

Technological Determinism in Fahrenheit 451: A Study

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Abstract

Ray Bradbury's novel Fahrenheit 451 is one of the most enduring dystopian critiques of modern media ecology and technological expansion. The novel is set in a future where literature is banned and firemen burn books, and it presents a society fundamentally reshaped by its material artifacts. The main character of the novel, Montag is a fireman, whose job is to burn all the books found in the houses of people, as these books are considered to be a source of tears and sadness, and those who question such kind of destruction are too burned with the books. This research paper is a study which shows how a technology can become a source of human destruction if it is not handled and controlled by the human themselves. Christian Lous Lange in his 1921 Nobel Peace Prize acceptance speech righteously warned us that "Technology is a useful servant, but a dangerous master". And the core of this research study is to prove true the words of Lange, that an uncontrolled technology can destroy the society and even change its structure. And to achieve this aim, three theories are used for analyzing this novel, they are: hard technological determinism, soft technological determinism, and Neil Postman's technopoly. Analysing novel through these theories will help us to understand how a technology can change societal structure, be a source of destruction of culture and can be used to control human thinking. This research paper is significantly important in this modern world where AI is growing and expanding so quickly that it in turn will be a factor that will harm our society and economics. Through this research paper, we will learn how a technology, which people never asked for, still became a part of people's lives which couldn't later be resisted and replaced caused harm to a society, changed and eradicated their culture and people themselves are mere spectators of it.

Keywords: Dystopian, Media Ecology, Technological Determinism, Soft Technological Determinism, Hard Technological Determinism, Technopoly.

Introduction

The analysis of the novel Fahrenheit 451 is done through the perspective of three theoretical frameworks. The three theoretical frameworks are chosen in order to understand how technology drives the social change and ultimately leads to the collapse of society in Bradbury's Fahrenheit 451. The theory of technological determinism was given by Thorstein Veblen, while its modern categorization into hard and soft technological determinism was given by Merritt Roe Smith and Leo Marx, and technopoly, which is given by Neil Postman. Hard technological determinism posits that it is only technology that drives the change in society and culture. It is only technology that causes societal transformation and no other factors are considered responsible in promoting such

change. Whereas soft technological determinism does not consider technology as the only force driving social change. It also takes in account the human agency, political structures, and cultural choices that cause an impact and transformation in society.

According to Neil Postman's concept of technopoly, Postman argues that modern societies quickly adopt technology and doesn't even question its authority over cultural, political, educational, and moral life. A society is said to be under the influence of technopoly, when the technological efficiency becomes the dominant standard for evaluating human activities, meanwhile the traditional sources of wisdom, ethical reasoning, and cultural values gradually lose their influence.

Fahrenheit 451 provides a rich ground for the analysis of these theories as Bradbury described a world in which technologies like parlour walls, the mechanical hound and seashell radios keep its citizens addicted and engrossed in them up to an extent that people even barely sleep and recognize each other. The prime example of such a victim is Mildred, Montag's wife, who cannot sleep at night, being a victim of seashell radio which keeps her addicted and dancing at late hours. The situation is so bad that the husband and wife are completely strangers to one another despite living in a single room, devoid of communication.

Hard Technological Determinism

From the lens of hard technological determinism, the novel is set in a world where technology is used to brain wash its citizens and recondition the psychological states of people. The people are brainwashed into thinking that books are the cause of our sadness, and they do not reveal or discuss truth, but lie. From history to philosophy, everything is altered in the books to support the technology and the current leader in power. There is nothing called as physical activities and games or sports, just a huge cinematic three-dimension walls in the houses which keep the people entertained and seashell radios, which give them immersive experience. In the novel, the "Mechanical Hound" is the primary source of hard technological determinism. The mechanical hound is designed for state enforcement. It is an automated technology which serves a

purpose similar to artificial intelligence, just to preserve societal statis.

Bradbury describes the technology in the back cover of the novel as "the Mechanical Hound of the Fire Department, armed with a lethal hypodermic, escorted by helicopters is ready to track down dissidents who defy society to preserve and read book". The Hound does not lay down the laws nor does assist in human law enforcement, rather it dictates the parameters of acceptable human movement and intellectual activity. The Mechanical Hound is equipped with hypodermic needle and has a surveillance of state helicopters which keeps an eye on citizens and when one is caught with doing anything wrong like bribe or even thinking to take down the hound, it injects that needle into human, stripping them of intellectual freedom and agency. This mechanical hound is a weaponized technology used to monitor every facet of life and erase the independent thought of people.

Hard technological determinism also operates through the continuous sensory saturation of domestic spaces. For example, Montag's wife Mildred, has an addiction of two technologies; seashells and parlour walls. This seashells unlike our modern EarPods, are so small, kind of a micro technology which is fitted inside ear for an immersive experience and is used directly to manipulate people's thinking and senses. As soon as one who has seashells thinks of a commodity, the advertisement of that commodity starts broadcasting, if one thinks the price is high, similar commodity of lower price is broadcasted and displayed at parlour walls. It keeps the data of our own thinking and tricks

us into falling for the trap. This state of technological entrapment is directly referred by the words of Montag, through Mildred's nightly routine:

And in her ears the little Seashells, the thimble radios tamped tight, and an ocean of sound, of music and talk and music and talk, coming in, coming in on the shore of her unsleeping mind. (Bradbury 20)

Seashells alters the human thoughts and behaviour through its sensory noise, which when combined with the application of parlour walls, both of these effectively eliminates the silence necessary for contemplative thought. This is what exactly happens with Mildred. Her life is completely depended and dictated by these (seashells and parlour walls) autonomous technology. These technologies have a firm control on her senses and thoughts that she doesn't even think or self – reflects or even communicate with her husband. As soon as she begins to think, parlour walls display her thoughts on the huge cinematic wall and seashells ready to interrupt the thinking process, redirecting to something else. This cycle keeps on repeating which in turn leads to psychological conditioning, and the worst-case scenario it drives her towards total atrophy. She forgets to take her own medicines. The addiction of this technology is so bad that it doesn't even let her sleep peacefully at night. Late in the night, when Montag looked over Mildred, she was dancing for no apparent reason. This is evident from:

Late in the night, he looked over at Mildred. She was awake. There was a tiny dance of melody in the air, her Seashell was tamped in her ear again, and she was listening to far people in far places, her

eyes wide and staring at the fathoms of blackness above her in the ceiling. (Bradbury 57)

This hearing device called Seashell has taken over her up to an extent that in later paragraphs the narrator confirms that "...she was so strange, he couldn't believe he knew her at all" (Bradbury 57). Moreover, Montag becomes so obsessed by the technology that he himself thought to go and purchase it, so that he could at least communicate with his wife. But then, he changed his mind because she was too different that he didn't know what to talk about.

When Guy Montag first encounters Clarisse McClellan, her presence acts as a cognitive jarring precisely because she exists outside this hard deterministic loop. Her initial observation: "And you must be the fireman... I would have known it with my eyes shut" (Bradbury 12). It highlights that even Montag was brainwashed and completely stopped thinking, just doing as told. And in fact, it is true that before meeting Clarisse, Montag never thought about books, never read, just burned them all up as commanded by the totalitarian government and Captain Beatty. It is later, in the ending that he rebelled, read and hid books from Captain Beatty, escapes from the country, staged fake death, and later kills Beatty in self-defence. And then the survivors and book lovers rebuild the society and share the knowledge from books that they have memorized.

Earlier, in the novel's opening passages, Montag's defines himself by the work he does as a fire man, burning books: "He knew that when he returned to the

firehouse, he might wink at himself, a minstrel man, burnt-corked, in the mirror” (Bradbury 10). Although, Montag did not choose to be represented by this identity; the technology brain washed him and he became a part of a system, following the commands without reflecting upon it and destroying literature and whatsoever that came in the way of its destruction.

These technology does not merely influence citizens and society, it brain washes them and reconstructs reality out of nothing by altering books and history. It plays with psychology and reduces citizens to puppets in the hands of automated bureaucracy. Moreover, the society has become so fast paced that their own physical environment is weaponized by speed. People are barred from observing nature and pondering upon it, which further suppresses their cognitive abilities. This is evident when Montag tells Clarisse: “Have you seen the two-hundred-foot-long billboards in the country beyond town? Did you know that once billboards were only twenty feet long? But cars started rushing so quickly they had to stretch the advertising out so it would last.” (Bradbury 16)

Bradbury illustrates a society where transportation is engineered to prevent people from observing or thinking about nature or any other subject. And the billboards are stretched out so that people purchase immaterial technology like seashells and be fully immersed in it, unaware of what is happening around them. That’s the reason why Montag becomes surprised when he meets Clarisse, she makes him think about things around him,

and Montag admits he has never met a girl like that before.

Soft Technological Determinism

Through the lens of soft technological determinism, we will understand and come to know the people or the wealthy corporates who supported such kinds of technology for maintaining control in society, by transforming it. With this perspective we will come to know that it wasn’t just the technology, but also the choices of people that caused a change in culture and society.

In *Fahrenheit 451*, Bradbury rejects a simple top to down model of technological tyranny. This is evident when Captain Beatty visits Montag, who was supposed to be bedridden. Captain Beatty wants Montag to join his duty back and keep working as a fireman. Montag knew something isn’t right in the system. This change in Montag occurred when he met Clarisse, he began thinking and asking questions. Montag asked Beatty when all this transformation in society occurred? And Beatty explained that the destruction of books was a gradual and socially driven evolution enabled by technological capabilities. In the words of Beatty: “It didn’t come from the government down... Technology, mass exploitation, and minority pressure carried the trick, thank God” (Bradbury 76).

From Captain Beatty’s above words, it is much clear that the transformation didn’t happen in a single night. At first, there was huge population, and so to cover the demands of a huge population, mass production accelerated and it gave birth to a fast – paced

society. Culture was kept aside, ordinary tasks became simplified and quick, and everything began to be manufactured to suit the public's appetite for immediate gratification. Everything became quick, comfortable and easy that it eventually abandoned people to get involved in intellectual friction. People stopped reading novels, as the fast – paced world replaced it with its other alternatives like seashells and parlour walls. Public voluntarily abandoned books in favour of digest condensed versions, comic strips, and sensory visual media and so the publishing industry and entertainment market willingly reshaped literature into commercialized snippets. The world became so fast paced that a novel like Hamlet was of a few paragraphs. And so, after decades or so, people stopped reading that too. And so, Beatty explains to Montag that burning a book is a kind and good thing, as it is a democratic choice to keep everyone happy. And to promote equality in society, we burn books, as if there is no one smarter, no one will feel inferior or dumb as compared to the one who reads. He further tells that if there are no books, nobody will read something that makes them uncomfortable, offended or challenged. In Beatty's own words: "A book is a loaded gun in the house next door... Who knows who might be the target of the well-read man?" (Bradbury 77).

The gun metaphor underlines how technology and public consensus aligned to disarm the population intellectually. The state merely institutionalized the anti-intellectual consensus that society had already forged through its adoption of mass entertainment technologies. Soft technological determinism

thus illuminates the reciprocal causality in Fahrenheit 451. It is the technology provided the structural vectors for cultural degradation, true, but the human agency, mass exploitation, and institutional cowardice actively propelled society down that deterministic slope.

Technopoly

Neil Postman defines technopoly as a state of culture and a state of mind characterized by the deification of technology. In a technopoly, culture seeks its authorization in technology, finds its satisfactions in technology, and takes its orders from technology. Just like the age we are currently living and are progressing towards. From making a PPT, setting alerts of meetings, birthdays, anniversaries, to purchasing selected groceries every month or week without even stepping out of the door, everything is covered by AI. Want an answer or advice or motivation or diagnosis, or even writing a book or a research paper, the solution to every problem is AI. Within a few months of its introduction, AI has now been embedded and has become a part of our DNA. And it is not a frustration, but a reality that our DNA can really be altered and modified according to our benefits and wishes.

Further, Postman explains that traditional social institutions including religion, family, education, and political discourse are stripped of their moral authority and are restructured or constructed as to what seems to be convenient to serve technical efficiency, quantification, and entertainment. In simple words, Postman's technopoly is when a culture suffers grievously when its defenses against information glut break down.

In Fahrenheit 451, the society through automated technology is indulged and constantly fed with unwanted and irrelevant information and context. The people are addicted to seashells and parlour walls, but these does not provide any meaningful data or stats. It is solely designed to keep people busy and entertained. People are just informed like local news channels about the burning of houses and are constantly reminded to stay alert and inform as soon as one finds other reading in secret. There is nothing called as self – reflection, thinking and communication. Postman the n explains through the “agentic shift” concept of Stanley Milgram that how the individuals in technopoly become accustomed and later completely surrender to automated systems. When technology like Artificial Intelligence begins to answer each and every question of humans, then they do actually stop to think and go and find a solution about it. Whatsoever is claimed by technology becomes a word of God, and so it is due to this fact that human starts devaluating itself and considers technology superior. Then this technology derives human of ethical judgement and making them operate as servants or agents of technology. Whatso solution the technology gives, humans shut their brains off and accepts it. And so, this is called as an agentic shift.

This agentic shift is relevant when the firemen in the novel, not even once think about burning books and along with it the people and their houses who rebel and refuse to burn books. Once in a state of technopoly, firemen do not consider this as a moral crime, they

consider it as a necessary command which is to be executed without a thought.

When Montag met that girl named Clarisse, she took him out of the state of technopoly. Clarisse taught Montag how to question, think and feel. When Montag starts questioning, he then thinks consciously about his society and its transformation. He starts questioning about the morals, and what is supposed to be right and wrong, and finally rebelling against his own identity, society and the rest of firemen.

Moreover, this technopoly also affects the relationships of people. Relationships in the state of technopoly lacks genuine human connection and communication, just as we discussed the case of Montag and his wife Mildred. Although together, they barely know each other and live an unsatisfied life devoid of intimacy or communication.

When Montag realizes that he is in a state of technopoly, he rebels. He goes against all the firemen, Captain Beatty, and his own society. He saves a life of professor asking him for books to read. And when he was caught, he escapes from the city. The city of hovering mechanical hound, which followed to exterminate him, even trying to recognize and follow his scent. Montag dressed in kerosene, finally enters wilderness where he meets Granger and the other intellectual minds who had memorized books from cover to cover.

Hence, it becomes much clear to Montag from Granger that the human knowledge can survive without relying on technology and digital networks. By byhearting books from philosophy to history to literature, they sought to restore the human

connection and purpose that technopoly sought to sever.

Lastly, to describe the humanities cycle of self - destruction and rebirth, Granger invokes it through the myth of Phoenix. Phoenix burns and then is reborn from its own ashes, similarly, humans too possess the unique capacity to remember and learn from their mistakes and progress. Granger then shares his grandfather's philosophy:

Stuff your eyes with wonder, he said, live as if you'd drop dead in ten seconds. See the world. It's more fantastic than any dream made or paid for in factories (Bradbury 201).

And hence, the rebellions reclaimed their agency from the mechanical hound.

Conclusion

In conclusion, it is relevant that the novel *Fahrenheit 451* did provide us with profound insights about how the world will be if the development and progress of artificial intelligence and automation of technology is left uncontrolled and unchecked. Technological determinism clearly portrayed us the going to be society in a couple of few decades. First a technology is introduced, and then its detection and security protocols, but what if a system like the mechanical hound that chooses to go beyond bounds, erasing and altering history, culture and literature considered fit according to its algorithmic settings?

Hard technological determinism made us aware about the technologies like seashell and parlour walls, portraying how excessive entertainment can cause chaos in life, where

people live inside four walls, devoid of physical activities and sports, thriving on medications, and lost in the world dictated and addicted by technology, completely unknown of the person one lived his or her entire life with, just strangers with little to no communication and just an identity.

Whereas soft technological determinism shed light on the mistakes conducted by humans themselves which caused the technology to take control over them, their life, relationships and choices, eliminating their capacity to think and introspect, to judge and ponder about facts and moral, and right and wrong, and most importantly to question.

Neil Postman's technopoly warns us about being overly dependent on technology, because there may come a time when people forget their own value and consider what so suggestions provided by technology as final, and must be executed commands.

However, Bradbury does not leave his reader in darkness, when so Montag realizes that he is boarded in the wrong train, he steps out, turns around and walk away to rebel against the mechanical hound, Captain Beatty, firemen, and his own society, and with the help of few intellectuals living in wilderness, he restores human agency.

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