

The Developing Relationship of Humankind and Technology

In Brave New World and Neuromancer

BA Thesis English Language and Culture, Utrecht University

Erik van Dijk

3031624

Dr. Roselinde Supheert

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Introduction

“Our predecessors endeavoured to make men into machines; we are endeavouring to make machines into men.” (Jerningham, n.p.)

At the height of the industrial revolution, humankind used technology to invent all manner of helpful machines to make life easier, like the automobile. Over the last century technological progress has speeded up and taken an interesting turn. Whereas technology was initially used to produce utilitarian objects, innovations such as computers, cell phones and forms of artificial intelligence have changed the way people look at technology. The incorporation of technology which aids mankind in daily life, such as hearing aids and pacemakers, has made the gap between humans and technology very narrow. Instead of solely and mindlessly serving a purpose, some technological inventions are seen as anthropomorphous. For instance, many people call their cell-phone their ‘baby’ or speak about their computer or car as if it is a person. Because of this trend of anthropomorphisation, people have started to attribute emotional and psychological value to technological objects. An example of this can be seen in the recent film *Her* (2013), in which the main character falls in love with the personality of an operating system (Jonze). This shift in paradigm means that the relationship between humankind and technology in everyday life has changed from utilitarian to something else. This paradigm shift regarding technology in real life also entailed a change in the relationship humankind has with technology in literature.

Within the field of technological progress much has already been written on the subject of the morality and politics of technology. Popular subjects are religion and technology, the influence of technology on societal development¹ or the ways in which technology influences the creation and uses of literature². However, almost nothing has been written on the change in the way that humankind interacts with technology in 20th century literature. In this paper, that relationship will be discussed. More precisely, this paper will focus on the way in which humankind and technology

¹ See Nolan and Lenski.

² See Kraemer.

interact in two novels: *Brave New World* (1932) by Aldous Huxley and *Neuromancer* (1984) by William Gibson. The main reason for choosing these two specific novels is their status as founders of their respective genres (Brown 3, McCaffery and Gibson 217). Both novels are influential works written by acclaimed authors and the plots of the novels rely heavily on the relationship between humankind and technology. Because the plots of both novels are based in the future, they serve as an insight not only into the nature of the relationship humankind had with technology back in the time when the novel was written, but also into the expected development of that relationship based on the available technological knowledge of that time. Research has been done on these novels in other regards such as the narrative construction in *Neuromancer* (Punday) and the manner in which technological advances influence the human condition in both novels (Geller, Siivonen). However, the nature of the relationship between mankind and technology has only been touched upon in a manner practical to the research subjects in these papers and has not been regarded as a subject in itself. Therefore this paper will add new information to the field of literary research and will further insight into the work of both Huxley and Gibson.

To be able to describe the relationship between humankind and technology in these novels it must first be made clear what definition of the word technology this paper adheres to. The definition used in this paper is the most current one, coined in the mid-20th century, as found in the *Encyclopaedia Britannica*. "Technology: the application of scientific knowledge to the practical aims of human life or, as it is sometimes phrased, to the change and manipulation of the human environment." ("technology" n.p.) This definition is applicable to both novels in the sense that technology is used in both books to alter human life, literally and figuratively.

This paper will argue that the relationship between humankind and technology as described in the two novels analysed has changed from mechanical to psychological. A close reading and comparative analysis of the manner in which the novels *Brave New World* and *Neuromancer* portray this relationship will be the research method. This analysis will cover three important aspects:

identity, interaction and dependence. These aspects all play a pivotal role in clarifying the nature of the relationship between humankind and technology in the novels. The *OED* defines identity as “sameness of a person or thing at all times or in all circumstances; the condition of being a single individual; the fact that a person or thing is itself and not something else; individuality, personality”. (“identity, n.”) This means that if the relationship between humankind and technology in literature is to be examined, firstly their identities have to be determined. If the relationship between humankind and technology changes from mechanical to psychological, a change in the identity of technology is likely as well. Secondly, interaction is the next most important aspect of the relationship between humankind and machine. The manner in which humankind and technology interact in the novels will also be affected by a shift from mechanical to psychological. Lastly, dependence is a concept that is closely related to freedom and manipulation. The balance of dependence between humankind and technology is an important factor in determining the nature of their relationship.

The first chapter of this paper will give a short overview of the setting and story of *Brave New World* and will then analyse the relationship between humankind and technology in the story following the aspects mentioned above. The second chapter will do the same for *Neuromancer*. The conclusion will recapitulate the findings of both analyses and provide suggestions for further research.

Chapter 1 Brave New World

Setting

In a letter written in 1931 Aldous Huxley states: "I am writing a novel about the future — on the horror of the Wellsian Utopia and a revolt against it. Very difficult. I have hardly enough imagination to deal with such a subject. But it is none the less interesting work" ("Letters" 348). Initially a parody on a number of utopian novels written by H.G. Wells (Meckier, 2), Huxley found that the idea of a negative utopia engrossed him so that he decided to make the parody text into a dystopian novel to show the darker side of technological advance. According to Edward Brown, *Brave New World* is considered one of the founding novels in the dystopian genre (Brown 3). Huxley's *Brave New World* reflects "the public anxieties about the supposedly degenerating hereditary quality of the population and how this decline would affect England's economic and political future" (Woiak 106). During the inter-war period, the idea of so-called race betterment found great traction among left-leaning British intellectuals. Huxley was also a proponent of this idea, but at the same time he was wary that it could backfire catastrophically if executed incorrectly. With this in mind Huxley wrote *Brave New World* as a multi-faceted novel. As Woiak states: "It was simultaneously a satire on contemporary culture, a prediction of biological advances, a commentary on the social roles of science and scientists, and a plan for reforming society." (106)

Huxley based his novel on a number of trends and innovations that were disturbing him at the time (Meckier, 2). He based names and technological inventions in *Brave New World* on then prominent people and innovations. For example, the era is indicated is by the abbreviation A.F, meaning After Ford. This is a reference to the industrialist and founder of Ford Motor Company: Henry Ford. Ford became popular and famous for implementing the concept of an assembly line as a manner of production ("Henry Ford", n.p.) and is hailed as a messiah in *Brave New World*. Another good example of this are the "feelies." As Frost puts it: "The "feelies", a cinema of titillating,

pansensual stimulation, are clearly a response to the "talkies," as Huxley extends the innovation of synchronized sound to include all the senses." (447)

Story

The story of *Brave New World* is set in a dystopian future where the world is controlled by a totalitarian regime known as the World State. The World State consists of a group of ten World Controllers who use technological advances to keep the world population regulated. Through a combination of technological advances, the World State ensures stability for the human race. Society is divided into social castes with names ranging from Alpha to Epsilon. The first part of the story is told from the viewpoint of one of the protagonists, Bernard Marx³, an Alpha who works at the Psychology Bureau in London as a hypnopaedia specialist. Bernard differs from the other Alphas, his posture is not as grand as that of regular Alphas, making him feel like an outcast. Bernard is secretly in love with Lenina⁴, who works at the hatchery. Bernard asks Lenina out on a date to a savage reservation in New Mexico, which is a place where people still live in tribes and have religion. They go to the reservation and meet John. John, an outcast from both the World State and the reservation, is the other protagonist. They persuade John to come back with them.

Because of his strange life on the reservation, John quickly becomes very popular among London's society. Bernard also becomes popular due to being John's discoverer and guardian. In the meantime, John is discovering a 'brave new world' full of technological advances and a culture strange to him. The more John discovers about the rules and ideology of the World State, the more angered and confused he becomes. This anger leads him to start a riot and gets both him and Bernard landed in the office of World Controller Mustapha Mond⁵, where John and Mustapha discuss social stability and the necessary sacrifices to achieve it. Bernard gets exiled and John retreats to a lighthouse in the countryside, hoping to be able to calmly tend to his own affairs and where he also

³ His name is likely an allusion to Karl Marx.

⁴ Her name is likely an allusion to Lenin, as Lenin and Marx were bound together in real life as well.

⁵ Mond is another word for world, making his name very appropriate.

punishes himself for his sins by self-flagellation. Unfortunately, people catch wind of this and droves of people visit the lighthouse and demand that John whips himself. Lenina comes to John with her arms open, hoping to calm him. Instead this gesture sends him into a fury, whipping her to death. This provokes a conditioned response to avoid intense situations from the crowd and they start an orgy. After participating in this orgy and thus submitting his will to the World State, John is so angry and ashamed that he hangs himself.

Identity

“He quoted the planetary motto. “Community, Identity, Stability.” Grand words.” (Huxley 7)

In *Brave New World*, the World State has declared that the only way to maintain social stability is to put the good of the community before the good of the individual. This changes the way identity is viewed in many respects. Technological progress has replaced conceiving children in the traditional sense by mass-producing embryos and hatching them in a controlled environment, reminiscent of an assembly line. The mass-production of embryos is achieved by utilising Bokanovsky’s Process (Huxley 6). This process is described as follows: “One egg, one embryo, one adult-normality. But a bakanovskified egg will bud, will proliferate, will divide. From eight to ninety-six buds, and every bud will grow into a perfectly formed embryo, and every embryo into a full-sized adult. Making ninety-six human beings grow where only one grew before.” (Huxley 7) Due to the mass production of embryos via technology, people grow up in groups of 96, which in itself seems to void the concept of individuality and promotes community as the greater good. It could be argued that creating big groups of identical siblings creates a stronger sense of identity because there is a group of 95 identical siblings to identify with. This is exactly what the Director of the Hatchery implies: ““Ninety-six identical twins working ninety-six identical machines!” The voice was almost tremulous with enthusiasm. “You really know where you are. For the first time in history”” (Huxley 7). This feeds directly into the World State propaganda, which is centred around the community instead of the

individual, as the epigraph of this chapter illustrates. The community you are placed in defines your identity, as ordained by the World State.

To create this community, the embryos are placed in different castes according to a stratification system. This system divides mankind into 5 castes, ranging from Alpha to Epsilon, which carries over in the quality of their physical and mental traits. Especially the development of the Epsilons, who make up the lowest caste and are cloned with physical and mental defects which enable them to work menial jobs but do not allow capability for much else, indicates the level of efficiency in production and “the total sacrifice of individual interests to the interests of the mechanized community” (Huxley, *Machinery*, unknown). After placement in the castes, the children are prepared for their role in society through the use of hypnopaedic phrases and what Huxley calls “Neo-Pavlovian conditioning” (Huxley 15). This behaviourist system of rewards for good behaviour and punishments for bad behaviour teaches children their place in society and defines their likes and dislikes. An example of this conditioning is an experiment in which small children are sat down in a room containing books and flowers. As soon as the children are all happily exploring the objects, a switch is flicked and a combination of noise and shock therapy is applied to make them associate negative feelings and thoughts with the books and the flowers (Huxley 15-16). The hypnopaedic phrases that are repeated to the children by machines when they sleep are meant to reinforce and complete the worldview which the World State has chosen for them. The Director explains the effects of the process to a group of students visiting the Hatchery:

“Till at last the child’s mind is these suggestions, and the sum of the suggestions is the child’s mind. And not the child’s mind only. The adult’s mind too-all his life long. The mind that judges and desires and decides- made up of these suggestions. But all these suggestions are our suggestions!” The Director almost shouted in his triumph. “Suggestions from the State.” (Huxley 21)

Personal identity is not the only identity that was altered to make the World State function in a stable fashion. The fourth chapter of *Brave New World* tells how the World State was founded after

war and economic collapse ravaged the planet. Eager for order and stability, people thought the World State would bring the answer to their search of a new identity. When the initial plans for a revival of society included obligated consumerism to spark the economy, people protested. When violent attempts to convince people of the value of their new system failed, the World State decided to employ technology to subvert the general populace into supporting their view of a stable world. Through a combination of indoctrination, the destruction of all remainders of old culture and religion and the introduction of the drug soma a more positive public opinion regarding the World State came into being and a new identity was created for society. One where emotions and critical thinking were frowned upon, based solely on doing and consuming (Huxley 33-38). Humankind has been made into machine.

It is clear that science and technology were important tools when rebuilding society, yet science is also considered dangerous in *Brave New World*. World Controller Mustapha Mond explains that: “Every change is a menace to stability. That’s another reason why we’re so chary of applying new inventions. Every discovery in pure science is potentially subversive; even science must sometimes be treated as a possible enemy” (Huxley 154). This suggests that after the great success in rebuilding the world aided by new technologies, technological progress has been halted to ensure the stable continuation of the World State. It then follows that, even though science and industrialism are revered almost religiously, this adoration is nothing more than a hollow gesture. Humankind and technology are both tools in the hands of the World State.

Interaction

With no emotions or critical thinking to judge technology, people see machines as mechanical aids to simplify life and make it more comfortable. People use machines without giving them so much as a second thought. That is clarified by Controller Mond: “The machine turns, turns and must keep on turning-for ever. It is death if it stands still. ... Wheels must turn steadily, but cannot turn untended. There must be men to tend them, men as steady as the wheels upon their axles, sane men, obedient

men, stable in contentment. ” (Huxley 31) This explanation shows that the only interest in interaction with technology is based on the continuation and stabilisation of the World State as a whole. This purely practical approach of technology with no regard for the pursuit of knowledge or improvements on machines already in use is typical of the conditioned society maintained by the World Controllers. There is no need for questions or critical thoughts as the way society works has been imprinted into the minds of all people in society through hypnopaedic suggestion. What is also made clear is that interaction with machines only goes one way in *Brave New World*. There is no interaction necessary from the side of the machine, the only requirement is that it functions. Similarly the World State does not require input from its inhabitants but only requires them to work. This is indicative of the purely physical nature of the interactions between people and technology.

It is only when John, the Savage, is brought to London that we get a critical perspective on how society and the technology in it functions. John comes from a reservation where people do not grow up with all the same technological influence and conditioning, giving him a perspective from which he critiques and questions the use of technology in the World State. When John is brought to see a factory in which Bokanovsky groups do all the work, he is taken aback by the strangeness of seeing so many similar people. Feeling confused and unwell, he vomits (107). Then when Lenina takes John to the feelies, John is highly confused as to the use of all the sensory stimulation and tries to focus on the plot of the movie. When asked about this by Lenina, he admits to find the feelies “base” and “ignoble” (113). These examples show how conditioning affects interaction with technology and the results of it. Because Lenina is conditioned to believe her way of life is the only way that makes sense, she questions nothing and just goes through the physical motions of interaction. John is not conditioned this way and sees the Bokanovsky group as an unnatural occurrence which sickens him. The feelies also leave John uncomfortable as he tries to rationalise its use. Lenina does not understand why he is going “out of his way to spoil things” (113), showing that technology is only to be utilised, not rationalised or criticised. It is only when John is confused by certain aspects of life in the World State that this attitude is made so apparent. This attitude furthers

the idea that the relationship between humans and technology is based on the physical usefulness of the technology while disregarding any psychological or emotional aspects of the relationship.

Dependence

Since most interaction between humankind and machine is centred around practical goals, it might seem as if mankind is not psychologically dependent on technology and merely uses it. This is only partly true. According to Geller, "*Brave New World* satirizes the importance society places on individual happiness as being dependent on the immediate satisfaction of desires" (7). People in the World State are conditioned to make full use of all the diversion that technology offers to prevent them from feeling anything too intense. The constant need for *Brave New World's* designer drug soma, which keeps people from feeling or thinking too much and allows them to pass into a state of simpleminded bliss, confirms Geller's statement. For example after Lenina goes to the feelies with John and he leaves her without any physical contact taken place between them, she is disappointed but reverts to soma:

"Drying her eyes, Lenina walked across the roof to the lift. On her way down to the twenty-seventh floor she pulled out her soma bottle. One gramme, she decided, would not be enough; hers had been more than a one-gramme affliction. But if she took two grammes, she ran the risk of not waking up in time to-morrow morning. She compromised and, into her cupped left palm, shook out three half-gramme tablets." (114)

Instead of dealing with her emotions or even recognising them for what they are, she immediately decides to relieve the feeling and slip away into the happy nothingness that is the soma sleep. Seemingly well aware that the drug will numb her senses, Lenina's only problem she has to deal with in this situation is getting the dosage right. Soma is a product of technology and a direct example of a way in which the World State keeps its citizens dependent on technology and its products.

Technology has a dependence on humankind in *Brave New World* as well. Controller Mustapha Mond states: "Wheels must turn steadily, but cannot turn untended." (31). This means that every technological process requires human input through labour, rendering machines powerless without it. Since scientific and technological development has ceased since the founding of the World State to maintain balance in society, none of the machines in use are fully automated. This also ties in with the World State's propaganda about everyone having to do their part and ensures that the populace is occupied with work to keep them from thinking and feeling. As much as mankind needs technology for distraction and industry in *Brave New World*, technology has not developed beyond simple industrial machines and therefore needs constant physical human input to function. The metaphor also represents society requiring input from the World Controllers. Similar to technological progress, civilisation has stopped developing and been stabilised at the founding of the World State. To ensure that society keeps running the course set out by the World State, constant instruction in the form of hypnopaedia and conditioning must be applied as input.

There is one group in society entirely reliant on technology: the World Controllers. If technology were to fail them, they would have no means to physically and mentally control people and to keep society stable. Without the machines to keep people busy and factories to produce soma in *Brave New World*, the World state would not exist the way it does. When Controller Mond encourages people to keep working (Huxley 31), this is partly because they need to be occupied and partly because the World Controllers need the people to keep creating soma and feelies to keep distracting them with. In a respect that makes the World Controllers dependent on two types of machine: the ones they use to keep society busy and the one they turned society into.

Chapter 2 Neuromancer

Setting

Neuromancer was published in 1984 and is William Gibson's first published novel, introducing a new literary subgenre named cyberpunk. *Neuromancer* was the first novel to receive all three of the most prestigious awards available for science fiction literature, the Nebula award, the Hugo award and the Philip K. Dick award (McCaffery and Gibson 217), which establishes both its significance in the science fiction genre and its merit as a literary work. The moniker cyberpunk is based on a combination of two words: cybernetics and punk ("cyberpunk" n.p.). Cybernetics is the science where humankind is enhanced through mechanical implants to heighten bodily functions, creating a combination of human and machine known as a cyborg. Punk is a well-known subculture based on the musical genre punk rock. The major characteristics of the punk subculture are advocacy of individual freedom and rebellion against an established social order. In "An interview with William Gibson", McCaffery asks him what specifically drove him to start writing the book, to which Gibson responds that it was mostly panic. "Neuromancer is fueled by a terrible fear I had of losing the reader's attention. That's why it tries to be a roller-coaster ride, to have a hook on every page." (222). He goes on to explain that he decided to pick ideas that had worked for him in old stories he had written and then combined those ideas into a start for the novel.

Neuromancer seems to benefit from a process Gibson refers to as 'cultural mongrelization' (McCaffery and Gibson 220). This process is a product of postmodern ideology, which has created a generation 'whose tastes are wildly eclectic' (McCaffery and Gibson 220). The promotion of scepticism and deconstruction of rigid ideas that had been embedded in society for a long time inspired people to look beyond the archaic notion of an objective reality and define their own concept of reality. This paradigm shift is responsible for the 'wildly eclectic' (McCaffery and Gibson 220) tastes in cultural and pursuits. To incorporate this way of thinking into his writing, Gibson says that "the trick is to keep your eyes and ears open enough to let all this in, but also somehow to

intuitively recognize what you should let emerge in your work, how effective something might be in a specific context.” (McCaffery and Gibson 220). To indicate how he himself handles postmodern influences, Gibson tells McCaffery:

“... I don't have a sense of writing being divided up into different compartments, and I don't separate literature from the other arts. Fiction, television, music, film all provide material in the form of images and phrases and codes that creep into my writing in ways both deliberate and unconscious.” (220)

This statement can easily be related to the style in which *Neuromancer* is written, since the novel contains a great number of references to pop culture from around that time. The postmodern concept of a relative reality is translated into the concept cyberspace in the novel. Cyberspace is described in *Neuromancer* as: “ a con sensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts . . . A graphic representation of data abstracted from the banks of every computer in the human system.” (31) Cyberspace was a new slang phrase, later used to refer to the internet, which Gibson coined in this novel (Punday 195).

Story

Neuromancer's story is set in a dystopian society in the near future where technology has made great strides and holds influence through an invention called cyberspace. The protagonist, John Dorsett Case, was a skilled console cowboy⁶ who got caught stealing from his employer. As a punishment he was administered a toxin that rendered him incapable of accessing the computer network in cyberspace commonly referred to as the Matrix. Case is situated in Chiba City in Japan. Unemployed, addicted to drugs and suicidal, he is looking for a cure for the toxin in illegal clinics. Case meets Molly Millions, a cybernetically augmented mercenary who works for an ex-military officer named Armitage. Armitage claims he can cure Case from the toxin if he comes to work for him. Eager to start hacking again, Case accepts the offer. Armitage proceeds to cure Case, but as an assurance little sacs

⁶ A phrase Gibson uses in *Neuromancer* instead of computer hacker.

of the toxin are placed in his bloodstream, to be removed if Case finishes his job in time. Case also receives new organs which render him unable to metabolise drugs, ending his drug addiction. Molly and Case grow close and decide to look into Armitage's past. Molly and Case get sent out to recover a module that contains the consciousness of Case's now deceased hacking mentor, Dixie Flatline, who is needed for his hacking expertise. Molly manages to steal the module. The investigation into Armitage's past reveals that he is actually Colonel Willis Corto. Corto was involved in a mission named Screaming Fist where he ended up trapped behind enemy lines and escaped as the sole survivor. Wounded and mutilated, he was medically rebuilt. He was then tricked by a military government official into giving a false statement on what transpired. Realising this, Corto cracked under the weight of the trauma and betrayal, killed the government official and disappeared to reappear later as Armitage.

When following the trail of the investigation into Armitage, Molly and Case find Wintermute, an Artificial Intelligence⁷ which is one half of a super-AI. Forbidden by Turing law, the superAI had to be built as two separate AIs. Wintermute was programmed with a need to merge with his other half named Neuromancer. Incapable of reaching his goal on his own, Wintermute enlists the help of Armitage to recruit a team to complete the merger. Case is instructed to break through the software barriers put in place to keep the AIs apart while another member of the team is to obtain the password which allows the merger of the two AIs. Case attracts the attention of the Turing police, which was created to stop AIs from exceeding their law-imposed limitations, and gets arrested. Wintermute manages to free Case by killing his captors.

Armitage's personality begins to crack and he starts reverting back to Corto. It is then explained that Wintermute convinced Corto that he was Armitage while he was in hospital to use Corto to help with the merger. Corto is himself again and is in agony. Wintermute kills Corto while a team member sabotages the mission by capturing Molly. Case goes to rescue her and meets

⁷ From here on out referred to as AI.

Neuromancer, who traps him in cyberspace with a copy of his murdered Chiba City girlfriend Linda Lee. Case escapes, confronts the traitor and obtains the password to merge the AIs. Wintermute and Neuromancer merge into a superconsciousness and Molly and Case get rewarded for their efforts. Case also gets the poison removed from his bloodstream. Flatline's consciousness is erased at his own request.

Molly leaves Case and Case finds a new girlfriend. He gets his organs replaced and starts using drugs again. He continues hacking and is contacted by the merged AI which tells him that it is finally whole and is now searching for similar AIs. While logged into the Matrix, Case sees the images of Neuromancer, Linda Lee and himself. It is suggested that Neuromancer, having copied Case's personality during the time that he trapped him, did this to allow them to live together forever in the Matrix.

Identity

The concept of identity presented in this novel is very complex. According to Siivonen in his article "Cyborgs and Generic Oxymorons: The Body and Technology in William Gibson's Cyberspace", the introduction of the cyborg, short for cybernetic organism, blurs the normally clear line between the human body and the machine (227). This blending of identities and change in perception of identity itself can be attributed to a trend referred to as "breaking away from anthropocentric idealism" (Pordzik 148). In *Neuromancer*, mankind is no longer regarded as autonomous, but has instead built up a strong connection with technology. An example of this is Case comparing his inability to enter cyberspace to the biblical Fall. His exclusion from paradise, leaving him imprisoned and helpless in his own flesh: "For Case, who'd lived for the bodiless exultation of cyberspace, it was the Fall. In the bars he'd frequented as a cowboy hotshot, the elite stance involved a certain relaxed contempt for the flesh. The body was meat. Case fell into the prison of his own flesh." (Gibson 3) The suggestion that relaxed contempt for the flesh is a stance of the elite signifies the lessened importance of the human

body in the eyes of society. It is spoken of as meat, a phrase used in a derogatory manner throughout the novel.

At the same time, the novel seems intent on identifying characters by their image. The way they look, their jobs, their personalities they exhibit. In many cases it turns out that characters have a hidden identity. An example of this is the character Armitage, who turns out to be a personality engineered by the AI Wintermute to overwrite his original personality, the broken Colonel Corto. With the aim of enlisting assistance in the search for the AI Neuromancer, Wintermute finds Colonel Corto in the hospital recovering from his mission of which he was the sole survivor. Wintermute then proceeds to convince Corto that Corto is actually Armitage. Only at the end of the novel does Corto come back from behind the facade of being Armitage. Corto's reprogramming to the personality of Armitage by an AI suggests that the concept of identity is fluid and changeable in this novel. Another reason the concept of identity has now become more fluid is the fact that mind and body are becoming separated entities in Gibson's world of cyberspace. When jacking into the Matrix, the mind wanders there and leaves the body. This is shown when Case and Molly find the module containing the construct of Dixie Flatline, one of Case's old mentors whose personality was uploaded in the Matrix just before his death. When they return from finding the construct, Case seems set on the opinion that it is just a "hardwired ROM cassette replicating a dead man's skills, obsessions, kneejerk responses" (Gibson 46), which is indeed what it looks like on the outside. When Case meets the construct, it reasons with him and even tells him a joke, displaying at least part of an identity. At the same time, the laughter following the joke "came through as something else, not laughter, but a stab of cold down Case's spine" (Gibson 62). The construct tells him he knows he is dead. He is also unable to feel anything anymore, requesting Case to "erase this goddam thing" (Gibson 62) after his work is done. This request to end his existence shows a level of self-awareness and personality that would not be attributed to a machine in the past. The duality in this construct makes one wonder what exactly makes an identity.

A factor which complicates the matter of identity further is the existence of the AIs Wintermute and Neuromancer. These two parts of a super-AI reflect two different identities, Wintermute programmed to be rational and Neuromancer programmed as a personality. Both AIs interact with Case on an intellectual level. Neuromancer even tries to entice Case into staying in cyberspace to prevent his merger with Wintermute (Gibson 143). This gesture from Neuromancer expresses a will to 'live'. Both Wintermute and Neuromancer are autonomous in their actions. Does that, combined with a complex intellectual system, make an identity? This is one of the questions posed by the novel, yet no definitive answer is given. The one thing that is made abundantly clear in this novel is that the image projected by people or machines is something we should look beyond. It is also clear that technology is ascribed many of the psychological traits used to define an identity in this novel, allowing it to become more than just an instrument of humankind.

Interaction

“Modem technology is no longer an entity discrete from the user, but rather an environment in mutual interaction with human beings.” (Siivonen 228)

In *Neuromancer*, the interaction between humankind and machine is no longer solely driven by human input, but also by the will or programming of the technology they are working with. Whereas in the past the relationship between humankind and machine was instrumental in nature in the sense that humankind exploited technology, this has changed with the coming of new technology. Cybernetic implants allow humans to make the gap between human and machine extremely narrow, if not nonexistent, blurring the concept of identity. With the coming of technology able to mirror or even surpass human intelligence, the interaction between technology and humans is more equal in *Neuromancer*. Specifically the way in which Case treats the AI Neuromancer shows this changed relationship. When Case asks for its name, the AI implies that Case should really know the code by which it is known since that's part of his job. To which Case replies: “A Turing code's not your name.”

(143). Defining the AI no longer by its code, but by a personality and a name, the interaction seems more like one between equals.

No longer just utilitarian in nature, technology has evolved to the point where one might even consider the roles reversed. Wintermute was programmed to feel a need to unite with Neuromancer but has no instructions on how to reach this goal. This makes the decisions made by Wintermute autonomous in nature. Wintermute also seems able to make decisions based on the nature of situations, as he tells Case: "I try to plan in your sense of the word, but that isn't my basic mode, really. I improvise. It's my greatest talent. I prefer situations to plans, you see..." (70-71). Later on, Wintermute proves this by ambushing a Turing police unit who have Case under arrest by hacking robots near their location and commanding them to kill the police unit. The lateral thinking that is required to envision such an idea is typical of how human beings would solve that situation. Because Wintermute can utilise lateral thinking as well as the ability to manipulate people and other machines into doing its bidding, the same instrumental relationship between mankind and machine is created as existed before, only now mankind is an extension of the will of the machine.

Since the power the AIs can exert in the physical realm is still limited, the AIs still need humans. This is shown as Wintermute needs people to physically link the separate computer networks on which the AIs are housed so the merger can take place. Humankind is difficult to influence without leverage, therefore both Wintermute and Neuromancer make use of psychological tools to entice people into doing their bidding. They both offer Case something he wants to persuade him to join their cause. There is even a distinction between the offers. Wintermute promises to rid him of the toxin that has been ruining his life, whereas Neuromancer offers to store his consciousness in virtual reality so that he can live happily ever after with Linda Lee. These interactions prove that mankind's relationship with technology in *Neuromancer* is not only practical and physical, but also psychological and emotional in nature.

Dependence

The changes in the manner in which identity and interaction function in the relationship between humankind and machine in this novel also have repercussions on the nature of dependence in the relationship between humankind and technology. No longer purely physical, the psychological aspect of the interactions between humankind and technology adds several nuances to the aspect of dependence.

Firstly, addiction has become more commonplace in society. The novel features the use of 'regular' drugs as a common occurrence and there are a number of passages describing the effects of a drug trip in vivid detail, including the comedown the day after. More interesting for the relationship between humankind and technology is Case's addiction to cyberspace. He seems to suffer from severe symptoms of withdrawal as he describes his nights a year after he last jacked in: "he'd cry for it, cry in his sleep, and wake alone in the dark, curled in his capsule in some coffin hotel, his hands clawed into the bedslab, temper foam bunched between his fingers, trying to reach the console that wasn't there." (Gibson 2). Indicative of a deep psychological reliance on technology, this quote sets the tone for the general psychological reliance on technology as it has evolved in that future. The use of cyberspace provides Case with the same sort of relief that Lenina feels in *Brave New World* when under the influence of soma. Both provide some manner of escape from reality and its problems. The difference is that while Lenina is addicted to a pill which is a physical product of technology, Case is addicted to cyberspace itself. Cyberspace is a non-corporeal space in the mind of the machines, meaning Case is addicted to the psychological effect that technology has on him. A sign of a connection more psychological than physical, cyberspace is the ultimate drug for Case. Not just turning people into mindless machines like soma did, it changes the concept of identity and creates a dependence on being one with technology. The description Case gives of his job as a console cowboy at the beginning of the novel shows how intoxicating his experience must have been:

“Case was twenty-four. At twenty-two, he'd been a cowboy a rustler, one of the best in the Sprawl. He'd been trained by the best, by McCoy Pauley and Bobby Quine, legends in the biz. He'd operated on an almost permanent adrenaline high, a byproduct of youth and proficiency, jacked into a custom cyberspace deck⁸ that projected his disembodied consciousness into the con sensual hallucination that was the matrix. A thief he'd worked for other, wealthier thieves, employers who provided the exotic software required to penetrate the bright walls of corporate systems, opening windows into rich fields of data.” (Gibson 2)

The wording suggests Case was more than just proud to be a thief. He had a custom cyberspace deck created to fit his personal hacking needs. This cyberspace deck represents a modern day equivalent of custom made master tools. Which means Case probably invested quite some money in it, or had someone else invest it for him, suggesting he was good at his job. The description of projecting his disembodied consciousness into cyberspace and making use of exotic software to enter rich fields of data makes his profession sound more like a fantastical dream which induces an almost permanent adrenaline high, making it easy to understand why Case is addicted to cyberspace.

Secondly, the fading of the borders between the identities of humankind and machines has affected the mindset of society in a way that the human body is now derisively referred to as ‘meat’, while cybernetic implants are seen as positive enhancements, as regarded by Case as he looks upon Chiba City: “Groups of sailors up from the port, tense solitary tourists hunting pleasures no guidebook listed, Sprawl heavies showing off grafts and implants, and a dozen distinct species of hustler, all swarming the street in an intricate dance of desire and commerce.” (Gibson 6) The fact that the grafts and implants are shown off to interest people in buying one indicates that it is now commonplace and even desired to acquire enhancements. This ties in with the break from anthropocentric idealism mentioned earlier in the identity part of the analysis and leads to the conclusion that the cybernetic enhancements are not just a physical enhancement. They also have the psychological effect of raising you up above the ‘meat’, gaining a status equal to the one Case derived from his hacking career. This example of technology raising someone up out of regular life

⁸ A cyberspace deck is a physical console which hackers use to plug -or jack- into cyberspace.

and instilling them with a sense of elevated self reinforces the idea that the nature of the relationship between humankind and technology has become more psychological.

A change in the manner of dependence has also occurred on the side of technology. Now sentient and autonomous, technology has become less dependent on humankind to give input to work with. This strengthens the position of technology when asserting its newfound identity. With the development of technology at the point where technology is utilitarian as well as an autonomous and conscious, technology relies more on itself to function than on others. The newfound ability of technology to exert influence in both the physical and the psychological world combined with being regarded as an improvement on the human condition has tipped the balance of dependence in favour of technology. Humankind has become dependent of technology to function properly, creating a reversal of roles when compared to the situation in *Brave New World*.

Conclusion

From the “Bokanovsky process” (Huxley 6) and “Neo-Pavlovian conditioning” (Huxley 15) in *Brave New World* to the reprogramming of Corto’s mind and the deceitful behaviour of Wintermute to achieve its own agenda in *Neuromancer*, this paper shows that the relationship between humankind and technology in literature has changed. While both novels show a dystopian future in which technology plays a major role in daily life, there is a noticeable difference in the way in which that role is portrayed.

Technology in *Brave New World* is almost exclusively of a utilitarian nature and although it is sometimes used as a means of influencing people psychologically, there is no interaction on a psychological level with technology itself or with its products. Humankind has been conditioned to function as a well oiled machine that works and consumes, fuelled by superficial pleasures such as sex and drug-induced happiness. Technological innovations mentioned in the novel are aimed at keeping people corporally engaged to neutralise their feelings and critical thoughts. This reinforces the importance of the mechanical aspect of technology in the World State. Under the influence of the World Controllers and aided by machines, humankind has pushed the boundaries of efficiency in consumerism and management of society further than ever before.

In *Neuromancer*, the relationship between humankind and technology is less tangible and more psychological. The utilitarian part of technology still exists in the form of cybernetic enhancements, but that is only because the body is perceived as weak. The fact that two AIs are manipulating people as well as other technology to reach their goals reinforces the idea that the relationship between humankind and technology is no longer purely mechanical in nature. The complexity of the AIs’ interactions with mankind is proof that the psychological aspect of the relationship between humankind and technology has become the dominant form of interaction. The AI Neuromancer asks main character Case if he wants to stay in cyberspace with a copy of his old girlfriend Linda, so that they can be happy there. This interaction is only possible because

Neuromancer possesses the psychological understanding and reasoning necessary to consider making this offer.

Technology is no longer solely a utility, it can now think on its own and react to human input. This leads to an increasing complexity in interactions between humankind and machine. Since humankind is no longer always in control of what the outcome from given input will be, a power shift in favour of technology is evident in the interactions between humans and machines. This power shift shows a decreasing dependence of technology on humankind, while at the same time humankind is becoming more reliant on the advantages that advanced technology has to offer. The analysis of changes in the relationship between humankind and technology in these novels shows that technology started off as a purely mechanical influence on the lives of men in *Brave New World*. Through development of newer and more complicated technology in *Neuromancer*, that influence has shifted to the psychological realm, causing people to attribute human traits and emotions to technology and interact with technological inventions on an intellectual level.

Further research on this subject could be done by examining novels from other literary genres from the time period in which the two novels chosen for this paper were written for signs of change in the dynamic between humankind and technology. This would help clarify further the evolution of the nature of the relationship between humankind and technology. Following up on this subject, research could also be done on the question whether this change in relationship between humankind and technology affects human nature, and if so, in what way. To find more evidence in support of the theory put forth in this paper, novels like *The Time Machine* by H.G. Wells and more recently *The Circle* by Dave Eggers could be analysed as well.

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