

Capitalism, Labor and the Totalising Drive of Technology¹

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Abstract. In this paper I try to illustrate, quite roughly and indicatively, the interconnections between automation technology and social organization. Central to this analysis are the notions of automation, increased productivity in a capitalist society, labor, equality, global inequality and the modern culture of technology. I will end the paper with brief critical remarks on the question of 'robot rights'.

Keywords. Automation, labor, equality, global inequality, robot rights, the Other

1. Introduction

As the Robophilosophy 2018 conference description observes, a strong motivational drive pushing the development of robotics and automation technology more generally, is centered on the demand for increased productivity. What I want to do in this paper is to illustrate, quite roughly and indicatively, how the demand for productivity and hence automation is intertwined with our modern and capitalist social organization and its imagination, as well as with questions of labor, equality, and global inequality, ending with some critical remarks on the discourse on 'robot rights'. Some of the observations I will present here are, to my mind, aspects that tend to be omitted in the robotics discourse.

2. The Culture of Technology as Biopower

I want to begin my somewhat ambitious attempt by introducing and suggesting an essential tie connecting (especially the strive for increased) productivity, social organization, and automation. I will do so by inviting the reader to, in his/her mind, compare two different institutions or (plat)forms of commerce: the contemporary consumer market on the one hand and the *bazaar* on the other hand. Now my question here is, which of these two more easily invite, as it were, technological automation?

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The issue here is of course not that the different social and economic aspects at a *bazaar* could not, out of some necessary principle, be formalized *so as to develop different forms of automation technologies to suit it*. Rather the issue concerns, as one might put it, the complexity of the formalization and hence the technology demanded for automation. That is to say, the issue concerns the way in which the commercial activity is organized, what standards and norms regulate it and what values and ideals underpin it.

Think here for instance of Amazon's newly launched Amazon Go, the automated grocery store, which is an extension of the consumer market most urban people, I gather, are used to. In contemporary consumer markets, as opposed to the *bazaar*, prices are universally standardized, never negotiated—as is more or less the custom at *bazaars*. Products are, usually, organized in linear fashion along straight lines of shelves—like most of Manhattan—with signs to help the customer orientate him-/herself. This is needed since it is the customer him-/herself that is to fill up the shopping cart, take it to the cashier, load the products on the cashier desk and so on, hence contributing to the market's overall productivity with a form of free labor. Amazon Go has not only automated the cashier desk—this has been done before Amazon Go; it has removed it from the equation, something that of course requires more automation than simply the moment of monetary transaction.

Efficiency is a central aspect here. When prices are universally standardized, when no negotiation is needed, when customers can orientate themselves and proceed quickly and independently, more customers can be served with, as it were, less. Productivity has gained.

The important thing to note here is that even without automated cashiers or no cashier desks at all (cf. Amazon Go), the contemporary consumer market, in its organization (of efficiency and productivity), is already, as it were, largely automated. The technological complexity required for automating some particular task—a particular 'cog of the overall machinery—in this institution is 'simplified' to the extent that the institution is itself organized along quite strict, determined, predictable, and universal etc. standards and norms. This is obviously not to say that the technology is 'simple' in any general sense, but rather only in comparison with what automating commercial activity at a *bazaar* would demand: just think of the technological challenge of automating the procedure of negotiating the price of a product more or less anew with each customer, or to automate neighborhood gossiping—and to do this with a *face*. And just think of the efficiency and productivity losses this would entail. In other words, it is no coincidence that automation technology has emerged out of, so to speak, a consumer market culture rather than a *bazaar* culture: the *bazaar* does not build on the kinds of norms of productivity and efficiency that (*de facto*) has motivated technological automation.

That the introduction and deepening of automation technology has gone hand in hand with the 'instrumental rationalization' of high modernity's social, political and economic reality is a topic that has been discussed at length by authors such as Ellul [1], Mumford [2], Taylor [3] and of course the so called Frankfurt School [4], just to name a few. And reading the programmatic pioneers of modern (techno)science it is not hard to spot the *instrumental* ethical-aesthetical ideals injected into the notion of modern 'rationality'. Take for instance the following quote from Descartes' *Discourse on Method*, where he portrays, by way of analogy, the ideals of 'scientific knowledge'.

One of the first of the considerations that occurred to me was that there is very often less perfection in works composed of several portions, and carried out by the hands of various masters, than in those on which one individual alone has worked. [...] In the same way also, those ancient cities which, originally mere villages, have become in the process of time great towns, are usually badly constructed in comparison with those which are regularly laid out on a plain by a surveyor who is free to follow his own ideas. Even though, considering their buildings each one apart, there is often as much or more display of skill in the one case than in the other, the former have large buildings and small buildings indiscriminately placed together, thus rendering the streets crooked and irregular, so that it might be said that it was chance rather than the will of men guided by reason that led to such an arrangement. [5]

The connection between the consumer market, Manhattan—or any modern city planned and organized under the influence of ‘high modernity’—efficiency, productivity, and rationality stares one straight in the face here. What is more, as the reader might recollect, it is these ethical-aesthetical ideals of knowledge/science and its associated universal method—which is to produce true knowledge “as if by machinery”, as Bacon [6] so aptly put it—that is understood by, not only Descartes, but by Bacon, Galileo, The Royal Society [4] etc., as the means by which *man* is to become “master and possessor of nature” [5], hence reinstating the language of Paradise in the mouths, minds and hearts of men and thereby bringing forth the will of God in the *works* of men, as Bacon [7] proclaimed.

One might hence say, with a Foucauldian emphasis, that the politics of robotics/automation technology is a biopower/biopolitics; a biopower that has as its aim to discipline and control the human mind and behavior through the inscription of the universal *method* and its ‘instrumental rationality’ into social organization, bringing forth the works of this principle—the refinement of nature [6]—and manifesting the imagination of ever increasing productivity and economic growth, with the subjugation of nature as a means to this end.

3. Labor and the Discourse of Equality

Let us slightly rephrase this modern universe in order to better highlight its connection to labor. Compared to both ancient Greece and medieval feudal Europe, where the secular aim of rationality was to, crudely put, organize society in accordance with the inherent normative order/hierarchy of the ‘closed’ cosmos [4], ‘modern’ secularized Europe, in turn, increasingly witnesses the political, social, and economic implementation of a rationality that pictures the universe/nature as open, as devoid of inherent normativity and hence in need of artificially/culturally enforced norms: in short, an (‘protestant’) *ethics of work* generating an imperative for ‘progress’ and economic growth.

Or put differently, if, as in the modern imagination, nature was not as such a finished/completed creation, but rather the raw material for the industriousness of divine instrumental rationality, then man was called to take control and possession of nature in order to fulfill the divine work of creation [8].

This emphasis on (manual) work and industriousness in the modern narrative, as Marx and Engels [9] observe, contributes to the strengthening of class-consciousness and, according to them, the (inevitable) approach of the proletariat revolution. Independently of their dialectical determinism, one might say that what they are pointing at here is an intertwined relationship between the notions of growth, productivity, capitalism, labor, and social- and economic equality.

And for sure, modernity together with its programmatic ‘rationalization’ and its dismantling of the normatively organized whole/cosmos, has an inherent norm or principle of universal equality built into its narrative. Rather than the uniqueness and powers of the single human mind, rationality was assigned to the universal method alone, a method that was equally applicable to any human mind, independently of origins or class (the case of gender is more problematic!), as both Descartes [5] and Bacon [6] noted. This meant; each individual was equal *under the rule* of instrumental reason. Compare: each individual is (principally) equal under the rule of capitalist market logic [10].

Let us make a brave jump and reflect more concretely on the intertwinement of labor and equality in modern times. One of the central ways in which the ideal of equality has made its way into social reality very concretely is obviously through the working class’s growing standards of living and the access to for instance education, services, and commodities formerly only available to the aristocracy and upper-classes. Again, a central trait here has been the increase of labor wages as one of the main mechanisms of distribution of wealth created within the capitalist system as well as progressive taxation and their allocation to social security, infrastructure etc., all building-blocks of the modern welfare state. Here again, especially the demand for mass production of consumer goods, their economic availability and the increase of labor wages have, in various and interconnected ways, contributed to the increasing automation of production/labor [2].

The increase of social and economic equality has obviously reshaped social reality in many ways, especially in those countries like the Nordic welfare states where the level of equality has pierced the social structure quite comprehensibly. My specific interest here will now be the way, I believe, in which a paradoxical relationship emerges between equality and automation when equality in and through a capitalist society is established locally/regionally. Let me introduce this theme with the help of a simple example.

Still during my mother’s youth (in the 60’s), not to speak of my grandmothers, it was not at all uncommon for the upper-middle class, not to speak of the very wealthy, to have a live-in or full time servant. This was made possible because the servant’s labor costs were relatively cheap, and because it was perceived as socially acceptable to house such class distinctions. In other words, it was made possible by a high degree of social and economic inequality. Nowadays, although the middle class does use cleaners, I know of no one who has a servant: it is both socially suspect as well as economically quite unaffordable (at least in Finland), since the level of social and economic equality has meant, as noted, notable increase in labor costs, i.e. a ‘fairer’ distribution of wealth³.

Dishwashers, washing machines and nowadays robotic vacuum cleaners and other household-bots as well as more sophisticated service- and entertainment robots have and/or are partly reintroducing affordable commodities/services to the middle class and making some of them available even for the lower economic classes⁴. Thought of in terms of labor and social equality, it seems then as if these new technologies reintroduced cheap labor without the discrimination and exploitation of other humans.

³ This is of course not the case globally; in many places live-in/full-time servants are still quite common. Even in a country like Britain the amount of domestic servants, both part-and full-time, seems to be on the rise, more or less in tune with the growing economical inequalities and human trafficking [11].

⁴ Again, in societies where social and economic equality is very low the *dynamics* is different. When cheap labor exists the need for automation *tends* to decrease. Similarly, when the purchasing power of lower classes is very weak their access to e.g. automation technology—and other services—is very limited.

Or: as if robots and other technologies decreased the amount of labor done by humans (in specific tasks) while sustaining or even increasing the total amount of labor done.

The cheapest robotic vacuum cleaner I found on the internet while writing this paper cost roughly 99\$. Now this piece of machinery is certainly a success of productivity. Just imagine what goes into the whole chain of production of such a robot: you have the design and the engineering of the robot, you have the production of all the bits and pieces, the assembling of it, and you have all the human and machine labor that goes into these phases, plus you have all the labor that goes into the manufacturing of the machines that are part of the manufacturing of machines etc. Then you have all the raw materials needed for each of these phases, their extraction and refinement, and here again, you have all the human and machine labor needed, including the logistics of the supply chains/the total chain of production. And importantly, you also have the energy (fuel) needed for each of these processes *plus you have the pocket of the capitalist, i.e. the surplus-value of the product*. All of this fits into 99\$, and the capitalist is, mind you, quite well off here. What a success story!

Robots or other technological devices (as well as most of today's market commodities more generally) should not, in other words, be understood as individual or independent 'agents' or 'units' but rather as units of a network/cluster of technologies, (human and machine) labor, materials, and energy [12]. Now the immanent problem here is then that the robot as such, as a piece of machinery buzzing around your apartment costing only 99\$ plus the cost of energy it needs in order to function—or the industrial robot working in a factory—conceals within itself a chain of production with which we are not directly in touch with. So the magical trick, the illusion the robot is able to produce, is that it can have us believe that we can enjoy a form of service/labor which was formerly available to us only by means of a high degree of social and economic inequality, now devoid of this inequality. For that there is a robot instead of a human cleaning your household does not in itself mean that greater equality has been reached—that no oppressive or unequal human labor and/or treatment is involved—since the robot veils a whole chain of labor, material and energy that is compressed, as it were, in the robot. That is to say, it is not only the robot buzzing around your apartment that is working, but a whole chain of production, a great deal of it not yet automated. —Although people might regionally work less with a specific task, say in factories and other areas that have been automated, more people work globally *for the industry of modern consumer society*, in that individual pieces of machinery (and the commodities they produce) cannot/should not be understood as *independent* 'agents' or 'units' but rather as units of a network/cluster of technologies, (human and machine) labor, materials, and energy. Automation surely does create new jobs; surely even more than it takes away, globally speaking. Yet, to what extent global social inequality has been reduced due to regional increases of equality, is a question that needs to be added to the equation.

I cannot go into any details here. Suffice to say, I hope, that there are grave concerns in terms of social justice and environmental issues connected to the chains of production just now alluded to. Not only do we have the concerns of the labor conditions and -wages involved in the supply chains [13]. We also have the geopolitics of energy and natural resources, as well as the wars (economic, military, information/political) fought in competition for them [14, 15]. In addition we have the grave socio-economical effects of environmental deprivation and climate change associated with the extraction industry and fossil fuels [16], also resulting, as many researchers have pointed out [17], in both mass emigrations as well as wars. As we

should remember, what has made modern capitalism and its technologically based industry (economically/practically) possible, has been, alongside cheap (and even slave) labor, extremely cheap energy and cheap access to raw materials (which so often have come from the colonial and nowadays post-colonial areas).

The basic paradox that I am trying to point out here is that the project of social equality and just distribution has not been able to actually disentangle itself from the logic of exploitation, globally speaking. Welfare states have focused too narrowly on distributing the affluence created by a capitalist logic that inevitably thrives on the logic of *surplus-value*; a form of wealth that rests on the fundamental principle that market value can be indefinitely separated from labor-value [10] and is without any *essential* environmental restraints. This has meant that a rise in (economic) equality locally/regionally has created new dimensions of economic as well as social and ecological inequalities globally.

These reflections consequently have direct bearing upon the notion of basic income, a current political topic intimately related to that of automation technology. As a technique of social organization basic income appeal not only to the political left, where it is perhaps primarily understood as a new or revised mechanism for a fair(er) distribution of wealth, a wealth created by gained productivity essentially aided by automation technology [18]. For it also appeals to the political right—or perhaps better put, to the systemic *status quo* of capitalism—as, amongst other things, a mechanism for balancing the equation between (human) labor and automation: the market needs consumers and consumers need purchasing power, which, in the face of increased automation, threatens to be reduced.

Now the question that needs to be addressed here is what kind of a life-style or standards of living—built on and sustained by what conditions and with what consequences—is basic income to support or uphold? Is the aim simply to strengthen regional/local equality? And if not, if the aim is to work for a more equal *world*, then the question is what kind of standards of living would actually be ecologically, socially and culturally sustainable and fair *globally* speaking? Is the logic of surplus-value compatible with such equality?

We have, I think, compelling reasons for thinking that *our* ‘consumer life-styles’ in fact do build, in their current fashion, on quite (environmentally and socially) unsustainable and unjust standards [16, 19]. So without including these reflection to the debate on basic income—and social and economic equality more generally—I fear the political reality of basic income will simply result in, despite its genuine contribution to a regional/local distribution of wealth and the balancing of labor and automation, a way of securing the balance and functioning of a consumerist driven capitalist and, arguably, inevitably unequal and destructive society/world.

4. Rights and the discourse of the Other

Now I want to end by quickly reflecting on the discourse of the Other; on ethics, rights and responsibilities, issues nowadays so often attached to the robotics discourse. As I have tried to argue, the aims of social, economic and even spiritual ideals have, throughout history, been tied to the subjugation of the Other; in the context of western modernity, the Other of masculine instrumental rationality. And with reference to what was said above, both the affluence as well as the equality in modern capitalist society

has always demanded the sacrifice of the Other, that is to say, the Other by which the One is made.

We have the ‘classical’ Other as body or flesh and its temptations and sins; the Other as the passions. And we have the Other as nature, the Other as animal. And there is the Other as slave and/or worker, the Other as the ‘global south’. And then perhaps most fundamentally, the Other as woman. Throughout modern ethical discourse the Other has in various ways been granted ethical recognition and access to the realm of rights. Today, as for instance the RoboPhilosophy conference series bears witness to, robots are entering this discourse, not the least because, in very concrete terms, robots, as a strand of automation technology, have taken the position/function of—i.e. have always been intended as—a worker or slave.

To my mind this last entry is confused, misleading and bears potential destructive consequences. In order to make my point shortly, I will start by saying that while I can appreciate the pragmatic and political ‘use’ of the discourse of rights (rights to nature, rights to workers, and rights to women), I nevertheless feel that this keeps itself within the logic of the underpinning symptom. For as it seems to me, what is omitted here is that the discourse of the Other is based on the need to create the Other as part of the function of making One, as Lacan would have it. In other words, as Lacan [20] insightfully comes to realize, there is “no Other of the Other”, because the One is itself underpinned by a fundamental fantasy and has no essence of its own: The One can never be made: it is a “misplacement” [21].

Translating these cryptic Lacanian phrases into more concrete terms, one might take as an example James Baldwin’s [22] sharp observation that there is not, nor has there ever been, a ‘nigger’, although many might have taken on this identity ascribed to them as a misplacement. There has never been a ‘nigger’ because the ‘nigger’ exists only on the level of fantasy and social/political identities created out of desire by the slave-owner as a way of positioning him-/herself in his/her perversion and self-alienation.

What I am trying to suggest here then is that the Other of ‘woman’, ‘slave’, ‘worker’, ‘animal’ etc. should have rights exactly because they are *not* essentially the Other as a function of the One. Robots and technological artifacts on the other hand are nothing but this Other: that is to say, they are nothing independent of our human will to construct/make them: we do not *make* the living and responsive beings that are named ‘woman’, ‘worker’, ‘slave’, ‘animal’ etc., in any other sense than as political/power identities/categories, whereas we very concretely make robots. Or: other living beings are not products of instrumental reason, i.e. products of our power over natural phenomena, in any other respect than as political/social/collective categories: it is the living, that which is not ours to make, which calls for our moral engagement (artifacts do so only indirectly).

The crucial confusion in placing the question of robot rights as an extension of the discourse of rights of women, slaves, animals and even the environment, as for instance David Gunkel [23] seems to be doing, is that robots as artifacts are essentially quite different to non-artifacts, be they animate or inanimate. This might be expressed by saying that while living beings as well as even inanimate beings/things such as stones, mountains, rivers etc. are not inherently normative (at least not construed under *our* norms), artifacts, on the other hand, are inherently based on our norms. If we want to control and subjugate living beings or even stones and rivers, it takes some effort from our side, since there *is something there* to regiment and control. Artifacts, robots, are in their origins nothing but expressions of our will, power and control; we do not have to

put effort in regimenting and controlling them. We might of course aspire to make them more ‘free’ or ‘autonomous’, but all the same, their ‘freedom’ and ‘autonomy’ will continue to be expressions of and always based on our norms, since it takes great effort to *make* them ‘free’ and/or ‘autonomous’. We do not *make* other persons free or autonomous in any other sense than through regulatory power politics, that is to say, grant them their freedom or autonomy *after it has been taken from them by our juridical system of discipline*, although we might of course inspire, support and guide individuals to grow in autonomy and freedom, which is, arguably, essentially very different from *making/constructing* them so [24].

My critical point here is then this: Although robots and other automation technologies are part of the dialectics of labor and equality, it is not the robots (themselves) that we need to think of in moral terms but rather the drive of instrumental reason behind it, its ever widening kingdom, and more importantly, the actual labor done by humans in the supply chains as well as the environmental deprivation and its socio-economical effects. Putting our focus on the robots themselves, especially as independent units or agents, risks deepening the alienation and opaqueness high technology more or less necessarily comes with.

References

- [1] J. Ellul, *The Technological Society*, A.A. Knopf, New York, 1964.
- [2] L. Mumford, *Technics & Civilization*, fourth edition with a new foreword by Langdon Winner, University of Chicago Press, Chicago, 2010
- [3] C. Taylor, *A Secular Age*, The Belknap Press of Harvard University Press, Cambridge, 2007
- [4] D. Schecter, *The Critique of Instrumental Reason from Weber to Habermas*, Continuum, New York, 2010
- [5] R. Descartes, *The Philosophical Works of Descartes*. (Fourth edition) transl. & ed. by Elizabeth S. Haldane and G. R. T. Ross. Cambridge University Press, New York, 1967
- [6] F. Bacon, *Novum Organum Scientiarum*, Bottom of the Hill Publishing, Memphis, 2012
- [7] F. Bacon, *The Advancement of Learning*, The Temple Press Letchworth, London, 1950
- [8] R. Proctor, *Value Free Science? Purity and Power in Modern Knowledge*, Harvard University Press, Massachusetts, 1991
- [9] F. Engels and K. Marx, *The Communist Manifesto*, Penguin Books, London, 2011
- [10] K. Marx, *Capital: A Critical Analysis of Capitalist Production, Vol. 1 and 2*, Wordsworth Editions Limited, Hertfordshire, 2013
- [11] H. Mount, “Are You Being Served?”. *The Telegraph*, April 28th 2013. Accessed March 2018.
- [12] A. Hornborg, *The Power of the Machine: Global Inequalities of Economy, Technology, and Environment*, Altamira Press, Walnut Creek, 2001
- [13] L. Waite *et. al.*, *Vulnerability, Exploitation and Migrants: Insecure Work in a Globalised Economy*, Palgrave MacMillan, New York, 2015
- [14] H. Gardner and O. Kobtzeff, *The Ashgate Research Companion to War: Origins and Prevention*, Ashgate, Farnham, 2012
- [15] M.Klare, *Rising Power, Shrinking Planet: The New Geopolitics of Energy*, Henry Holt and Company, New York, 2008
- [16] T. Trainer, *Renewable Energy Cannot Sustain A Consumer Society*, Springer, Dordrecht, 2007
- [17] H. Welzer, *Climate Wars: what people will be killed for in the 21st century*. Polity Press, Cambridge, 2012
- [18] G. Standing, *Basic Income: And How We Can Make It Happen*, Penguin, London, 2017
- [19] M. Ulvila & J. Pasanen (eds.), *Sustainable Futures: Replacing Growth Imperative and Hierarchies with Sustainable Ways*, Ministry of Foreign Affairs of Finland, Erweko Painotuote Oy, Vantaa, 2009
- [20] J. Lacan, *The Sinthome: The Seminars of Jacques Lacan Book XXIII*, Polity Press, Cambridge, 2016
- [21] J. Lacan, *Écrits: the first complete edition in English*, translated by B. Fink, W.W. Norton & Co cop., New York, 2006
- [22] J. Baldwin, *The Fire Next Time*, Vintage International, New York, 1993
- [23] J. D. Gunkel, *The Machine Question*, The MIT Press, Massachusetts, 2012

- [24] N. Toivakainen, "To Think for Oneself: Philosophy as the Unravelling of Moral Responsibility", In M., A., Peters and J., Stickney (Eds.), *A Companion to Wittgenstein on Education*, Springer, Singapore, 2017.