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## **A MOOC AVANT LA LETTRE: DAVID HARVEY'S LECTURES ON 'READING CAPITAL' AND WHAT DISTANCE EDUCATORS MAY GET FROM IT**

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### **Introduction: A MOOC *avant la lettre***

Since the beginning of the Great Recession in 2008 a number of commentators both in books (Eagleton, 2011; Reheis, 2011) and newspapers (Henwood et al., 2014) asked the question if Marx may have been right about capitalism. Doug Henwood in his contribution to the NYT debate has held that the recent development of capitalism had led to “A Return to a World Marx Would Have Known” (Henwood, 2014). More generally, escalating inequality has attracted general attention and turned Thomas Piketty’s book *Le capital au XXI siècle* into a bestseller which gave its author celebrity status (Piketty, 2013).

However, while serious discussion of Marx has recently gained a certain level of respectability, the question remains, what all this has to do with education in general and distance education in particular? The argument advanced here is the following: The discourse on education (and, in its wake, the one on distance education) sees education as a *panacea* for central social ills. The mainstream discourse is based on the assumption that the modern knowledge-based economy needs high skilled labour which the education sector persistently fails to provide. At the heart of the problem, therefore, is a ‘skills gap’ which can only be addressed by educational reform. Once this gap is finally closed, productivity levels will increase and poverty will be eradicated.

We are still waiting for this to happen. Recent experience with the ‘Great Recession’ in the heartland of capitalism (the US) has dashed such hopes. Hence the *research question* asked in this paper is: To which extent does reading Marx free educators, and distance educators in particular, from the neoliberal straightjacket in which much of the professional discourse is trapped? The *research methodology* for addressing this question is re-reading Marx, guided by what can be described as a *MOOC avant la lettre*, i.e. the lectures on reading Marx’s *Capital* by David Harvey (<http://davidharvey.org/reading-capital/>). To have Harvey as a guide to Marx has two distinctive advantages: Harvey has taught *Capital* for the last forty years to very different audiences, and this experience is reflected in the clarity of his presentation; possibly

even more important is that he applied insights from reading Marx effectively in his profession as a geographer<sup>1</sup>. This is what I also hope to achieve to some modest extent.

In the second part of this paper I give a succinct account on some core concepts in *Capital* which explain why from the Marxian vantage point the persistence of poverty, inequality and unemployment comes to no surprise. We will proceed in three steps: The first two are labelled 'riddles' (here using Jameson, 2011) since they pose the questions (i) how surplus value arises from the exchange of equivalents, and (ii) why, when it is only living labour which can create value, capitalism leaves so many people unemployed; the second riddle especially leads to a discussion of the role of technology in Marx's framework.

In the third part we look at the education discourse and the idea that education is a *panacea* for all major social problems including poverty, inequality and unemployment. The usual 'skills gaps' argument is rooted in 'human capital theory' (HCT). We will argue that burdening the education discourse with challenges education cannot solve leads to a merry-go-round of futile educational reforms ending in a blame game, where learners are blamed for not investing enough in their education or/and making wrong educational choices, and governments for not setting the proper incentives (Wedekind, 2014; Vally & Motala, 2014b; 2014c).

In the fourth part we narrow the focus on distance education bringing Marx's perspective on education together with what he tells us about technology; distance education after all is (pace Peters, 1983) the 'technologically most mediated form of education'.

## **The process of capital**

In order to find out if Marx's *Capital* has some bearing on the understanding of education and distance education I need to summarize what Marx is saying. For the purpose of the argument here I treat Marx's framework as a sort of axiomatic system, the truth of which cannot be discussed here. What we want to explore is the heuristic power of the approach.

For Marx, capital is a process, not a thing. The process can be described in quite simple terms. The capitalist has (or borrows) money, buys machines and raw material, and engages labourers to work with the machines and the material to produce useful things (commodities) which can be sold on the market. If all works well, the capitalist can sell them with a profit which allows him to start all over again at an expanded level (cf. below, Figure 1). Marx calls this process, where the capitalist invests money and, in the end, gets more money in return, the accumulation of capital.

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<sup>1</sup> For historically interested visitors of Paris, Harvey's book on Paris is a must! (Harvey, 2003)

### ***Riddle 1: The emergence of surplus value***

All this seems straightforward so far. However, in this simple narrative a little riddle is concealed with puzzled economists for some time: How could it be that, in a process of exchanging equivalent values, a surplus (or profit) can be made? (Values, for Marx, are compared on the basis of the 'average socially necessary labour time' needed for their production. Note that Marx is little interested in prices which tend to oscillate around the value depending on supply and demand. For his discussion Marx assumes an equilibrium situation, such that differences in supply and demand do not explain anything.)

In order to solve the riddle of how an exchange of equivalent values is compatible with the emergence of surplus value, Marx spotted one commodity on the market with a peculiar quality, which provided the clue for solving the riddle. It is the commodity of labour power. *Labour power has the peculiar quality that it can produce more value than its costs* (in term of wages): "When you work for \$10 or \$20 an hour for an employer you know, even if you never studied economics, that the only reason that employer will ever pay you \$10 or \$20 an hour is if you produce more than \$10 or \$20 an hour worth of stuff for that employer to sell. (Wolff, 2012) This solves the riddle since the buying and selling of labour power fully complies with the law of exchange of equivalents as the workers receive the full value of their labour power, which is equivalent to the bundle of commodities needed to reproduce it. But at the same time they produce more in value than they cost. Here lies Marx's genuine contribution to the *labour theory of value* which was at the time considered part of mainstream economics. Popper, otherwise a fierce critic of Marx, concedes this was an excellent theoretical move: "By means of a further simple but excellent idea, he [Marx] was able to show that the theory of surplus value is not only consistent with the labour theory of value but that it is a consequence of it." (Popper, 1958, p.211, translation TH) Popper then went on to dismiss the whole concept of value as irrelevant, but in this he missed Marx's intention. The concept was not advanced to understand price fluctuations and the like better, but as a contribution to class analysis. As such it contained, indeed, much 'red meat for agitation'. While Marx recognized that the exchange of labour power for wage was an exchange of equivalents, the fact remained that the arrangement allowed the capitalist to appropriate the whole surplus value which gave rise to the concept of 'exploitation'. The fact that in capitalism exploitation was fully compatible with 'fair' exchange (exchange of equivalents) seems to add insult to injury<sup>2</sup>. However, it is easy to see that in a model where workers simply get the means to reproduce their labour power while the fruit of their labour is lawfully due to the employer, escalating inequalities are unsurprising.

Capital has a number of strategies for accumulating surplus value. The first is by mopping up all the available labour; the second is by lengthening the working day. Marx, often relying on

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<sup>2</sup> While being aware of the post-hoc-propter-hoc fallacy, it is, however, worth noting that shortly after *Capital* was published in 1867, there was a paradigm shift in economics away from the labour theory of value (the Smith/Ricardo/Marx line) to the subjective theory of value (Jevons, Menger, 1871 Walras, 1874, Marshal, 1890). In the conceptual apparatus of this new neoclassical paradigm, questions about exploitation and crises do not emerge (Heim, 2013).

the reports of Her Majesty's factory inspectors, describes vividly the struggle around the length of the working day, and considering the reports from the sweatshops in China or India, Henwood's observation, cited above, that neoliberalism produced a world Marx would have recognised, hits the point.

### **Riddle 2: Unemployment**

There is, however, another riddle which derives from the contradiction between high levels of unemployment and Marx's axiomatic insistence that only living labour can produce value. Would not it be logical to expect that the 'animated monster' (Marx, *Capital* Vol. I.) of capital accumulation would suck in all living labour in the quest of creating surplus value?

Marx's explanation is the following: Besides the two above mentioned strategies (sucking up more labour, and the extension of the working day), there is another strategy to produce surplus value: The use of machinery (technology). Note that in Marx's conceptual framework machines represent 'dead labour'; they cannot create, but only *transfer* value. However, they can play a role in creating surplus value. They do this by increasing labour productivity, i.e. by reducing the proportion of the working day required to produce the value equivalent of the wage, thus increasing the proportion of the working day for the production of surplus value.

The use of machinery (technology) has a second function: It allows capital to discipline labour. It allows producing a sufficiently large 'surplus population of workers' to keep the wage demands of labour in check. The purpose of capital accumulation is hence always a double one: to *produce* surplus value and to *reproduce* the social relations of capitalism (class relations).

### **Technology: Moral depreciation**

The use of technology in the process of capital accumulation provides an explanation for the *extraordinary pace of technological innovation under capitalism*. Marx discusses this under the heading of 'moral depreciation' (Marx, Vol. I., p.529). The innovator can expect extra profits from being able to produce below the 'average socially necessary labour time' which is the measure of value. If I have a sewing machine and others sew by hand, I produce my goods more cheaply (i.e. below the 'average socially necessary labour time') than my competitors, which means that my profit margin is greater. This is true as long the new technology is not generalized (i.e. all use sewing machines). Once this has happened, no extra profits accrue due to the technology. The socially necessary labour time to produce shirts and trousers, and that means their value, simply drops.

It is this time window which allows the harvesting the windfall profits that capitalists seek to exploit. Machines are replaced even before they are fully depreciated in order to not fall behind. On the other hand innovators generally try to prolong their monopoly position, using by patents and secrecy to keep this time window as large as possible.

### **Crises, blockage points**

The process of capital has been summarized above. Harvey (2010) adds a discussion of possible blockage points which may bring the process of capital to a halt and so produce a crisis. In Harvey's reading Marx takes the Smith/Ricardo tradition of political economy to show that this 'model' leads to other consequences than its authors predicted (rather than raising welfare across the board it leads to an accumulation of wealth at one pole and poverty at the other). Only rarely in *Capital* does Marx descend into the realm of 'particularities' (history). In the chapter on primitive accumulation (Marx, Vol. I., Ch. 8.) he makes an exception and launches into an extensive discussion about the historical origins of initial capital. Marx seems largely to consign the initial lawlessness of primitive capital accumulation to the prehistory of capitalism. Harvey argues that this process is much more endemic to capitalism and introduces the term 'accumulation by dispossession' which, for instance, is part of many large scale privatisation processes. Today, getting the often large sums of initial capital is greatly facilitated by developed credit systems but crises, where the needed *credit* is not available, are common.

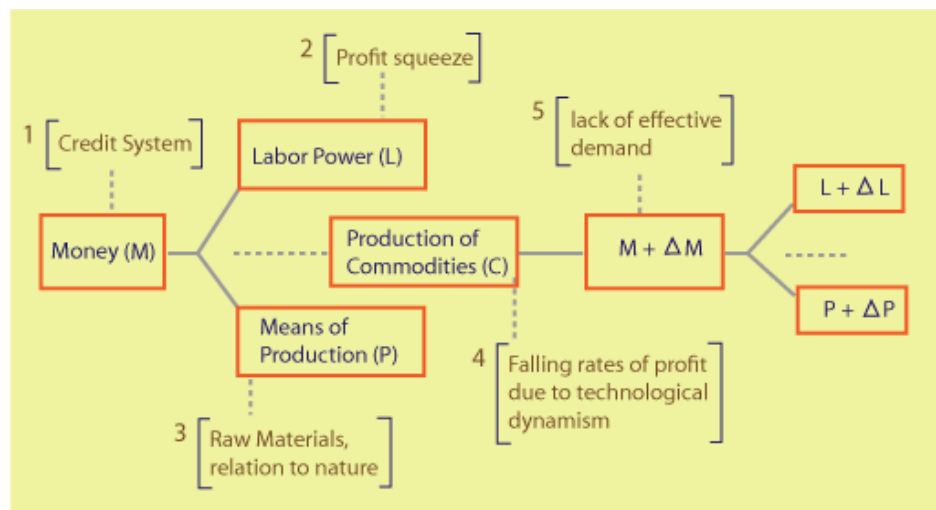


Figure 1. The process of capital (based on, Harvey, 2010)

Notes: M denotes the initial capital while  $M + \Delta M$  includes the surplus; similarly  $L + \Delta L$  indicates that the expanded capital may require more labour and more machinery ( $P + \Delta P$ ).

The many conflicts about *raw materials* signal that their availability presents a potential blockage point for the smooth flow of capital accumulation. The role of *labour* conflicts leading to crises of profitability is well known and can be seen as a key factor in the emergence of the neoliberal project in the seventies. More controversial is the 'law (or tendency) of *falling rates of profits*' which under certain conditions can be presented as a mathematical truism, but at the moment is belied by the presently high profit rates. That the appropriation of the whole surplus by capitalists keep wages low, and often contribute to *crises of effective demand*, is also well known. Keynes tried to address this.

Overall, the analysis suggests that capital leads to economic growth which tends to be unequally distributed since wages tend to hover around the poverty line, while most of the surplus society produces can be found at the other social pole. In addition, the coercive laws of competition lead to monopolies: points in case are the automobile and pharmaceutical industries. Finally, the process is crisis prone: the many potential blockage points produce frequently and severe disruptions. As a result inequality, poverty and unemployment must be regarded as inherent features in the process of capital accumulation.

## **Deconstructing the education panacea**

Panacea is the 'goddess of universal remedy' and it seems that, for some time, education has been seen as such a universal remedy. In the remaining part of this paper we look at the implications of the process of capital in which education is embedded, and ask to what extent Marx's analysis of this process allows a reassessment of the role education can play. We then narrow the focus to distance education. As 'the most technologically mediated form of education' (pace Peters, 1983) distance education can be re-visited against the backdrop of Marx's analysis of technology.

## ***HCT and the 'skills gaps' discourse***

Education is expected to address major social ills: poverty, unemployment, and inequality. Marx's analysis of capital in motion, the various blockage points triggering crises, and all this happening completely without any reference to education, suggests that the three social ills hardly can be treated as dependent on education. Note that generally unemployment is seen as the key variable among the three (poverty is seen as being due to unemployment, and inequality is generally seen as a minor ill, brushed aside as being borne out of envy). According to Marx's analysis full employment is certainly not the purpose of capital. On the contrary the use of technology enables two equally important functions of capital to be achieved: first, the production of *surplus value* by increasing productivity, and second, the creation of a *surplus population* of unemployed workers, which helps to discipline worker demands. How powerful the lever of technology is for creating a surplus population of workers has been recently documented by an Oxford Martin School report showing that nearly half of US jobs are at risk due to computerization (Frey & Osborne, 2013).

The world looks different from a human capital theory (HCT) perspective. Based on the observation that on average the educated earn more, HCT explains this by the fact that education forms skills which make the worker more productive, thus enabling capitalists to increase their profits. Because of the 'added value' the capitalist receives from skilled labour, the educated employee receives a bigger cut from the surplus value produced. It is even declared that everybody is a capitalist since all of us can invest in our talents thus increasing our value for capitalists and boosting the rate of returns to education which we enjoy by achieving higher lifetime earnings and a lower risk of unemployment (Schultz, 1961). Arguments linking investment in education directly to economic growth are, however,

contested: "It has become commonplace to argue something like a 1% increase in education quality will get you a 1.3% increase in GDP. – This is simply absurd." (Klees, 2013)<sup>3</sup>

HCT has been challenged by a variety of rival theories such as the *Screening Theory* or Thurow's *Job Competition Model*. While in HCT the productivity resides in the qualities of the individual (the skills acquired through education or natural talent) "the positional goods perspective [especially in Thurow's job competition model, TH] sees productivity as primarily determined by jobs, and individual earnings depend on the job they acquire, and not personal characteristics" (Allais & Nathan, 2014, p.110) That a machine operator is more productive than a manual worker depends on the machine (his job) rather than on his or her personal character traits.

While HCT emerged in the seventies as the major theory of economics of education, its' roots go back to Adam Smith. Marx refers to contemporary economists, who also defined labour-power as capital, since selling it yields the worker continuous revenue (a reasoning akin to HCT), but he rejects the argument:

*Labour-power is indeed his property (ever self-renewing, reproductive), not his capital. It is the only commodity which he can and must sell continually in order to live, and which acts as capital (variable) only in the hands of the buyer, the capitalist. The fact that a man is continually compelled to sell his labour-power, i.e., himself, to another man proves, according to those economists, that he is a capitalist, because he constantly has – commodities (himself) for sale." (Capital II; Chapter XXII, p. 268; emphasis added)*

For Marx the value of skilled labour is determined (as is the value of all labour) by the socially necessary labour time required to produce it. The capitalist is therefore interested to bringing down the cost of producing skilled labour or, at least, in externalizing these costs by ensuring that they are borne by the state or the individual learner. HCT played some part in this process, especially with respect to Higher Education (HE): The returns to HE are claimed to be sufficiently large to legitimize the requirement that learners should take out a loan to finance their studies. This devolves the cost and risks of educational investment to the learner. As a result the debt burden of US students has surpassed the one trillion dollar benchmark (Hülsmann, 2013). In the UK a recent report indicates that the average student will now leave university with more than £44,000 worth of debt which with interest will amount to a total debt of just under £67,000, and that a middle-earning graduate will still owe about £39,000 at today's prices by the age of 40, and £32,000 by 50 (Adams, 2014; Crawford & Jin, 2014)<sup>4</sup>.

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<sup>3</sup> Point in case: "We find that a one-year increase in the tertiary education stock would raise the long-run steady-state level of African GDP per capita due to factor inputs by 12.2%" (Bloom et al., 2006) While not labelling such finding 'simply absurd', I would rather point out that such findings are highly dependent on the applicability of the assumptions made in the model.

<sup>4</sup> Hence it can be argued "that the RORE is not high enough to justify the debt burden carried by graduates. If the additional earnings are, as stated, £100,000 over the earning life of an individual (on average), and the

The discovery of substantial rates of return to those prepared to invest in education as a business venture attracted private investors and led to setting up education as an industry in its own rights. Since education is 'the only game in town' allowing upward social mobility, learners are forced into an educational arms race where they try to out-compete others by adding yet another educational credential to their portfolio. Another aspect fuels the additional demand for post-secondary education: the internal logic of educational expansion. Following the generalization of primary school education, the secondary school was expanded, leading to large numbers of students *ante portas* of HE. All this development was largely independent of the development of labour market demand. Paradoxically, it is the very inability of the labour market to absorb the increasingly educated which means that the education system itself increasingly needs to absorb their own graduates in order to sustain its own growth<sup>5</sup> – not to prepare them for a job but to keep them at least for a while out of the labour market:

*Collins (1979; 2013) suggests that educational expansion is not driven by technological requirements of work, but rather by the inability of labour markets to absorb labour. He argues that rising demands for education absorbs increasingly surplus labour by keeping more people out of the labour force; he suggests in places where the welfare state is unpopular for ideological reasons, belief in the importance of education supports a hidden welfare state. (Collins as cited in Allais & Nathan, 2014, p.112)*

The idea of the lifelong learner who re-invests what he/she has in a further round of education or training conjures the image of the learner shuttling from casual job slots in the labour market back to the education system to keep himself/herself ready for the next job in the labour market<sup>6</sup>. The rising levels of qualification offered by prospective employees, together with the independent development of a labour market that very much depends on exogenous factors that are more or less independent of the supply of educated labour, leads to what Brown et al. (2011) call a 'Dutch Auction', where a limited number of well-remunerated jobs are auctioned to a surplus population of educated labour.

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average period of employment post-graduation is a (conservative) 40 years, then the RORE is just £2500 per year. Better to moonlight in a different job!" – I owe this observation, among others, to Greville Rumble who also took the trouble of editing my English.

<sup>5</sup> "In 2008, [VUT Vaal University of Technology, TH] conducted research on graduate employment based on a representative sample of 1117 graduates and reported that 35%, 26%, 73% and 65% of those who graduated in Applied and Computer Science, Engineering Sciences, Management Sciences and Humanities were unemployed." (Hlatshwayo, 2014, p.143)

<sup>6</sup> Of course, it also keeps employability up – the decay of knowledge, with the half-life of knowledge in some fields now down to months (12-18) rather than years, means that retraining and updating IS part of the job.



## **Distance education**

Distance education is about *access, efficiency and flexibility*. Let us continue the bleak reading of education that we have been exploring here and apply it to distance education. Widening *access* helps to expand education thus creating the necessary surplus population of educated people which then leads to the above mentioned 'Dutch Auction', which keeps labour costs in check. *Efficiency* reduces the production costs of educated labour, which is also very welcome both to the employer, since it brings down labour costs, and the increasing privatised providers of education, who can thus increase his profits. This is done by a combined set of measures: 'capital for labour substitution' and 'labour for labour substitution' (i.e. the substitution of cheap labour for more expensive labour). This two pronged strategy determines the specific cost structure of distance education: high upfront development costs and low variable cost per student (Hülsmann, 2004). This brings down average costs per student when rolling out the system (scale economies). Bringing down the 'socially necessary labour time' for producing education brings down the costs to the employer. (Remember, the key illusion of HCT was the conclusion that the higher productivity attained by educated workers/professionals would entitle them to a cut of the value they helped to produce: following Marx, all labour, including educated labour, is remunerated according to its value, i.e. the socially necessary labour time to reproduce it. They will be remunerated at a higher rate than an unskilled labourer as long as the production costs of the additional skills are higher. But they are not, any more than any other worker, entitled to an additional cut of the surplus value. That goes to the capitalist.)

The third characteristic of distance education is *flexibility*. This allows the learner to study part-time. This is much welcomed. First of all, it helps externalize the costs of skills formation. The working learners themselves pay for their education. Again a passage, this time from Vol. III. of *Capital* is instructive:

*The commercial worker produces no surplus-value directly. But the price of his labour is determined by the value of his labour-power, hence by its costs of production, while the application of this labour-power, its exertion, expenditure of energy, and wear and tear, is as in the case of every other wage-labourer by no means limited by its value. His wage, therefore, is not necessarily proportionate to the mass of profit which he helps the capitalist to realise. What he costs the capitalist and what he brings in for him, are two different things. He creates no direct surplus-value, but adds to the capitalist's income by helping him to reduce the cost of realising surplus-value, inasmuch as he performs partly unpaid labour. The commercial worker, in the strict sense of the term, belongs to the better-paid class of wage-workers – to those whose labour is classed as skilled and stands above average labour. Yet the wage tends to fall, even in relation to average labour, with the advance of the capitalist mode of production. This is due partly to the division of labour in the office, implying a one-sided development of the labour capacity, the cost of*

*which does not fall entirely on the capitalist, since the labourer's skill develops by itself through the exercise of his function, and all the more rapidly as division of labour makes it more one-sided. Secondly, because the necessary training, knowledge of commercial practices, languages, etc., is more and more rapidly, easily, universally and cheaply reproduced with the progress of science and public education the more the capitalist mode of production directs teaching methods, etc., towards practical purposes. The universality of public education enables capitalists to recruit such labourers from classes that formerly had no access to such trades and were accustomed to a lower standard of living. Moreover, this increases supply, and hence competition. With few exceptions, the labour-power of these people is therefore devaluated with the progress of capitalist production. Their wage falls, while their labour capacity increases. The capitalist increases the number of these labourers whenever he has more value and profits to realise. The increase of this labour is always a result, never a cause of more surplus-value. (Capital III, Chapter XXVII, p. 201, emphasis added)*

The last part of the quotation in particular gives short thrift to the belief that employment would expand as a function of the supply of educated labour.

In addition distance education can be seen as helping open up education to market competition. Silver (2003), who sees education as one of the lead industries of the 21<sup>st</sup> century, conceptualized the process of capital as oscillating between *legitimacy crises* and *profitability crises*. For capital to escape a profitability squeeze it has at its disposition three 'fixes': the *technology fix* (e.g. automation), the *geographical fix* (e.g. relocation) and the *production line fix*. With respect to distance education especially the first two are relevant. The point of departure of Silver's discussion is that education is, more than other industries, shielded from market competition because it is not so prone to the use of technology. You cannot easily substitute the teacher by a machine. Education is also shielded against geographical fixes since you cannot relocate the school children. However, much of this has changed with the advent of distance education. Both, technological and geographical fixes, are on the agenda. The capital for labour substitution in distance education is a point in case. This is the basis of the cost-efficiency of mega-universities. Labour for labour substitution is rife in higher education and being pushed to extremes as educators begin to emphasise the importance of peer-teaching. Cross-border distance education shows the increasing possibilities of geographical fixes. Reaching out to learners on a global scale, as MOOCs do, is a point in case.

MOOCs are of particular interest here. They (especially xMOOCs) can be considered as 'distance education reloaded'. They seem to offer ivy-league education on a global scale for free. Assuming, rather hypothetically, that MOOCs really would be the magic wand that the skills gap discourse was looking for, and that one could indeed produce highly qualified labour on a global scale for free, what would this mean read against the conceptual framework Marx offered? For Marx the value of a commodity depends on the socially necessary labour

time to produce it. If MOOCs bring this figure down to zero, then the added-value of skilled workers also would drop to zero, which means that the returns to the added skills would vanish.

## **Conclusion**

Much of what we think and publish in distance education (and education) is embedded in a taken-for-granted framework about the working of the world. The mainstream perspective is optimistic and sees market capitalism and technology as eventually ironing out sharp inequalities, dismal poverty, and unemployment. The Great Recession, combining escalating inequalities with sharp increases of unemployment and persistent (relative) poverty in some of the traditional homelands of capitalism, dashed these hopes, at least for the near future.

The mainstream analysis of this dismal state of affair points to education as the solution. If only the skills gaps could be closed, the knowledge society would absorb all these educated people in well-paying jobs. As a consequence education is permanently reformed according to labour market requirements. The role of distance education in this context is widening access and increasing cost-efficiency.

Marx certainly offers a very distinct reading of this situation: The process of capital is inherently crisis prone; inequality, poverty and unemployment are intrinsic features of capitalism. Especially, unemployment is even a welcome feature insofar it keeps wage demands in check. Recourse to technology in times of full employment allows the calibration of employment at a level assuring profitability.

The labour theory of value suggests that the educated worker, like any other worker, is paid according to the cost of his/her reproduction and is no more than any other worker entitled to a cut of the value he/she produces. Expanding the supply of skilled workers and reducing the production costs of skills tends to bring down the 'graduate premium' and increase the risk of unemployment.

The possibly positive side-effect of this view is that it may free the educational discourse from challenges it cannot live up to. This may lead to labour market policies focusing more on the demand side and the structure of labour markets than on wrong-footed reforms towards a vocationalization even of higher education (in a sense which drives out any 'vocation'). This certainly leads to a gamut of different research questions than those of JIT modularized competence development for the increasingly fragmented job slots the labour market offers.

## Postscript

It could be asked if the reference to Marx is really necessary to make the case against the 'skills gaps' discourse? And, if Marx has to be brought in at all, why the reference to *the labour theory of value* has been dragged in when it has been discarded by many who are otherwise sympathetic to much of Marx's criticism of capitalism?

The reasons for neither avoiding Marx nor the labour theory of value are the following: First, it would show a simplistic understanding of scientific method to say about a theory that it has been 'proved wrong' (naïve falsificationism). The 'career of a theory' depends on both the extent to which the conceptual apparatus of the theory as compared to rival theories shows a better 'positive heuristics' (Lakatos, 1970), and the extent to which it is compatible with the prevailing hegemonic ideas in society (cf. Gramsci's concept of hegemony). Both reasons are likely to have contributed to the paradigm switch discarding the Smith/Ricardo/Marx line of research in economics. Marginalism (Menger/Walras/Jevons) came with a different research programme which coincidentally had the advantage that uncomfortable questions emerging from the labour theory of value (e.g. exploitation, crises) would simply disappear. But these questions need to be back on the agenda, and since they emerge most clearly from Marx's labour theory of value, I wanted to restate them (albeit, admittedly, with some trepidation). I found myself encouraged by Wolff and Resnick's 'Contending economic theories' (Wolff & Resnick, 2012), where they argue that Marx's approach had other intentions than those of the rival theories, and so needs to be evaluated accordingly. Marginalism is much interested in consumer choices, and price and demand fluctuations. Marx is not interested in prices determined by the 'particularities' of supply and demand fluctuations. Marx assumes, for the purpose of his argument, that supply and demand are in equilibrium, such that prices reflect values, measured in labour time. This method of accounting, predicated on the assumption that it is only living labour which produces value, makes class relations visible.

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