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Whose body is it? the body as physical capital in a techno-society

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Whose body is it? the body as physical capital in a techno-society

Abstract

In today's postmodern Western world, there is a greater propensity toward consumerism. Mass-market production coupled with international trade means that you can buy just about anything made anywhere with the simple click of a mouse. Not only are we seeing the commoditization of things (i.e., material objects), but also businesses and industries are capitalizing on this consumerist mentality, studying individuals' buying habits to demographically target their market. This data mining is done through a multiplicity of ways, such as through technological monitors called sensors. Sensors capture human-centric data at discrete intervals, generating big data that draws out patterns. Behavior can actually be seen as a type of commoditization, not of the product or service but rather of the consumers themselves. And yet, despite these trends toward mass consumption of material goods and monitoring consumer behavior, sociologists are grappling with how Western civility is radically turning from the accumulation of external commodities, such as goods and services, to viewing one's own body as a form of human capital-to utilize as an outer expression of the self-whether in part or in whole.

Keywords

body, physical, whose, society, capital, techno

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Whose Body Is It? The Body as Physical Capital in a Techno-Society

Sharon R. Bradley-Munn and Katina Michael

Commoditizing the Consumer

In today's post-modern Western world there is a greater propensity towards consumerism. Mass market production coupled with international trade means that you can buy just about anything made anywhere with a simple click of a mouse. Not only are we seeing the commoditization of "things" (i.e. material objects), but also businesses and industries capitalize on this consumerist mentality, studying individuals' buying habits in order to demographically target their market. Such data mining is done through a multiplicity of ways such as through technological monitors called sensors. Sensors capture humancentric data at discrete intervals generating big data that draws out patterns. Such behavior can actually be seen as a type of commoditization not of the product or service but rather of the consumer themselves. And yet, despite these trends toward mass consumption in the buying of material goods and the monitoring of consumer behavior, sociologists are grappling with how western civility is radically turning from the accumulation of external commodities, such as goods and services, to viewing one's own body as a form of human capital—to utilize as an outer-expression of the 'self'—whether in part or in whole.

In 2010, Michael et al. wrote a paper on the Web of Things and People (WoTaP) in a special issue on "RFID Innovation" in *Proceedings of the IEEE* [1]. The paper was about a world in which every object could be connected to the internet and how society was undergoing a paradigm shift in which 'human connectivity' was paramount to the 'connectivity of things' notion. Albeit through the ability to surveil people with location-based services (e.g. using smartphones), or wearables that are strapped to the wrist (e.g.

quantified-self devices), or unique forms of identification applied to the human body (e.g. microchip implants), or permanent prints on the body which are deep in symbolism (e.g. tattoos), the body is increasingly becoming a hub for outward expression through decorative art, as well as the potential for ambient intelligence through technology. Our bodies go everywhere we go, they can be directly seen by onlookers, they are permanent and we cannot live without them, but they are also limited in span and size. Our personhood is encapsulated within them (i.e. major organs like the brain that denote our personality), but we also have an outward appearance which is a type of visual biometric, given what we choose to do with our skin and bodies both on the surface and transdermal layers (i.e. beneath the skin).

The voice of the citizen that was once mainly exemplified in various public forums, has now radically turned inward—placing the emphasis on one's own self as a medium to convey the message of choice [2]. In addition, it can be argued that this message largely connotes a desire to be heard. Forms of self-expression, such as body piercing, tattooing, scarification, chipification and the like are exonerated through the mere fact that these acts are largely going unchecked, whether viewed as non-self-invasive, harmless or radical [3]. Such control over one's own body through alterations and modifications can be grouped together and argued to convey a universal message, a message that heralds a collective statement that the human body is in fact a form of personal *physical capital* [4] and therefore fully within one's rights to self-legislate.

Societal Norms, Planned Obsolescence and Technological Adoption

Some theorists argue that there are mechanisms of control, such as with those that control the message in the media, that are softly-coercing active citizenry into a state of docility—conforming to expected societal norms of the dominant class of influence, while

uncritically accepting rapid change such as found in a highly advanced society lead by rapid technological growth [5]. We observe this claim as people continue to feel the need to purchase the latest high-tech gadgetry, whether it is the latest smartphone, tablet, smartTV or even a drone. We are no longer satisfied with a functional device; it must be the device with all the latest bells and whistles. Others argue that conformance is much more social and is the result of the individual adopting culturally-bound practices within one's defined sub-culture [6]. A third perspective is that of a top-down approach that views technology and the need for adherence, as being the result of an organizational governmental endeavor [7] to ensure civil order and eradicate social injustice, which one day will aid in bringing about world-wide emancipation [8]. We note this in the mandatory adoption of certain ID cards for transport and social security, or even in the planned obsolescence of products developed by companies to ensure the consumer is locked-in to an endless array of upgrades [9]. Commodities are not built to last because it means the individual will remain a life-long consumer—ensuring continued business while fueling the consumerist mentality.

Yet, it can be argued, in this endeavor to maintain social order, that also enables civility to live in community, function in commerce, and progress towards self-maturation [10], technological change (which highly endorses systematic order) often becomes so restrictive that it becomes repressive by those who are subject to it. In such instances, governing technological mechanisms are often deemed as a form of top-down control. As a way for the individual to break free from the limitations of the systematic “straitjacket” (which can be argued to highly parallel Max Weber's *Iron cage of rationality* [11]) the restricted self may react in a variety of ways. Such reactions may include demonstrating disapproval outside the jurisdiction of one's own ‘locus of control’ [12]. Moving beyond such confinements is often

deemed defiant in nature and subject to various penal measures that may even result in punishment not equal to the crime [13].

Empowerment through the Embodied Self

This fear of discipline can then be seen as encouraging society to turn their outward objective gaze, which once strove to understand society as an organic political whole, to the embodied “self” who look to one’s own body as a safe medium to reflect opinion that is void of external punitive repercussions. Whether this tendency occurs instinctively, or even intuitively, it is here that social science can look to the human body as a sign-carrier [2], and ask the question as to whether sub-cultural groups, such as the body-alteration and tattooing movement (thus far being grouped as modern-primitives [14]) is unconsciously working together to reaffirm the rights of the autonomous self to govern changes to one’s physical being, and whether this movement is growing as the result of a loss in public forums once present to the general public as a means to freely express is yet to be determined.

Currently there are no laws that protect the people’s rights of commodifying the human body as a means of exercising freedom of speech, rather such a public display can be argued as legal, due to its remaining largely uncensored by the state. There are state-based Acts that stipulate that an individual should not be enforcedly microchipped in the USA, for instance, but this is legislation that guards against a top-down implementation and does not cover the individual’s right to modify one’s own body [15]. Additionally, CASPIAN director, Dr Katherine Albrecht, had proposed a Bodily Integrity Act in 2007 to prevent the forced or coerced chipping of individuals in America [16]. One thing is for certain, major historical change does not transpire without a radical shift in society’s behavior, which is not only reflective in one’s thinking and level of acceptance to change, but also endorsed by society’s

collective act-of-adoption. It is this post-modern pre-occupation with remaking the human body, combined with the uncritical acceptance of technological change, that makes the intermingling of human and machine an outward phenomena well-worth investigating. William A. Herbert [17] argues that the intermingling of human and sub-dermal devices is “[a] social phenomena of technological branding”. The transhumanist movement, full of high profile techno-evangelists typifies this “all you can eat” technology paradigm, to the point that they propose that soon we will all become something other than human, as if being purely human is not enough.

The Right to Govern One’s Own Body

Body piercings, tattooing and other forms of more radical alterations, such as skin-laceration, involves a study grounded within the confines of the *sociology of the body* [6], and yet extends more broadly to issues of universal human rights as well as international humanitarian laws. It can be argued that the individual is both a social being and a political citizen with certain rights to self-legislate [18]. This juxtaposition places the emphasis on one’s own human body as a vehicle to self-determinate, while inadvertently exercising political freedom collectively at an objective level. While social scientists strive to comprehend the signs of the times and endeavor to mark this era as being distinct from any other time in history, the remaking of human identity through technology as a means of the individual exercising political freedom, is a clear indicator that we have entered a new cultural era. As well, the degree to which sub-dermal technologies are being considered for top-down implementation as a means to improve the human race, while maintaining social order is another clear historical marker that society’s ideological beliefs have radically shifted and modernity has come to a close.

Due to the lack of true public forums (e.g. public referendums), more and more the self is becoming less engaged with the external political world [19]. This is resulting in the individual having an ever-growing fascination with the forming and remaking of one's own identity. Erving Goffman interprets the use of the human body as a type of 'sign carrier', arguing that the way in which people adorn and present their bodies, is how they impart knowledge about themselves to the outside world [2]. Arthur Frank argues that this message permeates the level of subjectivity and therefore is not silent. He argues that through the paradoxical interplay between modern society and the speaking body, the polarity between subjectivity and objectivity is resolved. Likewise, as being argued by the phenomenologist, the chasm between these two views can be resolved through an investigation of the manifested collective phenomena [20]. By the talking body, Frank is referring to an understanding of communication as quite literally embodied human cognition and communication that is grounded in the corporeal (physiological) experience. Thus, Frank concludes that although our human experience and the way we interpret society is subjective; we all have bodily experiences that are common to each other's and are therefore grounded in a type of objective tangible reality. Hence, such common experiences can be reflected upon corporeally and in doing so, it provides a mutual comprehension of our social world [20]. Although the study of one's individual phenomenon provides us with the subjective perspective, whereby we can still gain knowledge through the investigation of each independent case-study, larger quantities of like-phenomena can be grouped collectively to look at sub-cultures more holistically. This provides us with an objective view, which then presents a more macroscopic lens of the way in which the individual is remaking human identity as a whole, through the aid of technology [21]. Although such studies are highly qualitative, its heavy reliance on observation makes the findings highly empirical. Through the study of the manifestation of the physical body and the individual's actions, science can

obtain an objective view of an individual's subjective experience on a collective level, to which Frank deems as being corporeal.

Modern Primitives and the Rise of Body Modifications

Regardless of whether the self is acting consciously or unconsciously the remaking of individuality through technology is a worthy subject of study, and can provide two-fold value—enlightening the social scientist while giving the individual a sense of worth to the embodied experience—placing emphasis on the purpose that spurs the individual towards certain ends [22]. In this sense, it is equally a study of the actions of the one, which can be contextualized within the many when a common denominator is found, where the objective and subjective dichotomy are at least partially harmonized [20]. Christian Klesse also deems the marking of the human body as one such type of phenomena worthy of investigation on a macroscopic level. Presently, sociologists see societal groups that alter and mark their bodies as "[a] sub-cultural movement in the intersection of the tattoo, piercing, and [the] sado-masochism scenes" [14], p. 309. According to Klesse, this modern movement originated in California, USA in the 1970s and has grown significantly over the past decades. One body modifier states, "I am a part of this [modern] culture but I don't believe in it. My body modifications are my way to say that" [14]. Fakir Musafar, who was noted as the most prominent of all body-modifiers within that scene coined the term *Modern Primitives* as a way to identify himself along with others who alter their bodies as a response to primal urges [23]. Given there are various reasons for engaging in such practices that are highly diverse it is understood that this sub-culture comprises multiple communities. Klesse writes [14]:

One of the most significant characteristics of the Modern Primitives movement is their appropriation of 'primitive rituals'. In their search for radical corporal, psychic and spiritual experiences and their performance of sexual events and encounters, Modern Primitives seek inspiration by so-called primitive societies through the adoption of their communal rites and body modification techniques.

Such body modifications are viewed as an activity engaged in by consumers that act as a means to construct one's identity through the transformation of one's own physical capital—the human body [24]. It is here that the social theorist is making an indirect reference to the individual, as being an autonomous agent possessing ownership and rights of governance over one's own physical body. This doctrine must be grounded in the understanding that self-determination is limited, in that it excludes the rights of inflicting bodily harm. This distinction needs detailed articulation, due to irrational behaviors (i.e. cutting, pleasure in pain) that can be argued as being a direct result of a psychological disorder [25] and subject to medical prevention. It can be argued that such irrational behavior puts human rights to self-govern in jeopardy. Whether consciously or not, the embodied selves are collectively growing in number, and in this sense, their actions are becoming unified—forming a unified voice of solidarity, crying out, “Enough is enough, this is my life; I have the right to alter my ‘own body’ as I please”. These very rights, combined with the way in which technology is changing the propensity to body alter, are central to this discussion. It addresses whether full governance should be placed with the individual as a type of universal right of self-legislation as being ethically established through critical discourse or whether rights of autonomy remain as they currently are—a matter of the law—determined on a case-by-case basis.

The Momentum of Implantable Devices that Pierce the Skin

Between 2014 and 2015, international media covered numerous Internet of Things stories that make this paper timely. In April 2014, GroupM's Irwin Gotlieb said that the “Wearable is cool, but the next form of media will be implantable—devices which are implanted in the human body” [26]. Director of Engineer at Google, Ray Kurzweil, concurred that we would have “millions of blood cell-sized computers in our blood stream” within 10-

20 years [27]. In June 2014, *IEEE Spectrum* reported that Medtronic wanted to implant sensors in “everyone” [28]. In November 2014, Peter Diamandis, well-known CEO of the X PRIZE Foundation and co-founder of the Singularity University, got an NFC implant on a spur of the moment, at the Singularity Summit in Amsterdam [27]. He said in his own blog: “Many big companies like Apple, Samsung and Google are working on technology to measure your biology from outside of your body. Wearable devices ranging from watches to contact lenses will track everything... footsteps, heart rate, blood glucose, blood pressure and other critical vitals. The challenge is that they only work when you remember to wear them, and there are some things you can’t measure from the outside. The question is: when would you be ready to start incorporating technology into your body?” [29]

To demonstrate that this thinking about next generation IT was not isolated to the USA, in December 2014, 8 Swedes held an implant party in Stockholm. BBC News reporter, Jane Wakefield, noted Hannes Sjöblad’s hoped that his implant party would spark a conversation about our possible cyborg future. He said: “The idea is to become a community that is why they get implants done together... People bond over the experience and start asking questions about what it means to be a man and machine... Curiosity is one of the biggest drivers for us humans. I come from a maker hacker culture and I just want to see what I can do with this” [30]. In January 2015 it was reported by the *BBC*, that a hi-tech office block in Sweden known as Epicenter, was granting employees the option to take a microchip implant under the skin for physical access control to the building, among other functions [31]. In August 2015, Lloyds Bank announced that about 7% of UK consumers would adopt microchip implants in their body for making electronic payments [32]. In September of the same year, Kaspersky Labs became intrigued with the “security” issues related to microchip implants and engaged Hannes Sjöblad, Chief Disruption Officer and Founder of BioNyfiken (of Epicenter) to their APAC Cyber Security Summit in Malaysia to demonstrate the implantation process [33].

This is all the while that *DangerousThings.com* has been creating a recognized brand with NFC/RFID implant solutions for biohackers since 2013. Visiting the homepage of *Dangerous Things* one is greeted by the following messages: “We believe biohacking is the forefront of a new kind of evolution”, and “RFID/NFC next level body augmentation”. But most pertinent of all to this article, is a statement on the “About Us” page noting, “We believe our bodies are our own, to do with what we want. The “socially acceptable” of tomorrow will be defined by boundaries pushed today, and we’re excited to be a part of it” [34].

Drawing the Plumb Line

Christian Klesse states that the signs of the time have been marked by “[a]n unprecedented individualization of the body [where] technological developments, among others, allow for the alternation of the body” [14]. Yet, clearly, it is not just that new technological development is opening up alternatives for body alterations but that the mass acceptance of body modifying practices are shifting the mind-set of the individual to more readily accepting skin-embedded technologies. In this sense, there is a conformance transpiring that both “is” and “is not” completely lead by one’s own free volition.

In Charles Taylor's studies on "Hegel and Modern society", he addresses the notion of being free from external influences. He addresses the question pertaining to freedom by asking the question, if one is truly free when "[b]eing motivated by one's own desire, however caused?" [35], p. 3. Taylor goes on to answer this question by stating, "[m]oral freedom must mean being able to decide against all inclination for the sake of the morally right" [35]. In contrast to the moral relativistic perspective that views happiness as a by-product of fulfilling one's own desire, he writes [35]:

Instead of being dispersed throughout his diverse desires and inclinations the morally free subject must be able to gather himself together, as it were, and make a decision about his total commitment.

Taylor adopts a highly sociological approach, and argues that “[f]ollowing the Heideggerian dictum of being-in-the-world, [...] human beings are already situated in a certain context of cultural meanings; they are embedded in a web of pre-existing and pre-interpreting cultural significance” [36]. Although Taylor argues the need for an objective stance, he in no way supports penal actions for those who have not reached a place of true moral freedom—a place where the self is free from inclinations of the culture in which one is imbued. While this reference helps to aid in determining the distinction that needs to be made, and clearly supports the notion that a certain level of maturity must be in place before an individual can truly exercise proper moral freedom, it in no way supports the notion that freedom of choice should be taken from individuals who lack the capacity to clearly decipher personal motivations as to whether one’s decisions are objectively made and free from external influences, once legal age of consent has been met—at least in so much that it is in reference to one’s own autonomous self. Likewise, Baron du Montesquieu advocated against a standardizing of society, or leveling of tastes or ideologies through imposed indoctrinations. Montesquieu wrote [37] p. 54:

If there were in the world a nation which had a sociable humour, an openness of heart, a joy in life, a taste, an ease in communicating its thoughts; which was lively, pleasant, playful, sometimes imprudent, often [injurious]; and which had with all that, courage, generosity, frankness, and a certain point of honour, one should avoid disturbing its manners by laws, in order not to disturb its [tranquility].

It is here that, the authors of this paper argue that the right to exercise moral freedom must be given both to those who are acting intuitively as well as instinctively, to the extent that one’s intuition or instinct aligns with the rights of the one and does not work against the good of the collective in a way that is objectively proven. Human instinct is innate and does not parallel Taylor's notion of inclination, but rather in various disciplines such as business is referred to as a *gut feeling* [12]. This feeling is subjective—often going against all odds—

making it distinctly separate from an inclination derived due to calculative thoughts or social influences. Hence, moral freedom—pertaining to adopting body-invasive practices or technologies as well as the refusal of such practices—should not be based on one's ability to articulate the rationale behind one's position whether the individual believes adoption to be right or wrong. The authors of this paper argue that human choice, concerning the right of moral freedom, is not just for the cognitively developed, as intelligence is not limited to academic achievement.

Who Owns My Body when Technologies Invade It?

In issues which involve moral freedom there needs to be a clear distinction—let us call it 'the plumb line'. The distinction that needs to be made is concerning ownership of one's own body in the interchange with body-invasive technologies. Currently there is a great divide, and so while in our examples we have largely focused on free-adopters, (i.e. so-named modern primitives, also known as RFIDs, biohackers, grinders or DIYers), that alter one's appearance as a means of conveying information of one's identity in order to freely exercise self-governance, the line is not being drawn here but rather the plumb line is with placing individual's under marks of servitude through top-down practices or organizational implementation, imposing an ideology of acceptance that is not one's own. While the first supports freedom to self-determinate, the second leaves no room for moral freedom to be exercised—such as with an outright refusal of accepting changes to one's physical capital.

Various theorists are arguing body modification is a way of constructing one's identity. For example, inserting metal devices under the skin can be seen as a form of resistance to traditional pressures to normalize, by means of challenging the expected norms of society [24]. However, while the modern primitive engages in consumption, whereby they

use one's own body as a form of physical capital, it often parallels Western civilities position of extreme commoditization of external goods [6] p. 305. It can be argued that rather than the modern primitive taking a stand against repressive systems or resisting expected societal norms, through using one's own body beyond its natural intent, the individual is instead aligning with the linear historical direction of over increasing rationality that seeks to merge man and technology as a means to eradicate social injustice, whether as a mechanism of control or as a means to maintain social order. This was particularly exemplified when implant proponent Hannes Sjoblad, told BBC that his Swedish Biohacking Group had another objective for the Epicenter trial which was preparing us all for the day when others want to chip us. Sjoblad was quoted as saying: "We want to be able to understand this technology before big corporates and big government come to us and say everyone should get chipped - the tax authority chip, the Google or Facebook chip" [31]. Similarly when Amal Graafstra was asked in 2007 whether or not he would accept a national ID implant, he replied: "a lot of people ask me... if I am ever going to get my tags removed and I do not really see a reason to do that—unless of course they become oppressive in some way and my particular brand of tags can be used in that [oppressive] system then I would remove them" [38], p. 448.

Conclusion

Through the participation of modern primitivism, it can be argued that Cyborg becomes less alien or 'sci-fi' and more and more culturally acceptable by a pre-conditioning of society. Hence, it can be argued that the ancient metaphor becomes present-day reality, while through the very act of adopting body modifying practices the embodied selves are collectively, "[s]owing pillows to the arm-holes" of the people—stripping humanity of the power to evoke change. In this sense, (which differs radically from the collective voice of

solidarity described above), it can be argued that modern-primitives acceptance of body-modifying devices has the potential to inadvertently promote a form of cybernetics that is designed to place humanity at ease—where the individual can easily enter into a state of docility while the governing system acts as the big brother—maintaining social order in exchange for providing a standardization of goods and services. Theorists are already predicting that embedded technologies will be viewed as a user friendly mechanism to ensure social order, while making unprecedented promises to the general public [39].

If the individual is lacerating the skin by one's own violation, or inserting metal devices in order to add texture and contour, whether for aesthetic value, sexual appeal, on-body computing, group affiliation, or the mere shock value, the motivating factor driving the cultural movement becomes less relevance to that of understanding the direction in which it could be argued as leading the masses. For it is here that it can be sociologically grouped and viewed as an important signifier that draws our attention to other movements, such as cybernetics, and just how the acceptance of body alterations, (e.g., lacerations, embedding metals, and sadomasochism), is paving the way. In this sense, body alternations of this nature differ very little in appearance from top-down cyborg in the form of state paternalism; the necessary distinction is that rights of adoption or refusal remain within the individual's jurisdiction to choose in conjunction to its utility or purpose.

In order to ensure clarity, it is imperative modern primitive acts be not grouped as a whole. For example, although, sadomasochism and skin-laceration are extreme, it is a matter that concerns itself, not only with rights of self-governance but due to its nature also can be seen as harming oneself unlawfully. Therefore, causing bodily harm to oneself is distinctly different from, let us say, the act of nose piercing, which has little to no residual effects when

it comes to physical harm or being used as a form of social control, other than being seen in ancient practices as a form of being enslaved—an ancient landmark. Regardless of the stance we take on body modifying, the human body is sacred and trespassing without consent is not without serious repercussion—be it a *known* or the results of an unintentional consequence—it is here, the line is drawn. In conclusion, we are not advocating that the rights of modifying one's own physical body be taken away, but rather, that lines of distinction must be drawn in order that moral autonomy remain intact. In address to theorists' concerns, it is imperative this movement receive ever greater levels of articulation.

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