrible sentinels” (Plat. Prot. 321 d). Thus, the humans were “well supplied with the means of life” (Plat. Prot. 321 e), namely, with technology, but not with “political wisdom”, which is a fundamental notion inside ancient Greek culture, and arisen precisely from it: what is “political”, starting from its very etymology, has to do with what is not only singular and individual, but plural and common, by making reference to the “city” (πόλις). Thus, we may say that what the humans do not have is an ability that keeps remaining a gods’ domain, namely, the ability of properly considering the plural and the common while using “the wisdom of practicing the arts of Hephaestus and Athena” – the ability of properly considering the plural and the common while using technology (which may be considered as the most crucial issue concerning contemporary technology, to which I shall be back).

According to the version of the myth Ovid makes reference to, Prometheus not only gives the humans essential qualities for their own preservation, but also models them, being their own creator:

Still missing was a creature finer than these, with a great mind, one who could rule the rest: man was born, whether fashioned from immortal seed by the Master Artisan who made this better world, or whether Earth, newly parted from Aether above, and still bearing some seeds of her cousin Sky, was mixed with rain-water by Titan Prometheus and moulded into the image of the omnipotent gods. And while other animals look on all fours at the ground he gave to humans an upturned face, and told them to lift their eyes to the stars. (Ovid Met I 77-87)

Here, we have other meaningful details, at least the following two. Firstly, the humans are “moulded into the image of the omnipotent gods”: again, they are quite close to the divine nature. Secondly, Prometheus is the one who gives them “an upturned face”, and even tells “them to lift their eyes to the stars”. That is, metaphorically, Prometheus provides the humans with both a possibility and a challenge. The possibility, which distinguishes the humans from any other creature, is that they are by nature potentially aspiring, namely, they are meant not to settle for what they already are and have, such as their present *status quo*, quality of life, and even quality of ontology (they have by nature “an upturned face”, which can potentially look at what exceeds what they already are and have). And the challenge is that they are asked by Prometheus to make this possibility something actual, a kind of purpose of life to pursue (they are

asked “to lift their eyes to the stars”, namely, to actually look at what exceeds what they already are and have, and in particular to actually look at “the stars”, which may be metaphorically considered, again, as the gods to get to, by getting closer and closer to their *status quo*, quality of life, and even quality of ontology). Thus, if we keep considering Prometheus as the very symbol of the relationship between humans and technology, then we may say that it is precisely technology what is both the tool and, as it were, the reason why the humans try to change, and in particular to improve, their present *status quo*. It is quite easy to consider technology as a tool to do it: technology is precisely the tool that makes the humans capable of changing, and in particular improving, by moving from “the ground” “to the stars”. As for considering technology also a reason why trying to change and improve, what Prometheus’s myth, in any of its versions, tells us is that being technological, namely, being meant to use and develop technology, is one of the essential human qualities, which defines what a human being is by nature from the very beginning – and what a human being is by nature is being the one who, differently from any other creature, aspires to be and live better than the one who s/he is and lives, and has the means to do it.

Prometheus’s myth tells us at least a last most interesting thing. Let us go back to Hesiod. After Prometheus’s deceit, Zeus punishes the humans not only by depriving them of the fire, but also by giving them Pandora, who is the first human woman:

And he called this woman Pandora, because all the gods who abide in Olympus gave her as a gift a pain for grain-eating men. But when the gods completed this deception of sheer doom, against which there is no remedy, father Zeus sent the famed Argos-killer to Epimetheus, the swift messenger of the gods, bringing the gift. Nor did Epimetheus take notice how Prometheus had told him never to accept a gift from Zeus the Olympian, but to send it right back, lest an evil thing happen to mortals. But he accepted it, and only then did he take note in his *noos* that he had an evil thing on his hands. (Hes. Op. 80-9)

Again, Prometheus acts as the humans’ saviour, even if, this time, he cannot succeed. Indeed, when Pandora reached the humans, she “took the great lid off the jar and scattered what was inside. She devised baneful anxieties for humankind. The only thing that stayed within the unbreakable contours of the jar was *Elpis* [Hope]. It did not fly out” (Hes. Op. 94-7). “Before this, the various kinds of humanity lived on earth without evils and without harsh labour, without wretched diseases that give disasters to men” (Hes. Op. 90-2). Here, what is most interesting to us is the kind of

things Pandora causes to the humans: “pain”, “baneful anxieties”, “evils”, “harsh labour”, “wretched diseases”, and “disasters” – precisely the kind of things technology can both relieve us from and afflict us with.

Let us try to reason on the possible meaning of this part of Prometheus’s myth. Prometheus can do the most important things for human life: besides exceedingly improving its quality, he can even mould human life itself. But there is at least one thing Prometheus cannot do, namely, relieving human life from “pain”, “baneful anxieties”, “evils”, “harsh labour”, “wretched diseases”, and “disasters”. Yet, there is still something concealed inside the jar: the hope (ἐλπίς). That is, technology seems to have a twofold relationship with human life. On the one hand, it is what improves human life (in the case of Prometheus’s fire intelligently used). On the other hand, it is what is responsible for the evils that afflict human life (in the case of Prometheus’s punishment). But the most interesting thing to us is that the evils that afflict human life are precisely those on which technology, and in particular contemporary technology, has always been focused on in order to find their possible solutions: for instance, physical “pain” relieved by an anaesthetic, “baneful anxieties” relieved by anxiolytics, “harsh labour” relieved by a machine, “wretched diseases” relieved by surgeries, and “disasters” relieved by weather forecasts. We may even go further by saying that what contemporary technology seems to work on is precisely a radical solution for all these evils: the very removal of “pain”, “baneful anxieties”, and “wretched diseases” by developing sophisticated bioengineering technologies, the very removal of “harsh labour” by developing sophisticated mechanical engineering technologies, and the very removal of “disasters” by developing sophisticated data science technologies. Yet, what Prometheus’s myth seems to tell us is that there is a kind of circle, since technology, which is essentially human from the very beginning, is at the same time virtuous and vicious – technology is at the same time virtuous and vicious as well as the humans are twofold: created by mixing both “some seeds of her cousin Sky” and “Earth”, both “moulded into the image of the omnipotent gods” and living together with the “other animals”.

Ancient Greek myth is very rich in clues, as we have seen. I will try to keep reasoning on them in the last part of this article. Now, let us consider the modern development of Prometheus’s myth by taking into account its most relevant version: Mary Shelley’s *Frankenstein. Or, the modern Prometheus*.

2.

It is fascinating, besides being most instructive, to look at both what changes and what does not change at all after millennia since Prometheus's birth inside ancient Greek culture. Mary Shelley's masterpiece tells us the story of a modern Prometheus, introduced by the very title of her novel, who is Victor Frankenstein, a talented scientist who, after his mother's death, doubly challenges death itself, firstly, by trying to create a human being from corpses, namely, living matter (and in particular human living matter) from non-living matter, and, secondly, by trying to make this human being much more resistant to diseases and death itself. Frankenstein succeeds, but his creature terrifies him, by being a kind of misshapen giant, indeed superhumanly strong and resistant. Also the creature is terrified by his reaction, and, after having stolen Frankenstein's diary, runs away. This is the beginning of a chain of tragedies, for both the creature and Frankenstein. The former, who is capable of goodness (he secretly helps a family of farmers), ends up with killing after having been continuously rejected and persecuted as a monster. The latter feels severely guilty, and, moreover, ends up with being one of his creature's victims (the creature kills Frankenstein's bride and indirectly causes both his father's death and his own death). When the creature and Frankenstein meet, the former makes the latter an offer: if Frankenstein creates an analogous woman, then the creature will disappear with her in a very far place, stopping terrifying the humans. Frankenstein starts creating the woman, but then he feels guiltier, fearing that them, together with their possible offspring, may harm the humans even more severely, whom he wants to protect. Thus, he stops creating the woman, and undergoes the creature's punishment. After Frankenstein's death, the creature kills himself by setting fire to himself, so that it is not possible to understand, and, moreover, to repeat, what started his tragic life.

Mary Shelley chooses a meaningful end by using the most powerful Promethean symbol, namely, the fire, which is used, here, not for construction, but for destruction. The fact that the creature kills himself by setting fire to himself may suggest more than one thing. Firstly, that the remedy to technology is technology (the former kind of technology being the creature, as the symbol of the modern development of technology, and the latter kind of technology being the fire, as the symbol of technology in general). Secondly, that, if something goes wrong with technology, and in particular with its modern development, then the remedy is not, and cannot be, doing without it, since technology is essentially human

from the very beginning (even a technological monster comes from the humans, namely, from corpses, and keeps a human essence, namely, Frankenstein's diary to read and study): on the contrary, the humans' best tools to remedy what goes wrong with technology are technological themselves (the end of the novel is the death of both Frankenstein and the creature, but the fire keeps remaining). And, thirdly, that technology can be constructive as well as destructive, and sometimes its power of destruction can be the humans' best tool to consciously correct errors, and then (technologically) restart.

Now, let us focus on the core of the relationship between humans and technology. The reason why Frankenstein develops the most ambitious technology is precisely the Promethean creation of the humans as the ones who have "an upturned face" and "lift their eyes to the stars": "It was the secrets of heaven and earth that I desired to learn" (Shelley 1994: 36), not only for the will to know, but also for ambition itself, which leads Frankenstein to try to get to the "glory [that] would attend the discovery if I could banish disease from the human frame and render man invulnerable to any but violent death!" (Shelley 1994: 37). Here, we can find some of the ancient reasons that found technology, namely, making the humans almost divine through divine elements (in this case, by preventing disease, and even death). But the will to know and ambition can be so powerful that they can be dangerous as well: "After days and nights of incredible labour and fatigue, I succeeded in discovering the cause of generation and life; nay, more, I became myself capable of bestowing animation upon lifeless matter" (Shelley 1994: 50), "but this discovery was so great and overwhelming that all the steps by which I had been progressively led to it were obliterated, and I beheld only the result" (Shelley 1994: 50). Moreover, "as the minuteness of the parts formed a great hindrance to my speed, I resolved, contrary to my first intention, to make the being of a gigantic stature" (Shelley 1994: 51). That is, the dark side of the will to know and ambition is making epistemological errors, namely, methodological inaccuracy ("all the steps [...] were obliterated") and haste ("a great hindrance to my speed"), which mean not working on the possible irremediable negative effects of technology (the "disaster is irreparable", Shelley 1994: 71) – and, moreover, neglecting that epistemological errors usually imply negative ethical effects ("to make the being of a gigantic stature", which is the reason why he terrifies the humans he meets).

Thus, the kind of technology made has both epistemological errors and negative ethical effects: the creature himself reveals “how was I terrified when I viewed myself in a transparent pool! [...] I was in reality the monster that I am, I was filled with the bitterest sensations of despondence and mortification. Alas! I did not yet entirely know the fatal effects of this miserable deformity” (Shelley 1994: 109). Yet, technology is potentially, and sometimes also effectively, good (like when the creature helps a family of farmers): “I was benevolent and good; misery made me a fiend. Make me happy, and I shall again be virtuous” (Shelley 1994: 96). But, if the virtuous relationship between humans and technology is broken, then the negative effects of the latter may even get to a kind of paradoxical overturning of the relationship itself: the creature finally exclaims that “you are my creator, but I am your master: obey!” (Shelley 1994: 162). Interestingly enough, the ultimate result, to which I shall be back, is that what is created can master the creator himself, which is precisely the most important fear about contemporary technology and, moreover, its future: the more we succeed in creating sophisticated technologies, the more they can have the power of being out of our control – the humans have “an upturned face” and “lift their eyes to the stars”, but have no wings, except for those they can technologically create, and what is technologically, and not naturally, created may always go wrong, because of both a failure and, paradoxically enough, too an extreme success.

There is another interesting aspect to highlight: in both ancient and modern culture, Prometheus’s story has to do with severe punishments. In the case of ancient culture, both Prometheus and the humans are severely punished: the former is bound to a rock and continuously tortured by an eagle that eats his liver, and the latter are deprived of the fire (at least until Prometheus gives them it back). In both cases, Zeus is the punisher, which means that what punishes is a kind of divine dimension, namely, the dimension that is superior to both the humans and technology, and rules them. As for the reasons of the punishments, Prometheus is punished because he deceives Zeus and, moreover, helps the humans be competitive with Zeus himself, and the humans are punished precisely because they get closer to him. If we try to disclose the literary symbols, then we have the following scenario: if the humans develop technology by being competitive with, or even against, the superior dimension that rules them, namely, the natural, or even divine, laws that rule them, then they end up with being deprived of something essential. Also in the case of modern culture, both Frankenstein, namely, the modern Prometheus,

and the humans are severely punished: the former feels guilty, loses the most important persons to himself, and ends up with dying, and the latter are the creature's victims, by being terrified and even killed by him. Interestingly enough, in modern culture, differently from ancient culture, we find a third being who is punished: the creature himself – moving from ancient culture to modern culture, the ones who are punished are not only the bearers of technology (Prometheus and Frankenstein) and its users (the humans), but also technology itself (the creature). This is exceedingly important, since here we can find one of the decisive differences that distinguish the modern relationship between humans and technology from the ancient one: it is modern the thought that technology itself, and in particular its most sophisticated forms, can be human-like, by being punished and, moreover, by suffering for the effects of the punishment (the misshapen creature is rejected by both Frankenstein and the other humans, and lives a tragically lonely life, which causes tragic facts as well) – it is an effect of the modern development of technology the possibility of its humanisation (we may also say that the more the humans try to get closer to the gods, by getting capable of creating life by themselves, the more also the difference between the humans and their technological artefacts gets less perspicuous).

Of course, this is an issue that will be crucial when we will get focused on contemporary technology, and it is introduced by another important element we can draw from *Frankenstein*. Or, *the modern Prometheus*: what Frankenstein works on is not simply what Aeschylus's *Prometheus bound* tells us, namely, stopping being doomed to live as ants underneath the earth in order to survive animals and atmospheric agents and to start living under the sun, and even ruling the earth. Frankenstein works on something much more ambitious: he wants to discover "the cause of generation and life" and to be "capable of bestowing animation upon lifeless matter", namely, to create life from nothing, and in particular a human-like being – Frankenstein works on being himself a creator: we may say that Frankenstein works on being himself a god, by getting capable of mastering precisely a god's prerogative, namely, creating human beings. This is a huge step forward: the ancient Prometheus, depending on the different versions of the myth, can give the humans essential qualities, or even create the humans themselves, by being a Titan, namely, a god, whereas the modern Prometheus can create a human-like being by being a human himself. What is revolutionary is that, moving from antiquity to modernity, technology becomes the tool through which the humans are capable not only of keeping being what they are, by surviving, but also of

changing their own most distinguishing quality, and of trying not to keep being what they are, by acquiring that quality that used to be the gods' typical prerogative, namely, creating living matter, and in particular human living matter, from non-living matter (and this seems to be only the first huge step forward: contemporary technology seems precisely to work on acquiring other gods' typical prerogatives, as it were, like the possibility of not dying at all).

For now, let us go back to the issue of creation. Interestingly enough, in the ancient Prometheus we have already found possible clues about something that the modern Prometheus achieves. Indeed, the ancient Prometheus, through his wisdom and capacity of predicting, which is affirmed even by the very etymology of his name, can foresee a future characterised by the fact that Zeus, namely, the most powerful god, will be threatened by at least two things: firstly, the increasingly competitive humans, who have been given both the divine fire and the divine intelligence by stealing them from the Olympus, and, secondly, the one who, coming from Zeus's offspring, will be more powerful than him, and will finally defeat him. Of course, we may think that the two threatens are separate, the former concerning the humans and the latter concerning another god. Yet, we may also reason on a possible metaphor. Let us go back to Aeschylus's *Prometheus bound*, and in particular to the dialogue between Prometheus and Io:

"But now no limit to my tribulations has been appointed until Zeus is hurled from his sovereignty". "What! Shall Zeus one day be hurled from his dominion?". "You would rejoice, I think, to see that happen". "Why not, since it is at the hand of Zeus that I suffer?". "Then you may assure yourself that these things are true". "By whom shall he be despoiled of the sceptre of his sovereignty?". "By himself and his own empty-headed purposes". "In what way? Oh tell me, if there be no harm in telling". "He shall make a marriage that shall one day cause him distress". "With a divinity or with a mortal? If it may be told, speak out". "Why ask with whom? I may not speak of this". "Is it by his consort that he shall be dethroned?". "Yes, since she shall bear a son mightier than his father". "And has he no means to avert this doom?". "No, none – except me, if I were released from bondage". (Aesch. Prom. 755-70)

And then:

Yes, truly, the day will come when Zeus, although stubborn of soul, shall be humbled, seeing that he plans a marriage that shall hurl him into oblivion from sovereignty and throne; and then immediately the curse his father Cronus invoked as he fell from his ancient throne shall be fulfilled to the uttermost. Deliverance from

such ruin no one of the gods can show him clearly except me. I know the fact and the means. So let him sit there in his assurance, putting his trust in the crash reverberating on high and brandishing his fire-breathing bolt in his hands. For these shall not protect him from falling in ignominious and unendurable ruin. Such an adversary is he now preparing despite himself, a prodigy irresistible, even one who shall discover a flame mightier than the lightning and a deafening crash to out roar the thunder. (Aesch. Prom. 907-23)

Prometheus's prediction about Zeus's defeat tells us at least four most interesting things: firstly, Zeus's defeat is caused in the first place by himself ("By himself and his own empty-headed purposes"), secondly, the identity (divine or human) of the mother of Zeus's defeater is not revealed ("I may not speak of this"), thirdly, Zeus's defeater is identified as the one who can master the fire even better than Zeus ("Such an adversary is he now preparing despite himself, a prodigy irresistible, even one who shall discover a flame mightier than the lightning"), and, fourthly, paradoxically enough, Prometheus is the only possible Zeus's saviour ("No, none – except me", "Deliverance from such ruin no one of the gods can show him clearly except me. I know the fact and the means"). The legitimate ways of symbolically reading these elements are more than one, starting from what is most plausible: it is described a natural cycle of social evolution according to which any new order is supposed to be replaced by a newer order. Yet, we may at least try to reason on a most interesting analogy between Aeschylus's words and what actually happened, and is still happening, to the relationship between humans and technology. I am not arguing that this is a legitimate philological reading of Aeschylus's words. I am saying that what may be legitimate, and even worthy, is to use a powerful analogy as an equally powerful opportunity to reason on complex things (which is what we usually do with works of art in general: on the one hand, there are their philological readings, which are invaluable for their understanding, and, on the other hand, there is, for instance, your reading of Victor Hugo's *Les misérables*, which may be invaluable for your life, since it may be an opportunity of reasoning that may even change it).

Thus, let us try to consider the analogy between Aeschylus's words and the relationship between humans and technology as an opportunity of reasoning. Contemporary technology can make us think that what the humans are trying to do with their technological means is precisely to "discover a flame mightier than the lightning" of Zeus, namely, to achieve not only divine aims, as it were, but also a divine ontology, as it were.

Metaphorically, we may say that Zeus's defeat may be caused by the humans, but in the first place by himself in that the former allows the latter to keep the fire in the end (Zeus deprives the humans of the fire only once, but could have done it twice): again, there may be a sense in which the humans are intrinsically technological in that, after Prometheus has given them the fire for the second time, Zeus has never deprived them of it, and they have lived with the divine fire for the rest of time. Moreover, we may say that the humans may be Zeus's defeaters in that, by living with the divine fire for the rest of time, they may learn how to master it even better than Zeus, and more precisely how to "discover a flame mightier than the lightning" of Zeus, which may be their weapon to defeat him. If we move from the metaphor to its possible analogy to contemporary technology, then we may reason on the following scenario: indeed, the humans are developing technologies that are supposed to make them overcome their own ontological limits not only by making them divine, but also by making them substitute the divine. What metaphorically happens is that Zeus's offspring is going not only to be as divine as Zeus himself by getting his status, but also to be his defeater by substituting him. What is actually happening is that the humans are trying to develop technologies that are going not only to make them capable of doing something divine, but also to make them capable of being gods themselves, as it were, and, moreover, of creating gods by themselves – if we imagine to move from the modern Prometheus to a possible contemporary Prometheus, then the crucial change is that, whereas the former is trying to create a human-like being, the latter is trying to create himself as a god-like being, as it were, and, moreover, a new kind of god: more precisely, he is trying to create a god by himself (I shall be back to this point in the last part of this article).

But, before reasoning on contemporary technology, let us briefly consider the fourth, and last, above-mentioned element: paradoxically enough, Prometheus is the only possible Zeus's saviour. That is, the very symbol of the relationship between humans and technology is the only possible means that can prevent the humans from radically changing their ontology by becoming god-like beings capable of creating a god by themselves – the humans seem to have the possibility of choosing.

3.

This is the crucial issue: even the ancient Prometheus's myth may be read as a bearer of clues about what technology seems to be destined to, namely, to be the exceedingly powerful tool through which the humans can, firstly, survive, and even rule, the nature (in the case of the ancient Prometheus), secondly, become the creators of the nature itself (in the case of the modern Prometheus), and, thirdly, become the creators of themselves as god-like beings capable of creating a god by themselves (in the case of a possible contemporary Prometheus).

Let us consider a case in point: our contemporary technologies are creating an entity that is characterised by the typical features of a god, namely, by omnipresence, omniscience, and omnipotence. When we daily use our electronic devices, from being continuously with our smartphones to continuously searching things on Google, namely, by continuously giving them our data, we create a technological entity that is literally everywhere (being literally omnipresent), knows almost everything about us (being almost omniscient), and actually or potentially has power over us (being actually or potentially omnipotent). And this phenomenon is exceedingly increasing day after day.

Thus, we seem to experience the destination of the trajectory that the ancient Prometheus already foresees: the most essential reason why we are making use of technology is challenging, and more precisely overcoming, our human ontology, by moving from it to an ontological dimension we may call divine for two reasons:

1. The first reason is that contemporary technology can make us try to create a kind of god, namely, the above-mentioned technological entity, which is literally omnipresent, almost omniscient, and actually or potentially omnipotent (our previous steps towards this destination were the ancient aim of surviving, and even ruling, the nature and the modern aim of becoming the creators of nature itself);
2. The second reason is that contemporary technology can make us try to be god-like, namely, for instance, cyborgs, or even natural beings, whose lives can last forever (which is the aim of several present technological projects).

If Prometheus's myth is about a metaphorical attempt to defeat the traditional gods (in that Prometheus's prediction tells the story of the defeat of the Olympians' ruler), then contemporary technology is about a literal attempt to defeat the traditional gods (in that we are working on both creating a kind of god and being god-like).

Reasoning on contemporary technology through the figure of Prometheus can be even more impressive. Indeed, there are at least two other important clues to take into account, the second one being a consequence of the first one:

1. What is created can master the creator: the ancient Prometheus tells us that Zeus can be mastered by his offspring and the modern Prometheus tells us that Frankenstein can be mastered by his creature. Moreover, our own contemporary technology proves to be capable of mastering us more than ever before, by being, for instance, the Amazon's algorithm that discriminates women when it comes to hiring people, or the Hewlett-Packard's algorithm that discriminates black people when it comes to using the webcam, or the Nikon's algorithm that discriminates Asians when it comes to using the camera, or the personalised medicine's algorithms that may discriminate us when, after having predicted diseases we are likely to suffer from in ten years, we cannot succeed in taking out insurances, or, more generally, the algorithms that decide for us, from the most secondary to the most primary life choices;

2. Consequently, the more the creator sophisticates the creature, the more the ontological difference between the former and the latter gets small: the ancient Prometheus tells us that Zeus's creature, namely, his offspring, is getting closer to Zeus himself by achieving his divine prerogative of ruling and the modern Prometheus tells us that Frankenstein's creature is getting closer to Frankenstein himself by achieving his human prerogatives of having feelings and making actions. Moreover, our own contemporary technology proves to be capable of getting closer to us by achieving our human prerogative of making decisions, as well as the divine prerogative of being omnipresent, omniscient, and omnipotent.

Besides, there is another important correlation to take into account: indeed, the more the difference between the humans and the gods, as it were, gets small, the more the difference between the humans and their technologies gets small (for instance, the more we succeed in creating a kind of gods, namely, algorithmic personal robots that are omnipresent in our lives, omniscient about us, and omnipotent on us, the more the latter get close to us. And we are even likely to end up with questioning ourselves on the possibility of giving the algorithmic personal robots our kind of rights, namely, human rights). The primary reason why this happens is, again, that the humans are technological beings from the very beginning: trying to achieve their most essential aim, which is evolving (namely, surviving, and even ruling, the nature, as well as becoming creators), always means making use of technology – for us, as humans, trying

to evolve always means making use of technology, from the philosopher's writing to the engineer's algorithmic personal robot, and this is the reason why technology exceedingly evolves, and is even thought to get closer to our human ontology.

As I tried to show, the fascinating figure of Prometheus can give us several essential clues to instructively reason not only on our past, but also on our present relationship with technology, trying to understand them better precisely through their mutual comparison. Both the former and the latter are characterised by exciting challenges, and actual great successes, as well as by dramatic dangers, and actual tragic failures. Yet, also the hope shows up, at last, from Pandora's jar, after the most terrible evils – and our hope may be that of increasingly making use of the tools of the humanities in general, and of philosophy in particular, to do quite a precise thing: to try to add, as it were, other fire to Hephaestus's one and, moreover, other intelligence to Athena's one, which finally means to keep making our technology evolve by trying to make the best of it.

Bibliography

- Aeschylus, *Prometheus bound*, Engl. transl. H. W. Smith, Cambridge, Harvard University Press, 1926.
- Arthur, W.B., *The nature of technology. What it is and how it evolves*, New York, Free Press, 2009.
- Bostrom, N., *Superintelligence. Paths, dangers, strategies*, Oxford, Oxford University Press, 2014.
- Clark, A., *Natural-born cyborgs. Minds, technologies and the future of human intelligence*, Oxford, Oxford University Press, 2003.
- Currie, A. (ed.), *Futures of research in catastrophic and existential risk*, "Futures", 102 (2018), pp. 1-164.
- Domingos, P., *The master algorithm. How the quest for the ultimate learning machine will remake our world*, London, Allen Lane, 2015.
- Dougherty, C., *Prometheus*, London, Taylor & Francis, 2006.
- Finn, E., *What algorithms want. Imagination in the age of computing*, Cambridge, MIT Press, 2017.
- Garreau, J., *Radical evolution. The promise and peril of enhancing our minds, our bodies, and what it means to be human*, New York, Broadway Books, 2006.
- Golumbia, D., *The cultural logic of computation*, Cambridge, Harvard University Press, 2009.
- Harari, Y.N., *Homo deus. A brief history of tomorrow*, London, Harvill Secker, 2016.
- Harari, Y.N., *21 lessons for the 21st century*, London, Jonathan Cape, 2018.

Hesiod, *Theogony*, Engl. transl. G. Nagy, J. Banks, Centre for Hellenic Studies, Harvard University.

Hesiod, *Works and days*, Engl. transl. G. Nagy, Centre for Hellenic Studies, Harvard University.

Mittelstadt, B.D., Allo, P., Taddeo, M., Wachter, S., Floridi, L., *The ethics of algorithms. Mapping the debate*, "Big Data and Society", 3/2 (2016), pp. 1-21.

Noble, S.U., *Algorithms of oppression. How search engines reinforce racism*, New York, New York University Press, 2018.

O'Neil, C., *Weapons of math destruction. How big data increases inequality and threatens democracy*, New York, Crown, 2016.

Ovid, *Metamorphoses*, with an introduction by W.R. Johnson, Engl. transl. S. Lombardo, Indianapolis-Cambridge, Hackett Publishing Company, 2010.

Plato, *Protagoras*, edited, with an introduction, by G. Vlastos, Engl. transl. B. Jowett, revised by M. Ostwald, Indianapolis - New York, Bobbs-Merrill, 1956.

Shelley, M., *Frankenstein. Or, the modern Prometheus*, London, Penguin Books, 1994.

Vaidhyanathan, S., *The googlization of everything (and why we should worry)*, Berkeley - Los Angeles, University of California Press, 2011.