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COGNITIVE PROSTHESIS AND POSSIBILITIES OF TECHNOLOGICAL SINGULARITY IN POST-HUMAN SOCIETY DELINEATED IN WILLIAM GIBSON'S WRITING

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Abstract:

Technological singularity is one of the most debated topics of the Anthropocene era. It denotes uncontrollable and non-reversible growth of a technology, especially Artificial Intelligence and the domination and control over post-humans by sentient Artificial Intelligence. Ray Kurzweil one of the leading futurologist of the 21st century and prominent figure in the prediction of future possibilities of Artificial Intelligence in upcoming future. He represents very positive view of the exponential possibilities and believes that the singularity will multiply our effective intelligence by billion folds. William Gibson's cyberpunk Science Fiction represent exactly antithesis of Kurzweil's optimistic views of the technological singularity. His novels represent the post-humans as a pawn or agent for AIs like Wintermute, Neuromancer, Idoru, and Voodoo (the fracture remains of AIs). These AIs represents the Technological Singularity and uses almost every character to carry out its plan. His work represents exponential possibilities as inevitability for the survival post-humans rather than improving the intelligence. The exponential cognitive prosthesis used by the post-humans such as Turner, Molly, Angela and other. The AIs offers this prosthesis for its evolutionary improvement and advancement rather than to improve the intelligence of the post-humans. Exactly opposite to Ray Kurzweil's optimistic view of exponential possibilities, William Gibson represents perilous possibilities of artificial intelligence which uses post-humans as exponential aid and erases the existence of the entity that try to surpass the AIs.

Key Words: *Posthuman, artificial intelligence, cognitive prosthesis, optimistic views,*

Our intuition about the future is linear. But the reality of information technology is exponential, and that makes a profound difference. If I take 30 steps linearly, I get to 30. If I take 30 steps exponentially, I get to a billion - Ray Kurzweil (Forbes' Interview)

I have set the date 2045 for the 'Singularity' which is when we will multiply our effective intelligence a billion folds by merging with the intelligence we have created (Ray Kurzweil. *The Singularity Is Near: When Humans Transcend Biology* (2005).

The word 'singularity' used in mathematical subjects to show mathematical singularity. Later on, it is evident in Astrophysics and applied to the theory of "Black Hole" where there is no gravity, no rules of Physics work; in today's post-human Anthropocene era, the term denotes the possibilities of AI in the future. The term 'technological singularity' nowadays applied to AIs, which become sentient of its existence. The sentient AIs become self-aware and develop themselves beyond human apprehension. Therefore, the development of AIs is like a runaway train that gets out of control of human being.

Ray Kurzweil, one of the leading futurologists of 21st century and prominent figure in the prediction of AIs in his well-known book *The Singularity is Near: When Humans Transcend Biology* (2005), it is divided into six epochs representing different phases of development of technology believe that AIs will turn out to be savior in the 21st century rather than Satan.

“The Merger of Human Technology with Human Intelligence will result from the merger of the vast knowledge embedded in our own brains with the vastly greater capacity, speed, and knowledge-sharing ability of our technology... We will preserve and enhance the intelligence that evolution has bestowed on us while overcoming the profound limitations of biological evolution.”(Kurzweil 28)

For the future of human being he represents an optimistic view of technological singularity. So singularity is not a perilous futurity but emancipating: emancipating human beings from the limitations imposed from the biological evolution.

William Gibson, one of the prominent writers of science fiction and cyberpunk literature. His work represents cyberspace, matrix and virtual existence and replete with representation of artificial intelligence and technical singularity in post-human society. Moreover his work represent merger of the posthuman technology with posthuman intelligent technologies. The merger of super advanced cognitive technology represented in William Gibson's work is compulsive rather than emancipatory. The cognitive prosthesis in the post-human world can be seen as inevitable for the post human to survive and serve in the world of AI dominance. Which eventually turns out technological singularity?

Wintermute and its sub-program Neuromancer represent the Technological Singularity in Gibson's Sprawl trilogy. These two AIs try to unite in the matrix and for their union they use different agents as pawn. The agents remain oblivious of the real intentions of the omnipotent AI, who know future and has ability to bring the future on its will.

“Wintermute. How he played a waiting game for years... He saw somebody lose this key twenty years ago, and he managed to get somebody else to leave it here” (Neuromancer 180)

Turner, the mercenary, most of the body parts implanted after fatal bomb attack. He is the representative of the post-human implanted which cognitive prosthesis in the technological singularity of Wintermute. He had implanted almost a dozen of sockets into his head, which are used to insert chips of containing knowledge of various learning. Such as flying a jet or learn Spanish language.

“Among the dozen-odd Microsoft the Dutchman had given him was one that would allow a limited fluency in Spanish,... he'd fumbled behind his left ear and inserted a dust plug instead, hiding the socket and plug beneath a square of flesh-tone micro pore.” (Count Zero 3)

His implants enhance ability beyond human limitations. He inserts a chip according to the situation demands.

Likewise, Turner, the cat-like Molly Millions represent post-human with cognitive prosthesis implant. She has implanted glasses that have been inset - inserted into the bone of her skull. There are amps too, can increase her night vision, there is also read out inside the goggles so she can read any feedback from the cyberspace. Her use of the prosthesis can be called as emancipatory as well as empowering tool in the male dominated post-human world. For equating her physical power with men she has implanted retractable blades into the hands.

Apart from all post-human characters, that use cognitive prosthesis is AngelaMichelle's prosthesis is the most subtle and descriptive implant. Daughter of famous scientist Christopher Mitchell, she is implanted with unique biosoft that remain invisible in body scan. The biosoft enable Angela to connect the cyberspace directly without the use of cyberspace deck. In short, her brain becomes part of the cyberspace matrix. She is the only one through which the 'Voodoo' make there manifestation. The voodoo is just manifestation of the fracture remains of Wintermute and Neuromancer.

In the post-human society of William Gibson's creative work there is no segregation of those use technology those who don't. The cognitive prosthesis is not limited to any class but widespread used. Prior the theft of Dixie Flatline she observes the men at the security at the library "they all seemed to have carbon socket painted behind the left ear" (Neuromancer 47). These men clearly understand that Molly is connected to Case through the Flip-flop switch during the theft of Dixie Flatline the man at counter insert

microchip,

“His hand hovered, selected a glossy black chip that was slightly longer than the rest, and inserted it smoothly into his head. His eyes narrowed. Molly's got a rider,' he said” (Neuromancer 148)

There are external cognitive prosthesis represented in Gibson's work such as Dossier and Aleph: Aleph is an external cognitive prosthesis, which is approximation of the cyberspace “Alepha mother-huge Microsoft; he thought the slab was a single solid lump of biochip. If that was true, the thing's storage capacity was virtually infinite. It is used by Count Zero (Bobby Newmark) to remain inside the aleph. It is an overhead device containing all the information in the cyberspace” (Mona Lisa Overdrive 114). According to the gentry "He could have an approximation of everything” (Mona Lisa Overdrive 148)

Dossier is a small biochip compilation of all the experiences of Christopher Michelle. It is a compilation work of Mass security artificial intelligence. It is accessible those who possess it, Angela Mitchell access eat for many time like Turner.

Ray Kurzweil has very optimistic view of the emergent post-human AI; whether the merger of super advanced Artificial Intelligent technology and post-humans will improve the human intelligence in the million folds (as earlier mentioned in epigraph) or go million folds ahead of the human evolution? William Gibson's creative work represent human and technological merger as offered by the AIs for its own advancement —Wintermute to unite with Neuromancer— and not for diminishing “evolutionary pressure” and as an aid “to make some sort of 'jump.' 'Jump was his word.” An evolutionary jump”. (Count Zero 139). Josef Virek is epitome of the previously mentioned outlook about the possibilities of AI in post-human future. He tries to go beyond evolutionary human limitation by using the biosoft created by Mitchell.

Virek had turned to stare at the dying flowers. "What is -" ... The child spun, the little pistol blurring ... And crumpled, folded into himself like a deflating balloon... "My name," a voice said... "is Samedì , and you have slain my cousin's horse ... "(Count zero 232-33)

The Voodoos (AIs) in the Cyberspace blur Virek's existence turn his existence into dust, such result is inevitable for those who try to equate AI's supreme position, and it is one of the recurring themes in the William Gibson's writing. He made it clear in his Du Pont's interview his novel does not depict “what lies on the other side” of a technological 'Singularity” because “what lies on the other side of a black hole” is “unknowable”.

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