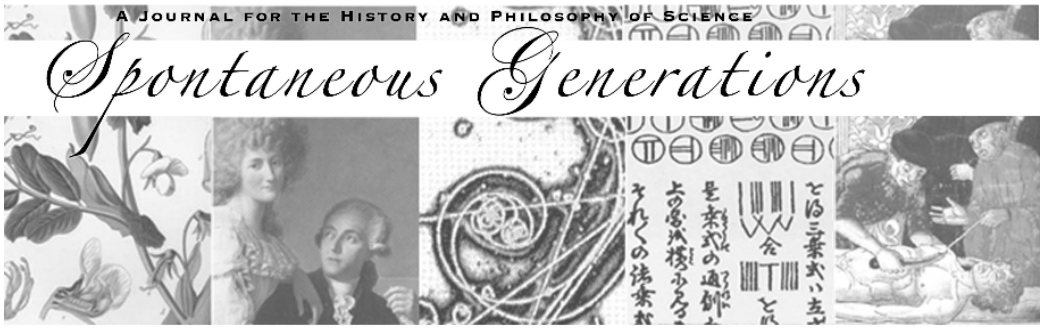

On Commodification and the Progress of Knowledge in Society: A Defence

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On Commodification and the Progress of Knowledge in Society

A Defence[*]

Steve Fuller[†]

In this paper I make more explicit a position that I have being advocating for more than two decades (gathered together in Fuller 2002, Fuller 2010), though its full force does not seem to have been felt. I write in defence of the *commodification* rather than the simple *commercialisation* of knowledge. The two italicised terms are often spoken about in the same breath—and, to be sure, they are related to each other. But they are not the same. Commercialisation refers to the subjection of social life to the price mechanism, something that Adam Smith believed happened spontaneously, if it was not impeded by churches and states. And while Smith's celebration of commercial culture makes him the philosophical father of capitalism, he would probably not approve of capitalism's long-term tendency to turn aggregated versions of these spontaneous exchanges into objects that are themselves subject to exchange relations, which is commodification. Nevertheless, it is precisely in this sense of 'commodification' that I defend the university as a producer of knowledge as a public good, both in terms of teaching and research. I place the shift from commercialisation to commodification in a larger historical context first clearly identified by Ernst Cassirer – namely, a shift in metaphysical consciousness that accompanied the treatment of substances as the bearers of functions, which is associated with the introduction of algebra as a unifying principle of mathematical reasoning in the early modern era, initially through Descartes, which then became the basis of the modern physical world-view.

In what follows I aim to make more explicit a position that I have being advocating for more than two decades (gathered together in Fuller 2002, Fuller 2010), though its full force does not seem to have been felt. I write in defence of the *commodification* rather than the simple *commercialisation* of knowledge. The two italicised terms are often spoken about in the same breath—and, to be sure, they are related to each other. But they are not the same. *Commercialisation* refers to the subjection of social life to the price mechanism, something that

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Adam Smith believed happened spontaneously, if it was not impeded by churches and states. On this view, commercialisation is an emergent feature of our natural propensity to trade, from which the division of labour arises and complex societies form as a long-term consequence. The process involves many specific interactions in which people decide to make qualitatively different things functionally equivalent in particular exchanges. A unit of currency, or money, also emerges from this process, understood as an efficient mechanism for enabling anyone to trade anything, anywhere and at any time. Once that level of efficiency is established and it covers a sufficiently large proportion of social life, we can speak of "commercialisation."

Nevertheless, while Smith's celebration of commercial culture makes him the philosophical father of capitalism, he would probably not approve of capitalism's long-term tendency to turn aggregated versions of these spontaneous exchanges into objects that are themselves subject to exchange relations, which is *commodification.* Had Smith been around to witness this metamorphosis, he would have described it as commercial culture converting money from a means to an end in itself—indeed, very much as it was described by Marx, who in turn drew on Kant's distinction between "price" and "worth" as two senses of "value." Specifically, money came to be seen not merely as providing an empirical summary—or statistical indicator—of many actual exchanges (i.e. "price") but as something with an independent existence on which one might wish to stake public or private investment, either through the national treasury or the stock market (i.e. "worth"). For example, if I deem that the market does not naturally provide enough bread for everyone who wants bread, I might wish to alter the workings of that market. Of course, depending on whether I am a bureaucrat or an entrepreneur, I would intervene somewhat differently. But in either case, my motive is informed by a second-order understanding of markets that leads me to want to manipulate if not steer them in some desirable direction. This mentality presupposes commodification, in that "bread" now stands for the set of wants and needs normally satisfied by the thing to which the term conventionally refers.

Capitalism understood as a dynamic economic system that might bring about something called "socialism," or any other politically progressive future, requires commodification—that is, exchange relations must apply not only to loaves of bread (i.e. commercialisation) but also to the very possibility of bread (i.e. commodification). I am very much of the school (to which Marx himself eventually belonged) that believes that socialism must build on capitalism's proven successes as a mode of economic organization. Indeed, as Saint-Simon first argued, the concept of the *firm* as an entity legally incorporated on terms other than as an extended household (e.g. a "family business") marked the first step from capitalism to socialism. In this respect, socialism is the socialisation of capitalism, insofar as concern is shifted from the adequate provision of

bread for one's household to the adequate provision of bread for anyone who might want or need some. In the Saint-Simonian scheme, the path of progress from capitalism to socialism is clear and was revived in early-twentieth-century Britain by the Fabian Society (Fuller and Lipinska 2013, chap. 3). I say this because, despite Marx and Engels' brilliant negative branding of Saint-Simon as a "utopian socialist," Marx in particular harboured nostalgic views about communitarian forms of social life that might be somehow revisited in the future. These tend to surface whenever Marxists envisage the prospect of abolishing money in their "scientific socialism."

Notwithstanding Marx's own ambivalence, I do not share the fundamental suspicion of the commercialisation of social life that was voiced mainly by the churches in Adam Smith's day but continues in secular guise from communitarian political theorists such as Michael Sandel (2012) and "virtue theorists" in ethics and epistemology, typically in debt to Alasdair MacIntyre (1981), whose views of "human nature" presume that Aristotle is state-of-the-art biology and sociology. (A curious feature of this rearguard development is that it is often cast as an expression of the ideological "left," a phenomenon I address elsewhere: Fuller and Lipinska 2013, chap. 1). In any case, all of these theorists give undue—by which I mean, non-negotiable—weight to past practices (aka "tradition") in a world that presents us with significantly new prospects and demands. In the guise of appearing "fair" and "humane," they imagine a rather specific bourgeois form of existence as the *summum bonum*—albeit one that proposes to enable a larger number of people to share in it (e.g. via development aid abroad and poverty relief at home). Put as an explicit policy proposal: "We shall raise you from your morally and materially squalid condition if you agree to the 'decent quality of life' that we already enjoy—and not some other set of lifestyle improvements that you might want to purchase."

The stock of communitarians and virtue theorists has risen in recent years as they have rushed to fill the legitimation void left with the loss of intuitive salience of John Rawls (1971)'s argument for the welfare state, which had traded on a risk-averse response to uncertainty about one's own exact status in a hypothetical social contract. Thus, instead of appealing to "rational intuitions" that no longer seem to inspire spontaneous universal assent, communitarians and virtue theorists have offered a more explicit metaphysical grounding that requires no explicit assent yet is based on the welfare state's track record in cultivating what people presumably need to flourish—namely, "capabilities," an updated version of Aristotelian potencies, entities that decidedly cannot be reduced to "human capital" or even "social capital" (Nussbaum and Sen 1993). Nevertheless, efforts by communitarians and virtue theorists to promote the "good life" have done little to retard the advance of capitalism. Many crass entrepreneurs have taken full advantage of liberalised laws governing the accumulation and transfer of property over the past 250 years. Such individuals,

without much prior training in "virtue" or attachment to "community," got wealthy simply by taking risks and playing the market. And they have been quite prepared to go further and treat knowledge itself as just one more commodity.

To begin to appreciate this point, consider "curricularisation" as the pedagogical equivalent of "commercialisation." Let us say that everyone needs to know Plato in order to flourish as a human being. But exactly what is it about Plato that they need to know? Do they need to read Plato's Dialogues—perhaps even in the original Greek? Maybe. But others will argue that adequate access to Plato can be gained by other means, such as by commentaries, simplifications, modernisations, etc. These people may even claim that the "essence" of Plato could be assimilated more efficiently in these ways, thereby allowing the space and time for other things to be included in the curriculum. They have effectively made the shift to knowledge as a commodity. To be sure, many such "pedagogical commodifiers" are more interested in removing barriers to learning than turning a profit. Nevertheless, just like the capitalists who also want people to have efficient access to knowledge (albeit with the greatest profit potential), they are trading on a distinction introduced by the Neo-Kantian philosopher Ernst Cassirer (1923) in one of the shrewdest books ever written to explain the emergence of the modern world-view.

The core Cassirer thesis applied to the case at hand is this: knowledge, no less than anything else, can be understood as either a *substance* or a *function*. In other words, knowledge may be defined in terms of *what it is* (substance) or *what it does* (function)—if the latter, then in principle whatever substance currently functions as knowledge could be replaced in the future by some other substance that serves that function more efficiently. Thus, to continue with the earlier example, to treat Plato's Dialogues as a knowledge substance is to treat them as *sui generis*, irreducible and incorrigible. In that case, commentaries and other would-be replacement works are epistemically degraded versions of the Dialogues, if not a completely other sort of knowledge substance. In contrast, to treat Plato's Dialogues as serving a variety of knowledge functions is to imagine that they might be replaced by something else that serves the relevant function in a given context. According to Cassirer, the prospect of converting any substance to a function in this manner, which he saw as motivating Galileo's Platonic revenge on Aristotle, was made possible by the introduction of algebra as the unifying principle of mathematical reasoning—which, in the early modern context, consisted of arithmetic and geometry. The power of algebra was especially felt in analytic geometry, which Descartes introduced to model the motions of physical bodies but was already being proposed as the matrix for economic reasoning in the early eighteenth century by George Berkeley, thereby paving the way for commercialisation to be leveraged into commodification (Caffentzis 2007).

If academics cannot recognise their own spontaneous tendencies towards

knowledge commodification, that is only because we fail to clearly differentiate the value of knowledge as something *produced* and as something *consumed*. In particular, as soon as we say that everyone should learn something, we are injecting an economic dimension into their knowledge consumption comparable to a dietary requirement, which raises issues concerning appropriate calorie allocation, given the limits to what we can and should ingest. By analogy, then, Plato might be made more available either in his "natural" form by cultivating more Plato specialists, or his intellectual nourishment might be provided more readily and digested more easily by encounters with various human and non-human functional substitutes. To be sure, any of these policies would incur costs in terms of other forms of knowledge that would end up in a diminished trading position in the curriculum. In this respect, an optimal curriculum is like an optimal diet: ingest the most nutrients (content) in the fewest calories (time). The logic of the analogy suggests that over time, reading Plato's Dialogues in Greek will become a "gourmet" item in the curriculum ("made with original ingredients!") as knowledge of Plato becomes increasingly "functionalised" to cohere with the teaching of other canonical figures.

My main point here is that academics should be already familiar with commercial reasoning through curricular design, which is basically an invitation to construct an internal knowledge market which, through the university's credentialing function, then has extra-mural consequences. Those potential extra-mural consequences serve to standardise the internal exchanges, so that one becomes less interested in whether enough Plato is taught than whether the Plato-like hole in the curriculum is adequately filled. No less than the proverbial *homo oeconomicus*, academics have infinite wants about what should be taught (namely, anything that they believe is worth researching), but finite resources within which to resolve those wants into a coherent course of study for the next generation. I have long written of the university as the original entrepreneurial institution because of its use of the classroom to "creatively destroy" the socio-economic advantage associated with new research aimed primarily at academic specialists and/or big business (e.g. Fuller 2009, chap. 1). And while this self-understanding is not widely held by academics themselves, capitalists enter the academic arena fully aware of the tendency towards the "functionalisation" of knowledge—and act accordingly.

Thus, the most influential private funder of natural and social science in the twentieth century, John D. Rockefeller, was very interested in promoting knowledge for greater social benefit, albeit in ways that would not seriously disadvantage his investments. At the same time, he was also very wary of universities, which insisted that any new knowledge be introduced through their institutionally protected markets (aka peer review). Rockefeller funded bodies that while affiliated with universities nevertheless had ways of circumventing just such academic protectionism. His distrust, while unfortunate, is not

without cause. Recall that when "postmodernism" was first launched into public discourse (Lyotard 1983), its most controversial feature was the implication that, historically speaking, universities have been largely parasitic on innovations made outside their walls, which were then captured and converted into courses of study that served to regiment any future innovation in those fields.

From this perspective, universities appear to be the ultimate counter-entrepreneurial institutions that aim to routinise any innovation that comes their way. Here it is worth recalling that Joseph Schumpeter, the economist who defined entrepreneurship in terms of the "creative destruction" of markets, also distinguished "invention" from "innovation"; while an invention is simply a novelty, an innovation implies an enduring transformation in a wide range of practices. Schumpeter had specifically in mind the ways in which the emergence of Henry Ford's motorcar as the dominant mode of individual transport reconfigured every other aspect of modern life in less than a generation (McCraw 2007). Nevertheless, this reconfiguration did not require that everyone explicitly adopt an ideology promoted by Ford, though he was certainly promoting one. Rather, people reorganized their lives in terms of the motorcar, so that it became a necessary part of whatever lives they led—more specifically, a product that had to be serviced and replaced on a regular basis. The advent of personal computers in the 1980s had a comparable effect.

However, this sense of innovation is almost the exact opposite of the more strictly epistemic innovations recounted in, say, Kuhn (1970), which are still captured well by the distinction between the contexts of "discovery" and "justification" in science. In that case, an invention (or "discovery") becomes an innovation by being incorporated in a common body of knowledge—call it a "paradigm"—that allows the practitioners of the relevant science to move forward collectively. The innovation's place is "justified" by acquiring a stable position in the paradigm as a "building block" for future advances of knowledge. Whatever radical potential there might be for the innovation to radically reconfigure the scientific enterprise has been contained—at least temporarily. Thus, the original textbook presentations of Einstein's theory of special relativity described it as a modification of Newtonian mechanics—not as the revolutionary foundations for a new physical world-view. Of course, Einstein's theory eventually acquired this larger significance. Nevertheless, historians of science after Kuhn are inclined to present these matters as unintended consequences rather than as akin to the planned outcomes sought by a Rockefeller or a Ford.

But why this conservative bias when innovations occur in science as opposed to technology? Indeed, perhaps the closest that the philosophy of science has come to recognising that targeted entrepreneurship can change the course of science—which in Rockefeller's case resulted in the mid-twentieth-century revolution in molecular biology—is Popper's falsificationism, which at least

captured the deliberately destructive character of "creative destruction." However, lacking in Popper was any account of how one arrives at an alternative hypothesis to the status quo that might open up the research field in more creative directions, as opposed to trivial refutations that leave the field not so far from where it began. In philosophy of science terms, this is about the proverbial search for a "logic of discovery" (Laudan 1981), which Popper treated as a black box. For their part, Rockefeller and Ford thought about these matters on a grander scale—not simply whether an innovation can survive the competition but whether it can dominate the market and thereby force competitors to play by its rules.

The difference is that the great entrepreneurs deployed their considerable resources to institutionalise innovations, very often buying out potential competitors. Practices of this sort are actively discouraged within academia, where even out-of-pocket payments—let alone the private funding of entire research programmes—are regarded as inherently corrupting. Admittedly, science pursued outside of academia with an eye to profits escapes these strictures. Indeed, the dean of American science journalists, Daniel Greenberg (2007), after spending most of his career uncovering the military-industrial interests behind "pure science" in the Cold War, now urges universities to be more aggressive in cultivating their own intellectual property in light of the open door policy announced by the US Congress through the 1980 Bayh-Dole Act. I read this as a call for universities to become more self-conscious knowledge commodifiers. While Greenberg depicts it as an effective survival strategy in a world without escape from capitalism, I see this in more positive terms, as universities are forced to raise their public game in an activity that they have always conducted within their own walls—albeit only through the curriculum—where "canon wars" have periodically erupted over entitlements to the scarce resource of student time.

Were universities to embrace Greenberg's strategy with gusto, they would start to approximate the Saint-Simonian ideal of a firm in charge of the regular production and distribution of what might be called "epistemic functionality"—that is, knowledge that satisfies recurrent needs in a timely way. In this context, the modern "two cultures" problem would start to appear in a different light. When a follower of C.P. Snow claims that engineers and economists are better candidates for the civil service than classicists and historians, s/he should not be understood as simply saying that we need new knowledge for new times. More subtly, s/he is saying that the old knowledge is not adequate for today's version of the old standing needs, especially those related to the exercise of foresight: Does knowledge of precedent and consequence match the epistemic power of survey and prediction? The humanities and the sciences would never have appeared to be at war over the past 150 years, had their functionalities not been seen as comparable in just this

way. Such presumed commensurability testifies to the commodification of what might be called the "knowledge-to-rule," the logic of which implies that those aspects of the classics and history that genuinely contribute to a contemporary understanding of knowledge-to- rule will be preserved in the scientific surveys and predictions. Of course, empirically this is often not the case. However, so I would argue, the appropriate response is not to reject the very idea that the humanities can be functionalised in this way, but to engage more artfully in what is essentially a task of pouring old wine into new bottles.

To conclude, it is worth re-iterating a point I have often made: *Knowledge by default is a positional, not a public good.* In other words, knowledge begins as something I possess but you lack, yet something would be to your advantage to possess, even if that means I would lose my advantage over you. To be sure, knowledge can be—and should be—made into a public good. But that requires ongoing effort, something that happens to be built into the institutional design of universities. These organizations routinely remove the positional advantage of new knowledge by teaching people without requiring them to reproduce the path that the original knowledge producers travelled. Put more generally, the transition in the status of knowledge from a positional to a public good amounts to commodification, as pedagogy functionalises—and thereby dissipates—any original epistemic advantage. However, knowledge as a public good is a rather peculiar commodity, since its value is determined more by the cost incurred by lacking it than the benefit received from possessing it. Thus, if I believe that Plato should be known by everyone, then my efforts to make Plato a public good will involve driving down the epistemic costs of acquiring access.

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