

## Scrutinising Tech-Utopia as Eco-Dystopia: An Analytical Reading on Maggie Gee's *The Ice People* and Jeanette Winterson's *The Stone Gods*

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### Abstract

Climate change and global warming are the consequences of technological utopianism's impending environmental devastation. Consequently, the research provides solutions to the questions of how tech-utopianism desolates the ecology and how a world altered by climate change is presented as an eco-dystopia. While tech-utopianism contributes to establishing an impeccable society, it additionally drives up global temperatures and depletes ecological fertility. In addition, the study warns those who yearn for a tech-utopian future about what the world would appear like in an eco-dystopia—a world with a changed climate. Moreover, the study concludes that eco-dystopia is tech-utopia, by analysing Maggie Gee's novel *The Ice People* and Jeanette Winterson's *The Stone Gods*. Eventually, the paper suggests that having ecocentrism to hope with eco-dystopia by balancing priorities for technology and ecology.

**Keywords:** technological utopianism, eco-dystopianism, climate change, global warming, eco-dystopian fiction, cli-fi.

Currently, films and literary works appear to be overwhelming with stories related to destruction and calamities (Becker 01), as people are engaging themselves by expecting or imagining the future apocalyptic era due to the threats of war, nuclear war, technological improvement and so on. Despite the fact that the news about wars and technological dominancy over the world is inevitable nowadays, indeed, the future

apocalypse is going to occur on the earth in the form of ecological destruction. The apocalypse induced by ecological destruction is climate change. Generally, climate change is unpredictable and irreversible changes in the weather patterns caused by the alteration in the ecosystem and the devastation of the environment. Since climate change is disrupting “global food security, damaging infrastructure and jobs, and harming human health” (Imperial College), it leads the world into dystopian circumstances. Therefore, the dystopian world caused by environmental crises like climate change and global warming can be recognised as eco-dystopia. In recent days, studies have been done on eco-dystopia and tech-utopia separately. For example, Dickel and Schirape have discussed the narrative patterns of the tech-utopian discourse. Additionally, they have explored tech-utopianism in medialisied innovation regimes. Then, they provide insights about the redistributed responsibility in utopian vision and identify those who are responsible for “the invention and application of technologies and their consequences” (292). Daniel Walden, in his journal article, discusses the two sides of tech-utopianism with the words of Edward Bellamy and Horatio Alger. The article deals with the optimistic and pessimistic views of tech-utopianism (24). And, Alex Hall, in his article “A Way of Revealing”: Technology and Utopianism in Contemporary Culture”, tries to find out the “dystopian nature of the technology” (63) and concludes, “the dystopian view of technology is too narrow in its focus on what technology will or will not do” (65). Arthi and Bhuvaneshwari, in their journal article titled “Growing urban anxiety and eco-dystopia in Usha K. R.’s Monkey Man” deal with eco-dystopia which is “the battle between natural and unnatural life forms” (48). They have scrutinised that eco-dystopia leads the world into urban anxiety. As per the literature review, it is witnessed that there is a gap in studying tech-utopianism as just eco-dystopianism. Therefore, the research paper aims to analyse the relationships between climate fiction and dystopian fiction, showcasing the eco-dystopia caused by climate change and exploring the undesirable circumstances in eco-dystopia. Also, the research paper deals with the questions of how tech-utopianism abandons the ecosystem, how a climatically changed world is portrayed as eco-dystopia and how the world would be in the eco-dystopian environment. Moreover, the research paper focuses on occurrences during eco-dystopia and the correlation between tech-utopianism and eco-dystopianism.

Eco-dystopia or ecological dystopia is a devastated world caused by ecological disasters. Since the late 20th century, reckoning dystopian scenarios strongly represents

the discussion of ecology, eco-catastrophes, especially climate change, as the most significant challenge of humanity is comprehending the causes and effects of environmental calamities and controlling the effects to protect the entire species of the world (Chu and Karr 1-2). The vision of dystopia takes more attention than the utopian vision nowadays. Meanwhile, though issues of eco-dystopia are getting severe, humanity in the present century is looking for a technological utopia in which perfection and desires will be established by technology. Freyermuth identifies the technological utopia; “in the first decades of digital culture, we are again creating new utopian blueprints for the future. Their contours indicate that the emerging desires driven by the potential of 21st-century technologies will be dramatically different from the utopias of the pre-industrial and industrial times (10). The proponents of technical utopianism embraced a belief that technology would rapidly establish an impeccable society. A society in which technology shapes society's culture, institutions, and ideals in addition to being applied as tools and machines (Segal, 119).

Moreover, technological utopianism extremely advances to update humanity's society, politics, economy and culture (Rushkoff 43). Eventually, as Wikipedia defines “A techno-utopia is therefore an ideal society, in which laws, government, and social conditions are solely operating for the benefit and well-being of all its citizens, set in the near- or far-future, as advanced science and technology will allow these ideal living standards to exist; for example, post-scarcity, transformations in human nature, the avoidance or prevention of suffering and even the end of death” (Wikipedia contributors). Additionally, Rob Kling's understanding of tech-utopianism is different; technological utopianism does not refer to general technologies we use every day, but rather to “analyses in which the use of specific technologies plays a key role in shaping a utopian social vision, in which their use easily makes life enchanting and liberating for nearly everyone” (42).

Howcroft and Fitzgerald have quoted the revolution of tech-utopianism in the world from the book *Boom Time on the New Frontier: Growth of Computer Networks* by Stewart;

The future of information technology descends upon us in a swarm of buzzwords: global village, electronic superhighway, information age, electronic frontier. Someday soon, cyberspace - the vast, intangible territory where computers meet and exchange information - will be populated with electronic communities and

businesses. In your home, a protean box will hook you into a wealth of goods and services. It will receive and send mail, let you make a phone or video call or send a fax or watch a movie or buy shoes or diagnose a rash or pay bills or get cash (a new digital kind) or write your mother. That will be just the living-room manifestation of what promises to be a radical - and rapid - transformation of commerce and society, the greatest since the invention of the automobile. (4)

thus, tech-utopianism provides optimistic paths in communication and information technologies. This explains the emergence of inevitable electronic and internet services in society through tech-utopianism.

Furthermore, utopians are categorised into three: firstly, the people who were the creators or inventors of the ideal society imagined by them; secondly, the people living in and are inspired by the utopia of a particular country; and finally, the people who desire and adopt the utopia (Ollman). If the categorization is connected to technological utopia, the people in the 21<sup>st</sup> century belong to the third one, as they are longing to adopt science and innovations in their lifestyle. Because machines and technologies play a vital role in the lives of humanity. Even though not extremely utilised by some, tech-utopia possesses everyone's house in many forms of machines and technologies. Moreover, artificial intelligence, automation, renewable energy, and virtual and augmented reality are emerging technological utopian inventions. Moreover, another important thing is in a tech-utopia time will be saved in production. For instance, Masuda believes,

Possibly by the end of the first half of the twenty-first century we will be completely liberated from work for production, and necessary working hours will be greatly reduced. A four-day working week and a two-month annual vacation system, and even employment forms such as a system of six months work and six months free time will be widely established. (Masuda 153)

Despite the fact that the technological utopia, known as tech-utopia, is the new utopia assistance is inevitable for humanity, indeed, this kind of utopia steers society into (eco)dystopia. The future world with technology is predicted as, "we stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before" (Schwab). Generally, technological utopia prompts humanity to abandon nature. Therefore, people, in the technological utopian world, would encounter many natural disasters and nature would not assist them in their

survival. Moreover, natural calamities such as climate change and global warming are caused by the enthusiasm for technological utopia. Eventually, though there are some technologies for sustainability and renewable energy, tech-utopianism would lead the world to climate change and other environmental disasters.

Tech-utopianism does not have enough potential to restore the ecosystem and cope with climate crises. To be defined, Climate change is the “long-term shift in temperature and weather patterns” (United Nations) and might occur naturally. Sometimes the shift may happen in “global and regional climate patterns” (National Geographic). Nevertheless, it is found that the activities of Homo sapiens are the reason for the climate crisis in the world since 1800 (United Nations). World organisations like WHO, NOAA, and UNACCC are delivering scientific explanations for climate change and global warming, surveying the status of environmental effects regularly and submitting reports of environmental changes, especially climate change. As scientific explanations are not enough to understand the consequences of climate change, environmental and climate issues are being penned as fiction and “assist[ing] in processes of re-thinking by moving away from real-world causes” (Leavenworth and Manni 739). Fictions about climate and environmental issues, being recognized as Climate Fiction, are not only exploring the causes of climate change but also “focused on the impacts and implications of climate change” (Garcia). Climate Fiction is a “form of fiction literature that features a changed or changing climate. It is rooted in science fiction” (Science Smith) and draws on realism and the supernatural (Ritu et al 5). Moreover, climate change is the main plot and theme of climate fiction. Mehnert simply defines climate fiction as “the abstract future of a climatically changed world” (93).

As per the comparisons between the consequences of climate change and dystopia, the world after climate change is similar to the dystopian world. Moreover, Cli-Fi shadows the dystopian perspective (Castagnini 14) as climate change makes the world uninhabitable and people feel unpleasant about their lives when dystopia holds the same atmosphere. To begin with, dystopia is defined as “an imagined world or society in which people lead wretched, dehumanized, fearful lives” (Merriam-Webster). A dystopian society is also defined as “relating to a very bad or unfair society in which there is a lot of suffering, especially an imaginary society in the future” (Cambridge Dictionary). As Wallace McNeish argues in his article From Revelation to Revolution: Apocalypticism in Green Politics “dystopia has replaced utopia as the dominant mode of

speculative cultural imagination” (10). Moreover, a dystopian society “imposes a harmful, oppressive, and miserable existence upon its members. It's the opposite of a utopian society, which is a fictional ideal society that couldn't be more perfect” (Tomczyk). Eventually, dystopian fiction is “a form of speculative fiction that offers a vision of the future. Dystopias are societies in cataclysmic decline, with characters who battle environmental ruin, technological control, and government oppression” (MasterClass).

Since climate change is an ecological catastrophe caused by anthropocentrism, it leads to an ecological dystopia while “ecological dystopia imagining a world after an ecological catastrophe” (Frankova 211). Comparatively, climate fiction has a setting of an imaginary world, which is affected by climate change, and the people in the world after climate change are found dehumanised and fearful as same as in a dystopian society. Eventually, eco-dystopia is a setting of a world in the fiction ruined by ecological catastrophes such as climate change and global warming. Relatively, as specified by Marco Malvestio, “Eco-dystopia qualifies as a hybrid genre, in which rumination on a catastrophic event (usually climate change) is not simply a narrative tool, but a way of reflecting on our present” (28). Modern environmentalism has forewarned of an imminent ecological disaster throughout the several decades of climate change discourse. The eco-dystopic fiction subgenre first appeared in literature and movies in the 1980s, much before the emergence of the global climate change debate (Ertelt). Moreover, eco-dystopian fiction mostly depicts vigorous circumstances of the present age, which make people's lives miserable, caused by the ecological catastrophes as dystopia is “an imaginary place where the condition and quality of life are unpleasant” (Kaplan 13). Since climate change and other ecological issues engender environmental, physical and economic difficulties, a climatically changed world can be recognised as eco-dystopia.

To begin with, eco-dystopianism provokes the failure of the ecosystem. There will be no organic environment as technology overcomes the ecological consciousness. Consequently, there will be no proper relationship between man and the natural environment. Humanity's survival without the ecosystem hits differently, as the environmental issue stimulates various challenges in society. As Dori Griffins proposes, “the eco-dystopic future is represented through two primary visual tropes; failures of the built environment, and failure of design inventions to sustain organic bodies within a damaged environment” (273). Because of the desire for technological dystopia, the

ecosystem and natural environment have been replaced with technology that induced climate change. Eventually, in the eco-dystopian world, there is no synchronisation between man and nature.

For instance, Maggie Gee's novel *The Ice People*, as a climate narrative, deals with a climatically changed world where people's lives become risky to escape from the wild people. Saul, the protagonist of the novel, narrates his life in a climatically changed world. He is a nano-tech and the world is experiencing advanced nano-technology. In the beginning, Britain encounters many social and political issues due to global warming. Furthermore, food and water are scarce. Saul depicts the situation; "there was never enough water, and watering your garden from the tap was a crime" (Gee 5). It is common knowledge that water is the most important natural source which benefits humans and their surroundings in many ways. Generally, water "Regulates body temperature, Moistens tissues in the eyes, nose and mouth, Protects body organs and tissues, Carries nutrients and oxygen to cells, Lubricates joints, Lessens burden on the kidneys and liver by flushing out waste products, and Dissolves minerals and nutrients to make them accessible to your body" (Wergin).

Moreover, since the distribution and quality of water on Earth are inevitably connected to every living species, modifications in the hydrologic cycle should have a severe impact on the functions of the ecosystem (Randhir 1). But eco-dystopia caused by climate change and global warming can be expected like days of scarcity of water as Maggie Gee portrayed in her *The Ice People*. This follows the issue, in the middle of the novel, as the climate is reversed and the world becomes an ice age. As climate change leads to the failure of the ecosystem, even after the earth began ice age,

"Lochs on the mainland began to freeze over, rivers stopped flowing, food crops failed, orchards whitened and weakened with frost, ... there were endless power cuts from grids that couldn't cope with the surge in demand, deliverymen died in exposed country places, and there was a spate of suffocations in cities among people who had overinsulated their houses" (Gee 156).

Here, everything including crop fields and waterways becomes inoperative. Thus, whatever changes in climate make the ecosystem incompetent.

Moreover, *The Stone Gods* by Jeanette Winterson, a story about searching for a new planet, explains how the current planet named Orbus expired and people plan to migrate to another planet. Planet Orbus, representing Earth, has utterly exhausted and

nothing is there except hi-technology. The current world named Orbus represents tech-utopianism as well as eco-dystopianism. As discussed with *The Ice People*, Jeanette Winterson portrays the scarcity of water and other natural sources by stating “We are running out of planet and we have found a new one” (Winterson 2).

Winterson begins the novel by explaining the new planet through an interview in which a reporter raises curious questions to know more about the planet;

And is there oxygen?' Yes, there is. 'And fresh water?'

Abundant. 'And no pollution?' None. Are there minerals?... (Winterson 02)

With those questions asked above it is understood that the people of Orbus are willing to know since they have nothing for their survival. People have lost their harmony with nature. In *The Stone Gods* also, techno-utopianism rules the world but not the ecosystem. Thus, in eco-dystopia, the ecosystem will not support humanity by providing any sources for living as the ecosystem loses its fertility in the climatically changed world.

Additionally, eco-dystopia is a tech-utopia where people seem too comfortable with technology. Technology in eco-dystopia holds the upper position in society. Indeed, the Earth is going to encounter eco-dystopia because of the arrival of hi-tech projects introduced by many companies to fulfil the needs of people with technology. *The Ice People* projects how technology rules the world which is exactly a tech-utopianism. The novel exactly shows the future world as tech-utopia by stating; “nearly a century of trying, human beings had succeeded in making ‘mobots’, cute little domestic animats. Robots available ‘to every home’. Robot cleaners. ‘Robot friends’. They cleaned, cleared rubbish, walked, talked” (Gee 73). Moreover, the tech-utopianism is explained greatly by providing four types of mobots named ‘Doves’ in the novel: firstly, Culturecultures were created for entertainment that had “a scan of all the books that had ever been written, with universal translation, and a full hive of all Euro music ever recorded, plus the contents of the world’s great galleries and the ‘World’s Hundred Greatest Movies’, though these were mostly ‘obscure foreign films’ from the last century that ‘no one has heard of’, the TV presenter said, with a contemptuous smile” (Gee 105); secondly, Warmbots which “had furry exteriors and long thick arms and promised to ‘keep you[people] warm at nights’” (Gee 105); then Sexbots to fulfil sexual pleasures and finally Hawk, “a kind of avian guard dog, really, ‘for defensive purposes only’, he assured us. They had stern



beaked heads and watchful eyes. Their defence system sounded unbelievably aggressive” (Gee 105).

Similarly, in *The Stone Gods*, people use technology to do everything. Moreover, the people of Orbus named them *Robo Sapiens* (Winterson 1). Through the name, it can be understood that the technology is living as a part of the world like humans known as Homo Sapiens. They are used in every department, especially in finding and scrutinizing the new world. For instance, transportation in the tech-utopia is remarkable. The novel depicts, “there's a line of Solos and a line of Limos. S is for Solo — a single-seater solar-powered transport vehicle. L is for Limo, a multi-seater hydrogen hybrid. S is for short-distance. L is for long-distance. Single-letter recognition is taught in schools” (Winterson 5). Furthermore, there are some robots called CanCops “with the power of arrest” (Winterson 5). Also, there is D for Due to, a sympathetic robot which is to receive complaints from people. They “are programmed to be more sympathetic than persons. Anyway, this sympathetic robot says, 'DUE TO', and you know that due to a high volume of calls, due to heavy demand, due to staff shortages, due to difficulties, due to system failure, due to freak storms, due to little green men squatting the offices, well, DUE TO, nobody is going to speak to you, at least not in this lifetime” (Winterson 7). In addition, there are several types of robots used by people. As described in the novel;

There's Kitchenhand for the chores, Flying Feet to run errands or play football with the kids. Garagehand — that's the big hairy one that's good with a spanner. There's Lend-a-Hand too, for the temporarily unpartnered. We have Robe-paws, the perfect pet — depending on your definition of perfect. We have TourBots, for hire when you visit a new place and need someone to show you round. We have bottom of the range LoBots, who have no feet because they spend all their time on their knees cleaning up. And we have BeatBots. (Winterson 9)

Hence, there will be hi-tech machines and nano-technology in eco-dystopia except natural environment. Moreover, the people in eco-dystopia would try to cope with eco-dystopian issues such as environmental calamities, global warming and climate change through technology. Considerably, indeed, eco-dystopia is an irreversible and completely changed dystopian society.

Therefore, the paper suggests that to avoid futuristic eco-dystopianism, people should contemplate eco-centrism and environmental ethics to balance their enthusiasm for the environment and technology. As Humaida defines, “Ecocentrism is the key to

sustainable natural resources because all environmental judgments based on it have a wider scope than human-centric environmental ethics and provides more long-term and future effects toward the natural environment” (2). Moreover, ecocentrism “expands the moral community (and ethics) from being just about ourselves. It means we are not concerned only with humanity; we extend respect and care to all life, and indeed to terrestrial and aquatic ecosystems themselves. Ecocentric care for life has been an important theme for many individuals and some societies for millennia” (Washington 5). Additionally, ecocentrism substantiates environmental ethics which “give humanity prudential reasons for treating the biosphere with more care” (Eckersley 52).

To conclude, eco-dystopian novels, clearly “establish the link between the health of our environment and the health of our societies and governments” (Doherty). The healthy connection between the ecosystem and society is devastated by technology. In this digital age, people attempt to find utopia through technology that leads to eco-dystopia. Eventually, through analysing the novels *The Ice People* and *The Stone Gods*, the paper finds that as dystopia caused by the desirous of technology, eco-dystopianism is none other than tech-utopianism. Eventually, to cope with future eco-dystopia on earth, people should reckon the ecocentrism and environmental ethics.

### Works Cited

- Arthi, R., and V. Bhuvanewari. “Growing Urban Anxiety and Eco-dystopia in Usha K. R.’s *Monkey Man*.” *Ecocycles*, vol. 8, no. 2, Jan. 2022, pp. 47–52.  
<https://doi.org/10.19040/ecocycles.v8i2.240>.
- Becker, Karl. “The New World of the Post-Apocalyptic Imagination.” *The New World of the Post-Apocalyptic Imagination*, California State University, Chico, 2010.
- Cambridge Dictionary. *Dystopia*. 27 Mar. 2024,  
[dictionary.cambridge.org/dictionary/english/dystopia](https://dictionary.cambridge.org/dictionary/english/dystopia).
- Castagnini, Luca, et al. “Literature and Climate Change: When Fiction Becomes Reality.” *Tesina Di Laurea*, thesis, 2022, [thesis.unipd.it/retrieve/bf250cdc-30eb-4807-9a75-c6506b0d35a3/Tesi.pdf](https://thesis.unipd.it/retrieve/bf250cdc-30eb-4807-9a75-c6506b0d35a3/Tesi.pdf).
- Chu, Ellen W., and James R. Karr. “Environmental Impact: Concept, Consequences, Measurement ☆.” *National Library of Medicine*, Oct. 2016. *Elsevier eBooks*,  
<https://doi.org/10.1016/b978-0-12-809633-8.02380-3>.

- Dickel, Sascha, and Jan-Felix Schrape. "The Renaissance of Techno-utopianism as a Challenge for Responsible Innovation." *Journal of Responsible Innovation*, vol. 4, no. 2, Apr. 2017, pp. 289–94. <https://doi.org/10.1080/23299460.2017.1310523>.
- Doherty, Alison. "Eco-Dystopian Noels That Explore Environmental Worst Case Scenarios." *BOOK RIOT*, 26 Aug. 2020, [bookriot.com/eco-dystopian-novels/#:~:text=Eco%2Ddystopian%20novels%2C%20clearly%20establish,five%20to%20get%20you%20started](http://bookriot.com/eco-dystopian-novels/#:~:text=Eco%2Ddystopian%20novels%2C%20clearly%20establish,five%20to%20get%20you%20started).
- Eckersley, Robyn. "Environmentalism and Political Theory: Toward an Ecocentric Approach." *Choice Reviews Online*, 1st ed., no. 03, Routledge, 2023, pp. 30–1756. [doi.org/10.4324/9781315072111](https://doi.org/10.4324/9781315072111).
- Ertelt, Sarah. "Eco-dystopias: What Fiction Can Teach Us About Climate Change - Prindle Institute." *Prindle Institute*, 14 Dec. 2022, [www.prindleinstitute.org/2018/03/eco-dystopias-what-fiction-can-teach-us-about-climate-change](http://www.prindleinstitute.org/2018/03/eco-dystopias-what-fiction-can-teach-us-about-climate-change).
- Franková, Milada. "Dystopian Transformations: Post-Cold War Dystopian Writing by Women." *Brno Studies in English*, vol. 39, no. 1, Jan. 2013, pp. 211–26. <https://doi.org/10.5817/bse2013-1-12>.
- Freyermuth, Gundolf S. "Utopian Futures. A Brief History of Their Conception and Representation in Modern Media—From Literature to Digital Games." *Bild und Bit*, 2019, pp. 9–66. <https://doi.org/10.14361/9783839450505-002>.
- Garcia, Jorge. "What Is Climate Fiction?" *Pick Best Book*, 7 Apr. 2023, [pickbestbook.com/what-is-climate-fiction/#:~:text=Conclusion.%20Climate%20fiction%2C%20or%20Cli%2DFi%2C%20is%20a,has%20the%20power%20to%20raise%20awareness%2C%20inspire](http://pickbestbook.com/what-is-climate-fiction/#:~:text=Conclusion.%20Climate%20fiction%2C%20or%20Cli%2DFi%2C%20is%20a,has%20the%20power%20to%20raise%20awareness%2C%20inspire).
- Gee, Maggie. *The Ice People*. Telegram Publisher, 1998.
- Griffins, Dori. "Visualizing eco-dystopia." *Design and Culture*, vol. 10, no. 3, 2 Sept. 2018, pp. 271–298, <https://doi.org/10.1080/17547075.2018.1514573>.
- Hall, Alex. "'A Way of Revealing': Technology and Utopianism in Contemporary Culture." *The Journal of Technology Studies*, vol. 35, no. 1, Jan. 2009, pp. 58–66. <https://doi.org/10.21061/jots.v35i1.a.8>.

- Howcroft, Debra, and Brian Fitzgerald. "From Utopia to Dystopia: The Twin Faces of the Internet." *Research Gate*, 1998,  
[www.researchgate.net/publication/228817859\\_From\\_Utopia\\_to\\_Dystopia\\_the\\_two\\_faces\\_of\\_the\\_Internet](http://www.researchgate.net/publication/228817859_From_Utopia_to_Dystopia_the_two_faces_of_the_Internet).
- Humaida, N. "The Importance of Ecocentrism to the Level of Environmental Awareness for Sustainable Natural Resources." IOP Conference Series: Earth and Environmental Science, vol. 399, no. 1, 2020, p. 012131.,  
<https://doi.org/10.1088/1755-1315/399/1/012131>.
- Imperial College. "What Are the Impacts of Climate Change?" *Imperial College London*,  
[www.imperial.ac.uk/grantham/publications/climate-change-faqs/what-are-the-impacts-of-climate-change/#:~:text=How%20will%20climate%20change%20impact,human%20health%20and%20global%20development](http://www.imperial.ac.uk/grantham/publications/climate-change-faqs/what-are-the-impacts-of-climate-change/#:~:text=How%20will%20climate%20change%20impact,human%20health%20and%20global%20development).
- Kaplan, E. Ann. *Climate Trauma: Foreseeing the Future in Dystopian Film and Fiction*. 2015, <https://doi.org/10.36019/9780813564012>.
- Kling, Rob. *Computerization and Controversy (2nd Ed.): Value Conflicts and Social Choices*. 1995, [dl.acm.org/citation.cfm?id=233372](http://dl.acm.org/citation.cfm?id=233372).
- Leavenworth, Maria Lindgren, and Annika Manni. "Climate Fiction and Young Learners' Thoughts—a Dialogue Between Literature and Education." *Environmental Education Research (Print)*, vol. 27, no. 5, Dec. 2020, pp. 727–42.  
<https://doi.org/10.1080/13504622.2020.1856345>.
- Malvestio, Marco. "Theorizing Eco-Dystopia: Science Fiction, the Anthropocene, and the Limits of Catastrophic Imagery." *Zenodo (CERN European Organization for Nuclear Research)*, Oct. 2022, <https://doi.org/10.6092/issn.2612-0496/14532>.
- MasterClass. "What Is Dystopian Fiction? 20 Examples of Dystopian Fiction." *MasterClass*, Sept. 2022, [www.masterclass.com/articles/what-is-dystopian-fiction-learn-about-the-5-characteristics-of-dystopian-fiction-with-examples](http://www.masterclass.com/articles/what-is-dystopian-fiction-learn-about-the-5-characteristics-of-dystopian-fiction-with-examples).
- Masuda, Yoneji. *The Information Society as Post-industrial Society*. 1980,  
[openlibrary.org/books/OL14737296M/The\\_information\\_society](http://openlibrary.org/books/OL14737296M/The_information_society).
- McNeish, Wallace. "From Revelation to Revolution: Apocalypticism in Green Politics." *Environmental Politics*, vol. 26, no. 6, June 2017, pp. 1035–54.  
<https://doi.org/10.1080/09644016.2017.1343766>.

- Mehnert, Antonia. *Climate Change Fictions: Representations of Global Warming in American Literature*. 1st ed., Palgrave Macmillan Cham, 2016, <https://doi.org/10.1007/978-3-319-40337-3>.
- Merriam-Webster. “Dystopia.” *Merriam-Webster Dictionary*, 31 Mar. 2024, [www.merriam-webster.com/dictionary/dystopia#:~:text=dys%C2%B7%E2%80%8Bto%C2%B7%E2%80%8Bpia,lead%20wretched%2C%20dehumanized%2C%20fearful%20lives](http://www.merriam-webster.com/dictionary/dystopia#:~:text=dys%C2%B7%E2%80%8Bto%C2%B7%E2%80%8Bpia,lead%20wretched%2C%20dehumanized%2C%20fearful%20lives).
- National Geographic. *Climate Change*. [education.nationalgeographic.org/resource/climate-change](http://education.nationalgeographic.org/resource/climate-change).
- Ollman, Bertell. “The Utopian Vision of the Future (Then and Now): A Marxist Critique.” *Monthly Review*, 27 Dec. 2010, [monthlyreview.org/2005/07/01/the-utopian-vision-of-the-future-then-and-now-a-marxist-critique](http://monthlyreview.org/2005/07/01/the-utopian-vision-of-the-future-then-and-now-a-marxist-critique).
- Randhir, Timothy O. “Water for Life and Ecosystem Sustainability.” *Journal of Earth Science & Climatic Change*, vol. 03, no. 01, May 2012, <https://doi.org/10.4172/2157-7617.1000e107>.
- Ritu, et al. *Climate Fiction: Mapping the Changes Through Literary Texts*. 2023, [www.svc.ac.in/SVC\\_MAIN/SRIVIPRA/SRIVIPRA2023/Reports/SVP\\_2023\\_2357.pdf](http://www.svc.ac.in/SVC_MAIN/SRIVIPRA/SRIVIPRA2023/Reports/SVP_2023_2357.pdf).
- Rushkoff, Douglas. “Renaissance Now! Media Ecology and the New Global Narrative.” *Explorations in Media Ecology*, vol. 1, no. 1, Apr. 2002, pp. 41–57. [https://doi.org/10.1386/eme.1.1.41\\_1](https://doi.org/10.1386/eme.1.1.41_1).
- Schwab, Klaus. “The Fourth Industrial Revolution: What It Means and How to Respond.” *World Economic Forum*, 22 Sept. 2020, [www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond](http://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond).
- Science Smith. “Cli-Fi (Climate Fiction) - Climate in Arts and History.” *Climate in Arts and History*, 30 June 2021, [www.science.smith.edu/climatelit/cli-fi](http://www.science.smith.edu/climatelit/cli-fi).
- Segal, Thompson P. “The Technological Utopians.” *Imagining Tomorrow: History, Technology, and the American Future*, no. 2, The MIT Press, 1989.
- Tomczyk, Whitney. “Dystopian Society | Definition, Characteristics and Examples.” *Study.com*, Nov. 2023, [study.com/academy/lesson/characteristics-of-a-dystopian-](http://study.com/academy/lesson/characteristics-of-a-dystopian-)

society.html#:~:text=A%20dystopian%20society%20is%20a,couldn't%20be%20 more%20perfect.

United Nations. "What Is Climate Change? | United Nations." *United Nations*, [www.un.org/en/climatechange/what-is-climate-change#:~:text=Climate%20change%20refers%20to%20long,activity%20or%20large%20volcanic%20eruptions](http://www.un.org/en/climatechange/what-is-climate-change#:~:text=Climate%20change%20refers%20to%20long,activity%20or%20large%20volcanic%20eruptions).

Walden, Daniel. "The Two Faces of Technological Utopianism: Edward Bellamy and Horatio Alger, Jr." *The Journal of General Education*, vol. 33, no. 1, Jan. 1981, pp. 26–30. *JSTOR*, [eric.ed.gov/?id=EJ255240](http://eric.ed.gov/?id=EJ255240).

Washington, Haydn, et al. "(PDF) Why Ecocentrism Is the Key Pathway to Sustainability - Researchgate." *ResearchGate* , 2017, [https://www.researchgate.net/publication/315580893\\_Why\\_ecocentrism\\_is\\_the\\_key\\_pathway\\_to\\_sustainability](https://www.researchgate.net/publication/315580893_Why_ecocentrism_is_the_key_pathway_to_sustainability).

Wergin, Allyn. "Water: Essential for Your Body." *Mayo Clinic Health System*, 22 Dec. 2023, [www.mayoclinichealthsystem.org/hometown-health/speaking-of-health/water-essential-to-your-body](http://www.mayoclinichealthsystem.org/hometown-health/speaking-of-health/water-essential-to-your-body).

Wikipedia contributors. "Technological Utopianism." *Wikipedia*, 15 Feb. 2024, [en.wikipedia.org/wiki/Technological\\_utopianism#:~:text=A%20techno%20utopia%20is%20therefore,for%20example%2C%20post%20scarcity%2C](https://en.wikipedia.org/wiki/Technological_utopianism#:~:text=A%20techno%20utopia%20is%20therefore,for%20example%2C%20post%20scarcity%2C).

Winterson, Jeanette. *The Stone Gods*. 1st ed., Alfred A. Knopf Canada, 2007.

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