Citation for published version:

Pitts, FH 2014, 'Time crisis: autonomist thought, the immaterial working day and the Dot.Com boom and bust', *Sociologia Del Lavoro*, vol. 2014, no. 133, pp. 171-182. <https://doi.org/10.3280/SL2014-133012>

DOI:

[10.3280/SL2014-133012](https://doi.org/10.3280/SL2014-133012)

Publication date:

2014

Document Version

Peer reviewed version

[Link to publication](https://doi.org/10.3280/SL2014-133012)

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The citation for the published paper is as follows:

Pitts, F. H., 2014. Time crisis: autonomist thought, the immaterial working day and the Dot.Com boom and bust. *Sociologia Del Lavoro*, Issue 132, January 2014.

Time crisis: autonomist thought, the immaterial working day and the Dot.Com boom and bust

Frederick H. Pitts

Abstract

From 1995 until 2003, the US economy experienced a financial bubble and subsequent crash based upon the fortunes of the so-called 'New Economy', consisting of fledgling start-up businesses in the technology, media and telecommunications sector. These 'Dot.Com' enterprises were marked by a number of features which exemplify the changing conditions of production and wealth creation in contemporary capitalism, including, crucially, radical changes in how, when and where production takes place. Drawing upon the theoretical resources afforded us by autonomist Marxist thinkers, one can see the rise of financialization as implicated deeply in the swelling mass of free labor generated by the digital infrastructure of contemporary capitalism. The inflated valuations of Dot.Com enterprises which led to the boom and eventual bust can be seen as tentative attempts to bring some kind of measure to an essentially immeasurable quantity of immaterial labor.

Introduction

From 1995 until 2003, the US economy experienced a financial bubble and subsequent crash based upon the fortunes of fledgling start-up businesses in the technology, media and telecommunications sector. These 'Dot.Com' enterprises were marked by a number of features which exemplify the changing conditions of production and wealth creation in contemporary capitalism, including, crucially, radical changes in how, when and where production takes place. Drawing upon the theoretical resources afforded us by

autonomist Marxist thinkers, one can see the rise of financialization as implicated deeply in the swelling mass of free labor generated by the digital infrastructure of contemporary capitalism. The inflated valuations of Dot.Com enterprises which led to the boom and eventual bust can be seen as tentative attempts to bring some kind of measure to an essentially immeasurable quantity of immaterial labor.

By analysing the financialization witnessed over the course of the Dot.Com boom and bust in terms of the way it was both implicated and manifested in the everyday working conditions and time patterns of those who worked at the coalface of the companies at the centre of the heightened stock market exuberance of the time, autonomist thought adds to our understanding of how financialization is rooted in a set of practices that take a concrete and quotidian existence, particularly where the organisation and valuation of the temporal contribution of free labor to the economy is concerned.

In the early nineties, the US economy witnessed the beginning of an expansion that would deliver nearly a decade of growth, investment and productivity by virtue of a massive financial bubble in which equity prices completely divorced themselves from the low underlying rate of profit. Nowhere was this felt more acutely than in the burgeoning 'New Economy', the hype surrounding which fuelled a stock market bubble entirely sustained on the expectation of future profits from the unproven Dot.Com enterprises associated with the rise in internet-driven and high-tech sources of wealth creation (Brenner 2002).

This financialization was unleashed by the 1995 Reverse Plaza Accord, in which the US agreed to raise the dollar in comparison with the mark and the yen. This sent a clear signal to manufacturing that the sun had set upon their dominance of the US economy, with the competitive advantage that they had enjoyed through decades of a weak dollar

eroding overnight and stock market speculators ushered in as the new powerhouses of the economy with a single flourish of Federal blue ink (*ibid.*, p. 131-33).

Alongside providing the financial sector with the high currency it required in order to swell its coffers with the lucre of speculation, the Reverse Plaza Accord also signalled the new pre-eminence of non-manufacturing in the US economy, and of a certain intangibility associated with commodities, assets and valuation. After 1995, whereas the manufacturing profit rate fell, the non-manufacturing profit rate rose in comparison (*ibid.*, p. 92). Even as the overall profit rate flattened, equity prices continued to rise, utterly dislocated from any basis in measurable economic success (*ibid.*, pp. 138-9). Brenner situates the beginning of the bubble in one event in the immense returns Netscape experienced on its initial public offering of stocks and shares to investors (*ibid.*, p. 142) From this point onwards, the non-manufacturing sector 'was unquestionably the greatest beneficiary of the conditions prevailing during the years of the equity price bubble' (*ibid.*, p. 203).

With the underlying reality of low or non-existent profitability a constant threat to the maintenance of the boom, economic prosperity over these years depended upon the constant creation of fictional value by the fevered financial markets. By 2000-2001, the contradictions inherent in this model exploded dramatically (*ibid.*, p. 3). Telecommunications perhaps provides the best example of how the economy got from the point of apparent prosperity to the precipice of ruin in five short years, presenting both a perfect example of the New Economy in action, and the catalyst for its eventual collapse. Despite, as of spring 2000, producing less than three per cent of all US GDP, the value of telecommunications shares had reached \$2.7 trillion, nearly fifteen per cent of

the total for all non-financial firms (*ibid.*, p. 292). However, the actual profits underlying this unprecedented equity price bubble were terminally lacklustre.

The crisis in telecommunications spread to the rest of the high-technology sector (*ibid.*, pp. 292-3). The first firms to feel the pinch were e-commerce companies, who set in motion a more general fall in share prices, which, by winter 2001, had manifested itself in a 60% drop-off in the NASDAQ Index, the primary location of the internet and technology sector that had been behind the boom in the first place. Revealing the extent to which the seeds of both success and crisis had been sown in one industry in particular, the crash was marked by the close or acquisition of 4,854 Internet companies in the first quarter of 2000. The first year and a half of the crash saw almost fifty firms closing a month, including those providing Internet content, infrastructure, connection and access alongside a whole host of peripheral services and commodities (*ibid.*, pp. 248-9).

Along with the realm of finance and macroeconomics, the impact of these events was simultaneously felt in the sphere of production, determining where and how people labored. The telecommunications sector exemplified these shifts better than any other. Initially, it was the suspension of prohibitions on commercial use of the web which invited the comingling of finance and high-tech start-ups at the beginning of the 1990s. Hand-in-hand with 'abundant capital' arrived 'new labor cultures' facilitated by the massive investment which flowed into the hands of young, enterprising individuals hustling in the 'frontier space opened by internet commercialization' (Terranova 2010, p. 153). These new cultures of work entailed the expenditure of a vast amount of free and unpaid labor in connection with the immaterial and informational kinds of production at the heart of the Dot.Com enterprises driving the financial boom.

An ethnographic account (Ross 2003) of a typical New Economy firm specializing in ICT business services describes many common traits associated with this swelling mass of free and unpaid labor, including: an informal work regime which, whilst seeming hands-off, incorporates ever-more avidly the worker's own personality and self into the production process and extends the working day under the auspices of informality and fun; a reliance upon location in one's own time of the 'solving of creative problems', the building of social networks and the learning of new skills, stripping away the boundaries between work and non-work time; the recruiting of workers' innermost communicative, emotional and cognitive capacities in the servicing of the labor task, and the intertwining of the worker's fortunes with the financial outlook of the company through the award of stock options as a compartment of employee compensation. Rather than propelling a reduction in working hours, new technology such as the Internet and the constant access to information networks it facilitated had 'obliterated' the 'concept of a finite workday', such that it was not uncommon to witness eighty-hour workweeks in New Economy businesses (*ibid.*, pp. 44, 51).

Such work epitomizes, according to Ross, the concept of immaterial labor- 'that is, labor that produces an immaterial good, such as a service, a cultural product, knowledge or communication' (*ibid.*, p. 201). It was in part the immateriality of this labor that allowed it to escape into the ether in such a way as that described above, filling all of life with its digitised processes. It is the concept of immaterial labor, and the way in which its ephemerality allows it to transcend the formal working day, that provides the basis for an autonomist Marxist analysis of financialization that emphasises the latter's imperfect attempt to exert measure upon this essentially measureless productive activity. This will form the central crux of our argument in this paper, as we examine the way in

which financialization offers a means by which the contribution of immeasurable free, unpaid labor can be ascertained in an imperfect attempt at valuation and calculation.

Lazzarato was the first to provide a fully-articulated definition of immaterial labor, as that which is productive of 'needs, the imaginary, consumer tastes and so forth' (1996, p. 138). The immaterial labor thesis suggests that work in post-industrial economies has become based principally around the creation and manipulation of ideas, symbols, selves, emotions and relationships, inhabiting as a result the full range of human capacities and activities of which life itself consists. As such, for those employed in these forms of production, the boundary between work time engaged in immaterial labor and spare time away from paid employment becomes increasingly indistinct, as the activities of work take on the characteristics of those of leisure and of everyday life, and those of leisure and everyday life assume the characteristics of work. Immaterial labor can thus be seen to transcend the formal confines of the working day to invest the whole of life with its value-producing processes.

The creation and maintenance of the social relationship produced by immaterial labor brings into play communication, affect and linguistic exchange as central parts of the labor process, the implications of which will play a significant part in the foregoing analysis. Lazzarato claims that such labor has integrated consumption and production to such an extent that consumption is itself productive, setting into motion an immediate 'feedback loop' governed by the new creative potential of communication put to work in the labor process (*ibid.*, pp. 140-1). In this way, times of production and reproduction have become further intertwined, alongside the ways listed above.

The evidence available on working patterns during the upwards trend of the Dot.Com boom suggest significant purchase for the conceptual apparatus offered by the

theorisation of immaterial labor. Research on the Dot.Com workday conducted by Tapia (2004, pp. 310-11)) describes a working schedule that would, whilst incorporating breaks geared towards the informality integral to the New Economy firm, effectively last from 8am until 7pm in the office, at which point workers would return home and recommence their labors and broadly associated activities from 9pm until bedtime. This is in addition to working *at least* one day of every weekend. The fabricated informality of the workplace Tapia studied included many of the trappings of domestic life: free food, games consoles, television, sofas, albeit ensnaring workers with *better quality* trappings than many workers would have experienced at home. Of twenty-one meals per week, each employee spent an average of seventeen with workmates. Whilst 'humane' measures exercised in the workplace brought the home into the office, prevailing technologies of the time brought the office into the home, with pagers, cellphones, and laptops all maintaining a constant connection to the laboring task.

Due to the fact that such 'immaterial labor' relies upon the everyday human capacity to communicate, consume, empathize, cognize, and emote, the boundaries between labor-time and non-labor-time become ever-increasingly blurred and indistinct. As Hardt and Negri suggest, '[w]hen production is aimed at solving a problem [...] or creating an idea or a relationship, work time tends to expand to the entire time of life. An idea or image comes to you not only in the office but also in the shower or in your dreams' (2004, pp. 111-112). In this way, the blurring of boundaries between labor-time and non-labor-time is, as Virno asserts, a symptom of the increasing similarity between human activity and labor activity (2004, pp. 102-3).

However, alongside this qualitative similarity, there is a further *quantitative* basis for the autonomist theorization of the immaterial working day. This lies in the way in which

labor has been rendered ever more fluid, flexible, fragmented, and precarious in the transition to a post-Fordist deindustrialized economy. The preponderance of work that is temporary, part-time, portfolio, contract, zero-hour, unprotected, ad-hoc and a multitude of combinations thereof, is the primary contributory factor to an increasingly fragile determination of where the working day begins and ends. This theory finds confirmation in the available research on the period under discussion. In his study of the Dot.Com industry, Ross portrays the fragmentary yet fluid demarcations between work and leisure in the lives of the employees, 'who consolidate office and home, who work and play in the same clothes, and whose social life draws heavily on their immediate colleagues', and, crucially, for whom 'there are no longer any boundaries between work and leisure' (2003, p. 19).

There is some aspect of measure to the timing of the Dot.Com workday that Ross observed in his study. The boss of the firm he studies does concede that the team 'punch time cards' at some point in the day, despite a good deal of resistance from the employees. The way in which contracts are constituted with clients demands this, as hours of work are billed to the other party. In the words of the executive, this provides a 'metric for comparing professional service firms against each other in stock evaluation.' However, precisely what defines the Dot.Coms in the analysis of labor-time we are offering is the immeasurability of the immaterial production that sustains such businesses. Such a way of assessing 'professional service' does allow employees to gauge just how much their paid labor has been of value to the organization, with Ross reporting that '62 per cent of its billable employees' time was being utilized, and each of these employees had generated an average of \$227,000 of revenue during the quarter' (*ibid.*, p. 31). However, whilst this represents the labor enacted formally in the

workplace, no such measure was available for their labor in society at large. As we will go on to see, autonomist thinkers suggest that it was finance which stepped up to attempt the adequate reflection of the seemingly immeasurable quality of the immaterial labor of the Dot.Com industry.

According to Marazzi, financialization is an extension of the widespread attempts on the part of capital to capture the immeasurable value produced by the free labor of the digital, decentred workplace. The contemporary capitalist organization of production is structured so as to fulfil the primary purpose of capturing the value produced in society at large. For Marazzi, such 'crowdsourcing' Web 2.0 phenomena as Facebook and Google represent the 'the totality of linguistic machines' that act in society at large to capture 'the totality of sociality, emotions, desires, relational capacity [and] free labor'. These 'linguistic machines' extend the working day with their acquisitive search (2010, p. 56).

Marazzi claims that the new forms of immaterial production secure an 'economy of increasing returns', working against an underlying fall in the rate of profit. The tendencies described above, the 'putting to work of the language of social relations, the activation of productive cooperation beyond the factory gate' and the extension of the working day are presented therefore as countertendencies to falling profitability, 'respond[ing] to declining profit rates by intensifying the exploitation of the communicative-relational cooperation of the workforce' (2008, p. 60).

A good example is the provision of stock options as a form of compensation exercised by many Dot.Com enterprises. At the firm that Ross observes, tickers were installed on computer desktops updating workers on the movements of the NASDAQ Index with which their interest had been suddenly entwined. This was a source of 'motivation' and 'anxiety' for the workers, with important implications for labor-time: 'Where once the

working day had been dictated by the regimen of the factory clock, now it was regulated by the flux of the stock index' (2003, pp. 199-200). The financial infrastructure is the only such institution adaptable and fluid enough to operate within the similarly flexible and elusive logic of the new means of creating value through decentred and extended labor-time. Financialization coheres with, and brings under a degree of mathematical control, an economically immeasurable return to absolute surplus-value cultivated with the new immaterial production.

The combination of these factors suggests that financialization issues from the conditions of production. This insight is an important one. Financialization is the only method adequate to the new quality of labor and value because it can institute a framework through which the 'crisis of measurability' of contemporary capitalism can be temporarily resolved (Marazzi 2008, p. 43). The impact of the immeasurability of labor and value has significant implications upon the estimation of productivity, in which, as Berardi contends, 'the relation between time and quantity of produced value is difficult to determine' (2009, p. 75). Furthermore, as Hardt and Negri suggest, the familiar characteristics of the commodity are thrown into flux. The products of immaterial labor, '[i]ntangible values and [...] assets, [...] pose a problem because the methods of economic analysis generally rely on quantitative measures and calculate the value of objects that can be counted, such as cars, computers and tons of wheat.' In light of this, autonomist thought questions the validity of the approach to labor-time exhibited in orthodox Marxism, throwing a simple quantitative appreciation of the working day into relief against the infinitude of immaterial labor conducted in cyber-time. Immaterial products 'tend to *exceed* all quantitative measurement and take *common forms*' (2009, pp. 135-6).

With respect to this, Vercellone comments that the production of 'social relations' is much harder to quantify than the production of material goods, juxtaposing the latter 'traditional goods' with what he labels 'fictitious commodities'. What renders the financial markets so well-suited to this new mode of production is its willing and exuberant embrace of this fictitiousness. As with so many other crises, the crisis of measurability presents itself as an opportunity to the markets. The markets help bring order to the swelling and fluid mass of immaterial production conducted in the social sphere, rationalizing fictitious commodities in a formal set of figures that are themselves similarly fictitious. Vercellone contends that the 'collective intelligence' at the heart of the new production 'escapes any objective measurement', the attempts at which in the arena of finance existing only as extravagant illusions. The value of this collective intelligence is 'the subjective expression of the expectation for future profits effectuated by financial markets who procure themselves rent in this way. This helps to explain why the "market" value is essentially *fictitious*' (2010, pp. 110-11).

The self-referential and subjective attributing of market values to anticipated future profit exposes the disjuncture that exists in the timeframe of a production process founded upon immeasurable quantities of unpaid labor-time. For Fumagalli, 'the exploitation and expropriation of "general intellect"' finds 'immediate valorization on the markets'. This is because markets hastily institute their fictionalized fix to render interpretable a 'process of valorization [...] not immediately computable at the time of production' (2010, p. 66). However, the determination of labor and value by financial markets is achievable only up to that stage at which the grand fiction of measurability conjured through the self-referential and subjective activity of financial players runs up against the essential underlying *impossibility* of exerting economic discipline upon

intangible, immaterial and infinite forms of production. The possibility of crisis is therefore ever-present; and, as Fumagalli and Mezzadra assert, the 'subsumption of the common' that fuels this financial processes promises a permanent crisis marked by an all-pervasive infinitude reflective of its roots in the deepest fabric of human cognition and sociality (2010, p. 241)

What the above displays is twofold. On the one hand, it tells us that for the autonomists there is no such distinction as that commonly drawn between a 'real' economy sustained on a material productive base and a 'false' financial economy completely uprooted from production. The second insight goes some way toward explaining the ill-equipped redundancy of the former perspective in fostering a successful left critique of contemporary conditions of accumulation. This is that the autonomists place production at the very foundation of wealth creation, and apply this principal to financialization in turn. Marazzi expresses this best, writing that *'financialization is not an unproductive/parasitic deviation of growing quotes of surplus-value and collective saving, but rather the form of capital accumulation symmetrical with new processes of value production'* (2010, p. 49). Financialization exists not by virtue of some conspiratorial project of deliberate economic distortion instigated by greedy financiers, but rather as a result and function of underlying and ongoing shifts in the constitution of society's productive processes towards working practices characterised by a wealth of free labor dispersed into society at large and recouped by digital infrastructures. As Marazzi writes, financialization ends up as an integrated part of these processes, 'spread[ing] across the entire economic cycle, co-existing with it'. For Marazzi, finance is *'cosubstantial'* to the very production of goods and services', going so far as to posit that immaterial labor and its subjective, self-referential valuation in the financial markets

share the same attributes common to all forms of economic activity in society at large, namely the emphasis upon communication and language in creating value (2010, pp. 28-9; 2008, p. 14).

Marazzi describes the way in which Alan Greenspan and others sought to boost up the New Economy at this time as the constitution of a 'convention' upon which investors were to act (2008, p. 45). Marazzi posits that the functioning of markets and of successful investments are not governed by the correct actions with regard to underlying rates of profit, but of the endlessly self-referential collective rumour and recommendation of the wider herd of market players and investors, including the media and figures in financial governance such as Greenspan. As such, investors look not to what they think *they* should do, but rather to what they think *others* will do. Such processes rely on the new forms of cooptation in contemporary capitalism of communication and linguistic capability. Performative utterances are *productive* of 'real facts', whether or not there is a material basis. This is what allows the values of stock exchange securities to 'make reference to themselves and not their underlying economic value' (*ibid.*, p. 26). This tendency is one that afflicts money itself: as Fumagalli asserts, money 'has finally been completely dematerialized: it has become pure *money-sign*. Its measurement is thus conventional' (2010, p. 77). However, just because share values exist only at the level of language and communication, without material referent, does not necessarily entail that their impact is not felt materially. In a world in which linguistic production structures every institution, Marazzi contends, the 'linguistic-communicative act is constitutive of the money, the marriage, and even of the Dot.Com enterprise, of which the shares I have purchased represent a portion of the share capital that allows the company to function economically' (2008, p. 34).

This economy of sign and symbol may be most appropriate for the situation we are surveying, in which what is produced is immaterial, and a general 'readability crisis' on the part of capital affects its 'capacity to read the composition of labor on whose exploitation it depends', as Mezzadra suggests (2010, p. 14). Indeed, Marazzi would claim that there is nothing at all 'fictitious' about the capital represented in the New Economy share prices fostered by the conventional wisdom of investors. Rather, they were the expression of an intangible and immaterial form of production whose content and, most important, *time*, is effectively beyond measure, but which finds a degree of reconciliation in the symbolic and communicative content of the share price. In this regard, stock prices are not 'the reflection of the irrational exuberance of speculation', but instead represent 'the real growth in social production' and the time that it occupies (2008, p. 134). The valuation of an enterprise based upon a balance sheet only reflecting the results of the recordable hours of labor expended in the workplace is unable to estimate the immense value created by the combined efforts of users, consumers and producers in time outside work. Thus, only the financial markets possess the elusive capacity to quantify what is immeasurable, expressing the growth in social production.

Let us consider how value was measured over this period. Despite share prices for the technology, media and telecommunications (TMT) sector rising 126% between 1995 and 1998, underlying profits for the sector had risen just 22%. More significant still, in the last year of this period, stocks had risen 41%, with no underlying increase in returns *at all*. Over 1998 and 1999, profits did not rise, the fall of 6.6% in 1998 and the rise of 5.5% in 1999 equalling each other out. Yet the New York Stock Exchange Index increased 20.5% and 12.5% in those years. Spurred on by more interest-rate reductions, between 1998 and 2000 the value of the New Economy-dominated NASDAQ

Index doubled. Entering into its 'final, most fevered phase', the bubble became sustained entirely upon New Economy stocks. (Brenner 2002, pp. 178, 180-1, 111-2)

Brenner labels the stock market valuations of high-technology and Internet enterprises as 'absurd'. Despite occupying only a small fraction of the total economy, they constituted a full 8% of the total market capitalization by 2000. However, behind this lay the grim reality that these firms 'had made only losses', yet were trading at very exaggerated price-earnings ratios. However, the stock prices may be seen to represent the actual expression of the social productivity of immaterial labor, based as they were on the expanding value of cyber-fuelled immaterial production.

No matter how absurd these inflated valuations appear, the autonomist approach is one of bracing audacity; namely in its claim that the share price *accurately reflected* the value of social production. Indeed, the telecommunications sector was home to those Dot.Com enterprises specializing in labor of an immaterial and socially-extended stripe. A lesser degree of investment in traditional means of production took place in recognition of the 'readability crisis' of capitalist production, and the fact that traditional physical means of production would no longer capture value produced immaterially, whereas the financial infrastructure is fluid and adaptable enough to do so with a greater degree of accuracy.

By spring 2000, the prospects of Internet 'e-businesses' were beginning to look bleak. Marazzi would see the financial collapse founded upon these failures as one of an inability of capitalism to effectively measure the value that was being created in the Dot.Com industries, a symptom of the readability crisis. Try as they might to quantify the fruits of immaterial production, the markets could not quite divorce themselves from a series of expectations based upon material profitability.

In the autonomist account, the roots of financial boom and bust are located in the domain of time and its apportionment through the workforce and society as a whole. Ultimately, crisis and its responses are situated within production, not as some unfortunate or unbecoming aspect of production but as part of its logic, immanent and implicated within it. As we can see, this crisis is one determined in the last instance by labor-time, free or otherwise, and the possibility of its measure. On one hand, we have viewed the economy from the perspective of the commanding heights of finance and industry, assessing large quantitative shifts in the fortunes of the nation as a whole. On the other, we have seen how these shifts played out on the ground, in the workplaces and businesses through which the fever of the New Economy was formed and sustained. The concept of immaterial labor provides the foundation for a broad examination of contemporary, deindustrialized capitalism that incorporates both the realm of production and that of circulation, locating squarely the roots of financialization in labor, and the very function of finance as one formed in response to the new structure of largely free and unpaid labor-time which spills out of the formal and measurable confines of the traditional working day and into society at large. For the autonomists, only finance can provide the flexibility and fluidity necessary to give at least some approximation of the value that represents the fruits of the vast temporal immeasurability of free labor.

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Acknowledgements

The author would like to thank Timothy Cooper at the University of Exeter for his supervision of the research that resulted in this paper.

Biographical note

Frederick H. Pitts is a PhD student at the University of Bath, UK. His research is informed by a critical engagement with the Marxian critique of political economy, and concerns work and work-time in post-industrial occupations with specific reference to the cultural and creative industries. He blogs at <http://themachineintheghost.blogspot.co.uk> and has an academia.edu profile at <http://bath.academia.edu/frederickhpitts>. All correspondence should be directed via email to f.h.pitts@bath.ac.uk.

Bibliography

Berardi, F. (2009), *The Soul at Work*, trans. by F. Cadel and G. Mecchia, Los Angeles: Semiotext(e).

Brenner, R. (2002), *The Boom and the Bubble*, London: Verso.

Fumagalli, A. (2010), The Global Economic Crisis and Socioeconomic Governance, in A. Fumagalli and S. Mezzadra (eds.), *Crisis in the Global Economy*, trans. Jason Francis McGimsey. Los Angeles: Semiotext(e), pp. 61-84.

Fumagalli, A., and S. Mezzadra. (2010), Nothing Will Ever Be the Same: Ten theses on the financial crisis, in A. Fumagalli and S. Mezzadra (eds.), *Crisis in the Global Economy*, trans. J. F. McGimsey. Los Angeles: Semiotext(e), pp. 237-272.

Hardt, M., and A. Negri (2004), *Multitude*. London: Penguin.

Hardt, M., and A. Negri (2009), *Commonwealth*, Harvard University Press.

Lazzarato, M. (1996), Immaterial Labor, in P. Virno and M. Hardt (eds.), *Radical Thought in Italy: A Potential Politics*, trans. P. Colilli and E. Emory, Minneapolis: University of Minnesota Press. pp. 133-150.

Marazzi, C. (2008), *Capital and Language*, trans. G. Conti, Los Angeles: Semiotext(e).

Marazzi, C. (2010), *The Violence of Financial Capitalism*. trans. K. Lebedeva, Los Angeles: Semiotext(e).

Mezzadra, S. (2010), Introduction, in A. Fumagalli and S. Mezzadra (eds.), *Crisis in the Global Economy*, trans. J. F. McGimsey. Los Angeles: Semiotext(e), pp. 7-16.

Ross, A. (2003), *No-Collar: The Humane Workplace and Its Hidden Costs*, New York: Basic Books.

Tapia, A. H. (2004), The power of myth in the IT workplace: Creating a 24-hour workday during the dot-com bubble, *Information Technology & People* Vol. 17 No. 3, pp. 303-326.
DOI: [10.1108/09593840410554201](https://doi.org/10.1108/09593840410554201)

Terranova, T. (2010), New Economy, Financialization and Social Production in the Web 2.0, in A. Fumagalli and S. Mezzadra (eds.), *Crisis in the Global Economy*, trans. J. F. McGimsey, Los Angeles: Semiotext(e), pp. 153-170.

Vercellone, C., (2010). The Crisis of the Law of Value and the Becoming-Rent of Profit, in A. Fumagalli and S. Mezzadra (eds.), *Crisis in the Global Economy*, trans. J. F. McGimsey. Los Angeles: Semiotext(e), pp. 85-118

Virno, P. (2004), *A Grammar of the Multitude*, Los Angeles: Semiotext(e).