Progressing but also degrading: the representation of environmental destruction and life in the future in WALL-E

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Abstract. The sophisticated technology—such as AI, robots, and other automation machines—can be a double-edged dagger. On the one hand, they can help humans and humanity to have a better and easier life. On the other hand, they can lead to environmental problems—from plastic and electronic waste to obesity—and, finally: Environmental destruction. In addition, a movie, including an animated film, can be a valuable and powerful vehicle as an educational tool to raise awareness of environmental issues as it can represent the negative effect of technology on the environment if people do not consider overcoming the ecological problems and maintaining biospheric harmony. This research will focus on the movie WALL-E (Andrew Stanton, 2008) and how it represents environmental damage and future life. By closely reading the film, the authors will analyse the struggle of life in the near future when the Earth is heavily polluted and full of trash and their attempt to return to sustainable well-being.

1 Introduction

More and more technological advancements have been recorded in the history of humankind. In recent years there has been a rise in anthropomorphic robots that can execute complex tasks and automation, transforming human lives and even eliminating human labour [1]. Extended computer networks, exponential growth in computing capacity, and robotics adoption, indicating quantitative increases in technology, are leveraged to posit a different society developing qualitatively [1]. However, with these technological advancements come problems that need to be solved, starting from questions, tensions, and debates arising from automation regarding the future of work as less human effort is required [2] to environmental damage.

The issues of climate change and environmental damage have been on the rise globally, especially with the world reaching a record of eight billion people. It is reported that humans will at least use 50 percent more natural resources than the Earth has provided. This will happen rapidly until 2030, as the Earth needs 1.5 years to produce and refill the natural resources exhausted within a year [3]. Over the past 50 years, there has been an acceleration toward environmental and biodiversity crises, with 75% of the Earth’s surface changing, a population of over 1 million species declining, and since 2000 there have been over 230 million hectares of forest loss as well as more than 6,000 species threatened due to overexploitation [4]. Figure 1 shows the world’s fossil carbon dioxide emission, especially by looking at countries that are considered big economies.

![Fig. 1. World fossil carbon dioxide emission in 48 years [5]](image)

A prominent and growing environmental problem that keeps rising globally is plastic waste. As a significant global commodity in almost all commercial products, the production and disposal of plastics have also created adverse environmental impacts [6]. Plastic waste has become a significant marine litter, and when degrading into microplastics, they corrupt natural habitats and disrupt the food chain, as they are impossible to recover [6]. It is noted that globally, humans annually produce around 400 million tons of plastic waste [7]. Figure 2 shows how the amount of plastic waste keeps increasing from time to time and only very few are actually being recycled.

In addition to that, with the rapid advancement of technology comes another type of waste that is connected to it: Waste Electrical or Electronic Equipment (WEEE), more commonly known as e-waste. E-waste is a type of waste from electronic appliances that have reached their end of lifetimes or are discarded even before reaching the end of their lifetimes [9]. Many types of e-waste include discarded...
refrigerators, outdated personal computers, laptops and notebooks, mobile phones, washing machines, digital video disks, air-conditioners, televisions, and digital cameras [9]. E-waste is a growing problem in both developed and developing countries [10], and knowledge in identifying the chemical elements and materials shaping this type of waste is required to implement efficient and environmentally appropriate recycling [11]. Figure 3 shows countries that generate the most electronic waste, which shows how e-waste has generally become a major problem for the planet.

On a global scale, it is essential to note that some countries have contributed more towards negative environmental impacts than others. Indonesia is no exception. In 2019, Indonesia ranked tenth on the chart of the top 10 polluters in the world, with 615 million tons of carbon dioxide (CO₂) released [5]. Indonesia also ranked second on the chart of countries producing enormous plastic waste [15]. When it comes to e-waste, Indonesia also experiences its problems. In 2016, Indonesia ranked ninth among the countries with the most e-waste [12]. Indonesia is also still behind in its awareness of e-waste problems compared to other Southeast Asian nations, and there are no exact procedures for e-waste management as different government institutions have different interpretations regarding this issue [16].

Meanwhile, regarding overweight and obesity, Indonesia is also not free from the problem. It is noted that Indonesia is experiencing a rise in overweight and obesity in all age and income groups [17]. This problem was made worse during the COVID-19 pandemic, as during the pandemic, children are consuming too much of the wrong food, and restrictions have made it way harder for them to remain physically active [17].

One of the ways that can be utilised to predict and raise awareness regarding environmental issues is through movies, including animation. One research indicated that children growing up could benefit from animation as an educational advertisement tool that raises environmental awareness and guidance creates interaction, and produces required responses [18]. Cinema can be used as a vehicle for classroom learning and to campaign and raise awareness regarding particular issues, including the environment [15]. Moreover, movies, especially animated ones, “can be read beyond entertainment purposes for children”, as they can become tools to convey, question, and challenge issues regarding the environment [19]. Movies that dig into the issues of the environment can also be read through the lens of ecocriticism. Deriving from the words “ecology” and “criticism”, this concept is used to study culture and cultural products (writings, scientific theories, arts, etc.) that are connected to the relationship between humans and nature [20].

This research will focus on the movie WALL-E and how it represents environmental damage and future life. WALL-E is a 2008 animated movie directed by Andrew Stanton, produced by Pixar Studios, and released by Walt Disney Pictures. This movie is chosen as it is regarded as one of the best Pixar movies ever [21] and has won accolades, including Best Animated Feature at
the 81st Academy Awards and Best Animated Feature Film at the 66th Golden Globe Awards, among many others.

2 Methodology

Using the qualitative approach, this research will apply the textual analysis method. This research will closely read WALL-E as a text that represents technological advancements and environmental destruction in the near future by paying attention to and analyzing the movie’s narrative and mise-en-scène—everything visible in front of the camera. In addition, this research will replicate a similar research approach by implementing a literature review to dig into the issues further by collecting and quoting collected scholarly articles to support the argument and answer the research question [22]. The research question is: how does the movie WALL-E represent environmental destruction and humanity in the future?

3 Result and Discussion

In the movie WALL-E, the audience is shown a dystopian world where humans have overexploited the Earth so much that it is no longer sustainable for living. The megacompny Buy n Large (BnL), which has assumed control over humanity and the planet through capitalism and mass consumerism, decided that humans would be migrating from Earth to outer space. Migration itself is a phenomenon that, in reality, also occurs within other creatures’ ecosystems [23]. It is an essential constituent of de-greening, and this phenomenon could happen for various reasons, such as environmental, political, economic, or cultural reasons [23]. In this movie’s context, human migration is done to preserve humankind and start anew in a place far away from the Earth that has become highly polluted and environmentally damaged [23].

Just before BnL evacuated humans from Earth to migrate to a giant high-tech spaceship called the Axiom, they left a bunch of WALL-E (Waste Allocation Load Lifter: Earth Class) robots to clean up the Earth. However, the clean-up has failed, and in 2805 AD, the Earth is still a wasteland. In the movie, it is seen that plastic waste and e-waste are filling up the planet. In the movie’s opening sequence, the audience can see that the Earth is filled with tons of mountainous unmanaged trash and smoggy haze, as shown in Figure 4. Other shots show some of the nondegradable waste types, such as used cans, rusty iron, household items made of plastic, and even fashion items. The movie’s tone is yellowish and brownish to show that the Earth is filthy, environmentally damaged, and practically has no sustainable life there, all because of past human actions.

Only one WALL-E robot is left, who keeps cleaning while the others have broken down. Interestingly, this last remaining robot has started to develop personal traits. It likes to play with its cockroach friend, as seen in Figure 5, arguably the last living cockroach on Earth. It also likes to observe and collect stuff for itself and play around with them, as seen in Figure 6, and even loves listening to music or watching a romance movie.

Fig. 4. Smoggy haze and waste that were left by humans piling up on Earth [24]

Fig. 5. A cockroach coming out of a can waste [24]

Fig. 6. WALL-E playing around with the waste [24]

The scenes that show a living cockroach playing with WALL-E give an essential point that drives the movie’s plot. The appearance of the cockroach can be read in two ways. First, some creatures are more resilient in facing and, even further, surviving such settings despite the environmental destruction. This hints that Mother Earth can still be habitable, although much work needs to be done to reach sustainability. Second, it also emphasises how environmentally damaged and polluted the Earth is, as cockroaches usually live and breed in dirty and unhygienic places.

On the other hand, humans at Axiom are still looking for possibilities to revive life on Earth and regreen the planet, so they send the robot EVE (Extra-Terrestrial Vegetation Evaluator) to search for any potential life remaining on Earth, who then meets WALL-E on a coincidence. EVE’s arrival initially scares WALL-E, especially since EVE, in the beginning, does not have a personality, unlike WALL-E, and is only on Earth to search for a living plant, but after some time, both of them start bonding.

When WALL-E and EVE are starting to bond and get to know each other better, WALL-E shows EVE its recent finding, which apparently is a plant, as shown in Figure 7. Finding that WALL-E has a plant, EVE collects it and immediately goes into standby mode as its searching mission is complete.
Confused and somewhat heartbroken, WALL-E finds ways to revive EVE and carries it wherever WALL-E goes. Though this sequence is short, the audience can also see that water pollution is also represented besides land pollution, represented by trash and waste. When WALL-E takes EVE on a boat ride, they pass through a lake of sludge, and WALL-E even uses an industrial tire as a boat while EVE is carried in a supermarket trolley. This scene that shows the lake of sludge means that natural life on Earth is non-existent and practically impossible, all because of the industrial waste produced by humans.

The movie’s plot that takes place on Earth shows a doomed Earth, but there is one thing that needs to be highlighted. The audience will see BnL’s logo in many of the waste, and there is even a newspaper trash with the picture of BnL’s CEO declaring a global emergency as Earth is filled with too much trash, as pictured in Figure 8. Since they are the only company regulating the whole world, which means they are monopolistic and humans only do what the company dictates them to do, thus they are singlehandedly responsible for all the waste and trash produced. The megacompány’s capitalism has resulted in damage to the Earth.

However, the discovery of the plant adds up to the plot point of the movie, as this shows that the Earth has slowly started to regreen, and a plant can sustain life. This means that there is hope for humans to return to living on Earth even centuries after her abandonment and to start then repairing the damage. Axiom notices EVE’s plant discovery, so EVE and the plant are transported back to Axiom. WALL-E, who seems to like EVE and wants to be together, hitchhikes the ship used to transport EVE and the plant back to Axiom.

Life in Axiom has changed humans’ physiological and sociological aspects. The BnL megacompány controls everything, and everybody seems to obey what it says. Humans in Axiom have become severely obese as, in addition to microgravity, robots take over everything labour-related, as shown in Figure 9. Almost no physical activities are done by humans because they are just sitting on the automated robotic seats that serve them with everything they wish, making them lazy and stopping them from interacting with each other directly, which shows that the advancement and usage of labour-saving technology do correlate with obesity. Everything is dictated by BnL, from the ship’s temperature, shopping habits, operating machines, and advertisements, to education. Axiom’s environment is very much artificial and unnatural as there are no other living creatures than humans with their robots. Humans depend on robots and high technology, as shown in Figure 10. Even the ship is piloted by AUTO, an AI autopilot, while the ship’s human captain, B. McCrea, is most likely just sitting down. The audience can see that even WALL-E is confused and in awe with Axiom. In Axiom, WALL-E becomes an obsolete Earth robot with no idea how the spaceship works, which helps drive the movie’s plot.
process. Eventually, McCrea succeeds in overpowering AUTO, turning it into manual mode. The plant and both robots are also saved, and EVE successfully puts the plant back in place, initiating the hyperjump that returns humanity to Earth. Humans then learn to live on Earth again, starting with farming—as depicted in Figure 11—and regaining their initial shapes, while robots help with the planet’s recovery.

![Fig. 12. Humans farming after returning to Earth [24]](image)

This movie shows that in the future, automation will become a boomerang for humankind who invented it themselves. Robots are taking over commands and controlling humans instead, even preventing humans from trying to return and recover their planet. In the movie, unless Captain McCrea overpowers the automated system, there is no place for Earth’s and humankind’s recovery. Before EVE brings the plant back to Axiom, humans are silent and silenced because of the comfort that the automated system and robots provide. They do not feel that they need to explore and pay attention to the environment or their own health. However, humans finally realise that they cannot live like that forever. They are reminded of their ancestors’ mission when leaving Earth and how much they have changed since they left, as shown in the scene where the audience can see the photos of Axiom’s captains with AUTO. This can be seen as a collective memory of humankind’s life on Earth before her destruction and before humans became lazy, obese, and technology-dependent while living on Axiom, which drives them to save the planet and eventually brings them back to the planet to start the recovery process.

**WALL-E** has become a critically acclaimed and culturally impactful animated movie even years after its release in 2008. In addition to its accolades, some of which have been mentioned in the previous part, it also has a rating of 95% for critics and 90% for general audience on the review aggregator site Rotten Tomatoes as well as an average score of 8.4 out of 1.1 million people on the movie database site IMDb. Merchandises related to the movie are released for both online and offline sales, which even sparked another discussion regarding the irony that this practice supports consumerism and waste intercalation [25,26]

![Fig. 13. Some official merchandises of WALL-E [27]](image)

4 Conclusion

**WALL-E** successfully shows the imagination of how environmental destruction will look in the near future due to failed and abandoned sustainability. Being an animation, **WALL-E** can represent imaginations of future life that are unable to be depicted by the live-action medium, such as how mountainous waste and polluted rivers would look on an abandoned Earth and how humans would become so reliant and dependent on technology that they become obese and unhealthy because of it. **WALL-E** is also a positive reminder that humans should treat the planet and societies in a better way through waste management, reducing or even banning the production of unrecyclable goods, sustainable farming and food production, education on nutrition, production of more environmentally friendly policies, and also a healthier lifestyle.

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