

Anxious Robots, Desiring Repression, Generating Profit

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ABSTRACT

Robots are increasingly playing roles in everyday life. These roles range from doing the vacuuming, to assisting in surgery, to stocking shelves, to assisting teaching children with autism, to providing care and entertainment for the elderly. This essay deals less with robots themselves, however, and more with the particular anxieties that surround the use of robots. Critical to our argument is that robots are not separable from human being, just as humans are inseparable from machines. They are better thought of as fragments of human subjectivity that in and of themselves are neither beneficial nor hazardous. Instead we argue, partly through an exploration of the work of Stelarc, that the anxieties around the use of robots reflect an anxiety about the possibility of people's own machinic nature. The important question to ask, we argue, is how our machines, including robots, affect our own capacity to act, as well as our capacity to be affected. What is at issue is precisely the machines in our own heads, and in particular the production of forms of subjectivity in which we can recognise, or rather fail to recognise, our own becoming robotic, all in the name of capitalism and profit.

KEYWORDS

Robots; technology; capitalism; assemblage; Stelarc

“Replicants are like any other machine. They’re either a benefit or a hazard. If they’re of benefit it’s not a problem.”

Blade Runner

Predating the use of the word robot following Karel Čapek’s *R.U.R.* there has always been a fascination with automatons that in one form or another we might describe as robotic. From Hephaestus’s automatons to the Talmud’s description of Adam as a golem, to Lu Ban’s wooden birds, to more recently the series *Westworld*, the idea of the robot or a robot-like figure has in one form or another occupied us. As a figure the robot is both celebrated as well as feared. What is perhaps different today is that robots, in various guises, are increasingly becoming part of people’s day to day existence. Robots, we are informed by a range of experts and commentators, will increasingly have a role to play in our workplaces, in our classrooms, in hospitals, in our homes, and so on. The benefits of these more social robots are multiple, ranging from doing the vacuuming, to helping teach people with autism, to taking on roles such as shop assistant or room service.

Of course, such examples also generate particular anxieties. These include anxieties not simply about social robots taking over people’s work, but also broader anxieties about the relation between human and machine. That relationship between the human and the machine, and the particular anxieties that machines generate, forms a first focus of this essay. In particular we focus on views that machines are in some way a fragmentation and dehumanisation of people. This is explored further in the context of some of Stelarc’s work, which perhaps not so much highlights people’s or their bodies’ obsolescence, but rather a reconfiguring of the human. It is in this context that we argue that neither technology nor the robot is something that is outside of or separable from the human, in both a conceptual and material sense, just as humans are not separable from machines. Instead, following Lewis Mumford, and also Félix Guattari and Gilles Deleuze, we argue that machines are social, and that what should concern us are not the actual robots, but rather the machines of which both robots and the anxieties generated around them are equally a product. It is not so much the thought of our own implied obsolescence, nor some lack of humanity that we perhaps never had in the first place, that should concern us, we argue, but rather how robots can help us recognise our own machinic nature, and in particular our own roles in the social machine that constructs both the robots and the anxieties around them. In short, it is the machines in our own heads, and not the robots themselves, that are at issue. Precisely at issue is capitalism, and especially the production of forms of subjectivity in which we can recognise, or rather fail to recognise, our own becoming robotic, all in the name of profit.

Human Machines, Machining Humans

It is important to be mindful that robots are a subset of machine, and not in some category that is necessarily clearly distinct or qualitatively different from other types of machine. Indeed, there are a variety of ways to define robot, with some definitions insisting they need to have a materiality and/or be in the shape of a human or animal, besides being automated and autonomous in some form, while others propose definitions that would accept particular types of software to also be accepted as a robot, arguing that the machine's materiality is of less consequence. From some points of view one might also be able to construct robots in the form of particular sequences of DNA, for example. However, especially in considering the particular anxieties that exist around the figure of the robot it is useful to keep in mind that any machine is simply a particular aspect of human subjectivity. As Guattari stated:

People have little reason to turn away from machines; which are nothing other than hyperdeveloped and hyperconcentrated forms of certain aspects of human subjectivity, and emphatically not those aspects that polarise people in relations of domination and power. (*Regimes* 18)

Or as Habermas stated in a somewhat different manner in his critique of Marcuse's *One-Dimensional Man*, technology "follows a logic that corresponds to the structure of purposive-rational action regulated by its own results, which is in fact the structure of *work*" (87). It is for this reason, Habermas argued, that one can have neither a fundamentally different technology, nor be against technology in and of itself. Technology is simply part and parcel of being human, that is, being cyborg (Haraway) or "humachine" (Poster), and simply part of what is involved in living one's day-to-day life, which, so we are told, will likely increasingly include social robots.

Of interest here is the origin of the word robot, where in Čapek's *R.U.R* it refers to forced labour. This is indeed what robots do, perform a specific function or set of functions, except that as a subtype of machine they are typically distinguished by being automated and autonomous, leaving to the side here the question regarding their form or materiality. Obviously a robot's labour is not forced in the sense that one might force or coerce a human to perform labour, but certainly "forced" in the sense of being constructed and programmed to perform specific functions. It is precisely in these functions that we can recognise that robots are fragments of human subjectivity. It is also on this point that we can recognise a possible origin of particular anxieties. Will a robot replace me in the classroom? Will a robot take over my role as shop assistant? Will a robot take on my role as cleaner? Will a robot take my place as nurse or surgeon in the operating theatre? Or, as is explored in much of popular culture in various forms, how am I all that different from a robot? If I can no longer recognise the difference between a robot and myself, am I also a robot? And so on. These anxieties are in

addition to other anxieties, such as when we consider the use of robots on the battlefield or perhaps whether robots should take on roles such as that of traffic police. Does a military robot have doubt or uncertainty, for example? Will the police robot understand I was in a rush because I would lose my job if I arrived late at work? In short, can a robot be capable of empathy? Of course, empathy is precisely what some jobs might not require, which is why robots may simply be considered better for the job.

Central to these anxieties is that in them we recognise precisely a fragmentation, and with it a sense of reduction, of human subjectivity. Or rather, not so much a reduction, but rather that they express something about our own particular condition under capitalism. This is what philosophers such as Karl Marx recognised and associated with capitalism, and in particular with the industrialisation of the division of labour much celebrated by liberal philosophers such as Adam Smith. According to Marx, the division of labour converts:

the worker into a crippled monstrosity by furthering his [sic] particular skill as in a forcing house, through the suppression of a whole world of productive drives and inclinations, just as in the states of La Plata they butcher a whole beast for the sake of his hide or his tallow. Not only is the specialised worker distributed among the different individuals, but the individual himself [sic] is divided up, and transformed into the automatic motor of a detail operation, thus realising the absurd fable of Menenius Agrippa, which presents man [sic] as a mere fragment of his own body. (*Capital* 481-82)

In this way the worker becomes a “partial worker” as Marx termed it, alienating the worker not simply from the production process, but from their very sense of being itself since from Marx’s perspective a human being is first and foremost a working being, as one is alienated from one’s own body and its functions (Gendron and Holmstron 132; Marx *Capital* 704). Importantly this is an alienation that affects all who are involved in the production process, including the factory owner (Marx *Capital* 423).

The fragmentation and reduction of human subjectivity associated with industrialisation, and processes of automation form a key part of this, was identified by philosophers other than Marx of course, including his contemporaries. Some conservative philosophers at the time expressed concerns with the new forms of production, as well as the broader organisation of society. Thomas Carlyle, for example, lamented that:

Not the external and physical alone is now managed by machinery, but the internal and spiritual also. Here too nothing follows its spontaneous course, nothing is left to be accomplished by old natural methods. Everything has its cunningly devised implements, its preestablished apparatus; it is not done by hand, but by machinery. (35)

[1] Note that Carlyle did not entirely reject mechanism and its focus on means and ends. Instead, in some respects somewhat similar to Habermas's critique of Marcuse's *One-Dimensional Man* thesis, he argued that mechanism as a mode of thought had become too dominant, and needed to be kept in balance by what he termed the science of "dynamism" (see Savat 218).

[2] The steam engine's role was critical in this fragmentation, not simply because of how it separated (deterritorialises Deleuze and Guattari would say) the human body from its labour, but also literally separated the human from the territory. With motorisation there no longer was need for reliance not only on the strength of a human body (children and women could now perform the work that men used to do), producing a standardisation, but also no need to rely on the weather or landscape. Energy no longer came from wind or water mills, or the muscle power of people or animals, but instead from an engine, and was uniform. Travel no longer was inhibited by distance and terrain (Schivelbusch). Similarly, the division of labour, which obviously pre-exists the steam engine, was greatly amplified by the steam engine and automation, leading to a qualitative transformation in production processes, which now became much more standardised and uniformised. On the one hand there are in that respect profound processes of deterritorialisation at work by way of the steam engine and motorisation more generally – consider the new found mobility of people because movement is motorised – but also profound processes of reterritorialisation at work simply in terms of the organisation of production and labour: deterritorialised from the body and the landscape, but reterritorialised as standardised and uniform factory worker.

Central to this was a new mode of thought, which Carlyle referred to as mechanism. It was a mode of thought, and action, that Carlyle saw the work of liberal and utilitarian philosophers such as Adam Smith and Jeremy Bentham as exemplary of. What Carlyle feared most was how the "faith" in mechanism was most visible in the politics of his time (40) [1]. People had become "mechanical in head and heart, as well as in hand", Carlyle argued, losing faith "in individual endeavour, and in natural force, of any kind" (37). Indeed, "Their whole efforts, attachments, opinions, turn on mechanism, and are of a mechanical character" (37). The figure of the robot, and perhaps especially the social robot, is in that respect simply the latest manifestation of the fragmentation associated with capitalism, which, it is important to stress, is a literal and not a metaphoric fragmentation. [2] The robot, social or otherwise, simply is the automation of a particular function or limited set of functions, and which has some autonomous capacity. In this respect the robot can be seen as a continuation of much longer existing trends, arguably commencing with the application of the steam engine to human and animal activities, though obviously the use of wind, water, and, indeed, animal power could also be seen as part of this trend. It's simply that with the steam engine, and motorisation more generally, existing practices were qualitatively transformed. It goes to Marx's point that "Hunger is hunger, but the hunger gratified by cooked meat eaten with knife and fork is a different hunger from that which bolts down raw meat with the aid of hand, nail and tooth" (*Grundrisse* 92). Stated somewhat differently, at work are the operation of different needs and interests, or as Deleuze and Guattari stated, at work is the operation, or more precisely the assembling or arranging, of a different desire.

Reconstituting Human Subjectivity: Stelarc

The fragmentation and automation of human activities, and hence of human subjectivity, is arguably a key aspect of processes of industrialisation. The work of performance artist Stelarc usefully explores the way fragmentation and automation is amplified by processes of digitisation, as well as transformed and challenged in sometimes positive forms. One reason for that is because Stelarc's works often play out anxieties around the loss of control of the body due to the domestication of robot technologies, even though we have always constituted and reassembled ourselves with and through technology. Stelarc also explicitly engages with the notion of a fragmented subjectivity, even if simply in terms of adding specific functions or fragments to his body in a variety of different ways as part of assembling a different body, and in the process challenging the concept and reality of subjectivity. In this respect his work highlights the manner in which we arrange human-machine relations in a way that plays into anxieties around the role of our body in relation to machines, and in this way plays around also with a sense of lack or obsolescence. Stelarc is interested not only in the aestheticisation of technology, but actively enacts and speculates on the affects of human-machine relations, including the anxieties associated with them. In the past,

for example, Stelarc created mechanical prosthetic works such as *Third Hand*, where he engineered a third arm attached to his body, or *Muscle Machine*, a six-legged walking robot that carries the artist on a central platform between the mechanical legs as a hybrid human-machine system. In these instances Stelarc is in control of his prosthetic appendages and commands their movements as the brain of the machine.

Stelarc is also particularly interested in technologically determinist claims that technology inevitably improves and enables humans to evolve, which is done so by slowly replacing the body in both form and function to the point that “the body is obsolete” (Jones “Stelarc’s Technological ‘Trancendence’” 87). Stelarc argues that “Maintaining the integrity of the body, prolonging its present forms, is not only a bad strategy in terms of sheer survival, but also dooms the body to a primitive and crude range of sensibilities – to a limited array of sensory hardware” (in Clarke 195). Such a perspective problematises the human-vs-machine dichotomy where the body is doomed to fail against the non-human other. Instead Stelarc argues that we should accept our corporeal inferiority compared to our machines, and be open to colonising and enhancing ourselves with improved hardware (in Clarke 195). For Stelarc, if we do not enhance the body with technological hardware we will simply be left behind in an increasingly primitive and increasingly useless state. From such a perspective our material (and immaterial) dependence on machines leads to our very undoing because our so-called natural selves are no longer adequate for living in the world that we have created.

Stelarc explores not only how technology can be used to extend human capacity, such as in the form of the third arm or the six-legged walking machine noted above, but also how technology is used to replace the body altogether. Human-machine relations don’t create “soft machine” assemblages, but rather show that our bodies are laughably limp, soft, and impractical by comparison. In this way Stelarc echoes long standing anxieties around the role of technology in society, including, as noted above, those articulated by philosophers such as Carlyle and his encounter with “Mechanism”, and also by Virilio, who suggests that “all the misery of the world arises from man’s [sic] feeling that he can be improved by machines invented to take his place” (7-8). Although on this latter point Stelarc’s work would suggest that this cycle produces not any misery as such, but rather leads to the creation of simply more human-machine configurations.

More recently Stelarc’s practice focuses less on the obsolescence of the body, and more on redesigning and re-wiring parts of the body. His ongoing artwork *Ear on Arm*, for example, involves a prosthetic ear being inserted under the skin of his left forearm. Conceived a decade ago, Stelarc worked with surgeons and scientists to create the ear implant with silicon and stems cells that will grow into a full lobe with cartilage-like texture. While multiple operations have already been performed, Stelarc is still yet to complete the artwork by inserting a miniature microphone. The latter is intended to pair with a bluetooth device and enable the streaming of sounds from and around

Stelarc's body up onto a website, as well as from users on the site sending audio directly to Stelarc's body (Stelarc *Zombies and Cyborgs* 6). Stelarc argues that *Ear on Arm* is a manifestation on our part to intervene in our own evolution by dismembering and reconfiguring the body and its organs with technology (*Excess and Indifference: Alternate Body Architectures* 110). In this way Stelarc's work also pushes us to think about our subjectivity beyond the locality of our body. Cells are harvested and farmed to imitate an appendage, and an extra organ is implanted onto an arm to enable him, ultimately, to cast the sounds around his body online to listeners.

This reconfiguring of the body and its functions is explored even further in Stelarc's most recent performative work *Rewired/Remixed*, which was performed in 2016 at the Perth Institute of Contemporary Art. During the performance Stelarc is fitted with a 10kg prosthetic arm that is controlled by audiences on the Internet while he wears goggles that stream visual material from London, and a headset feeding audio from New York. The body's senses and actions are disconnected from one another as Stelarc relinquishes autonomy over part of his body. Unlike other human-machine configurations today Stelarc's works do not so much increase his capacity to move and act more efficiently, but rather highlight that the body is only one aspect of Stelarc, the totality of which can be dispersed in different forms and across several platforms.

In such ways Stelarc's works play out anxieties around the loss of control of the body, as well as having our actions, or that of others, determined by technology. The manner in which Stelarc attaches or inserts particular machines and functions to and in his body, makes clear that he is engaging both with the notion that we are in some ways fragmented, and also in other ways able to combine a variety of fragments, including treating our own body itself as a fragment in that process. The manner in which Stelarc rearranges human-machine relations plays into anxieties around technology because this rearrangement produces a sense of lack in the body's so-called natural capacity to act, hence for Stelarc the body is obsolete. However, it is important to remember that this fragmentation is something that has been happening to our bodies in an accelerating fashion, and that we are precisely constituted, and constitute ourselves, by way of our machines. Especially in the context of digital media and the Internet more broadly, for example, we often can only, and increasingly so, act by constituting ourselves in digital form, that is, as information. The most current examples of this are the host of participatory and social media sites, such as Facebook, Instagram, Snapchat, and others, which function in part (and make their profit from) in terms of the so-called mining of data. Whenever people do anything by way of much of digital media they unavoidably generate information – almost by definition any use of digital media involves at the very least a writing on the level of the actual machine. Even our non-use is typically noted, as is the case with Facebook messages alerting people to the fact that they haven't been on Facebook for a while. More significantly perhaps, simply walking through the streetscape without a mobile device or some other electronic tag will result,

and in some cases already does (such as in airports), in the generation of data and the collection of information, as is the case with the increased use of facial recognition. It is precisely through the generation of that data, and the information that is produced by way of it, that new forms of social control inculcate themselves. Forms of social control that increasingly exhibit a propensity to predict or simulate in advance a person, population, or thing or event's behaviour, with the aim of not so much, or not only, disciplining individuals in the manner that Foucault argued, but of anticipating behaviour to change the environment prior to a subject's arrival or prior to the event occurring. In effect it is about programming a subject in advance, without them necessarily being aware of that programming (Savat). Or as Bill Gates is attributed by Kittler to have said: "In the future ...we will treat the end user as we treat computers: both are programmable" (179) – a robotic vision of the future to state the least.

What Stelarc in some respects exemplifies is precisely an attempt to somehow reconstitute human subjectivity, or rather to reassemble a different form of subjectivity (if any at all) that is not the butchered individual of which Marx wrote. Stelarc's aim is to find some different form of existence. Instead we find a recognition (and performance) of the human as machinic, and enriched rather than diminished by way of connection. Significant to note here is that while mechanical and industrial machines perform often highly fragmented and limited functions, digital machines are often characterised by being multi-functional. After all, Turing made the point that the computer was a universal machine, and that multiple functions could be extracted by way of it. Indeed, it is useful here to return to an earlier point, that we cannot be against technology per se, that our machines, whether understood as Guattari's hyperdeveloped and hyperconcentrated aspects of subjectivity, or understood as work, that is, technology in Habermas's use of the word, are precisely us. It is in part through and by way of our machines that we constitute ourselves and act in the world.

From such a perspective any technology or type of technology both opens up, as well as closes off, particular ways of acting in the world, including forms of action (which includes thought), not yet imagined. As Guattari makes the point:

technological transformations oblige us to be aware of both universalising and reductionist homogenisations of subjectivity and of a heterogeneity and singularisation of its components. Thus "computer-aided design" leads to the production of images opening on to unprecedented plastic universes ... or to the solution of mathematical problems which would have been quite unimaginable a few years ago.
(*Chaosmosis* 5)

Technology, in this respect, is neither neutral nor controllable in any indeterminist sense, but rather functions more akin to a discourse in Foucault's use of the word, as a discursive field. As Arthur explains, any

grouping of technology, or what he refers to as a domain, forms “a language within which particular technologies – particular devices and methods – are put together as expressions within that language” (76). In this way Arthur considers technology in its entirety as a collection of several languages, and in this way considers engineering to be more akin to a form of composition, or “expression within a language (or several)” (76). Technology in such a view is developed by way of making new statements, enhancing or developing an entirely new capacity to act, such as particular forms of robot, as well as, importantly, derived from existing statements. Such existing statements, Arthur argues, act like “pre-formed blocks of commonly used expressions kept at hand for ready use by old-fashioned typesetters (the French printers of the 1700s called them clichés), except that they are conceptual and not necessarily premade” (75-76). In this way some domains (types or sets of technologies) – Arthur includes as part of a domain means, organisations, methods, legal codes, scientific concepts, instruments (including musical), and so on – may have only a limited set of utterances that can be made, while others, such as digital computing, a much larger set of utterances, with domains acting upon one another in different and sometimes symbiotic ways, just as the digital domain had a transformative impact on the industrial domain and a range of other domains, including medicine and a host of academic disciplines. In this way technology, including the robot, is not something that is somehow outside or separable from human subjectivity, including in any conceptual sense. The same of course is true of human subjectivity. It too is not separable from machines in either a material or conceptual sense.

All Machines Are Social

On this point it is useful to consider what we think of as a machine. Lewis Mumford made the point that in ancient Egypt the pyramids, which themselves functioned as a machine, were built by a machine. This latter machine Mumford referred to as a labour machine, which for him was an example of a megamachine. This, Mumford emphasised, was “no idle play on words”, since:

If a machine be defined more or less in accord with the classic definition of Reuleaux, as a combination of resistant parts, each specialised in function, operating under human control, to transmit motion and to perform work, then the labour machine was a real machine: all the more because its component parts, though composed of human bone, nerve, and muscle, were reduced to their bare mechanical elements and rigidly restricted to the performance of their mechanical tasks. (315-16)

For Mumford the labour machine, similarly to what he termed the military machine, was a machine composed of a “multitude of uniform, specialised, interchangeable, but functionally differentiated parts, rigorously marshalled

together and coordinated in a process centrally organised and centrally directed: each part behaving as a mechanical component of the mechanised whole” (318). In this way machines are best thought of not simply as the material component or components, but everything that brings those components together, everything that arranges or assembles the components, to produce a particular function, or set of functions.

It is for this reason that Guattari offers Francisco Varela’s definition of the machine as: “the ensemble of the interrelations of its components, independent of the components themselves” (in “Machinic Heterogenesis” 16). As Deleuze and Claire Parnet explain differently, the machine “is neither mechanical nor organic. The mechanical is a system of gradual connections between dependent terms. The machine, on the other hand, is a clustered ‘proximity’ between independent terms (topological proximity is itself independent of distance or contiguity)” (in Deleuze and Guattari *Kafka* xv). For Guattari this applies to simple and complex machines alike, whether we are dealing with a sword or dealing with the international space station. The important thing to stress here is that the actual materiality of the machine is not where we can locate the machine as such, nor can we locate it in its individual components, rather we need to consider the organisation of those components, including what drives that very organisation or arranging and assembling of the components. As Guattari argued, examining the machine itself, while it might express or reveal something about the society we live in (“Postscript”), does not actually explain anything about either that machine or that particular society. Instead he argued, as did Deleuze (*Negotiations* 175), that one has to ‘analyse the collective arrangements of which the machines are just one component’ (Guattari *Chaosmosis* 35). Therefore when considering any machine we need to consider the social machine that is capable of producing it.

Very important for Deleuze, as well as for Guattari, including in their work together, is a recognition that any machine is first and foremost social. On this we need to recognise that our machines, the assemblages that we arrange, are a product of our impulses and drives. These impulses and drives, what Deleuze and Guattari often refer to as desire and desiring-machines, are what constitute the social field. Importantly, however, as Smith explains, for Deleuze and Guattari, unlike for Marx and Freud, the political economy and the so-called libidinal economy are not to be distinguished from one another when we consider these impulses and drives (“Flow, Code and Stock”). Deleuze and Guattari reject the view that desire (our impulses and drives) is somehow determined by class or class consciousness. They also take issue with Freud’s view that desire is somehow determined by familial issues or conflicts. Instead they propose that desire, that is, the unconscious (our impulses and drives, or desiring-machines in some of their work), is in fact part of the very infrastructure of society, and not in some way separate from it in the way that Marx and Freud, albeit differently so, theorised that relationship. It is here that Deleuze and Guattari also clearly demarcate between desire (impulses and drives), and interests, instead arguing that what

we refer to as our interest is in fact a codification or capturing of desire, of which marketing and advertising are prime examples (Smith “Deleuze and the Question of Desire”; Buchanan *Deleuze and Guattari’s Anti-Oedipus*). The broader question that Deleuze and Guattari ask, as part of their method of schizoanalysis (Savat and Thompson), is how particular social formations, or institutions, organise or assemble desire in some forms rather than others, and not always forms that would ordinarily be in people’s actual “interest” as such.

Indeed, it is precisely this ongoing process of organising or assembling the various components of machines that constitutes what they term an assemblage. This is precisely what desire is: the ongoing process of production and arrangement of components to form assemblages. [3] As they state in *Kafka*:

[3] For an important corrective to much of what passes for assemblage theory see Buchanan (“Assemblage Theory”).

Being an assemblage, desire is precisely one with the gears and the components of the machine, one with the power of the machine. And the desire that someone has for power is only his [sic] fascination for these gears, his [sic] desire to make certain of these gears going into operation, to be himself [sic] one of these gears – or, for want of anything better, to be the material treated by these gears, a material that is a gear in its own way. (55-56)

Bureaucracy then, for example, or indeed any institution understood in the broad use of the term,

is desire, not an abstract desire, but a desire determined in this or that segment, by this or that state of the machine, at this or that moment ... Bureaucracy as desire is at one with the functioning of a certain number of gears, the exercise of a certain number of powers that determine, as a function of the composition of the social field in which they are held, the engineers as well as the engineered. (56-57)

In this way, returning to Deleuze’s earlier work on Hume, assemblage is simply another word for institution (Hughes). Though it is important to qualify here that for Deleuze, while an institution is in some respects a model of action – a system of satisfaction as well as a system of means – that desire in and of itself, those drives and impulses, does not actually explain the institution or assemblage. The institution is instead explained by a peculiar twisting of desire into interests, a twisting of the passions as Deleuze refers to it in his earlier text on Hume. [4] In that respect, one question that engages Deleuze in much of his work is precisely that of “Why *this* system and *this* form? A thousand others, which we find in other times and places, are possible” (Deleuze in Hughes 134). How is it that specific institutions, particular assemblages, including those patently not in people’s so-called “interest,” repeat themselves? Or as Deleuze and Guattari (*Chaosmosis*) elsewhere phrased it, why do we desire our own repression?

[4] For an explanation of this, including the codification of desire as interest and the importance of the passive syntheses for Deleuze, see Hughes.

The Machines in Our Heads

This returns us to the figure of the robot. If we accept the idea that in examining any machine we should not examine the machine itself – in this case the robot – but rather the collective arrangements of which that machine is just one component amongst others, then where do we locate the significance of the robot? Stated in a different way, what function does the figure of the robot have? Of what social machine(s) are our robots an expression? By what desire, and as what interests, are robots constituted? Are they, indeed, possibly a new domain in the sense that Arthur understands technology? Or as Deleuze and Guattari might have phrased it, are they the continuation of a particular phylum that stretches across different assemblages or social formations? Might robotics even constitute a line of flight in some form, and if so, in what forms might it reterritorialise itself? These are not all questions that can be answered here, though they are not unimportant. What is clear, however, is that the figure of the robot, and in particular the anxieties generated by robots, is not new. These are the very same anxieties focused on by people such as Marx and Carlyle, and played out in a variety of forms in popular media, as well as explored and challenged by artists such as Stelarc. These anxieties, in short, are precisely an institution, that is, a specific arrangement of components – a particular process of assembly – and seem to consistently repeat themselves, even if only in different forms. In other words, what is at work with the robots, amongst other things, is a machine or collective arrangement that functions topologically. The materiality of the components and the material machines may have changed, but the production of the organisation of the components remains the same, producing the same effect. In short, it is not the robots in and of themselves that are important, but rather the particular anxieties generated by their assembly. Stated differently, the anxieties are not a function of the robots as such, but are rather a function of a particular social machine as part of which the robots function. This is the very same social machine that philosophers such as Marx and Carlyle identified various components of and, from Deleuze and Guattari's perspective, precisely a social machine whose components and assemblages we ourselves arrange, that is, desire.

This is a machine that we desire, that is, assemble for us to be traversed by, and in which robots play their part. As Deleuze and Guattari made clear, this is:

A violence without purpose. A joy, a pure joy in feeling oneself a wheel in the machine, traversed by flows, broken by schizzes. Placing oneself in a position where one is thus traversed, broken, fucked by the socius, looking for the right place where, according to the aims and interests assigned to us, one feels something moving that has neither an interest nor a purpose. (*Chaosmosis* 346-47)

Indeed, the anxieties around robots suggest, and Carlyle himself already implied as much, that we ourselves are perhaps becoming robotic. That fear of becoming mechanical in “head and heart” (37), or might it perhaps be a secret joy rather than a fear? Precisely to no longer have to worry, to have decisions made for us so to speak, to have an entirely smooth flow, without interruption, “a so-called art for art’s sake” (Deleuze and Guattari, *Chaosmosis* 347). Much of digital media is partly engaged in the construction of just such a set of machines (Savat), even if only crude at this stage, where our actions and interests are anticipated in advance, and the environment altered in advance of our arrival, and “uniquely” for us, whether it be in the form of auto-generated news articles or books just set up to suit our tastes, or whether it be in the form of advertising that adjusts itself to our past behaviour, or, indeed, whether it be in the form of robots who clean our apartments for us. In short, as in the movie *Wall-E* we are increasingly plugged into our mobile entertainment devices, or perhaps more like David Brin’s *Kil’n People* or the movie *Surrogates*, where we send our automated and autonomous avatars out to do our work for us, much like the social robots that increasingly make their appearance in our workplaces and homes.

On this point it might be useful to compare the figure of the robot, especially in popular culture and the media more broadly, to the well-known example of the use of the shark in the movie *Jaws*. As Jameson, as well as Žižek (Buchanan *Frederic Jameson; Deleuze and Guattari’s Anti-Oedipus*), point out, the shark in *Jaws* in and of itself has no meaning. Instead, it functions as a particular mechanism that enables and produces a connection amongst otherwise separate and disparate components. It is this process of assembly that precisely enables the arrangement and production of particular anxieties. In a similar way the robot precisely functions to enable the assembly and management of these anxieties. More to the point, we desire (produce) these anxieties, but it is a desire or production in which there occurs that particular “twisting of the passions” noted above. In Deleuzian terminology, there is a connective synthesis of the components, but it is an illegitimate synthesis, “because it determines in advance what its final form should be and passes judgement on all who come before it in the name of that final form” (Buchanan *Deleuze and Guattari’s Anti-Oedipus* 77). In the case of *Jaws*, for example, it refers to the production of a lack of so-called “community spirit”. That lack is precisely the common bond the different members of the community in the movie share. It is because the community is unable to act collectively for a common good, which is the actual reason for the disaster, and not the shark, which is also what “has the invidious effect of making individuals caught up in its current feel incomplete” (77). The paradox here is that “the reason why ‘community spirit’ is lacking is that until now there had been no reason for it to exist” (77). As Buchanan explains, the figure of the shark “gives rise to the illusion that the text as a whole has meaning because of its presence” (*Deleuze and Guattari’s Anti-Oedipus* 75), much in the same manner that Oedipus functions. The shark is the mechanism that reorganises and assembles desire (the impulses and drives) in such a way as to produce a lack. The figure of the robot fulfills a precisely similar function,

though the assemblage that is arranged by it, and the function that is derived from that assemblage, is different.

In the case of the robot then, what may be showing up as obsolescent or lacking is what might be termed “our humanity”. In the case of *Jaws* the shark assembles the variety of components to produce that lack of “community spirit”, which in any case was never there to begin, yet somehow is now shown to be lacking. In a similar fashion, the figure of the robot shows us to be disconnected parts of a whole that was never actually there, except that with the robot that whole is what we might term “our humanity”, and it is questionable that such a “humanity” was ever actually there. It is in this way that the figure of the robot produces us as obsolescent, inefficient, and so on. A lack and obsolescence that can only be filled through the purchase of the latest gadgets that will make us more efficient, the latest entertainment that will make us happier and less bored, the latest fitness apps that will make us healthier and more productive, the latest health treatments that will make us sleep better, and ideally not even need sleep at all, as Crary notes in *24/7*. It is precisely this that Deleuze and Guattari argue we desire, that is, assemble and arrange ourselves by way of that peculiar twisting of the passions, to transform desire into interest.

This is also of course what Stelarc’s work in some respects highlights, perhaps not so much because our bodies are obsolete as such, as he suggests, but because human-machine relations reorganise desire and produce a lack around our bodies’ abilities. In this respect it is therefore not so much the thought of our own implied obsolescence that robots trigger, or some lack of humanity that we need to concern ourselves with, but rather the question of how in our day to day life, and in our day to day labour, we are actually different from these robots. More to the point perhaps, social robots especially help us recognise our own machinic nature, and help us recognise that we precisely arrange ourselves as assemblages – for example subjectivity – not with respect to our materiality of course, but rather with respect to our function in the capitalist socius.

To be sure, there is no judgment being made about robots. Again, they are precisely aspects of human subjectivity, and as Guattari emphasised not those that place us in relations of power and domination. That placement is a function of other types of machines. In short, it is a question of assembling the machines that are right for us, the machines that enable new lines of flight, and robots may well enable the formation of such lines of deterritorialisation. Who knows? Even the introduction of quite simple components in an assemblage, for example, can cause robots to produce the very opposite effect of what they are programmed to do, as in the case of iRobot’s Roomba spreading animal faeces around the house instead of cleaning the house. As an iRobot spokesperson stated, “with animals anything can happen” (Solon). Here though we need to be mindful that lines of flight are in and of themselves, just like robots, neither good nor bad, neither a benefit nor a hazard. The question to ask is how particular

productions, arrangements of components, at any given moment affect our capacity to act, as well as our capacity, importantly, to be affected – in a sense not dissimilar from Roomba, and in turn the householders, being affected. It is these machines, the machines in our own heads, and not the robots themselves, that are at issue here. In short, precisely at issue is capitalism, and especially the production of forms of subjectivity in which we can recognise, or rather fail to recognise, our own becoming robotic, all in the name of profit. As the investigator Deckard in the movie *Blade Runner* asks of Tyrrell, whose corporation produces androids,

“She doesn’t know?”

“She’s beginning to suspect, I think.”

“How can it not know what it is?”

“Commerce is our goal here at Tyrrell. More human than human is our motto.”

Blade Runner

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