



Victor Frankenstein's Creature as a Literary Metaphor for Artificial Intelligence: Autonomy, Responsibility, and Technological Control in Mary Shelley's *Frankenstein or the Modern Prometheus*

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Abstract— Mary Shelley's *Frankenstein or the Modern Prometheus* (1818) remains a significant literary meditation on scientific ambition, artificial creation, responsibility, and the consequences of innovation. This article examines Victor Frankenstein's creature as a literary metaphor through which contemporary controversies surrounding artificial intelligence can be integrated. Rather than equating the creature with contemporary AI, the study identifies a limited but productive analogy between Shelley's representation of artificial creation and contemporary concerns about learning, autonomy, control and responsibility. Using a technoethical lens, this study compares and contrasts the creature created by Mary Shelley and Artificial Intelligence. The creature's eloquence, intellectual capacities and strength have become a causal factor in destabilising its creator and society. This article argues that the novel's continuing relevance lies not in a literal prediction of AI, but in its exploration of what happens when a creator develops a powerful artificial entity without adequately anticipating its needs, social environment or consequences. This article provides a valuable cultural and ethical lens for examining responsible innovation, human oversight, technological control and accountability in the development and deployment of increasingly capable AI systems.



Keywords— Autonomy, Technoethics, Artificial Intelligence, the creature, Society.

Résumé— *Frankenstein ou le Prométhée moderne* de Mary Shelley (1818) demeure une œuvre majeure pour réfléchir à l'ambition scientifique, à la création artificielle, à la responsabilité et aux conséquences de l'innovation. Cet article examine la Créature de Victor Frankenstein comme une métaphore littéraire permettant d'interroger les controverses contemporaines relatives à l'intelligence artificielle (IA). Plutôt que d'assimiler la Créature à l'IA contemporaine, l'étude établit une analogie limitée mais féconde entre la représentation de la création artificielle chez Shelley et les débats actuels sur l'apprentissage, l'autonomie, le contrôle et la responsabilité. À travers un prisme techno-éthique, cette étude compare et oppose la créature créée par Mary Shelley à l'intelligence artificielle. L'éloquence, les capacités intellectuelles et la force de la créature sont devenues des facteurs causaux de la déstabilisation de son créateur et de la société. L'article soutient que l'intérêt durable du roman ne réside pas dans une prédiction littéraire de l'IA, mais dans son exploration de ce qui se produit lorsqu'un créateur développe une entité artificielle puissante sans anticiper suffisamment ses besoins, son environnement social ou ses conséquences. Le roman constitue ainsi une ressource culturelle et éthique pertinente pour réfléchir à l'innovation responsable, au contrôle humain, à la gouvernance technologique et à la responsabilité dans le développement et le déploiement de systèmes d'IA de plus en plus capables.

I. INTRODUCTION

Mary Shelley's *Frankenstein or the Modern Prometheus* published in 1818, remains one of the earliest and most captivating meditations about all that is linked to the ethics of creation and the moral implications of scientific drive. It can also serve as a productive literary resource for contemporary discussions of artificial intelligence, provided that the comparison is made critically and without treating literary analogy as technological equivalence. The creature is not an AI system in the contemporary technical sense. It is a fictional, embodied being endowed with sensation, language, emotion, desire and moral reflection. Nevertheless, Shelley's narrative raises questions that remain central to contemporary AI ethics. The nature of capabilities acquirement, the autonomy permitted by creators; the level of human control and the responsibility regarding technological systems. Shelley's portrayal of Victor Frankenstein's creation, an intelligent, strong and unstoppable being, gives insight into the dangers and fears coming with innovation when moral conduct is not observed.

The central argument of this article is therefore not that the creature is artificial intelligence, but that Frankenstein's creature functions as a literary metaphor through which selected AI controversies can be examined. This distinction is essential. AI systems are heterogeneous computational technologies, and current systems should not automatically be described as conscious, emotional or morally intentional. The comparison is strongest at the level of ethical and structural questions. Artificial creation, learning from information, the relationship between design intentions and subsequent behaviour, the distribution of control, and responsibility for consequences.

Contemporary scholars discuss the risks of maintaining an increasing rate of self-learning machines. They have emphasised the ethical risks of developing independent systems that could get out of human control. They are concerned about how autonomous machines could cause damage, making this concern relevant to humans. Shelley's work not only offers a reflection on modern science's fear but also builds a framework that helps us understand the boundaries of technological power (Bostrom, 2014; Floridi, 2015; Tegmark, 2017; Russell, 2019; Nyholm, 2023). This section explores *Frankenstein* in two dimensions: The creature's autonomy, learning and the question of artificial agency; and from creator responsibility to the AI responsibility gap. These dimensions provide insight into how Shelley's vision continues to haunt contemporary society.

II. THE CREATURE'S AUTONOMY, LEARNING AND THE QUESTION OF ARTIFICIAL AGENCY

Frankenstein, written by Mary Shelley, does not present intelligence as a fixed attribute that the creature possesses fully formed at the moment of animation. Instead, Shelley represents cognition as developing through sensation, observation, imitation, language acquisition and interaction with the environment. is discussed as forming the basis of artificial intelligence through the Monster. The behaviour patterns of the creature are viewed as typical artificial intelligence due to the fact that all that surrounds it is done by itself. Th developmental structure provides a productive point of comparison with contemporary machine learning, although the comparison remains conceptual rather than literal. Given the definition of artificial intelligence, it is the capacity of a robot to perform human tasks, mimic human actions and go even far beyond what is expected. Artificial Intelligence is a technology that enables computers and machines to simulate human learning, comprehension, problem-solving, decision-making, creativity and autonomy. (Alexandre, 2017 ; Andler, 2023 ; Ganascia, 2017 ; Éthique et intelligence artificielle, 2020 ; Mani and Chouk, 2023).

The distinction between artificial and human intelligence is essential. Andler (2023) emphasises the conceptual difficulty of comparing human intelligence with artificial systems, while Ganascia (2017) situates AI within a broader history of attempts to reproduce or augment forms of human intelligence. For Alexandre (2017), the individual capacity to draw information and find its links constitutes the foundation of intelligence. Intelligence enables one to apprehend things and judge them according to the information being put in mind. Alexandre believes that one should consider intelligence synonymous with rationality, since it processes information before use. Contemporary AI systems can perform tasks involving pattern recognition, prediction, language processing, classification and decision support. These capabilities, however, do not by themselves establish human-like consciousness or subjective experience. The creature is different in the sense that Shelley endowed it with a sentient and morally reflective being. This analogy should therefore concern the conditions and consequences of artificial capability, not an identity between the creature and AI.

The creature explains its earliest experiences, that is, learning performed through accumulated observation. The incoming data it analyses every day allows it to cross-check

its effects and how to address them: "...I learned to distinguish between the operations of my various senses" (F, p.83). The passage is important because it explains how it was difficult for the creature to understand all that happened around it. Although it is unable to interpret those events, it knows that there exists a mechanism that enables the happening of those events. It gradually constructs distinctions through repeated encounters with its environment. The parallel with machine learning lies in the capabilities that can emerge from their exposure to information and patterns. Alexandre (2017) reinforces this narrative by mentioning that machine learning is valid through loaded information. However, this ends when the creature exposes its affective pattern, making it disconnected from machine learning, which has no affective pattern. A machine learning model can identify statistical regularities in data. These regularities do not imply that it experiences the world as the creature does. They have various patterns, making them different. It is therefore important to recognise those differences, which will be a key concern in studying them.

The creature's learning is gradual and cumulative, given that it witnesses different phenomena. It distinguishes day from night, light from darkness, and different sounds and natural phenomena. It argues: "Several changes of day and night passed, and the orb of the night had greatly lessened when I began to distinguish my sensations from each other" (F, p.84). Shelley presents in this passage cognition as a process of adaptation rather than as an instantaneous transfer of knowledge. This narrative structure resonates with contemporary discussion of machine learning, in which system performance depends partly on training procedures and data characteristics it receives. The comparison is useful because it refuses to consider intelligence as an abstract property but as capabilities that can be developed over time.

The creature's development also demonstrates the importance of context. It is created without parental guidance. It must interpret the social world largely through observation. Its knowledge therefore depends on what it can access and on the circumstances in which that information is encountered. It observes what is going on around it. Examining the results and increasing accuracy in its action is greatly due in part to the full range of incoming environmental phenomena it witnesses. Eileen (2018) clarifies: "The creature's process of artificial formation begins with his animation without a mother." Because for him, "Although the creature lacks a mother, he has the same contextual and interactive process of development as other children. As with Frankenstein's creature, AI is not born, but it is still made by circumstances. This has direct technoethical significance. Technological systems do not operate independently of their design, training, evaluation

procedures and deployment environment. The analogy should not suggest that AI systems develop like children, rather, it highlights the ethical importance of the conditions under which artificial capabilities are produced. This calls for an emphasis on the refusal in allowing autonomy to AI machines as found with the creature whose autonomy has led to uncontrollable situations.

Contemporary AI systems likewise depend on data, model structure, objective and evaluation. Research in areas such as medical AI demonstrates that the quality and characteristics of data can affect the reliability of automated outputs (Anichini and Geffroy, 2021; Gruson, 2020). From these data, the algorithms capture the incoming data through processing and examine the results fed to the algorithms so that a repetitive action takes place. The relevant parallel with Shelley's fictional narrative is therefore not that the creature works like AI but that both narratives direct attention to the relationship between the conditions of learning and subsequent behaviours. This leads to an ethical question regarding the conditions under which an artificial system acquires and exercises its capabilities.

Information also functions as a source of technological power, but this point requires conceptual precision. Contemporary AI systems may be trained or informed by very large quantities of digital data, whereas the creature acquires knowledge through direct observation of its environment. Alexandre believes that AI is fed through the information individuals upload on the web. The raw material of AI is information. It would be misleading to believe that AI systems are strong on their own. However, the point is that uploaded data are collected, filtered, transformed, stored and used within particular technical and institutional systems. The relevant technoethical issue is therefore data governance, including questions of provenance, consent, privacy, security and purpose. The information provided can be utilised against the individuals posing a serious threat to humankind. Individuals should stop uploading information and images on the web, an aspect deemed difficult for individuals.

The creature's observation of the De Lacey family provides a particularly revealing example of contextual learning. It observes their poverty and gradually learns words such as "fire, milk, bread, and wood. (F. pp.90-91). This passage shows that the creature does not merely collect isolated facts; it connects language with objects, actions and social circumstances. Though created in a form different from that of the cottagers, it has been able to explore what it witnesses every day. It knows the motives of their suffering and sympathises with them. Its ability to replicate what the cottagers do is comparable to artificial systems, whose analysis of data is accurate, provided that the required data

is inserted into the algorithms. Botting (2018) reinforces this position by taking into account the development of the creature to illuminate broader questions about intelligence and learning. For the present study, the episode demonstrates both the significance and the limits of the AI analogy. The creature's learning is situated, embodied and affective, whereas contemporary AI systems derive capabilities through computational processes that do not require subjective understanding.

The question of autonomy is closely connected to the question of control. People should refrain from believing that AI would help humankind. Caseau (2018) and Oppenheimer (2018) have mitigated views about AI autonomy. Metz (2023) argues that AI poses serious risks. He puts: "As companies improve their AI systems, they become increasingly dangerous. "Look at how it was five years ago and how it is now. Take the difference and propagate it forward. That's scary." (Hinton as quoted by Cades, 2023, p.9). Bostrom (2014) and Russell (2019) examine scenarios in which increasingly capable systems might pursue objectives in ways that diverge from human intentions. Nyholm (2022), however, cautions against treating control as an unqualified good. The ethical issue is not simply whether humans retain maximum control, but what forms of control are appropriate, legitimate, and compatible with human values. Victor's failure is not merely a loss of physical control over his creature but a failure in establishing a responsible relationship with what he has created.

Victor's creature's demand for a companion marks an important reversal of the creator-creation relationship. Victor realises that his creature is capable of many things. He discovers that the being he created can formulate demands, negotiate conditions and even anticipate his decisions. His belief is that of a docile creature, as artificial intelligence is thought of. The conversation between creator and creation enables them to acknowledge the power of what is apparently unknown. Within the fictional world of the novel, these capacities constitute agency. Nyholm's work on autonomous agency demonstrates that attributing agency to technological systems is itself a philosophical and ethical question. The novel's analogy is therefore most useful when it asks what happens when a technological artefact acquires a degree of operational independence that complicates human intentions and oversight. Othman (2025) remarks that artificial intelligence: "may soon eclipse human control, evolve consciousness, and trigger societal collapse".

The issue becomes more pressing when technological development is shaped by competitive incentives. Contemporary AI development takes place within a

commercial, scientific, and geopolitical environment, making it difficult to grasp the trajectory of AI systems and their use. The speed and capability of production must be checked with a careful evaluation. Metz reiterates his worries: "they (AI) often learn unexpected behavior from the vast amounts of data they analyze. This becomes an issue as individuals and companies allow AI systems not only to generate their own computer code but actually to run that code on their own. And he fears a day when truly autonomous weapons — those killer robots — become reality." (Jeff Dean as quoted by Cades, 2023, p. 9). The lesson drawn from the novel should not be that technological progress always produces catastrophe. Rather, it draws attention to the possibility that the pursuit of capability without adequate anticipation, testing and accountability can lead to unintended consequences.

Victor's creature represents AI. It functions as a metaphor for the problem of unexpected technological behaviour, not as a literal representation of present-day AI. The knowledge of artificial intelligence is limited because it performs tasks as instructed. Sometimes, it extends far beyond the work assigned to it. Contemporary AI systems may produce outputs that their developers did not anticipate, especially in complex or poorly specified environments. Alexandre (2017) assumes AI has little control over itself. Yet, the additional information to the preexisting data can be miscalculated, bringing little knowledge of the invention one admires. Russell highlights the potential influence of AI on individuals: "To get just an inkling of the fire we're playing with, consider how content-selection algorithms function on social media. They aren't particularly intelligent, but they are in a position to affect the entire world because they directly influence billions of people." (Russell, 2019, p.8). Shelley's fiction becomes analytically valuable when it directs attention to the responsibilities involved in defining objectives, selecting data, evaluating systems, monitoring deployment and responding to failure.

III. THE COLLAPSE OF RESPONSIBILITY FROM CREATOR TO CREATION

Responsibility is central to Shelley's narrative. Responsibility, according to Johnston, is "a duty to take care of something or someone or the state of being the cause of an outcome" (Johnston, 2017, p. 203). Johnston identifies Victor's responsibility for bringing the creature into existence and for the obligations associated with that act of creation. Victor's irresponsible behaviour forces his creature to beg for parental love. The creature consoles itself with the De Lacey family. This episode makes the consequences of this abandonment visible. Victor left the creature alone without nurturing it. This situation prevents

the creature from knowing societal norms in order to navigate through them. The creature is obliged to construct an understanding of social norms without meaningful guidance from its creator. Victor's failure begins before the creature becomes violent. He creates it without adequately considering the obligations that it entails and then abandons the creature he has created.

The creature's acquisition of language further demonstrates the importance of social context. It communicates, feels, and expresses emotions. The creature masters reading by imitating the sound of the young cottagers. Despite the distance, it struggles to understand the sound it hears and gradually connects words with objects, actions and relationships. Its development is therefore not simply a process of accumulating information; it is a process of interpretation within a social environment. The creature's position: "I ardently longed to comprehend these also" (F, p.92). The ethical relevance to AI lies in the fact that technological performance is also shaped by its development conditions. A system becomes powerful through loaded information. However, trained datasets can still produce unreliable or harmful outputs when their data, objectives or evaluation criteria context are inadequate.

The quality of the environment greatly impacts learning. The learning environment is crucial to both Shelley's narrative and contemporary AI governance. If the creature had received sustained guidance and social recognition, its relationship with humanity might have been different. The narrative does not provide a counterfactual to be tested, but it highlights the consequences of abandonment. In contemporary AI, the same concern involves the conditions of development and deployment. Data quality, system objectives, testing, human oversight, monitoring and mechanisms for correction should be considered. The comparison enables to recognise that unlike the creature, which can independently learn, AI systems do not possess the same psychological development. This suggests that data quality, that is, for good purpose, is due greatly to the type of person who possesses them.

The creature's reflections on human virtue and vice are also significant because they show how it interprets social behaviour: "Was man indeed, at once so powerful, so virtuous, and so magnificent, yet so vicious and base? He appeared at one time a mere scion of the evil principle, and at another as all that can be conceived of noble and godlike" (F, p.98). The passage demonstrates the creature's attempt to reconcile contradictory observations about human conduct. This permits it to play with human tricks, allowing it later to downthrow its creator. It provides a useful note about the contemporary concerns about AI systems trained on data uploaded by humans. Digital datasets can reproduce

patterns of discrimination, misinformation, or other social biases. Automated machines trained on such data may therefore reproduce or amplify existing inequalities. Stuart Russell argues: "The purpose put into the machine" is exactly the objective that machines are optimizing in the standard model. If we put the wrong objective into a machine that is more intelligent than us, it will achieve the objective, and we lose" (2019, p.10-11). The ethical issue in this regard is not that AI independently "learns human malice" as found in the case of Victor's creature, but that technological systems can encode, reproduce or amplify things present in their data.

These concerns extend to automated systems. In areas such as healthcare, finance, employment, etc automated outputs can affect human opportunities and welfare. It should not be claimed that algorithms experience social rejection like Shelley's analogy. Its value lies instead in showing how judgements and classifications can have consequences for vulnerable subjects (Foley, 2024; Kartal, 2022). The problem of responsibility becomes especially complex when technological outcomes result from distributed processes. Victor is considered an author through creation. He creates his being and subsequently abandons it, making AI reflection worrisome. Contemporary AI development is fundamentally different. Responsibility may be shared among model developers, data providers, organisations, deployers, users, regulators and other actors. Although responsibility is not attributed to one person or an entity, there is still a challenge in distinguishing the environment from which the problem emanates. Matthias (2004) identified this difficulty in relation to learning automata through the concept of a "responsibility gap".

The responsibility gap should not be interpreted as proof that no one is responsible for an AI system's actions. Later scholarship continues to examine how responsibility should be allocated when autonomous systems produce outcomes that cannot be straightforwardly attributed to a single human decision-maker. Responsibility may be distributed across different stages of a system's lifecycle. Developers may bear responsibility for design choices; the organisation may bear responsibility for deployment and governance; the user for foreseeable misuse. This distributed model differs from Victor's concentrated authorship but makes Shelley's narrative newly relevant. Creation therefore creates obligations that persist beyond the moment of invention.

Nyholm (2022) and Russell (2019) are concerned about the intensity of technological development, which might lack ethics. They suggest that those who invent and develop AI must consider the long-term ethical consequences. Werthner et al. advocate: "we humans have much less control than we think over the outcomes of technology

development" (2022, p.3), because "The more intelligent the machine, the worse the outcome for humans: the machine will have a greater ability to alter the world in ways that are inconsistent with our true objectives and greater skill in foreseeing and preventing any interference with its plans. (Stuart Russell, *Human-Compatible Artificial Intelligence*, p.1).

Mary Shelley calls readers to measure the obligations attached to creation or invention. In the creature's case, it knows right from wrong. It learns about human actions and seeks help. Its deeds, after many attempts to get accepted by humans, are transferred to Victor since he brought it to life. Johnston's analysis of Shelley's novel emphasises the creator's obligations toward what is brought into existence. She considers that "he (Victor) is responsible for the existence of the creature and to a certain extent is therefore responsible for the creature's deeds" (2017, p.206). This insight can be connected to the contemporary principle of responsible innovation. Developers and institutions should anticipate foreseeable risks, evaluate systems before and after deployment; communicate limitations; establish meaningful human oversight and provide mechanisms for correction and redress. Responsibility should therefore be understood as an ongoing practice of stewardship rather than as a one-time obligation discharged when a technological artifact becomes operational. Johnson clarifies this position when she says: "she [Shelley] asks us to consider our obligations to our creations before we bring them into being." (2017, p.207).

By abandoning, refusing guidance, care and accountability, Victor has denied life and dignity to the very being he was so proud of right from the start of the project. From this refusal to care and bear accountability, consequences yielded the wrong and the innocent without exception, proving how inconsistent decisions can be dreadful to society. AI developers and their advocates have to consider the effects of their actions anytime they seek new ways to improve them because bearing responsibility becomes difficult in an age of automated machines.

IV. CONCLUSION

In *Frankenstein*, Mary Shelley makes use of responsibility to respond to the scientific undertaking. Her work remains relevant to contemporary AI debates because it places the ethics of creation at the centre of technological imagination. The creature's gradual acquisition of knowledge provides a productive literary analogy for questions about learning and artificial agency. At the same time, it illuminates enduring concerns about autonomy, governance and responsibility from Victor's loss of control and failure of stewardship. The comparison is persuasive in the sense that it remains

explicitly metaphorical. Artificial intelligence does not substitute Victor's creature. Contemporary AI should not be treated as conscious or emotionally motivated because it can generate human-like outputs. Mary Shelley recognises that people can positively impact their society as well as contribute to its extinction through their discoveries. The discovery's effects have to be evaluated in the long run instead of the short run. This implies that a discovery's importance should not consist solely of helping humans regardless of the effects; rather, scientists and engineers must weigh the good and bad sides of the discovery before any undertaking.

The article has shown that the most important connection between *Frankenstein or the Modern Prometheus* and AI lies in the relationship between capability and responsibility. Victor's mistake is not simply that he creates something powerful; it is his failure to anticipate the obligations attached to creation and abandons responsibility when the consequences become difficult to manage. Contemporary AI development differs from Victor's individual authorship because responsibility is shared across different dimensions. Nevertheless, the principle remains the same. Technological systems should be accompanied by responsible conducts through their lifecycle, from design and training to deployment, monitoring, correction and retirement.

Shelley's narrative should therefore not be presented as a literal prediction of artificial intelligence. Its enduring value lies in its capacity to frame questions that are still relevant and remain unresolved. Shelley's novel provides a rigorous literary and technological lens through which contemporary AI controversies can be examined without collapsing the distinction between fictional agency and actual computational systems.

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