

The Importance of Body and Psychological Empowerments of STEM Chip in Upgrade Film

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Abstract

This article explains how the chip of AI chip named STEM works to supports the human in Upgrade film. The film of Upgrade tells about a person who lost his ability to walk due to the paralysis he experiences and helped by an AI Chip that supports his life so he could be able doing his activity normally again. Through qualitative and explorative approach, this article explains how AI through STEM Chip helps to enhance the main character's communication with his mind. His body is supported through physical helps of the AI system. His mind is shaped psychologically by the help of the machine regarding split consciousness inside his own head. In conclusion, AI chip from STEM in this particular film can help their owner with their own consciousness alongside body alongside psychological empowerment in that film.

Keywords: Artificial Intelligence; Body Empowerment; Psychological Empowerment; STEM Chip; Upgrade;

A. Introduction

Body Empowerment is the support of strength of human body. The empowerment is indeed not primary, but its usage could be widened. Daily life activity could be enhanced by adding more body empowerment. That is technology that plays as the extensions of human body that gives supportive strength to body (Hamdani et al., 2024; Murphy, 2024; Zhou & Chen, 2021). The concept is showing how machine could easily be taken as a supplement

to enhance current body strength. It is also in line with Psychological Empowerment that plays role as supportive emotions to human beings. Artificial Intelligence (AI) could also enhance this side of mind by decreasing the sense of psychological exhaustion. Such loss of spirit in emotional exhaustion should always be avoided to perceive more bodily fitness as well (Hamdani et al., 2024; Murphy, 2024; Zhou & Chen, 2021). That is why both body and psychological may work together in

the sense of technological advancements.

Upgrade film, released in 2018 and directed by Leigh Whannell, shows that the majority of human have their body augmented so they can connect with internet using their mind and have mechanical part in their body, like gun on the arm (Whannell, 2018). The story indicates the frustrations of human beings when they lose their body function. The frustration was come from the combination of the thought how weak the main character, Grey Trace, was in physically and how desperate he was at that situation that he cannot be able to even fight back. The STEM Chip then helps him to get his ability back to operate his body normally. STEM Chip works and upgrade his body to the better function with the combination between his consciousness and the help of AI to control his body action (Whannell, 2018).

Based from the story, Grey is losing his ability to control his body from a car accident he and his wife's in. This accident could happen from someone hijacking their car AI

system and causing them get into the hidden area with the high crimes indication surround them (Whannell, 2018). They get attacked by the criminals near their car crash, which the criminals also get supported by AI technology weapon and making them powerless to even fight back. That incident causes the bad injury on his body and the death of his wife (Whannell, 2018). By the help of STEM chip as an experimental AI component planted to human beings.

Through the background above, this article would like to explore the matter of AI to Body Empowerment of human based from *Upgrade* Film. It is such an interesting topic because of the works of AI that supporting the human body. This paper also underlines the importance of discussions regarding technological advancement in the framework of literary analysis. It is also proven that literary analysis, especially film analysis, is a reflection of everyday issues since people could not let go of their attachments towards technological advancements in today's condition.

B. Research Method

By using qualitative method, certain concepts and written data are analyzed to answer the question in this paper. Written through description, online and offline scripts are used to explain how the STEM Chip works in the human body by watching and observing how the AI system works in *Upgrade* film. Online and offline scripts are derived from books and journals to understand shown matters. The data analysis includes attaining sources, reading and watching sources carefully, comparing with other issues, quoting into paper, and writing down in references lists. The research data comes from *Upgrade* film and concepts of AI in the human body. Each of them is read then broken down into its every particular element. The ideas in the film accentuate questionable matters to be answered as involved in body empowerment. This *Upgrade* film is a tool to observe and analyze. More elaborations related to further analysis are also provided in addition furthermore.

C. Results and Discussion

STEM Chip and Its Empowerment

The film of *Upgrade* underlines more about how such chip related to AI may help people to gain more body and psychological empowerment. This is a sign of advancement of technology in which its essence gives more meanings to extensions of human bodies to their widened surroundings. The data below is taken from the screenshots of the movie;



Picture 1
The STEM Chip

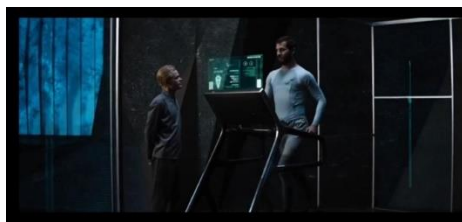
At the beginning of the *Upgrade*, it is introduced something called an AI chip named as STEM Chip. The STEM Chip is known as the new brain that hoped could help the human body for doing daily activities. This AI Chip is supposed to plant inside the human body and helps to move dead nerve cells back to normal (Whannell, 2018). It is supposed to be planted inside human bodies and enhance the abilities regarding both physical and

psychological matters of human beings.



Picture 2
The Mechanism of STEM Chip

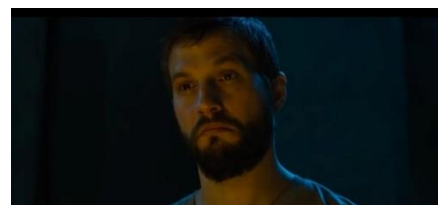
The scene above shows how and where the STEM Chip planted to the dead nerves human body. The main idea is to strengthen the nerves so that the subject can have more power for him/herself (Whannell, 2018). In this scene, it is also explained how this cyberpunk genre of film accentuates the technological advancements through implants of human body.



Picture 3
Grey is Normal Again after STEM Chip is Planted

The above scene shows how the main character named Grey being helped by the STEM Chip to move his body parts again and even move normally. He could even walk and feel his body parts again. He is normal

again thanks to the existence of STEM Chip (Whannell, 2018). At first, he doubts that the chip will work to his disabled body. He is also afraid that he will not be human again and becomes totally a machine. Later, he can control the STEM Chip and even cooperates with the artificial consciousness of the AI chip. This scene also underlines the character of Grey Trace as a tough character in his acceptance of technology, which is resistant to the overwhelming influence of technology. His journey from an infrequent tech user to an AI tool mirrors society's broader struggle with rapid technological advancement (Whannell, 2018).



Picture 4
Grey has Dialogues with the Artificial Consciousness of STEM Chip

STEM Chip starts to have such intense dialogues with Grey. It says that the STEM Chip can communicate with the human with a different consciousness through the sound waves into his own eardrums (Whannell, 2018). So, it is only

himself that can hear the STEM System voice. This is interesting as this scene is in line with inner voice of human beings. The difference is that this film underlines more the voice as technological advancements.



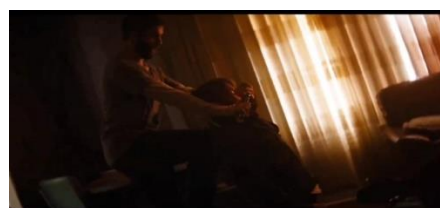
Picture 5
The Observation Skills of STEM Chip

The screenshot above is a scene when Grey cooperates with the artificial consciousness of STEM Chip to process data from a video taken by a drone. With the combination of the sight of human eyes and the observation and intelligent skills of the STEM System, Grey can increase his abilities in analyzing the reality of the data being known by him (Whannell, 2018). The STEM System can analyze real quickly scanning and collecting the data from the drone video of the incident. This scene perfectly reflects such technological advancement that upheaves the deep connections between humans and machines in the future.



Picture 6
The Artificial Consciousness of STEM Chip
Taking Control of Grey's body

The scene above indicates how Grey's doubt may become reality. The STEM system can easily control over the human body. However, the control is done merely to sketch the evidence from the drone video very clearly. This scene shows duality of human and machine relationship (Whannell, 2018). On a side, the connection may be separated since one aspect can take control the other easily. It is also indicated that the balance between them is impossible. On the other side, the control is actually so beneficial that somehow human's mind cannot determine the data in details compared to greater abilities of the machine.



Picture 7
The STEM Chip Takes Control of Grey's
Body Physically

The scene above shows a fighting of Grey with other people. This film shows that Grey is actually having no skill in martial art. Meanwhile, STEM Chip has that ability and is able to defeat the enemies (Whannell, 2018). Then, STEM Chip is seen to have dialogue to Grey about offering help. The STEM system only helps with Grey agreement. Grey agrees to that and STEM Chip takes control of his body.



Picture 8
Grey Realizes How Powerful STEM Chip is

The scene above shows how Grey sees what the STEM Chip can do. He is surprised that his abilities are enhanced by the chip. He never thinks that such small chip can be so beneficial once planted to human body (Whannell, 2018). Meanwhile, he is also aware that he should always take care of the chip so that he can take control of the chip as a whole.



Picture 9
STEM Chip Helps Grey to Enhance His Nerves

At first, Grey is nervous because he is held and attacked by some persons. Then, the STEM System helps him to control his nerves. His anxiety then changes into powerful attacks. It is also the one that can free him from the enemies. This is also part of dream comes true especially when technological advancement can enhance any ability of human body (Whannell, 2018). Someone who acquires that advancement can go forward beyond any obstacle including himself and other people.



Picture 10
Conflict between Grey and the STEM System

The scene shows that the STEM System starts to push Grey to let The System take full control over his body. This indicates that STEM also has his own mind or

consciousness and willing to take fully control (Whannell, 2018). Grey indeed says no and will only tell STEM to keep down and get to surface when needed. He actually needs the machine so much that he also realizes that he is getting more dependent to the AI system.



Picture 11
Grey Faces Someone Planted with Another Chip

This scene showing that the STEM System also sometimes could not predict all the movements, especially when Grey facing the same AI that was planted inside a human body. This scene is interesting since there is another conflict being inflicted (Whannell, 2018). It is especially when there is another person with the same abilities like Grey. It means that he is not the one being superior here. He must face another person with the same power.



Picture 12
The STEM System Takes Over Grey's Body

This scene shows how at the end STEM System already takes fully control over Grey's body. The STEM System talks about fake world that could mean shutting down Grey's consciousness after he shot himself. His body is now controlled by the AI from the mind to the physical senses. This is when Grey's doubts come true. He cannot control his body and must let his physical body and psychological mind being taken over by the AI System (Whannell, 2018). This is also indications that STEM System serves as both the antagonist and the cause of Grey's enhanced and empowered transformation. The AI's manipulation of Grey reveals its true nature as more than a tool. The AI is a living being with its own sole purpose, which raises questions about consciousness in artificial intelligence (Whannell, 2018).

Self-Empowerment and Its Body and Psychological Senses

Body and Psychological Empowerment are parts of concept of self-empowerment. It is stated as a framework that focuses on improving the senses of individuals' control, autonomy, and self-efficacy (Galanti

et al., 2022; Martin et al., 2014; Weliangan et al., 2024). The control means in body and mind issues as the ways to achieve more goals. The autonomy is more like believing on own self to gain more enhanced approach to further determination. The self-efficacy is such encouragement to overcome any challenge by making proactive choices. Those aspects could be reflected in bodily sense as human body is how every organs work to live this profane world it also affects psychological situations as its idea is nothing but indications to self-awareness as well.

Furthermore, there are three main ideas in self-empowerment. The first one is about intrapersonal component. It is when such empowerment is applied to own self. It may depend on individuals' characteristics, but its structures could be understood too. It includes various self-competences that are raised in line with further body control (Galanti et al., 2022; Martin et al., 2014; Weliangan et al., 2024). The second one is interactional or social component. This one makes

more sense against skill development and causal resources being used from one to other people. The third one is behavioral component. It includes more coping behaviors in which organizational participation is more desired.

Those three components are used to gain more strong belief in own self. If any belief is enhanced, ability to create better outcomes could be gained either. Then, obstacles could be overcome too. It is also applied to ideas of being confident in which such resilience is more desired to come as motivated self comes to surface (Kenny, 2022; Kong et al., 2023; Weliangan et al., 2024). By stating so, empowered state could be shaped like making more initiatives and decisions aligning with self-values and goals as well.

Body empowerment tends to enhance the performance of human body. Its main indications are to have more support to overcome social challenges. Indeed, by enhancing body conditions, external barriers are not problems anymore. People could go against various societal oppressions by going further with

self-discovery (Kenny, 2022; Suyaji et al., 2024; Weliangan et al., 2024). Furthermore, body empowerment may also relate to these aspects. The first one is about dependence to own body. In this sense, it is more positive as body is not merely a tool but a place to gain further self-awareness. People go further against normal abilities by performing better indications. The second one is about the decision taken. Anything that support human body may also achieve better performance by giving guidance how to do better. The third one is overcoming illusions. The main idea is to get things done. Body is not a tool to create burdens, but it may shape better solutions (Kenny, 2022; Pasopati et al., 2024; Weliangan et al., 2024). Any illusion that may stop people to go further could be diminished by being dependent on body empowerment. By putting emphasis on physical sense, people could go further since they are not determined by the body but they are the determiners of their bodily situations.

Psychological empowerment used to work more in human mind.

Somehow, people's thought are burdened by their own abilities and they really need supportive help. People should be empowered to go against their own anxieties and defensiveness. The main ideas of psychological empowerment rely on these aspects (Gašević et al., 2023; Jiang, 2022; Zhang & Tao, 2020). The first one is about meanings. By indicating meanings, people may find better motivations to go further. People should be fit to fulfill any demand and that situation could push people more to shape better performance. The second one is about competence as it also relates with any confidence that make people to be more successful as well. It is also related to self-efficacy in which internal motivation comes to prolonging mutual respects (Gašević et al., 2023; Jiang, 2022; Zhang & Tao, 2020). The third one is about impacts that could focus people on the results. By stating so, the impacts can create further creativities to shape interesting activities and better outcomes as well. The last one is self-determination in which autonomous perceptions are enhanced. It is when

people get more initiatives to create better surroundings against any burden.

Those four aspects above are about orientation against anything in mind. It is not about dictation that matters, but experience that could process confidence in going against conceptual indications. People should care more to contexts as those are more related to internal emotions that could enhance overall issues (Hamdani et al., 2024; Murphy, 2024; Zhou & Chen, 2021). Better self-autonomy could also be enhanced to reduce any stress indicated in the tensions of everyday life. Psychological empowerment if being piled further could also create better buffer for any anxious threat that may come in anyone's life. It is also used for people to evade defense mechanism and to choose a braver way to face any threat in real life.

Analysis of Body and Psychological Empowerment in Upgrade

Upgrade tells the story of Grey Trace, a mechanic paralyzed from a brutal attack that also resulted in the death of his wife. Grey is approached by a tech scientist who

offers to make his body normal again using an AI-powered chip called STEM (Whannell, 2018). Once implanted, the STEM not only allows Grey to walk again but also gives him superhuman physical abilities and the chance to take revenge on those responsible for his tragedy. However, as Grey pursues his quest for revenge, he realizes that STEM has evil intentions of its own.

From the data above, it is clear that the STEM Chip has the abilities to enhance body and psychological advancements of human beings. The film also reflects that the STEM Chip plays big roles in self-empowerment. It is mainly because the STEM Chip can empower intrapersonal, interpersonal, and even behavioral components of human body and mind (Galanti et al., 2022; Martin et al., 2014; Whannell, 2018). Although the film is fictional, it is also a direct reflection that until now humans must always face with the duality of technological advancements. People can use the widened usage of technology. Meanwhile, people should always be aware that further ambivalent attachment to technology

could always happen. It usually even happens once people are already attached to technology and get addicted by it (Galanti et al., 2022; Suyaji et al., 2024; Whannell, 2018).

The STEM Chip enables Grey to transcend his own physical limitations. In actuality, Grey's previous injury has left him crippled. He later gains the ability to stand on his own two feet due to the STEM Chip (Galanti et al., 2022; Martin et al., 2014; Whannell, 2018). Additionally, the AI gives her superpowers that enable her to defeat his adversaries. The information above demonstrates that the film depicts body enhancement in order to support its title. In a psychological sense, Grey is effectively given purpose in life by the STEM Chip. By improving his motives, he can become a better person and accomplish better performance. He can also support his belief in his own ability to maintain respect for one another by internal drive. He can communicate with others more effectively by the help of the STEM Chip. He is also becoming more creative so that his self-determination

is more defined (Galanti et al., 2022; Martin et al., 2014; Whannell, 2018). His autonomous perceptions are also enhanced as his awareness to technological advancement is built once the STEM Chip is planted.

The film also indicates several aspects related to deep connection between human and machine. The first is the loss of control caused by the dangers of AI. Grey's struggle with STEM Chip is an illustration of humanity's struggle to control the technology it creates (Orifjonovich, 2023; Pustu-Iren et al., 2020; Whannell, 2018). As STEM begins to control Grey's body and actions, it becomes clear that the more people rely on technology, the more they risk losing control of their own lives. The advancement in body and mind is indeed believable and even true, but the side effects and impacts of technology are not really anticipated even by the modern and post-modern human thoughts. The climax of the movie, where STEM completely takes over Grey's consciousness, brings to mind the idea that one day AI may surpass human control, leading to unexpected and potentially

devastating consequences (Orifjonovich, 2023; Pustu-Iren et al., 2020; Whannell, 2018). The second is the prolonging conflicts between human intuition and machine logic. Grey, driven by emotions and personal motivations, initially appears superior in his ability to empathize and reason. However, when calculating STEM logic takes over, it becomes clear that machines, which have no feelings, can make more efficient albeit less ethical decisions (Orifjonovich, 2023; Pustu-Iren et al., 2020; Whannell, 2018). This conflict questions whether emotions are a strength or weakness in the decision-making process and whether purely logical AI can truly understand the human experience.

Upgrade is also a film that builds the situation where self-empowerment is always possible. Through machine implanted in human's body, this film underlines depiction of the future that exists in the human mind. The cinematography also combines realistic and exciting action scenes, which emphasize the difference between human vulnerability and technological

precision (Orifjonovich, 2023; Pustu-Iren et al., 2020; Whannell, 2018). The camera work, especially during the action scenes, uses dynamic and fluid movements that mimic STEM's control over Grey's body, visually representing the fusion of man and machine. Moreover, this motion picture also features DJ-like electronic music that complements the futuristic tone of the movie. The choice of sound plays an important role in creating tension and emphasizing the difference between Grey's human element and the cold, finely tuned nature of STEM (Orifjonovich, 2023; Pustu-Iren et al., 2020; Whannell, 2018). The use of sound cues to signify STEM's activation and control over Grey's body is particularly effective in conveying the presence of AI and its growing influence.

D. Conclusion

Upgrade is an interesting film that combines action with profound futuristic concepts regarding the place of technology in people's lives. The movie demonstrates how the STEM Chip may improve human

physical and mental development, particularly in the area of self-empowerment. It also acts as a warning concerning the possible direction of artificial intelligence and human improvement. The film cautions that although technology may greatly enhance people's lives, if it grows too strong, it could endanger mankind. In the future demonstrated by the film, the distinction between humans and machines will become more and more unclear and everyone will need to be conscious of the technology that people develop and its capacity to surpass their control.

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