H-Net Reviews
in the Humanities & Social Sciences

Jason E. Smith. *Smart Machines and Service Work.* Field Notes Series. London: Reaktion Books, 2020. 192 pp. $20.00, cloth, ISBN 978-1-78914-318-8.

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Published on H-Socialisms (August, 2021)

Commissioned by Gary Roth (Rutgers University - Newark)

Automation and Labor

Jason E. Smith's ***Smart Machines and Service Work: Automation in an Age of Stagnation*** is the fourth in the Field Notes series published by Reaktion Books in association with the Field Notes section of the journal *The Brooklyn Rail*, both edited by Paul Mattick Jr. Currently a faculty member in the Graduate Art Department at the Art Center College of Design in Los Angeles, Smith is a frequent contributor to the journal. His previous writing and translations are largely political/art-theoretical in character, including translations of Alain Badiou, Jean-Luc Nancy, and Tiqqun. *Smart Machines*, therefore, marks something of a shift for Smith into theoretical territory dominated largely by historians and economists (one might not expect, for example, the author of the preface to Bifo Berardi's *Soul at Work* to have written the book in question here).[1] To it he brings a certain conceptual sophistication.

Smith opens with a useful chapter, "A Little History of Automation," shifting into a broadly journalistic and justifiably cynical account of our present economic moment before challenging aspects of this analysis via recourse to value-theoretical categories from Karl Marx's *Capital* (1867). He concludes with sketching political implications at the level of class struggle—drawing in particular on James Boggs, for whom already in the 1960s the true political challenge to capitalist hegemony lay not with traditional trade unions nor at the ballot box but with "surplus people," those thrown between precarious employment and superfluity by the burgeoning servant economy, this "world of outsiders on the margins of the wage relation" (p. 148). Like Boggs, Smith expresses convincing skepticism about contemporary optimism over the rebirth of trade unionism. Upon concluding the book, readers will likely be curious how, or if, Smith and Boggs differ.

Previous commentators have described *Smart Machines* as "at times convoluted and difficult to untangle" (Jack Copley and Alexis B. Moraitis) or "less tightly structured" (Gary Roth), at least relative to a book with which it will inevitably be compared: Aaron Benanav's ***Automation and the Future of Work*** (2020).[2] While Roth's characterization seems more accurate than Copley and Moraitis's, any lack of clarity seems to stem less from issues of textual presentation or organizational structure and more from the task Smith sets himself. The conceptual territory Smith attempts to mediate in 150 pages is variegated and complex, dealing with material often split between discursive contexts and intellectual-historical and disciplinary traditions. The most marked of these is the value-theoretical concerns of the Marxian critique of classical political economy and economics as a discipline. There are therefore unavoidable obstacles for both Smith and the reader. Some have to do with conceptual complexity, but many exist simply at the level of terminology because different concepts take the same term. Successfully navigating these obstacles can be particularly tricky for a general audience insofar as one has to simultaneously avoid having recourse to extensive exegeses of Marx and make reference to him. More generally, though, Smith shows how this value-theoretical discourse can yield productive insights at the level of more generic economic concepts. He does this repeatedly—often with impressive elegance—but because of both the conceptual complexity of the terrain and equivalent terminology, it can at times be difficult to track how the discourses overlap (or do not) given the way Smith is forced to cycle through the terms.

A common conception of our current capitalist crisis—if it is indeed a crisis—is that of a crisis in the realization of value.[3] Stavros Tombazos's *Global Crisis and the Reproduction of Capital* (2019) is a sophisticated example. Tombazos begins from a divergence of the rate of profit from the rate of capital accumulation—a dynamic expressed in the upward trend in the ratio of surplus value/net investment in fixed capital or empirically in an increase in the ratio of the net operating surplus of a given total economy to the net investment in fixed capital. For Tombazos this divergence has distracted from more traditional "orthodox" Marxian concerns with the falling rate of profit. Tying capitalist crises in general to arrhythmias in the schemas of reproduction outlined in volume 2 of *Capital*, Tombazos's is a complex rendering of what might at first seem a version of the underconsumption thesis. Benanav's analysis meanwhile relies on something of a more straightforward articulation of underconsumption. Following Robert Brenner in arguing that industrial overcapacity has led to underconsumption causing a crisis in realization, Benanav wants to show how job creation slows following a deceleration of economic growth in a generic sense. It is this deceleration caused by overcapacity rather than job destruction following technological innovation that forms the axis around which his *Automation and the Future of Work* revolves: namely, global labor under-demand. While Tombazos certainly draws on a value-theoretical discourse, neither Tombazos nor Benanav really need to mediate the conceptual gap between value-theoretical and generic economic discourses, much less distinguish between them. For fairly straightforward reasons, it is generally unnecessary for those adhering to the underconsumption thesis to distinguish between, for example, the different concepts of labor productivity internal to these discourses—and further, what counts as productive labor and what does not—precisely because the problem lies with realization rather than with production.

Smith's *Smart Machines* is an alternative to both the underconsumption thesis and the characterization of the crisis as one tied to the realization of value, although due to the length of the book and his focus on automation, it is probably more accurate to say that he brackets aspects of these theoretical disputes (which has to do broadly with the relation of finance to capital accumulation and the "tie" between money and value, in particular, whether it has been "cut").[4] Smith is clear in his characterization of the contemporary crisis in capitalist accumulation as being grounded in the growth of "unproductive" labor relative to "productive" labor. The theoretical sources for the specific claim regarding this divergence are Fred Moseley (*The Falling Rate of Profit in the Postwar United States* [1991]) and Paul Mattick Sr. (*Marxism: Last Refuge of the Bourgeoisie?* [1983]). Beyond these two notable examples, Smith—to my knowledge—is unique in his approach. Because he grounds his argument in this divergence, Smith is forced to grapple with the disjunction between the two discourses, for in precisely what sense is some labor productive and some not? Differing conceptions of value and productivity are relevant here both because the distinction between the two is central to his argument and because they illustrate the subtending complexity of the terrain.

In terms of value, within the broadly neoclassical economic tradition, for example, value is synonymous with price, meaning the value of a given input or output is simply measured in monetary terms. Marx's concept of "value," which follows from his critique of classical "substantialist" labor theories of value, is more conceptually opaque. It has a relation to price but is definitively not reducible to it. The point here is not to offer some definition of Marx's concept of value as grounded in—to use the Marxian jargon—abstract labor, but it is to point out that all critiques that conflate the two (which happens if one reads value as in every case implying price, rather than where, such as in volume 1 of ***Capital***, they are assumed as equal, thus the inane idea that Marx thinks price is determined by socially necessary labor time) are less wrong than they are unaware of what they are critiquing.

In terms of productivity, for Marx, the productivity specific to social relations determined by capital is the production of surplus value.[5] Production in this historically specific sense exists at a different level of abstraction than what Marx calls "production in general"—the production of use values for consumption. Production in this latter general sense is, for Marx, transhistorical (occurring under capitalism and otherwise). While every social form reproduces itself via the production of use values for consumption, the specificity of capitalism is that use-value production (that is, what people need to consume to survive and reproduce themselves) occurs via the production of exchange values. When Marxian commentators refer to the labor process as being double-sided or something of the sort, what they are referring to is how the labor process under capitalism is, for Marx, simultaneously this labor process (in the latter transhistorical sense) but also a valorization process (in the former historically specific sense of being productive of surplus value).

Smith is particularly insightful when unfolding the generic economic concept of "labor productivity." From the standpoint of economic analysis, labor productivity is simply a quantitative measurement of output per unit of input: where the numerator is measurable output, the denominator is units of labor time. To measure the rate of productivity of a given firm involves dividing the output of a firm in money terms by the amount of labor required to generate it. Now at the level of the value-theoretical concept of "surplus value," however, there is no relation between how much a business owner pays a worker as a wage and the value created by labor in the production process. This is worth repeating. For Marx—and for Smith—there is no relation between how much a business owner pays and the actual amount of value a worker creates within the given timeframe of that working day. This is because what the owner pays for is a commodity—a worker's labor power. What matters in this exchange is the value (and here we can also say price) of labor power on the labor market. Engineers do not earn higher wages because their work creates more value than lower-skilled laborers. They earn higher wages because of the cost of inputs involved in producing said highly skilled laborer (the commodities for the worker to maintain their body, high levels of education, recurring technical qualifications, limited supply as compared to jobs requiring lower levels of skill, etc.,) go for a higher price on the labor market. The labor market therefore appears within generic economic analysis as a series of equal exchanges between owners of commodities: the worker owns their labor power, the capitalist owns money.

The specificity of capitalist exploitation is expressed via the concept of surplus value. Surplus value arises in the differential between the cost that a business owner pays a worker to participate in a labor process for the duration of time as stipulated in a contract and the amount of value the labor actually produces in the "valorization process."[6] The relevant difference, in other words, is between the value of labor power and the value which that labor power valorizes while working. These are completely different magnitudes. "One of the great errors of both spontaneous and theoretical accounts of the wage," Smith writes, "is to imagine it is determined by the amount of value contributed by this or that worker in the production process" (p. 123). Thus Smith shows how this value-theoretical discourse can yield productive insights at the level of more generic economic concepts, for it is a framework through which to think the relation (or, more to the point, the lack of relation) between labor productivity and wage share.

At a higher level, *Smart Machines* is a critique of both techno-dystopian (robots will take all the jobs) and techno-utopian (and therefore work will no longer be necessary) tendencies that dominate public discussion about automation in general. For Smith, both standpoints "share the assumption that advanced capitalist economies are currently experiencing, or poised on the cusp of, a thoroughgoing, machine-driven transformation whose primary effect will be the sudden surge of labor productivity and economic growth."[7] Beyond the complexity regarding the relation between the value-theoretical and economic discourses and Smith's immanently critical approach to the latter, this technological stagnation is the most obvious takeaway from the book at the level of rhetoric and economic argumentation.

In terms of the economic argument, Smith gives three interrelated reasons for the relative insignificance of new forms of automation on labor productivity. First is the existence of types of work that require "an intuitive, embodied, and socially mediated form of knowledge or skill" unable to be replicated by machines, many of which fall under the nebulous heading of "services" (p. 11). Various forms of care work are obvious examples, as is teaching, but Smith provides illuminating illustrations. Readers will likely be curious what more Smith might add, in light of Zoom, with regard to the power he attributes to a teacher's strike due to, as he points out, the key role teachers play within the social division of labor. The way that the dispersion and disaggregation of these work processes recompose the traditional terrain of class struggle is important for the later more politically inflected sections of the book influenced by Boggs. The critical pressure Smith places on the category of "services" makes for one of the most illuminating sections of the book. Services as a general statistical category "obscures more than it clarifies" insofar as it essentially defines negatively anything other than manufacturing (p. 80). The heterogeneity of the category, in other words, borders on rendering its function as a classificatory term nearly meaningless at the level of statistics. And while for obvious reasons Smith has to avoid slipping constantly into exegeses of Marx, the more Marxologically inclined may be slightly surprised to find mention of neither Marx's own definition of a "service" in *Capital* (as "nothing other than the useful effect of a use-value, be it that of a commodity or that of labor") or his critical discussion of "what the category of service must render to economists like JB Say and F. Bastiat" in the earlier *Contribution to the Critique of Political Economy.*[8] This is particularly the case because it occurs within Marx's discussion of the distinction between the labor and valorization process—squarely where Smith aims a key aspect of his intervention.

Second is the continued availability of cheap labor in advanced economies (and one could likely expand the argument to much of the rest of the world), which functions to disincentivize automation. When faced with the option of hiring cheap labor or shouldering the time lag involved in the cost of some expensive investment in fixed capital, business owners will choose the former, thus deterring businesses more broadly from automating labor processes. Smith, however, adds an additional layer, namely, that "the excess of labor that prevents the mechanization or automation of one particular sector is itself the result of an 'excess' of automation in another sector" (p. 131). Colloquial conceptions of automation tend to occur along a single vector: a machine is invented, it is adopted within a sector, it displaces workers. Of course, with every innovation, new sectors inevitably develop to produce precisely that innovation (some machine is invented that displaces workers in one sector, increasing labor demand in the sector producing the rare earth metal on which the machine is dependent). Further, the use of labor-saving technology in one industry can create surplus labor in another industry, thus preventing technological innovation and the adoption of machinery in that second industry.

Third is a steady decline in private investment in the kinds of fixed capital one would need to reverse the decline in profitability Smith identifies. Here he draws extensively on the work of J. W. Mason, with the most interesting section being his discussion of accounting practices. Recently changed accounting conventions allow companies to count spending on intellectual property production as investment spending: "existing data for private investment now incorporate expenditures targeting the protection of revenue flows secured through legal title to technologies and processes, rather than the invention or refinement of newer, more efficient labor processes or organization schema" (p. 47). Contemporary measurement of private investment, therefore, mixes dynamic sorts of investment that are the condition of significant increases in productivity but also types of investment that may increase stagnation if this legal stranglehold on the adoption of technological innovation functions to create uncompetitive markets. The level of private investment is likely even lower than it appears on paper.

In terms of how this question appears on paper, Smith continues in a longer line of critics who express a skepticism in general regarding the accuracy of economic observations—at the level of both their discovery and their presentation. This is a line traceable to Oskar Morgenstern's 1950 ***On the Accuracy of Economic Observations***, a source Paul Mattick Jr. has drawn on to make similar observations about not only mainstream economics but also the way that "economic Marxism participates in the general theoretical chaos of economics as a field." For Mattick, the epistemological difficulties in empirically accounting for certain economic observations are such that "even an imaginable calculation of Marx's profit rate [is] an impossibility."[9] For Smith as well, "there is no prevailing standard by which the profit rate is measured, or even for defining it," and "for this reason ... the rate of business investment remains the best, if still indirect, indicator of prevailing levels of profit across the economy" (p. 96).

The question of the falling rate of profit is so loaded it would be impossible to untangle the various complications and epistemological problems internal to the debate that surround it. This is the case even apart from the question of whether it is feasible to accurately measure, much less how to do so (which revolves around complex and technical discussions over the calculation of the value of fixed capital stock), or even whether it is necessary to measure empirically to prove the law is economically actual at all. Questions about the relation of economics as a discourse to methodological commitments about social ontology are relevant here but beyond the purview of this review. Simpler questions exist at the level of the temporality of the category, however. Is it a category operative at a cyclical level? Is it operative at the level of long wave cycles like those of Nikolai Kondratieff? Insofar as Marx's phrase in chapter 13 of volume 3 of *Capital* is "the law of the tendency of the rate of profit to fall"—and, as Smith is keen to point out, there are counter-tendencies—what is the difference between a law and a tendency?

Should it be distinguished from a trend? Peter Osborne has pointed out how Marxist crisis theory is haunted by a disjunction between the general-historical character of the concept of "crisis" in its modern form (which includes the notion of crisis as a condition of possibility of transition to a new mode of production) and the conjunctural and comparatively narrow focus of Marx's own "theory of crisis" as a theory primarily of periodic crises.[10] Indeed, how can any cyclical crisis be ***the*** crisis insofar as it is, precisely, cyclical?

The relevant point of emphasis for Smith, however, is how he grounds a fall in profitability in the rising ratio of unproductive to productive labor. The Marxian terrain here remains largely volume 1 of ***Capital***, but Smith draws extensively from the ***Grundrisse*** (published posthumously, 1939) in particular (although, as Roth has pointed out, he could have drawn as well on parts of Marx's ***Theories of Surplus Value*** [published posthumously, 1905-10]). It should be noted that Smith's general critical approach is not simply to slam one set of concepts into another. He is at his most perceptive and illuminating when he enters the concepts of generic economic discourse only to unfold aspects of conceptual indeterminacy even according to their own criteria. The book serves as a kind of object lesson of this for a general audience.

Regarding the generic economic concept labor productivity, for example, Smith contrasts the traditional concept (of output over labor time) with labor productivity measured in the production of physical units, pointing out the complicated relationship between the two. An increase in productivity in this latter physical sense leads to a decrease in the former sense, given a change of prices. Rising productivity as measured in physical units can, in other words, be offset in the latter sense by a fall in prices. From the standpoint of an actual business owner though, labor productivity appears not as a calculation of measurable output over labor time but as a measurement of output (numerator) over the cost of labor (denominator). What matters ultimately to the business owner is the cost of labor power. Lowering wages or reducing the total number of employees functions to raise the productivity of labor (measured in money terms) by lowering unit labor costs. Indeed, regarding wage stagnation, Smith positions himself simultaneously against the orthodox economic interpretation that explains the increase or decrease in wages due simply to the supply and demand of labor, but also the, broadly speaking, leftist/heterodox position that attributes wage stagnation simply to shifts in class power—where wage stagnation is understood as wage suppression. For Smith, however, to grasp wage stagnation in mere political terms misses "the most decisive factor in the decades-long leveling off of wages: the dramatic tapering off, over the same period, of gains in the productivity of labor" (p. 61). In a similar critical move, Smith turns to the measurement of labor productivity as a question of the production of physical outputs, noting the incoherence in comparing different types of physical outputs because of their qualitative diversity: "shoes don't have much in common with car mufflers, either in terms of end uses or how they are made" (p. 86). Of course, as Smith points out, there is a way to measure them but only if you measure their value (in the generic economic sense) in money terms. To compare between sectors, economists, therefore, ***must*** divide output as expressed in money terms. In the Marxian jargon, money functions as a universal equivalent.

This necessity produces unavoidable distortions. Measuring labor productivity in money terms means excluding "all laboring activities that produce use-values but no exchange-value: activities like childcare and meal preparation performed by families that are necessary for the functioning of the economy as a whole ... these activities produce 'output' to be consumed, but because this output has no market price it does not, strictly speaking, count as economic output" (p. 87). Like other forms of production, household production relies on commodities purchased with money from waged work; these are necessities for the life of a given worker if they are to function as labor power for a capitalist to purchase at all. Those familiar with social reproduction theory will be aware of the extent that it is necessary to think about household production in relation to the dynamics and reproduction of capitalist sociality. The economic activity constituting these relations are not—and simply cannot—be registered by a category like labor productivity insofar as they are not remunerated via a wage.

Smith notes a kind of inverse distortion that follows from trying to measure the productivity of an “enormous number of wage-earning activities, almost always defined as ‘services,’ primarily performed for the sake not of producing this or that commodity but in order to facilitate the buying and selling of other commodities.” In Marxian terminology, these are jobs within the sphere of circulation and therefore sit outside the immediate production process. These are activities that, for Smith, “can be bought and sold on the market, and therefore have an exchange-value; but they produce no recognizable use-value at all.” For Smith, examples of these activities involve cashiers (“who can be said to circulate value” but not produce it) and security guards (“whose job is to ensure that property changes hands in situations where money is tendered in exchange for it”). Interestingly, Smith includes financial activity—the specific examples he gives are activities like real estate sales, insurance provision, and investment brokers selling securities (equities, mortgages, derivatives)—as an example of this “problematic type of service production” (p. 87).

It is hard to square Marx’s own definition of a “service” as “nothing other than the useful effect of a use-value, be it that of a commodity or that of labor” with the idea that, for example, the action of a cashier has an exchange value but does not consist of or effect a use value, despite the fact that they might not produce a use value in the sense of a commodity qua physical object. This perhaps follows from Smith seeming to rely not on Marx’s critique of the concept of service but rather on Adam Smith’s definition of “service labor” as “a paid economic activity whose ‘product generally perish[es] in the very instant of [its] performance,’” where the acts of production and consumption coincide, as understood in opposition to productive forms of labor that “‘fix and realize [themselves] in a vendible commodity’: a discrete object that can be detached from the body of both the producer and/or consumer, and be sold or transferred to another owner at a later date” (p. 78). The relevant question here is whether or not the productivity of labor in the Marxian value-theoretical sense has anything to do with this concept of “materiality.” As Michael Heinrich puts it in his own discussion of commodities, services, and the physicality or not of each: “what is relevant here is the act of exchange, not the fact that physical objects are being exchanged. Services can also be exchanged and therefore become commodities. The difference between a material product and an ‘immaterial’ service consists solely of a different temporal relation between production and consumption: the material product is first produced and subsequently consumed ... in the case of a service ... the act of production is concurrent with the act of consumption.... The difference between services and physical objects consists of a distinction of the material content; the question as to whether they are commodities pertains to their social form, and that depends upon whether objects and services are exchanged.[11]

Wherever one stands on the issue, the discussion opens out into a broader one, which will not be settled here, that has to do with precisely which labor processes count (or do not) as productive in the value-theoretical sense, and how these processes overlap with actually existing forms of employment and how productive they are (or not) in the labor productivity sense. The issue of productive versus unproductive labor is not an unimportant question; however, exaggerated emphases on productive capital by some Marxists—as if this is a sort of unadulterated capitalism untainted by finance—can serve to veil the important connection between finance and capital accumulation. By the end of Marx's volume 3 of ***Capital***, we learn that capitalism simply cannot function without credit allocation. There may be times where finance serves the interests of financiers more than they serve production in any sort of general sense, but this is different than saying financial services are unproductive. The seeming dismissal of financial activity in general as a "problematic type of service production," for example, points in this direction. In general, however, the content of which jobs are productive and unproductive seems to matter less for our purposes here than the form of the argument and critical orientation of Smith's analysis. In terms of his analysis, it will be useful to briefly compare it with Benanav's ***Automation and the Future of Work.***

Automation and the Future of Work is best described as Brenner from the standpoint of labor, bookended by a positive utopianism based on distinguishing between "the realm of necessity" and "the realm of freedom"—a distinction Benanav attributes to thinkers ranging from Marx and Thomas More to Étiene Cabet and Peter Kropotkin.[12] Its value seems largely to be the very cogent summarization replete with extensive empirical evidence of Brenner's Marxian insights regarding overcapacity in a form fit for readers of ***The Economist.*** Aspects are already mentioned above; however, a basic glossing of the Brenner story involves industrial overcapacity following the unprecedented growth occurring in the middle of the twentieth century, killing the possibility of a similar explosion of growth in its aftermath. Job creation slows following a deceleration of economic growth, and it is this deceleration rather than job destruction following technological innovation that leads to a global jobs crisis driven by labor under-demand.

Given this stagnation, labor floods the "heterogenous service sector, which accounts for between 70 and 80 percent of total employment in high income countries, and the majority of workers in Iran, Nigeria, Turkey, the Philippines, Mexico, Brazil, and South Africa." Benanav uses William Baumol's division of the entire economy into a technologically stagnant (services) and technologically innovative (industry) sector to explain both stagnation in productivity growth with reference to "Baumol's cost disease." Baumol's argument runs something like the following: following the adoption of technological innovation, labor is ejected from the innovative sector to the stagnant sector with its "much lower rates of productivity growth," slower precisely because they are resistant to innovation. Because of these slow rates of productivity, services become ever more expensive relative to goods, leaving the service sector to rely on income effects for its expansion, thus "the growth of demand for services depends on the growth of incomes across the economy." There is, therefore, "a clear link between the global expansion of this stagnant economic sector and the ever-worsening stagnation of the world economy."[13]

What is at issue for Smith, however, is not simply a divergence in productivity between a technologically progressive and stagnant sector but rather a divergence between the growth of unproductive and productive work in the value-theoretical sense, placing downward pressure on the profit rate. This "rising proportion of the labor force working in circulation and supervision [that is, unproductive] represents an increasing cost to the system as a whole" insofar as "a significant portion of the wage bill includes personnel who perform activities that do not produce value" and whose "wages must be paid out of surplus value produced by productive workers elsewhere in the economy" (p. 101). All of this follows logically, although again the extent to which finance or money capital mediates precisely this gap between surplus value and wages—and even further, how the relationship is mediated by the state

—tends to hover somewhere outside the frame. It is also not entirely clear whether supervisory labor should be seen as productive or unproductive. In ***Theories of Surplus Value***, for example, Marx writes that “included among these productive workers ... are all those who contribute in one way or another to the production of the commodity, from the actual operative to the manager to the engineer.”[14] In Marx’s volume 3 of ***Capital***, the labor of supervision and management is described in similar terms, although within the terms of a transhistorical concept of “cooperative labor”: “all labor in which many individuals cooperate necessarily requires a commanding will to coordinate and unify the process, and [also] functions which apply not to partial jobs but to the total activities of the workshop, much as that of an orchestra conductor. This is a productive job, which must be performed in every combined mode of production.”[15]

This is tangential to what is of particular importance here, namely, how, whereas Benanav uses Baumol’s cost disease to explain stagnation in productivity and therefore economic growth, Smith, after critically interrogating—as we saw above—the distortions arising in measuring productivity in the generic economic sense (which is the sense Benanav relies on for his analysis), sees reflected in the growth of unproductive versus productive labor a crisis in capitalist accumulation leading to a fall in the profitability of capitalist firms in general. These are two quite substantially different critical approaches latent beneath descriptive similarities. Further, insofar as it is value that defines the historical specificity of capitalist production—a specificity not captured by generic economic measurements of either productivity or growth—it seems that it is precisely these kinds of value-theoretical categories that one would need to think practically the realm of necessity and a realm of freedom with which Benanav concludes his book.

At a more rhetorical level, those looking for a positive vision or reaffirmation of technology’s ability to drag humanity out of its existential trench should look beyond Smith’s ***Smart Machines.*** Whereas Benanav at least sees “the resurgence of the automation discourse [as] a response to a real trend unfolding across the world: there are simply too few jobs for too few people,” Smith takes a more cynical approach to technological evangelism writ large.[16] Sentences like “the signal technological breakthrough of the past two decades—the circulation of images across networked computer terminals—represents little more than the splicing together of these two long-extant technologies” or “the technologies characteristic of the past two decades ... have been concentrated in entertainment and leisure: toys, not tools” are frequent (pp. 42, 43). The “meager results of the third industrial revolution” are described as “a tsunami of infantilizing gadgets that double as tracking collars” (p. 44). “The ‘true’ advances,” he writes, “have been in the domination of the labor process by employers: their ability to coerce more labor out of a given hour by means of refinements in supervision, oversight, and workplace discipline” (p. 113). Readers familiar with Robert Gordon’s ***Rise and Fall of American Growth: The US Standard of Living since the Civil War*** (2016) will be familiar with the general thrust.

In connecting technological innovation to forms of discipline and control, Smith continues in a longer line of American Marxists, such as Harry Braverman, who, like Marx, understand technological innovation to be not simply productive ***of*** social and economic relations but produced ***by*** social and economic relations as determined by capital. “It is not pure technique that interests us,” as Braverman puts it, “but the marriage of technique to capital.”[17] For Smith as well, and insofar as the production of surplus value involves coercion and discipline—via, for example, increased intensities of work within a given time frame due to discipline or surveillance—no one should be surprised when even the most banal technological advancement includes some coercive or disciplinary aspect. The lengths even some Marxists will go to concoct complex theorizations of the neutral or non-neutral relation of technological innovation to capitalism and vice versa is rather spectacular when compared with what a category like relative surplus value implies. Innovations in workplace discipline and surveillance simply are productive innovations insofar as they create the conditions for an increased intensity of work. If one accepts the legitimacy of relative surplus value as an analytical category, disciplinary control and the productivity of surplus value are two sides of one coin. This insight—which Smith seems more than aware of—makes the characterization of supervisory labor as unproductive particularly puzzling.

Marxists can certainly argue interminably about what is and what is not productive and unproductive labor, but the content of this debate seems tangential to what is so impressive about Smith's book: the way he brings to bear some of the most important methodological and conceptual difficulties posed by Marx for a general audience. In 150 pages, Smith intervenes simultaneously within that Marxian discourse but also—more important—allows its insights to unfold vis-à-vis those concepts of a more generic economic kind without simply posing the former in open confrontation with the latter. In letting the concepts speak for themselves, Smith adopts what is very likely a more sustainable approach to an important academic but also political task: depicting for a general audience a value-theoretical discourse and the light it can shed on an economic discourse of a more generic variety whose truth is too often taken simply as given.

Notes

[1]. Jason E. Smith, preface to ***The Soul at Work: From Alienation to Autonomy***, by Bifo Berardi (Los Angeles: Semiotext(e), 2009), 9-20.

[2]. Jack Copley and Alexis B. Moraitis, "Capitalism in Decline: Automation in a Stagnant Economy," ***ROAR Magazine***, May 14, 2021, https://roarmag.org/essays/automation-benavav-smith-review/; and Gary Roth, "The Future of Automation," ***Brooklyn Rail***, June 2021, https://brooklynrail.org/2021/06/field-notes/The-Future-of-Automation.

[3]. There are crises within capitalism and there are social crises caused by capitalism. Social crises caused by capitalism are not necessarily crises within capitalism from the standpoint of its reproduction. Journalistic discussions of capitalist crisis tend to conflate the two. While it is an important analytical and political distinction, I have kept the usage mostly for narrative reasons.

[4]. Tony Smith, "The End of One Century … and the Beginning of Another?" in ***The Future of Capitalism after the Financial Crisis: The Varieties of Capitalism Debate in the Age of Austerity***, ed. Richard Westra (London: Routledge, 2015), 79-95.

[5]. "The production of surplus-value, or the extraction of surplus labor, forms the specific content and purpose of capitalist production, quite apart from any reconstruction of the mode of production itself which may arise from the subordination of labor to capital." Karl Marx, ***Capital*** (London: Penguin, 1990), 1:411.

[6]. "The production process, considered as the unity of the labor process and the process of creating value, is the process of production of commodities; considered as the unity of the labor process and the process of valorization, it is the capitalist process of production, or the capitalist form of the production process." Marx, ***Capital***, 1:304.

[7]. Jason E. Smith with Tony Smith, "The Upstarts and the Mandarins: Reflections on the Illusions of a Class," ***Brooklyn Rail***, November 2020, https://brooklynrail.org/2020/11/field-notes/The-Upstarts-and-the-Mandarins-Reflections-on-the-Illusions-of-a-Class.

[8]. Marx, ***Capital***, 1:299; and quoted in Marx, ***Capital***, 1:300n17.

[9]. Paul Mattick Jr., *Theory as Critique: Essays on Capital* (Chicago: Haymarket Books, 2019), 3, 251.

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Citation: Bo Harvey. Review of Smith, Jason E. *Smart Machines and Service Work.* H-Socialisms, H-Net Reviews. August, 2021.

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