



Cryo Quest: A Comparative Study of the Frozen Frontiers in Lora Beth's Novel *Goddess in the Machine* and Alexandre Aja's Film *Oxygen*

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Abstract— *Through this comparative analysis of Lora Beth's novel Goddess in the Machine and Alexandre Aja's French film Oxygen we encounter characters suspended in time, awakened in unknown futures, that grapple with the profound implications of humanity's quest for immortality. This dissertation can also be referred to as a study that discusses the impacts created by technology and cryonics on humanity. This study mirrors the complexities of the human experience in a world propelled by technological innovations. My dissertation titled, Cryo Quest: A Comparative Study of the Frozen Frontiers in Lora Beth's Novel Goddess in the Machine and Alexandre Aja's film Oxygen, is divided into four sections. The first section introduces the concept of cryogenics and its applications, along with the evolution of cryo novels and its influence in literature. The second section contains an overview of both works thus comparatively analyzing the protagonists 'Andra' and 'Liz', emphasising their character developments, motifs and personalities. Applying Abraham Maslow's psychological theory, 'Hierarchy of Needs,' to substantiate the connection between psychology and cryo fiction. Third section studies the cryo elements portrayed in both works, giving special focus on identity crisis, survival struggles, alienation, loneliness, disorientation, fragmentation of memories, haunting nostalgia, future of technology, its impacts, etc... The final section discusses how both writers utilize their respective mediums to portray characters. It also sheds light on the relevance of cryo fiction as a representation of the future.*



Keywords— *cryogenics, cryo fiction, future technologies, Lora Beth Johnson, Goddess in the Machine.*

I. INTRODUCTION

Cryogenics simply means the science of freezing things at very low temperatures, while Cryonics is the process of freezing a human body with the intention of bringing that person back to life later. Cryo firms employ a variety of cryo preservation procedures to freeze and preserve tissues, or even an entire living being in liquid nitrogen at -196 degrees Celsius or -320 degrees Fahrenheit. The body is placed in a state of stasis termed as 'suspended hibernation' by scientists for deep freezing in order to stop the body's cells from decomposing. The tissues of their brains are suspended by a process called 'vitrification', before enduring actual cell death. Cryo protectants are used to prevent the formation of ice crystals during cryo

preservation, as the presence of ice crystals can otherwise lead to cell damage. Then the patient is slowly brought to a certain freezing temperature in a computer controlled chamber over 3 days before being stored long-term in liquid nitrogen. The reason is to minimize stresses occurring in the brain, which can cause large cracks to form in the brain. But, since this is a relatively new technology, there are many restrictions. Through this technology, even the normal degeneration of the body brought on by aging will cease to occur in people.

The application of Cryogenics can be traced in various fields. It has been used in the field of medicine to preserve organs for transplantation. By freezing organs at very low temperatures, doctors can keep them viable for

longer periods of time, which increases the chances of a successful transplant. It has been used to treat certain types of cancer by freezing tumours and killing cancer cells. Cryogenics has also been used in the field of food preservation. By freezing food at very low temperatures, it's possible to keep it fresh for long periods of time. This is especially useful for preserving foods that are out of season or that have a short shelf life. Another interesting application of cryogenics is in the field of sports medicine. Cryotherapy, which involves exposing the body to extremely low temperatures for a short period of time, has been used to treat a variety of conditions, including muscle soreness, inflammation, and joint pain. Some athletes use cryotherapy as a way to speed up recovery after a workout or competition. This therapy is thought to stimulate the body's natural healing processes and reduce inflammation. It is also used in the field of space exploration in order to store and transport rocket fuels, such as liquid hydrogen and liquid oxygen, which are used to power rockets and spacecrafts. It has been used to simulate the extreme conditions of space in laboratories on Earth, which can help scientists better understand how materials and organisms behave in space. Finally, the most important usage of Cryogenics is that it could be useful in space travel because it allows humans to be put into a state of suspended animation, which would help conserve resources and reduce the amount of time needed for travel, thus helping the astronauts to reach a planet millions of light years away. Overall, cryogenics is an exciting and rapidly evolving field that has the potential to revolutionize many areas of science, medicine, industry, and even sports.

Cryo novels are a sub-genre of science fiction that explore the concept of cryonics, or the freezing and preservation of human bodies or brains with the hope of reviving them in the future. Cryo novels often imagine a future in which cryonics is a common practice, and explore the ethical, social, and psychological implications of this technology. Cryo novels often explore themes related to identity, memory, and the nature of consciousness, as well as the challenges and opportunities that arise from the ability to extend human life beyond its natural limits. They are also engaged with questions related to the ethics of cryonics, such as the potential risks and benefits of the technology, and the implications of using it to extend life. These novels have a long history, dating back to at least the mid-20th century. The concept of cryonics itself was first proposed in the late 19th century, and began to gain popularity in the mid-20th century as a potential means of extending human life. Robert Ettinger's *The Prospect of Immortality* (1962), is often cited as the first cryonics themed book. Other notable cryo novels from this period include Philip K. Dick's *Ubik* (1969), Frederik Pohl's *The Age of the Pussyfoot*

(1969), and Larry Niven's *A World Out of Time* (1976). Since then, cryo novels have continued to be a popular sub-genre of science fiction, with authors exploring new and innovative ways to imagine the future of cryonics and its role in shaping the human experience. The main factor that influenced the development of Cryo novels is the ongoing interest in the potential of cryonics and related technologies to extend human life and enhance human capabilities. As our understanding of cryo preservation and tissue engineering continues to evolve, so does our imagination of what might be possible in the future. Additionally, the rise of the transhumanist movement, which advocates for the use of science and technology to enhance human abilities and extend human life, has also played a role in shaping the direction of cryo novels. This dissertation mainly discusses Lora Beth Johnson's cryo novel *Goddess in the Machine* in reference with the cryo movie *Oxygen* directed by Alexandre Aja.

The concept of cryonics has been featured in a number of science fiction novels and stories, as a way to preserve people or objects for long periods of time. In the novel *The Door into Summer* (1957) by Robert A. Heinlein, the main character Daniel Boone Davis, is cryogenically frozen for 30 years in order to wake up in a future where he hopes to find a better life. Another example is the novel *The Caves of Steel* (1953) by Isaac Asimov, in which cryogenics is used to transport humans between Earth and other planets. The novel *The Sparrow* (1996) by Mary Doria Russell explores the concept of interstellar travel and cryogenic sleep. The *Hyperion Cantos* (1989) is a sci-fi series by Dan Simmons that tells the story of a group of pilgrims who travel to the planet Hyperion, each with their own reasons for seeking the mystical 'Time Tombs'. *The Forever War* (1974) by Joe Haldeman portrays an interstellar war against an alien species. The soldiers endure extended periods of suspended animation, effectively frozen in time, as they travel between their missions. *The Chrysalids* (1955) by John Wyndham features a society in which cryonic preservation is employed as a means of surviving the destruction caused by genetic mutations. Hollywood has produced a wide range of films in which cryo concepts are depicted in great depth. The movie *Alien* (1979) where the crew of a spaceship is awakened from cryo sleep to find that they are being hunted by a dangerous alien creature. In the movie *Austin Powers: International Man of Mystery* (1997) the villain Dr. Evil from the year 1960s is cryogenically frozen and wakes up in the 1990s after being frozen for 30 years. The movie *2001: A Space Odyssey* (1968) exhibits 'hibernaculum pods' with people in hibernation, and above these pods there are vital sign displays that look very much like modern ICU displays.

While *Vanilla Sky* (2001) centres around the lucid dream of David, after his body gets cryo frozen preceding a car accident. The TV show *Futurama* (1999) portrays a pizza delivery boy Fry, who accidentally gets cryo frozen for 1,000 years and wakes up in the future. 2021 released films like *Oxygen* and *Cryo* are fully based on the concept of cryonics. Cryo novels allow writers to explore the idea of time travel, as well as the ethical and moral implications of bringing people back from death.

Cryo-fiction can be considered as a representation of the future in several ways. They often explore potential advancements in cryogenic technologies and their impact on human life. They imagine a future where people can be preserved in a frozen state and potentially revived at a different time or under specific circumstances. By depicting these technologies, cryo fictions speculate on how they might shape the future and influence society. They frequently incorporate the concept of time travel or depict a future world where individuals from the past are awakened in a new era. These narratives provide a means to explore possible future scenarios, examining how society, culture, language and technology might evolve over time. Such fictions often raise profound questions about life, death, identity, and the nature of consciousness. They explore the ethical dilemmas associated with cryonics, such as the right to be revived, the potential consequences of disrupting the natural order of life and death, and the preservation of personal identity for extended periods. Cryo fictions address themes such as the pursuit of immortality, the fear of death, the desire to live, or the longing for a better future. Through these narratives, cryo fictions shed light on contemporary issues and provide a lens to examine human hopes, fears, and aspirations. Such fictions can also inspire the scientific and technological advancements by sparking the imagination of researchers and innovators. By presenting future possibilities, these stories can stimulate the scientific inquiry and encourage the exploration of cryogenic technologies in real-life contexts. By contemplating these complex issues, cryo fictions prompt readers to reflect on the potential, moral and philosophical implications of future technologies.

II. A JOURNEY THROUGH *GODDESS IN THE MACHINE* AND *OXYGEN*, DELVING INTO CHARACTER EVOLUTION AND MASLOW'S 'HIERARCHY OF NEEDS'

2.1 An Overview of *Goddess in the Machine* and *Oxygen*.

Lora Beth Johnson is a 21st century young adult science fiction author from Georgia. She published her second book, *Devil in the Device* (2021) as a conclusion for her debut novel *Goddess in the Machine* (2020), thus announcing it as a duology. *Goddess in the Machine* is a 'Sleeping Beauty' retelling with a sci-fi twist. It tells the story of a girl, awakening from her stasis (cryosleep) to a post-apocalyptic society centered around a prophecy that she would save them. The story is set in the year 3102 AD in a futuristic city named Eerensed. A 17 year old girl named Andromeda (Andra), from the year 2161 AD finds herself waking up from cryosleep in a completely unfamiliar time and place. With her memories frozen and only the cryo chamber as a reference point, she embarks on a quest to recollect her past. Soon, she discovers that she has overslept in her cryopod for almost 1000 years, as she was supposed to be awakened from her stasis after 100 years, into their new planet, Holymyth. A small portion of Holymyth has been transformed into the city of Eerensed, ruled by Prince Maret. Andra was known as "The Third Goddess", among Eerensadians. Eerensed was a metropolis where technology was referred to as magic, cryopods as graves, bio' dome as god's dome, robots as angels, DNA sensors as blood magic, and sorcerers were the ones who controlled technology. She meets a soldier named Zhade, who speaks a language she cannot understand & he takes her to the palace. Being a goddess she was assigned to build a new bio dome. After certain incidents within the palace, she finds out that Zhade is the real prince of Eerensed, but being the illegal son no one accepts him. Soon she meets "The 2nd goddess" in the prison, whom the people believed was executed by Maret. She was Rashmi, a humanoid AI. As the story progresses, Andra realizes that she is still on Earth & other colonists haven't departed to Holymyth. Like Rashmi, Andra was also a human AI, created to save humanity, as Earth was on the verge of destruction. Later, Zhade explains that his mother was "The First Goddess," which makes him a half-god. Andra quickly learns that Dr. Alberta Griffin, the CEO of LAC (a cryo-tech corporation), was the first goddess that everyone mentioned. All those technologies, along with AI humans like Rashmi and Andra, were created by Griffin in an effort to preserve the planet. Later Andra excavates the LAC annex beneath Eerensed, bringing millions of colonists awakening out of cryogenic sleep, onto a world that is habitable. This novel explores themes like quest for power, influence of technology, revenge, identity crisis, question of immortality, impacts of extreme climatic change, future of Earth etc... It also offers a thought-provoking intersection between cryogenics and literature.

Alexandre Jouan Arcady, known professionally as Alexandre Aja, is a 21st century French filmmaker. Aja's

French science fiction thriller film *Oxygen* (2021), opens with the scene of a woman named Elizabeth Hansen (Melanie Laurent) waking up inside a cryogenic pod with no memory of who she is or how she got there. As Elizabeth tries to figure out her identity, she discovers that she is a scientist who was working on a project to find a cure for a deadly disease that has affected the Earth. She learns that she had been in stasis for an unknown period and also her cryopod is malfunctioning, she only has a few hours left before her cryopod runs out of oxygen. With the help of an AI assistant named MILO (Medical Interface Liaison Operator) Elizabeth tries to piece together her memories and figure out a way to escape. As the movie progresses, Elizabeth discovers that she is in a spaceship that has 10,000 pods with several people in hypersleep. As Elizabeth gets closer to discovering the truth about her identity and the facility, she realizes that she is actually a clone of the scientist Elizabeth Hansen, who is aged now and still on Earth, created by the company Megacorp to complete her journey to a planet 14 light years away from Earth. Her memories are not real, but rather implanted by the company. Finally, she instructs MILO to put her back into hypersleep. In the end of the movie, everyone successfully lands on the planet and begins a new life. *Oxygen* explores themes of identity crisis, the limits of human endurance, haunting memories, claustrophobia, isolation and the human will to survive.

2.2 Comparative Analysis of 'Andra' and 'Liz'

When analyzing the novel *Goddess in the Machine*, Andra's character development throughout the story is marked by her journey of self-discovery, resilience, and embracing her role as a leader (goddess). Initially waking up in a completely unfamiliar time and place, Andra finds herself disoriented and longing for her past life on Earth. Her memories serve as a motif, representing her connection to her previous identity and her longing for a sense of belonging. As she encounters the people of Eerensed, who mistakenly perceive her as a goddess, Andra grapples with the weight of their expectations and her own confusion about her purpose. As Andra learns about the truth of her situation and the demise of the other colonists, her sense of isolation and disorientation deepens. She is confronted with the harsh reality that she has overslept by a thousand years and is now in a world plagued by corrupted nanos and an oppressive ruler (Maret). This realization becomes a turning point for her character, fueling her determination to find answers and take control of her own destiny. The Eerensedian phrase "Decide your fate, or fate will decide for you" much resonates with her life, which serves as a motivation for her to confront the challenges that lie ahead. When analyzing the story we could find how Andra's personality evolves from a vulnerable and confused

individual to a resilient and resourceful leader. Despite her initial reluctance, she gradually starts to trust Zhade and relies on his guidance and assistance. Andra's journey is also shaped by her encounters with other characters like Lew, Tia Ludmila, Lilibet and Rashmi, who provides her with valuable support and insight. These interactions allow Andra to learn from their experiences and develop a deeper understanding of the world she has awakened into. As Andra becomes aware of her connection to the nanos and the power she possesses, she undergoes a significant transformation. Her motifs shift from longing for her past life, to embracing her role as a catalyst for change and the potential savior of humanity. Andra's experiences, particularly her confrontation with Maret and her merging of consciousness with Rashmi, strengthen her to resolve and enhance her true identity. Andra's character development is also marked by her internal conflicts and growth. She grapples with questions of identity, trust, and the responsibility that comes with her newfound abilities (being a human AI). Her decision to challenge Maret's tyranny instead of seizing the opportunity to escape from Eerensed demonstrates her growth and her willingness to confront the adversities. Thus, we can say that Andra's character development highlights her transformation from a bewildered and uncertain teenager to a courageous and determined goddess who embraces her role in shaping the fate of Eerensed and humanity as a whole.

Likewise in the movie *Oxygen*, Liz's character undergoes a profound journey of self-discovery and resilience in the face of a life-threatening situation. Initially awakening from hypersleep with fragmented memories and disorientation, Liz demonstrates curiosity and resourcefulness as she navigates her predicament. She grapples with the confusion of waking up in outer space and the realization that she is a clone of the scientist Elizabeth Hansen, created as a means to ensure a version of her reaches the destination planet. Liz's motifs revolve around her search for identity and a desire for survival. Despite her initial disorientation, she quickly seeks answers about her past and engages in conversations with her virtual medical assistant bot MILO, to understand her situation. She demonstrates intelligence and problem solving skills as she works to recall her memories and comprehend her true identity. Liz's determination to survive drives her actions and decisions, even in the face of a critically low oxygen supply. Liz's character development is marked by her growth in understanding and acceptance of her situation. As she contacts Elizabeth, the original version of herself, Liz initially experiences rejection and denial of her identity as a clone. However, through Elizabeth's empathy and eventual disclosure of the truth, Liz begins to grapple with the reality of her existence and the purpose she serves. She develops a

sense of connection to her past life and strives to locate Leo's clone as a source of motivation to survive. Liz's motifs extend to themes of love, family, and the resilience of the human spirit. Her heartfelt conversation with her mother showcases her love and longing towards her familial connections. Despite being a clone, Liz's emotional bond with her mother remains intact. Her determination to survive and reunite with Leo's clone reflects her belief in the enduring power of love and the strength to overcome adversity. As the story progresses, Liz's intelligence and adaptability increases, she recognizes the opportunity to redirect oxygen from damaged pods to sustain her own survival and initiates a plan to accomplish this. Her resourcefulness and resilience are the key to her ultimate success in landing on the new planet and commencing a new life. Overall, Liz's character in *Oxygen* demonstrates a strong will to survive, adaptability in the face of adversity, a longing for connection and identity, and the power of determination even in the most dire circumstances.

When attempting a comparative analysis of 'Andra' and 'Liz', we could find that both characters share motifs and themes related to identity crisis, fragmented memories, uncertainty and the desire for connection. Andra's motifs revolve around a profound longing for her past life on Earth, a sense of disorientation in the new world she wakes up in, and her quest to uncover her true identity. Liz, on the other hand, grapples with questions of identity as a clone and a strong desire for connection and familial bonds. Both characters demonstrate resilience and adaptability in the face of challenging circumstances, showcasing their unwavering determination to survive and overcome obstacles. Andra and Liz undergo significant character development and growth throughout their respective stories. Andra's journey is marked by her transformation from a bewildered and uncertain individual to a courageous and determined protagonist. She embraces her role as a catalyst for change, discovers her unique abilities, and learns to trust and rely on others. Liz, on the other hand, starts off disoriented and confused but gradually develops a stronger sense of self and purpose. She demonstrates resourcefulness, intelligence, and adaptability as she navigates her predicament and seeks solutions to ensure her survival. Both Andra and Liz form significant relationships that impact their character development. Andra's interactions with characters like Zhade and Lew provide her with companionship, support, and valuable insights about the new world she finds herself in. These relationships deepen her understanding of herself and her role in shaping the destiny of Eerensed. Liz, on the other hand, establishes connections with MILO, her virtual medical assistant, and Elizabeth, the original version of herself. These relationships help her navigate her predicament, understand

her identity, and strive for survival. The relationships in both characters' lives contribute to their growth, self-discovery, and emotional development. They both grapple with questions of purpose and their roles in their respective narratives. Andra's purpose evolves from a longing to recollect her past life to a responsibility to save Eerensed and its people from the corrupted nanos and the oppressive rule of Maret. Liz, as a clone of Elizabeth, discovers her purpose in ensuring a version of her original self reaches the new planet. Both characters demonstrate a strong sense of determination and a commitment to fulfilling their respective purposes, showcasing their growth and development throughout the story. Resilience and adaptability are core traits shared by both Andra and Liz. They face challenging and life-threatening situations but exhibit unwavering determination to survive and overcome obstacles. Andra's resilience is evident in her ability to navigate the unfamiliar world she wakes up in, while Liz's resilience shines through in her resourcefulness and problem-solving skills as she seeks solutions to her oxygen depletion issue. Both characters demonstrate the ability to adapt to their circumstances, showing strength in the face of adversity. Despite the differences in their stories and settings, both characters undergo transformative experiences and showcase the indomitable spirit of the human condition.

2.3 Application of Abraham Maslow's Theory 'Hierarchy of Needs'

Abraham Maslow introduced the concept of 'Hierarchy of Needs', a psychological theory, introduced during the mid-20th century. This theory posits that individuals are driven by a series of innate needs that influence their behaviour and motivation. The hierarchy is commonly depicted as a pyramid consisting of five distinct levels, each representing a different category of needs. Maslow emphasized that lower-level needs must be satisfied before higher level needs can be pursued. The five levels, in ascending order, are as follows: physiological needs, safety needs, love and belongingness needs, esteem needs and self actualization needs. When analyzing *Goddess in the Machine* and *Oxygen* in the light of Maslow's 'Hierarchy of Needs' we could find all the five levels of needs, utilized by both 'Andra' and 'Liz'.

In the beginning of the novel, Andra wakes up from cryosleep and finds herself in an unfamiliar time and place. She is disoriented and seeks information about her location, time, and the fate of other colonists. Her primary concern is to understand her basic survival needs, such as finding food, water, and shelter. Thus fulfilling her physiological needs. Later she discovers that she has overslept by a thousand years and all the other colonists

have perished. She realizes the danger of her situation and begins to place her trust in Zhade for protection. Throughout the story, Andra faces threats from the corrupted nanobots, pockets, and Maret's oppressive rule. She seeks safety and security by aligning herself with Schism (a secret society) and relies on Zhade and other allies for support, thus fulfilling her safety needs. Andra's longing for her past life on Earth, the memories about her family and favourite places evoke a sense of nostalgia and a desire for connection. She forms relationships with characters like Zhade, Lew, and Rashmi, finding companionship, trust, and support in their presence. Andra's willingness to help and protect others also demonstrates her need for love and the sense of belonging. Throughout her journey, Andra faces challenges that test her abilities and character. She grapples with her identity as the 'Third Goddess,' the expectations placed upon her and the need to gain control over her destiny. By utilizing her unique connection with the nanobots and the growing understanding of her powers, Andra gains a sense of self confidence and accomplishment. The recognition and respect she receives as a goddess further contributes to her esteem needs. Finally, Andra's quest to uncover the truth about her existence and her purpose in saving humanity aligns with the self actualization need explained by Maslow. She seeks knowledge, understanding, and the realization of her full potential. Andra's journey involves personal growth, discovering her true abilities, and making choices that reflect her values and desires.

While in *Oxygen*, the devastating virus that claims the lives of millions and the oxygen depletion issue faced by Liz directly relate to physiological needs. Oxygen, food, and water are essential for survival, and Liz's struggle to ensure her oxygen supply represents the prioritization of these requirements, thus fulfilling her physiological needs. Scenes in which Liz tries to grab the needle from the cryopod's medical system that tries to inject her a dose of sedative, and her struggles to free herself from the wires of the cryopod that wraps her body, can be seen as an attempt to maintain a sense of safety and security. Additionally, Liz's desire to seek help, find Leo's clone, and reconnect with other survivors on the new planet also reflects her need for safety. Liz's interaction with her virtual medical assistant, MILO, and her mother highlight the importance of love and belonging needs. Liz reaches out to her mother, expressing her love, and seeks comfort and reassurance from MILO. Liz's journey of self-discovery, realizing her identity as a clone, and her determination to survive and reunite with Leo's clone can be interpreted as striving for self-esteem and a sense of accomplishment. When she understands that her cryopod has malfunctioned and the oxygen supply is decreasing drastically, she shows the courage to fight for her

life till the last second. She diverts power from non essential processors that manage emergency situations, thus putting her back to cryosleep. It shows how intense her self esteem needs were. When she finally finds her true identity of being a clone, she willingly accepts her duties. In the last scene of the movie, we could see Liz renaming her bioform identity from OMICRON 267 to Liz, thus fulfilling her self actualization needs and ultimately reaching the new planet to commence a new life.

III. FROZEN CHALLENGES: DECODING THE CRYO DILEMMA

3.1 Exploring Identity Crisis and Survival Issues

In the novel *Goddess in the Machine*, after waking from 1000 years of cryosleep, Andra was in a state of uncertainty and confusion. She only knew that she was in a cryopod. She was unable to remember anything correctly and was searching for the missing information within her brain. She didn't know what she was meant to do next. She felt as though there was no past, as if she had been born into the present, without even a hint about her future. After being taken from the cryo tank, she found herself in an unfamiliar situation and unknown hands were patting her. The place and time were completely a mystery to her. As her brain gradually unveiled the haze, she managed to recall her name and her intended awakening location on planet Holymyth. According to her expectations, she was supposed to awaken in a medical lab surrounded by cryo technicians. However, instead of the anticipated environment, she awoke in a dirty, empty room with nothing but a metal table and a fan. Instead of the familiar LAC (Lacuna Athenaeum Corporation) sanctioned medical robes, she was uncomfortably dressed in an itchy and tight garment made of unfamiliar fabric. The realization that her neural implant was not functioning properly filled her with panic. She was drenched with fear and confusion, uncertain of whom to trust or turn to for guidance in that strange place. Her intended destination was a subtropical area characterized by moderate temperature, low humidity, and abundant trees. However, after she had awoken all she could see was a barren desert filled with boulders. She was constantly thinking about finding a way to escape from that place. She couldn't even comprehend the accent of the locals, known as Eerensedians. English had evolved into a complex form that was beyond her understanding. Despite the confusion surrounding her circumstances, whenever others referred to her as a "goddess", she would vehemently deny the title, insisting that she was simply Andra — a twenty second century teenager and a self proclaimed underachiever.

On her journey to the palace of Eerensed, Andra began to feel a growing suspicion that Zhade was

manipulating her for his own advantage. As the third goddess, her anxiety heightened when she learned that the first and second goddesses had been killed by Maret, leading her to worry about her own fate. At a certain point, when Zhade and Andra understood that both of their lives are in danger, they made a deal to help each other, this paints a vivid picture of their struggles for survival. As Andra gradually embraced her identity as a goddess, she started questioning Maret for his misdeeds. Meanwhile, Zhade, along with Lew and Lilibet, devised a plan to give Andra "goddess lessons," aiming to present her as the perfect deity in the eyes of the Eerensedians, even though she was not inherently so. Zhade, being the illegitimate son of the king, had lived a life of secrecy despite being the true prince. He spent most of his childhood in hiding, tossed from cave to cave at the whim of others. For Zhade, the disparity between the Wastes and Eerensed was glaring. Having never ventured beyond the confines of the city of Eerensed, he felt powerless upon reaching the city of Wastes. Lew, on the other hand, suffered a severe injury caused by the 'pockets,' resulting in the removal of his arm by the med doctor. With the provision of an artificial arm, Lew was transformed into a 'cyborg'. Here his existence of being a complete human is questioned with a mechanical hand. Despite being the rightful prince of Eerensed, Zhade was forced to work as a guard within the palace due to Maret's invasion of the throne. It is evident that Maret himself was not free to make his own choices, as he was merely a puppet in the hands of his mother, Tsurina. When the novel comes to an end, Andra gets shattered when she discovers that she was an AI, leading her to question her entire existence and the lies she had been living. Dr. Griffin, the first goddess, was revealed to be the creator of Andra, and also Zhade's mother, unmasking his identity as a 'half-god.' Even though being an AI, Andra was built as a human with all emotions and feelings, but her programming demanded to put humanity's needs above her, thus sacrificing herself.

The theme of identity crisis can also be seen in several sections of the movie *Oxygen*. The protagonist, Elizabeth Hansen, clones herself and transfers her memories to her clone, Liz. This process raises questions about her identity, as Liz wakes up with incomplete memories and experiences an internal struggle to understand who she truly is. The presence of two versions of Elizabeth further adds to the complexity of identity and raises questions about the authenticity of one's existence. Liz wakes up believing she is still on Earth and initially struggles to comprehend her situation in outer space. As she gradually discovers her true identity and the purpose of her existence as a clone, she undergoes an identity crisis. The revelation that she is a younger version of the original Elizabeth, who is still alive on Earth, challenges her sense of self and raises questions

about her own individuality. Throughout the narrative, Liz seeks validation and recognition from others, particularly from the original Elizabeth and Leo's clone. Her search for her husband's clone and the realization that he lacks a scar on his head further intensify her identity crisis. Liz's ultimate acceptance of her clone status and her ability to adapt and survive contribute to the exploration of identity and self-discovery. The impending doom faced by humanity due to the deadly virus leads to existential dilemmas for the characters. The uncertainty of survival and the desperate attempt to preserve one's identity and memories in the face of extinction highlight the theme of identity crisis on a larger scale. Even when Liz's oxygen level decreases and she starts facing the possibility of death, she utilizes the time to seize the bits of memories, and establish her real identity. The realization that her mother has been regularly meeting with the original Elizabeth during Liz's hypersleep emphasizes the confusion and conflict surrounding her identity and the perception about herself. In the climax scene, she renames herself from "Bio form 267" to "Liz," with the help of her medical assistant bot, thus creating an identity for herself. This movie delves into the complex nature of personal identity and throws thought-provoking questions about what defines an individual in a world threatened by extinction.

3.2 Unveiling Physical Struggles and Adjustmental Challenges

After Andra's 1000 years of long stasis, her body began to exhibit a plethora of symptoms. Her lungs burned, and her eyes stung, leaving her gasping for that precious first breath. Panic set in as she attempted to open the cryo pod, only to find it stubbornly sealed shut, and this made her mentally terrible. Her body felt stiff, and her bones ached with each movement. Lightheadedness washed over her, and she could feel her synapses sparking, almost as if her brain was struggling to catch up with the present reality. A sore throat and aching muscles added to her discomfort, as she slowly acclimated to the sudden shift from the cold atmosphere of cryo sleep to the surrounding temperature. The transition from silence to a cacophony of noise proved to be an irritant, with even the slightest sounds triggering panic and a sense of fear within her. The piercing light invaded the cells of her eyes, causing her to squint and shield herself from its intensity. This state is medically called 'sensory disorientation'. Despite her desire to communicate, words failed to escape her mouth, leaving her frustrated and unable to express her thoughts. The unbearable heat enveloped her, causing her to drip with sweat mixed with cryo protectant, which only served to exacerbate the discomfort. As she attempted to stand, her legs ached due to the minimal muscular atrophy that had occurred during her prolonged slumber. Sweat trickled down her back, the oppressive heat suffocating her with each breath, as if it

clung to her throat just above her sternum. The extreme heat of 'Wastes' even led to sunburns on her skin, further adding to her physical distress. When the wind picked up, Andra was forced to cover her face, shielding herself from the sandy breeze. Her exposed skin, unaccustomed to the brushing sensation of nanos, began to sting, as if being pricked by a million tiny needles. The people of Eerensed were used to the gentle touch of nanos against their skin, but for Andra, it caused irritation and discomfort, as she had never experienced such sensations before. After living in a confined cryopod for a long period, she became claustrophobic. Eerensed was a place with too many buildings & people crammed together into a very small place, this scene often increased her symptoms of claustrophobia. As her body continued to adjust and cope with the unfamiliarity of the environment, she faced the daunting task of navigating through a world that seemed both alien and overwhelming.

The movie *Oxygen* clearly portrays the physical problems and mental psyche of a person waking from cryosleep. Liz's experience upon awakening is fraught with a myriad of challenges that revolve around her body's response to being in cryosleep for an extended period. Physically, Liz finds herself fully wrapped in a tight and stretchy material, reminiscent of an Egyptian mummy. This immediate sensation restriction creates discomfort and a sense of being trapped. Moreover, her body is secured with safety belts, rendering her unable to move freely. The physical restraints exacerbate her feelings of confinement and helplessness. Liz discovers that her hands and legs are tightly tied to the cryopod, further limiting her mobility and making her feel powerless and vulnerable. As she struggles to free herself, tearing the fabric with her teeth, she endures physical strain and exertion. Her heartbeat increases and she starts to breathe heavily in panic. The presence of wires and small tubes connected to her body adds another layer of physical discomfort and disorientation. Liz finds herself attached to various monitors, heightening her awareness of being under constant surveillance and medical observation. The sight of syringes connected to the veins of her hands causes her pain and prompts her to remove them, further exacerbating her physical distress. These physical challenges are closely intertwined with the psychological and emotional adjustments Liz must face upon awakening. She grapples with fragmented memories, struggling to piece together her identity and past experiences. Liz's panic intensifies as she tries to communicate with her virtual medical assistant bot, MILO, but can only express herself through small and incomplete words. The frustration of being unable to articulate her thoughts and the fear of not remembering anything contribute to her overall psychological strain. As she attempts to regain her sense of

self, Liz is plagued by blurry visions and weak focus on her surroundings. This physical disorientation mirrors her psychological state, as her inability to remember and comprehend her environment adds to her feelings of insecurity and disconnection. Liz's constant utterances of distress, cries for help, and repeated questioning of her location and circumstances amplified her state of mind. Her words, such as "where am I?" and "let me out," serve as poignant reminders of her struggle to adapt to her newfound reality and overcome the physical and psychological obstacles in her path. Liz also gets plunged into a hallucinatory state as she grapples with the uncertainty of her situation, her mind becoming a canvas for vivid and surreal visions. She hears the chirping of birds, the gentle flow of water in a river, the fluttering of butterflies, and the crashing of sea waves. These auditory hallucinations transport her to idyllic natural settings, offering a stark contrast to her sterile and confining cryopod environment. Simultaneously, Liz's visual hallucinations of rats screaming for breathe and running inside her cryopod intensifies her internal struggle as she attempts to discern reality from illusion. These struggles serve to highlight the profound difficulties associated with awakening from cryosleep and navigating a new reality.

3.3 Memory Fragmentation and Haunting Nostalgia

Upon awakening after 1000 years, she was immediately struck by the unsettling impression that her past had been completely erased while she was in cryosleep, leaving her thrust into the present with no recollection of what lay ahead. The missing knowledge eluded her grasp as she struggled to recall anything accurately, desperately scouring her brain for fragments of information. Utterly clueless about her purpose or what she was meant to do next, she felt adrift in a sea of uncertainty. The pieces of her memory were scattered, insufficient to construct a comprehensive picture of what had transpired during her long stasis. While her identity gradually resurfaced as the haze within her mind dissipated, the disjointed visions of her family caused her deep concern. She remembered Dr. Alberta Griffin, the founder of LAC and a certified tech genius who had pioneered cryonics, shuttles, generation ships, and terraforming. Thoughts about her family troubled her greatly — had they lived fulfilling lives in her absence? Had Acadia conquered the world with her five degrees? Had Oz grown up to become the accomplished drone racer she had envisioned?. Memories of Earth flickered in her mind — 'Earth, the third planet from the sun, a beautiful blue and green sphere hanging in space'. It was represented by the invigorating smell of spring rain, the crisp sound of leaves crunching beneath her feet in autumn, the exhilarating drone racing park where she and Oz would compete, her favorite

sushi restaurant, the unexpected shock of cold water from a malfunctioning shower's temperature control, and the comforting familiarity of the pre-book wall in her room. Before entering cryosleep, Andra had packed her cryo tank to the brim with belongings that held profound meaning to her—a tablet, a holo band, pre-books, clothes, and the treasured blanket she had slept with until the age of twelve. It was an attempt to carry a piece of home with her. When she discovered her holocket, a profound sense of relief washed over her, and she instinctively hung it around her neck. The holocket, a gift from Oz when he won it in a school raffle at the tender age of five, held immense sentimental value. Within its memory slots, Andra had captured seemingly mundane moments that had now become priceless remnants of her past. Every member of her family along with Cruz, Briella, Rhin, and Oz was encapsulated within those memories. Fleeting recollections of her security blanket, the first-edition pre-book copy of "I Think I Speak for Everyone," and the purple holo band she had received on her sixteenth birthday danced within her mind, stirring emotions and a sense of connection to her former self. Apart from Andra, Zhade was also amidst the memories of his mother, ie, her last words, "Take this," she had said, handing him an icepick dagger, her words laden with urgency. "Find the Third goddess. Don't let Maret have the crown."

The Wastes stretched before Zhade as a barren and seemingly endless desert. It was a desolate landscape that offered no respite or hope, earning its reputation as a place where dreams and wishes were as futile as hoping for an ocean to materialise in the midst of the arid sands. The phrase "Fishes and wishes," frequently used by the Eerensedians, symbolised the impossibility of such desires coming true. Zhade, however, would close his eyes and imagine the vast expanse of sand being replaced by vast bodies of water, visualizing an ocean that defied the harsh reality of the barren landscape. Throughout Zhade's childhood, prior to his birth and in the early years that followed, 'the 3rd Goddess,' known as Andra, lay dormant in the Yard. He would visit her grave and catch glimpses of her obscured form through the glass, surrounded by other visitors who fervently believed in her power and prayed for her awakening. It was a surreal and somewhat disconcerting experience for Zhade, observing the faith and hope of others while harbouring his own doubts about the Goddess's true nature and abilities. These memories were etched into his mind as hazy recollections. As Andra embarked on her journey to Eerensed, her mind was filled with dreams of her family, reminiscing about the precious moments spent with them. In her slumber, she envisioned her mother's workplace, the LAC office, and the memories of her family that were intertwined with it. The scenes in her dreams

brought both a sense of relief and a peculiar sadness, mingled with an anticipation of disappointment, as they served as reminders of the life she once had and the stark contrast to her current circumstances. In her dreams, Andra visualized a series of vivid memories. She recalled participating in a spelling bee competition during her third grade, playing darz with her brother Oz at the sim'porium, savouring the flavours of Satay with her Ah Ma, witnessing her father engrossed in reading 'The Future Historians' in his study, her mother disassembling their first AI, Briella and Rhin eating dinner with Cruz, her mother diligently downloading her report card and yelling at her. These snapshots from her past, though bittersweet, provided a temporary solace and served as a reminder of the human experiences she had left behind. Throughout the novel she tries to reclaim her place in a world that had changed drastically during her deep slumber.

Likewise, in the movie *Oxygen*, Liz's awakening from cryosleep is also accompanied by fragmented memories, leaving her with an incomplete understanding of her past. This theme of fragmented memories serves as a central aspect of her journey, as she grapples with the disorienting nature of these scattered recollections. The gaps in Liz's memory contribute to her sense of disorientation and confusion about her identity. As she slowly pieces together fragments of her past, she struggles to form a coherent narrative of her own life. The flashes of fragmented images of a person being rushed to the hospital, along with nurses and doctors running around, gives Liz a wrong notion that she is admitted in a medical unit. It was actually her memories of Leo (husband) being hospitalised due to a severe virus infection that took his life. She visualizes the scenes of chirping of birds, the gentle flow of water in a river, the fluttering of butterflies in her garden, the crashing of sea waves, and sunlight peeping through the branches of trees. The incomplete nature of her memories creates a haunting atmosphere, as the vital information of her journey and her true identity remains elusive. Furthermore, the resurfacing of memories triggers a powerful sense of nostalgia within Liz. Vivid recollections of swinging on a playground as a child, intimate moments shared with her husband Leo, and her work in the cryo lab stirs up a mix of emotions. This haunting nostalgia that Liz experiences is both comforting and painful. On one hand, these memories provide a sense of familiarity and grounding amidst the confusion of her current situation. They serve as an anchor to her identity and offer glimpses of the life she once knew. On the other hand, the nostalgia highlights the profound loss she has experienced and the recognition that those moments are just memories of Elizabeth Hansen, thrust upon her cloned body. Moreover, the theme adds emotional depth to Liz's character and her quest for self-discovery.

3.4 Alienation, Loneliness and Disorientation

As Andra regained consciousness after a long period of cryosleep, her first instinct was to search for her family. She had been separated from them during the cryosleep process, and the disorientation she felt upon awakening only intensified her desire to find them. The unfamiliar surroundings, the sense of displacement in time and place, and the presence of unknown people added to Andra's panic. She was thrust into a world she didn't recognize, and it overwhelmed her, leaving her feeling anxious and fearful. Andra struggled to come to terms with the sudden and drastic change in her environment. The fact that she was separated from her home by an immense distance weighed heavily on her. The knowledge that she was potentially stranded in an unfamiliar and distant place added to her feelings of isolation and longing. In her quest to find her family, Andra scanned the crowd she encountered upon waking up, desperately searching for any familiar faces. She hoped to find out her family, friends and acquaintances from her mother's office, thus seeking a sense of connection and belonging. Amidst the chaos and confusion, Andra's spirits lifted when she encountered a humanoid information bot created by the LAC company. The presence of a familiar and advanced piece of technology momentarily brought her a sense of relief and hope. However, Andra's hopes were dashed when the info bot relayed misinterpreted information, suggesting that all the colonists had perished. This devastating news shattered her and deepened her sense of loneliness, believing she was the only survivor among the colonists. Andra's isolation intensified as she realized there was no one around her to provide guidance or explanations about the situation. She grappled with a profound sense of solitude, lacking the support and familiarity she desperately craved. The haunting thought that her family might be deceased and that she had been abandoned in a desolate future on a desert planet plagued Andra's mind. It filled her with a deep sorrow and a sense of abandonment. Whenever Andra's thoughts turned to her home, a wave of intense emotions overcame her, often leading to tears welling up in her eyes. The realization that she might no longer have a home to return to left her feeling adrift and emotionally overwhelmed.

Liz's experience after waking from cryosleep, in the movie *Oxygen*, is intricately woven to amplify the themes of alienation and disorientation. Movie begins by highlighting the physical and psychological alienation Liz feels. She finds herself tightly wrapped in a stretchy material (regenerative cocoon), restrained by safety belts, and with her face fully covered, making it difficult for her to breathe. These physical constraints create a sense of isolation and helplessness, contributing to her disorientation. As Liz attempts to make sense of her surroundings, she grapples

with fragmented memories and struggles to recall her own name. Her inability to remember her identity intensifies her sense of being adrift and disconnected, further deepening her alienation. The presence of wires, tubes, and syringes connected to her body adds to her feeling of distress. These unfamiliar medical apparatuses symbolize the technological intrusion into her physical being, further exacerbating her sense of disorientation and distance from her own body. Liz's communication with the artificial intelligence operator, MILO, highlights her struggle to express herself and comprehend her situation. Her speech becomes fragmented, and she can only form small, incomplete words, reflecting her disoriented mental state. This difficulty in communication reinforces her sense of isolation and detachment from others. The hallucinations or distorted perceptions of reality, blur the line between memory and imagination, further challenging Liz's understanding of her own experiences. The hallucinations create an additional barrier to comprehending her current state, deepening her sense of being lost and disconnected. The revelation that she is a clone of Elizabeth Hansen heightens her feelings of alienation. She questions her own authenticity and struggles to reconcile her existence as a replica of another person. The decision to return to cryosleep and the painful process of reconnecting the wires and tubes to her body symbolize Liz's desire to retreat from the overwhelming sense of disconnection. It represents her yearning for the familiar state of suspended animation, where the disorienting realities of her waking life can be temporarily suspended. The theme underscores the profound sense of detachment and confusion that accompanies her awakening, serving as a driving force in her struggle for identity and survival.

3.5 Portrayal of Future Technology and Its Impacts

Lora Beth's novel presents a future society where advanced technology plays a significant role. Cryosleep, nanobots and AI systems are pictured as integral to the functioning of society. Cryosleep involves placing individuals in a state of suspended animation, effectively halting the aging process. This technology allows characters like Andra to be preserved for centuries, awakening in a future time vastly different from when they entered cryosleep. Before entering cryosleep, Andra was warned about potential issues such as waking too early, crisis aborts, and faulty latches. These precautions highlight the risks and uncertainties involved in this advanced technology. Nanobots play a crucial role in the futuristic society, they are tiny devices capable of various functions including communication and healing, and are controlled through implants. They occasionally float in the air and interact physically by rubbing against people's skin. Although the specific details of their functionality and purpose in the story

are not explicitly explained, they contribute to advanced communication, controlling of nearby AI devices and bots, and also aid in medical treatments. According to Andra, in order to update a bot, a reset port is present inside the bot. A cluster of nanobots at the base acts as the center of the bot's circulatory system, stabbing them provides a jolt of robotic adrenaline, enabling the bot to receive updates and enhancements. In Eerensed, advanced technology is perceived as magic. Bots are seen as angels, individuals who control technology are regarded as sorcerers, and those who possess advanced knowledge or use high magic are seen as goddesses. Cryo tanks are akin to graves, bio domes are considered God's domes, DNA sensors are associated with blood magic spells, and swarms of nanobots are referred to as stardust. The influence of 'Pockets' is brilliantly explained in this novel. 'Pockets' are groups of abandoned and outdated nanobots. They appear as blackened churning masses, engulfing everything in their path with a droning 'hum' sound. Pockets represent corrupted technology, that runs on an outdated software from Andra's time, and pose a threat to Eerensed, often attacking the bio dome. This draws a picture establishing the idea that outdated tech can cause serious impacts in the future, if we don't know how to handle it.

When Andra discovers her cryotank, she touches it reverently. The cryo tank held her for nearly a thousand years, and for her it symbolizes a protective and nurturing space, akin to a mother's womb. Andra encounters a misinformed LAC bot in the Wastes that wrongly informs her that all other colonists in cryosleep are dead. This incident highlights the limitations of bots, as they can only recite information fed to them and cannot arrive at logical conclusions like AI. Maret, prince of Eerensed, possesses a neural implant in the form of a silver crown, granting him control over the entire technological infrastructure of Eerensed through his thoughts. This demonstrates the extent of technological advancements and the power wielded by certain individuals. As Andra reaches the palace, she encounters rooms filled with humanoid bots of various sizes, armed and ready. These bots serve as a security measure. Maret also utilizes the swarm of nanobots as weapons, highlighting the potential militarization and weaponization of advanced technology in the world. Characters in the story use cos' masks, bionic facial coverings that allow wearers to modify or enhance their facial features. This represents the ability to manipulate one's appearance through advanced technology, without the need of facial surgeries. Zhade possesses an icepick dagger that can translate Andra's implant's code into an updated Eerensedian version. This allows the nanobots around Andra to receive messages and updates. The Ark, a colossal spaceship designed to transport humanity to a new planet, symbolizes the pinnacle of technological achievement.

However, the revelation that the Ark never left Earth exposes the limitations and potential failures of technology, leading to the necessity of Andra's awakening and her role in saving humanity. The 2nd Goddess, Rashmi, is depicted as an organic body housing an AI mind or artificial brain. This combination represents the blending of organic and artificial elements, blurring the lines between human and machine. Human thoughts travel through electrical impulses conducted by proteins, while AI thoughts are carried by chemical impulses conducted by nanobots. AI is programmed through computer algorithms, whereas humans are programmed through a combination of instinct, social conditioning, and biological factors. This juxtaposition explores the divergence in the processes of AI and human cognition. As an AI, Andra possesses a store of med'nanos designed specifically for cyborg tech. These med'nanos function as artificial versions of antibodies, white blood cells, and complex proteins tailored for machines. The novel delves into the advantages and disadvantages of advanced technology, raises ethical dilemmas surrounding artificial intelligence, and highlights the potential consequences of excessive reliance on technology.

The movie *Oxygen* mainly focuses on technology of cloning and cryonics. The main character, Liz's awakening from cryosleep highlights the advanced technology of cryopods, which allows the preservation and extended hibernation of individuals. Elizabeth, the scientist, has been working on memory transfer, this breakthrough technology allows memories to be transferred from one individual to another, as demonstrated in Liz's case where she possesses the memories of the original Elizabeth. Liz interacts with a virtual medical assistant named MILO, indicating the presence of sophisticated artificial intelligence technology capable of assisting individuals with medical guidance and information. Liz utilizes a DNA scanning method to search for her identity. This suggests the availability of advanced DNA analysis technology that can quickly identify individuals based on their genetic information. Liz communicates with her virtual medical assistant MILO, and even makes a call to her mother. The ability to engage in interactive calls using satellites indicates the presence of advanced communication technology that allows real-time audio and video transmission over long distances. The story features a spaceship carrying thousands of pods containing people and clones in hypersleep. The existence of such a vast spacecraft and the technology involved in sustaining life during long-duration space travel showcases futuristic advancements in spacecraft design and life-support systems. These examples demonstrate the incorporation of futuristic technologies in the narrative, contributing complexity to the story.

IV. CONCLUSION

Within the pages of the novel *Goddess in the Machine* and the frames of the film *Oxygen*, captivating narratives unfold, challenging our perceptions and sparking contemplation on the future of humanity. Both the works have imaginative landscapes which uncover the mysteries that lie within, reflecting upon the intricate intersections of science, humanity, and the pursuit of a future worth fighting for. These works portray an intricate tapestry of human existence in futuristic settings. In *Goddess in the Machine*, a mesmerizing novel by Lora Beth Johnson published in 2020, we find ourselves transported to the year 3102, where a post-apocalyptic society intertwines with elements of the classic "Sleeping Beauty" fairy tale. Awakening from a cryogenic slumber, Andromeda, known as "The Third Goddess," discovers a world drastically changed from the one she knew. In the futuristic city of Eerensed, technology is revered as magic, and the power to control it lies in the hands of sorcerers. Amidst the quest for power, a web of secrets unfolds as Andromeda, aided by an unexpected ally named Zhade, unravels the truth about her purpose, the fate of humanity, and the future of Earth itself. Meanwhile, *Oxygen*, a gripping French science fiction thriller film directed by Alexandre Aja, released in 2021, thrusts us into the claustrophobic confines of a cryogenic pod. As the protagonist, Liz (Elizabeth Hansen) awakens with no recollection of her past, the race against time begins. Trapped within her malfunctioning chamber, Liz confronts her own identity and piece together the fragments of her memory before her dwindling oxygen supply runs out. In a suspenseful journey of self discovery, she unravels a sinister conspiracy that challenges the very essence of her existence, ultimately testing the limits of human endurance and accepting her fate.

Abraham Maslow's theory of 'Hierarchy of Needs' can be applicable in cryo fiction to explore the psychological and emotional journey of characters undergoing cryogenic preservation or revival. The theory suggests that individuals have a hierarchy of needs that must be fulfilled in a specific order, starting from basic physiological needs to higher level psychological and self fulfillment needs. In cryo fiction, characters who opt for cryogenic preservation may have their physiological needs met before entering the cryo chambers. This includes ensuring their basic survival needs such as food, water, and shelter are fulfilled. Cryo facilities would provide the necessary physical conditions for preservation, ensuring the characters' physiological needs are temporarily suspended until revival. Such fiction can explore how cryogenic preservation offers a sense of safety and security to characters. By being preserved, characters may seek protection from potential dangers or threats in the external world. However, complications or uncertainties

surrounding the preservation process can create a sense of vulnerability and challenge their security needs. Once characters are revived from cryogenic preservation, they may experience a sense of isolation or disconnection from the world they once knew. Cryo fiction can delve into the characters' need for social interaction, companionship, and a sense of belonging as they navigate the changed environment and attempt to rebuild their relationships. These works explore the characters' journey of rebuilding their self-esteem and self-worth after revival. They may face challenges in adapting to the changes in society, reclaiming their identities, and finding their place in the new world. The characters may strive for recognition, respect, and a sense of accomplishment as they seek to regain their self-esteem. Cryo fiction also examines how characters pursue self-actualization after revival. Having fulfilled their more basic needs, they can focus on personal growth, realizing their potential, and finding meaning and purpose in their revived lives. By incorporating Maslow's 'Hierarchy of Needs' into cryo fiction, the narrative can delve into the characters' psychological and emotional journeys, their struggles to meet their various needs after cryogenic preservation, and the exploration of self-discovery and personal growth in a futuristic context.

Lora Beth used vivid imagery throughout the novel *Goddess in the Machine*, to bring the story to life. For example, the nanobots are described as "tiny devices that transfer messages through implants and occasionally brush against people's skin." The pockets, which are corrupted masses of nanos, are depicted as "blackened, churning masses with a droning hum" that devour everything in their path. The crumbling of the bio dome is described as it "crumbles like burning paper," creating a sense of chaos and destruction. These visual descriptions help the reader imagine the futuristic world and the events taking place. The setting of the story is primarily in 3102 AD. The majority of the story takes place in the city of Eerensed. Earth is referred to as 'Hell Mouth' due to its extreme temperature, which Andra misinterprets as the new planet 'Holymyth'. Eerensed is depicted as a complex society with a palace, a bio-dome, and different cities like Southwarden and Wastes. Lora Beth also utilizes several storytelling techniques to engage the reader. The story starts with Andra waking up in an unfamiliar time, creating a sense of mystery and curiosity. The use of flashbacks and memories, such as Andra reminiscing about her past life on Earth, adds depth to the character and creates an emotional connection with the reader. The introduction of other characters like Zhade, Lew, and Maret, each with their own objectives and histories, adds complexity to the narrative and raises the stakes. The revelation of secrets and unexpected twists, such as Andra discovering she is an AI and the true purpose of

her creation, keeps the reader engaged and eager to uncover more. The pacing of the story is also well maintained, with moments of action, suspense, and emotional reflection interspersed throughout the novel.

Alexandre Aja's film *Oxygen* mainly focused on details about spaceships and the journey to a new planet. The collision between the spaceship and an asteroid is also described, causing damage to over 400 onboard cryopods. The movie depicts scenes of zero gravity and the challenges faced by Liz due to the oxygen depletion issue. The visuals highlight the vastness of space and the isolation of Liz as she navigates her survival in the damaged spaceship. The imagery helps create a sense of claustrophobia and hallucination to the audience. The film employed several storytelling techniques to engage the readers. The setting of the story is primarily in a spaceship that is on a 34-year journey to a new planet located 14 light-years away. The story starts with a premise of a devastating virus and humanity's attempt to survive by embarking on a long space journey. The use of memory transfer and cloning introduces scientific concepts that add complexity to the narrative. The fragmented memories of Liz create suspense and a sense of mystery as she tries to piece together her identity and situation. The communication between Liz and her virtual medical assistant bot, MILO, provides exposition and drives the plot forward. The revelation of Liz being a clone and the dynamics between Liz and the original Elizabeth add emotional depth to the story. The constant threat of oxygen depletion creates tension and urgency, enhancing the sense of danger and the need for Liz to find a solution. The passage of time, with Liz re-entering hypersleep for 22 years, adds a sense of sacrifice and determination in her pursuit of survival. The story concludes with the hope of a new life on the new planet, providing a sense of resolution and closure. Overall, the storytelling techniques used by Alexandre Aja helped to create a compelling narrative thus keeping the readers engaged.

When exploring the relevance of the novel *Goddess in the Machine* and the film *Oxygen*, we could find that both works tap into contemporary concerns surrounding technology, identity, and survival. *Goddess in the Machine* explores themes of identity, memory, and technology in a futuristic setting. In the contemporary world, this work resonates with our increasing reliance on technology and the ethical implications it poses. It raises questions about the consequences of memory transfer and cloning, as well as the potential impact of advanced technologies like nanobots and implants on our lives. The story also delves into themes of displacement and longing for one's past, highlighting the universal human desire for connection and a sense of belonging. In a world where technological advancements continue to shape our lives, *Goddess in the Machine*

prompts us to reflect on the ethical dilemmas and existential questions that arise from these developments. While *Oxygen* presents a futuristic scenario where humanity faces a devastating virus and embarks on a space journey to ensure survival. This work resonates with the contemporary world in multiple ways. First, it reflects our current global context, where the COVID-19 pandemic has highlighted the vulnerability of humanity to infectious diseases and the importance of finding solutions to protect ourselves. The movie also explores themes of isolation, resilience, and the human will to survive, which are relatable to the challenges faced during times of crisis. Additionally, *Oxygen* raises questions about the ethical implications of cloning, memory transfer, and the sacrifices made in the pursuit of survival. In a world grappling with questions of medical ethics, technological advancements, and existential threats, the movie prompts us to contemplate the choices we make and the impact they have on our lives and humanity as a whole. They invite us to reflect on the potential consequences and ethical dilemmas posed by advancements in science and the existential questions that arise in the face of extraordinary circumstances. These works serve as a commentary on our ever-evolving world and offer thought-provoking narratives that resonate with our present-day realities.

Both the novel *Goddess in the Machine* and the film *Oxygen* utilize their respective mediums to influence the portrayal and perception of characters. In a novel, the author has the freedom to delve into the characters' thoughts, emotions, and inner experiences in a detailed and introspective manner. This allows for a deeper exploration of their motivations, desires, and conflicts. Readers get an in-depth understanding of the characters' internal worlds, which shapes their perception of the characters. Novels provide rich character development through descriptions, dialogues, and inner monologues. It allows the author to highlight nuances, complexities, and growth in characters over the course of the story. This helps readers form a connection with the characters and develop a sense of empathy or investment in their journeys. The format of novels allows the inclusion of extensive backstories, memories, and internal reflections. This enhances the readers' understanding of the characters' past experiences and their impact on their current actions and decisions. Readers can engage actively with the text, imagining the characters, their appearances, and mannerisms based on the author's descriptions. Each reader's perception of the characters may vary slightly, influenced by their own interpretations and imagination. Whereas, in a film, the characters are brought to life through visual and auditory elements, such as actors' performances, cinematography, costume design, and music. These factors contribute to the viewers' perception of the characters and shape their

understanding of their personalities, emotions, and relationships. The film medium allows for the portrayal of non-verbal cues, facial expressions, body language, and nuances in performances, which can convey emotions and intentions more directly to the viewers. These visual and auditory cues add layers of depth to the characters, influencing how they are perceived. The pacing, editing, and visual storytelling techniques used in the film impact the way characters are portrayed and the viewers' perception of them. For example, quick cuts, close ups, or slow motion shots can evoke different emotional responses and create a specific impression of the characters. Film's soundtrack, sound effects, and atmospheric elements contribute to the ambiance and tone of the story, influencing how viewers connect with and interpret the characters' experiences and emotions. The visual representation of the characters, their appearances, and their surroundings can shape viewers' initial impressions and judgments. The costumes, set designs, and overall visual aesthetic contribute to the characterization and world-building. In summary, both the novel and film mediums offer distinct ways to portray and shape the perception of characters, they are both powerful in creating engaging and relatable characters. The novel allows for a deep exploration of characters' thoughts and inner worlds, while the film utilizes visual and auditory elements to bring characters to life and evoke emotional responses from viewers. Ultimately, both mediums contribute to the overall storytelling and impact how readers and viewers perceive and connect with the characters in *Goddess in the Machine* and *Oxygen*.

Both works explore themes related to identity crisis, physical struggles, memory fragmentation, alienation, and the portrayal of future technology. In *Goddess in the Machine*, Andra's awakening from cryosleep leads her on a journey of self-discovery, as she grapples with her identity as a goddess and navigates a world that is unfamiliar and disorienting. The physical challenges she faces, such as sensory disorientation and acclimating to a new environment, mirror her psychological and emotional struggles. The fragmentation of her memories and the nostalgia for her past life contribute to her sense of alienation and longing. The novel also presents a futuristic society where advanced technology, such as cryosleep, nanobots, and artificial intelligence, plays a significant role, with both beneficial and potentially detrimental impacts. Similarly, in the movie *Oxygen*, the protagonist Liz's awakening from cryosleep brings forth themes of identity crisis, physical and psychological struggles, memory fragmentation, and alienation. Liz grapples with fragmented memories and the disorienting nature of her waking life, as she seeks to understand her true identity and past experiences. The physical challenges she faces, such as

being tightly wrapped and restrained in the cryopod, reflect her psychological state of isolation and helplessness. The portrayal of advanced technologies, such as memory transfer, artificial intelligence, cryopods, cloning and space travel to a new planet further emphasizes the futuristic setting and the complexities of navigating a world shaped by advanced technology. Overall, both works delve into the complexities of human experiences, exploring the impact of advanced technology on identity, physical well-being, memory, and the sense of belonging. These themes serve to engage the audience in thought provoking discussions about the potential consequences and ethical dilemmas associated with the rapid advancements of technology in our own world.

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