

# Beyond the Boundaries of Reality: An In-Depth Analysis of the Intersection Between Science and Fiction in Select Sci-Fi Novels

**Diya Susan Roy**

I M. A. English

Madras Christian College, Tambaram, Chennai, India

2201712006005@mcc.edu.in

**Abstract:** *Is Science Fiction indeed fiction? One has always been exposed to sci-fi as they have been to fantasies like Hogwarts and Phoenixes. Science fiction is characterized by its imaginative use of science and technology, as well as its ability to ask "what if" questions about the future of humanity, society, and the universe. But what if these fictitious inventions become inspirational to scientists? Does that create an entire paradigm shift as to how one perceives science fiction? Science fiction has long inspired real-world inventors, with many of the fantastical technologies envisioned by sci-fi authors becoming reality. From self-driving cars to handheld communicators, the genre has repeatedly predicted future technological advancements. Science fiction writers often imagine worlds and scenarios that seem fantastical or impossible, but as technology advances and society changes, these ideas can become prescient and prophetic. This research paper will explore select sci-fi novels such as Frankenstein by Mary Shelley and From the Earth to the Moon by Jules Verne and their prophetic discoveries and also the ways in which George Orwell's 1984 has accurately predicted aspects of modern-day society.*

**Keywords:** Science Fiction

## I. INTRODUCTION

The future could have already been written. Rejoice, shiver, or roll your eyes in disgust, yet history reveals that what awaits us is frequently foreshadowed in the pages of science fiction. The genre's prophetic track record transcends millennia: Writers mused about the lunar landing as far back as 175 A.D. when Syrian comedian Lucian of Samosata envisaged flying ships to the moon, a fable that addressed the seafaring culture's longing to climb to the heights. Not all fiction is pure fantasy. "Some of our greatest authors are not making up stuff whole cloth, but sampling from the zeitgeist—scientific or otherwise," says Dan Rockmore, head of Dartmouth College's Neukom Institute for Computational Science.

Science fiction, also known as sci-fi, is a literary, film, and other forms of media genre that deals with futuristic or imaginative concepts. While science fiction is often associated with stories that are not based on reality, it can also be a powerful tool for exploring and addressing real-world issues. In this essay, we will look at why science fiction is frequently perceived as fictitious and how it can be used to address important social, political, and scientific issues.

The complexities of the relationship between science fiction and human realities are manifest. From a literary-critical perspective, Carl Freedman described science fiction as "the most legitimate genre for academic study, placing it above all other forms of literature for its analytical potential" (Freedman, 2000).

One of the primary reasons why science fiction is frequently perceived as fictitious is that it deals with concepts and ideas that are not yet possible or have not been proven to exist. Time travel, faster-than-light travel, and extraterrestrial life are examples of this. These ideas are frequently regarded as fantasy or fiction because they are not yet possible or have not been proven.

Furthermore, many science fiction stories are set in distant, imagined worlds with characters and societies that are vastly different from our own. This can make it difficult for audiences to relate to the stories and give the impression

that sci-fi is unreal. While science fiction is not always grounded on current scientific knowledge or real-world experiences, it can nevertheless be a useful approach to examine and address real-world challenges.

Science fiction questions the role, relevance, costs, and benefits of current and future technologies, and presents ideas that can influence public opinion. Brian Stableford claimed that science fiction could determine the worldview of individuals, by the modification of attitudes to the significance of current and future science and technology (Stableford, 1979). Marshall Tymn agreed that as literature, science fiction equips us to accept change as natural and inevitable (Tymn, 1985).

One of sci-fi's distinguishing features is its ability to address social, political, and scientific themes in inventive and thought-provoking ways. For example, Aldous Huxley's famous sci-fi novel "Brave New World" addresses the risks of a society obsessed with consumerism and instant satisfaction, while the more current TV series "Black Mirror" investigates the potential implications of our reliance on technology.

Similarly, science fiction can be used to highlight scientific and technical developments that have not yet been fully realized but will be in the near future. For example, the film "Ex Machina" investigates the ethical issues of developing powerful artificial intelligence, and the television series "Westworld" investigates the ramifications of developing lifelike robots designed to serve human desires.

Sci-fi may help us tackle complicated subjects in a fun and thought-provoking way by using inventive notions and futuristic settings.

### **Frankenstein by Mary Shelley**

*Frankenstein*, Mary Shelley's classic novel published in 1818, is noted for its compelling themes of science and technology, the dangers of playing god, and the repercussions of overachievement. The defibrillator, a device used to revive Victor Frankenstein's creature after he falls, is one of the novel's most intriguing and predictive technologies.

Victor Frankenstein builds his creature in Chapter 5 of *Frankenstein* utilizing many scientific procedures, including the use of electricity. When the beast comes to life, Victor describes it as "a wonder" and "the secret of paradise." Unfortunately, when the monster begins to walk, he abruptly collapses, and Victor is unable to resurrect him. Victor then has the brilliant idea of using electricity to shock the monster back to life, which he accomplishes with the help of a defibrillator. The concept of using electricity to resurrect the dead was not yet a reality when *Frankenstein* was penned.

Defibrillation did not exist until the early twentieth century, when two physiologists, William Kouwenhoven, and John Geddes, devised the first external defibrillator in 1956. The defibrillator's predictive invention in *Frankenstein* was revolutionary in the sense that it foretold a notion that would not come to reality for another century. Shelley's invention of the defibrillator in her novel was a foresight into the possibilities of electricity as a medical aid.

The invention of the defibrillator revolutionized modern medicine, saving many lives. External defibrillators were originally used in hospitals in the 1950s, and then by paramedics in emergency circumstances in the 1960s. Defibrillators, which are used to treat cardiac arrest, are now routinely seen in many public venues such as airports, shopping malls, and sports stadiums. Technological advances in recent years have resulted in the creation of implanted defibrillators, which can be inserted inside the body to monitor and treat aberrant heart rhythms. These devices have been especially beneficial for those at high risk of cardiac arrest.

*Frankenstein* by Mary Shelley is a classic work that has had a tremendous impact on modern society and science. Shelley's foresighted development of the defibrillator in the novel foresaw the potential of electricity as a tool in the field of medicine. While the concept of defibrillation was not yet a reality at the time the novel was written, it had a long-lasting impact on modern medicine, leading to the invention of external and implantable defibrillators that have saved many lives. Shelley's imaginative description of the defibrillator in *Frankenstein* demonstrates science fiction's ability to foresee and inspire major scientific discoveries.

### **From the Earth to the Moon by Jules Verne**

Jules Verne is regarded as one of the most prominent science fiction writers of all time, famed for his ability to foresee future technology and their implications for society. His foreshadowing development of the spacecraft in his 1865 novel, *From the Earth to the Moon*, is one of his most significant contributions to science fiction. We will look at how

Jules Verne's imaginative image of the spacecraft in *From the Earth to the Moon* foreshadowed the technology and achievements of space exploration in the twentieth century.

*From the Earth to the Moon* tells the narrative of a gang of explorers who launch a spacecraft from Earth on a journey to the moon. The Columbiad spaceship, powered by a massive cannon, is designed to carry three people and their supplies. The spaceship is built in a cylindrical shape to maximize interior capacity and is outfitted with a number of compartments for passengers, equipment, and supplies. The spacecraft also has a navigation system to steer the journey and a communication system to keep in touch with Earth.

When *From the Earth to the Moon* was published in 1865, the idea of space travel was still simply hypothetical. Verne's picture of the spacecraft, on the other hand, was startlingly realistic and foreshadowed the technology that would be produced in the twentieth century. Verne's foresight in creating the spacecraft in *From the Earth to the Moon* has had a profound impact on the advancement of space exploration. While actual space flight technology changed from Verne's vision, the concept of space travel and the basic form of the spacecraft was close to what NASA produced in the 1960s and 1970s.

The Apollo mission, which transported people to the moon between 1969 and 1972, employed a spaceship similar to the one envisioned by Verne in his novel. The Apollo spacecraft, like Verne's spacecraft, was cylindrical in shape and equipped with a navigation system and a communication system to keep in touch with Earth.

Verne's vision of space travel, as well as his invention of the spacecraft in *From the Earth to the Moon*, not only affected the development of space exploration technology but also inspired future generations' imaginations. The concept of space travel and planet exploration has caught the public's interest, leading to additional improvements in space research and the possibility of future space tourism.

*From the Earth to the Moon*, Jules Verne's prophetic invention of the spacecraft was a great feat, foreshadowing the technology and achievements of space exploration in the twentieth century. While actual space flight technology changed from Verne's vision, the concept of space travel and the basic form of the spacecraft was close to what NASA produced in the 1960s and 1970s. Verne's imaginative picture of the spacecraft in *From the Earth to the Moon* demonstrates science fiction's ability to anticipate and inspire key scientific discoveries and breakthroughs.

#### **1984 by George Orwell**

George Orwell's *1984* is a classic science fiction novel about a dystopian society in the future. Although written in 1949, it remains one of the most significant and relevant science fiction novels of all time.

Orwell's novel depicts a nightmarish future in which the government has complete control over all aspects of citizens' life. The plot revolves around Winston Smith, a member of the ruling party who begins to doubt and defy the government's brutal dictatorship.

The creative and innovative investigation of futuristic technology and societal structures that defines *1984* as a science fiction novel. Orwell's portrayal of the "telescreen," a device that transmits government propaganda while also monitoring residents' every move, foretold the advent of modern-day surveillance technologies. Furthermore, the novel's examination of the social implications of government propaganda and censorship is a common issue in science fiction. Orwell's depiction of a society in which "Big Brother" monitors not only what individuals say, but also what they think, serves as a cautionary tale about the risks of an uncontrolled government authority.

Ultimately, Orwell's *1984* is a masterwork of science fiction that serves as a warning about the value of liberty, privacy, and individuality in a world increasingly ruled by technology and tyranny.

#### **Dystopianism in 1984**

Orwell describes a dystopian future in *1984* that is ruled by a government that watches every aspect of its residents' life. The government is called "The Party," and it maintains control through a variety of means. Propaganda, censorship, and spying are examples of these approaches. Winston Smith, the protagonist, works at the Ministry of Truth, where he is tasked with altering historical texts to conform to the present official narrative.

In today's world, Orwell's depiction of a society ruled by a totalitarian government is uncannily realistic. Governments throughout the world employ similar strategies to keep control of their citizens. In China, for example, the government uses a social credit system to monitor its residents' behaviour. This system encourages positive behaviour such as on-

time bill payment and volunteering while punishing poor behaviour such as jaywalking and criticizing the government. The Chinese government also heavily controls the internet, limiting access to government-critical websites and social media platforms.

#### **Surveillance in 1984**

Surveillance is one of the most important themes of *1984*. In the novel, the government deploys telescreens to track its inhabitants' every move. Telescreens can be found in public venues as well as private houses. They cannot be turned off, and citizens are constantly monitored.

Orwell's depiction of pervasive surveillance is not far from reality. Governments and corporations utilize technology to monitor their inhabitants and customers in today's world. Several companies, for example, use cookies to follow users' online behaviour and collect information about their interests and preferences. Surveillance cameras are also used by governments around the world to monitor public locations and track persons' movements.

#### **Newspeak in 1984**

In 1984, Orwell presented the concept of Newspeak, a language invented by the government to control the thoughts and behaviours of its population. Newspeak is intended to inhibit people's ability to critically think and express themselves. The administration feels that if individuals are unable to express themselves freely, they will be unable to think critically or rebel against the government.

Orwell's portrayal of Newspeak is comparable to how many governments and organizations communicate now. Politicians and advertisers, for example, frequently utilize language to influence people's beliefs and actions. Words such as "fake news" and "alternative facts" have been used to erode media credibility and create misunderstanding about the truth.

## **II. CONCLUSION**

Finally, science fiction has had a significant impact in shaping our society's perception of the future and influencing technological progress. In *Frankenstein*, Mary Shelley's prescient conception of defibrillators paved the path for the development of current medical technology, while *From the Earth to the Moon*, by Jules Verne, spurred the development of space exploration technology. Despite its hypothetical nature, science fiction has proven to be a valuable tool for seeing the future and anticipating probable scientific breakthroughs and technologies. It becomes evident, therefore, through these novels, how science fiction writers foreshadowed, foregrounded and forebode scientific discoveries that we use and experience in our everyday lives now. Science fiction has the ability to inspire additional scientific developments in disciplines such as medicine, space travel, and artificial intelligence in the future. Science fiction will surely continue to influence and inspire our image of the future as science and technology progress.

## **WORKS CITED**

- [1]. Alexander, Donovan. "Prophet or Futurist? 7 Technologies Jules Verne Predicted Leagues Ahead of His Time." *Prophet or Futurist? 7 Technologies Jules Verne Predicted Leagues Ahead of His Time*, 6 Feb. 2019, [interestingengineering.com/culture/prophet-or-futurist-7-technologies-jules-verne-predict ed-leagues-ahead-of-his-time](http://interestingengineering.com/culture/prophet-or-futurist-7-technologies-jules-verne-predict-ed-leagues-ahead-of-his-time).
- [2]. Carvalho Ferrasa, Ingrid Aline de, et al. "Mary Shelley's Frankenstein." *Science & Education*, Springer Science and Business Media LLC, Jan. 2022. *Crossref*, <https://doi.org/10.1007/s11191-021-00309-9>.
- [3]. Evans, Arthur B. "Jules Verne's Dream Machines: Technology and Transcendence," *Extrapolation*, Vol. 54.2 (2013): 129-146
- [4]. Greenlaw, M. "Science Fiction: Impossible! Improbable! or Prophetic?" *Elementary English*, vol. 48, no. 4, 1971, pp. 196-202, <https://doi.org/10.2307/41363200>. Accessed 14 Mar. 2023.
- [5]. "Mary Shelley's Frankenstein and the Birth of Modern Science - ABC Radio National." *ABC Radio National*, 13 Jan. 2015, [www.abc.net.au/radionational/programs/ockhamsrazor/mary-shelleys-frankenstein-and-the-birth-of-modern-science/6014790](http://www.abc.net.au/radionational/programs/ockhamsrazor/mary-shelleys-frankenstein-and-the-birth-of-modern-science/6014790).

- [6]. McNamara, Tom. "7 Science Fiction Inventions That Became Reality." *Popular Science*, 16 Oct. 2019, [www.popsci.com/predictions-sci-fi-writers-got-right](http://www.popsci.com/predictions-sci-fi-writers-got-right).
- [7]. Menadue, Christopher, and Cheer, Karen. "Human Culture and Science Fiction: A Review of the Literature, 1980-2016." *SAGE Open*, 2017, <https://doi.org/10.1177/2158244017723690>. Accessed 13 Mar. 2023.