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Coded Vanilla:  
Logistical Media and  
the Determination of Action

**F**inance capital, supply chain operations, and labor-power define three key staples of contemporary globalization abstracted by algorithmic architectures and software systems. The expenditure of labor-power special to capitalist societies is, since Marx, the less novel of these three dynamics. But labor has been transformed in distinct ways with the onset of algorithmic capitalism and is crucial to the emergence and dominance of finance capital and supply chain management as world-making forces. Finance capital and supply chain operations intersect with labor-power through logistical technologies that measure productivity and calculate value using real-time computational procedures. Logistical technologies derive their power to govern as a result of standardization across industry sectors coupled with algorithmic architectures designed to orchestrate protocological equivalence and thus connection between software applications and workplace routines.

The story of the standardization of shipping containers since the late 1960s is relatively well known (Levinson 2006). More obscure is the extent to which enterprise resource planning (ERP), customer relationship manager (CRM), and supply chain management systems for managing

administrative and financial tasks have penetrated a diverse range of institutional settings and industry sectors. These include the global logistics industries, which span shipping, road and rail transportation, warehousing and procurement, along with medical and health services, education providers, mining, and energy. In cases where ERPs have moved across from private to public sectors, “the systems often carried with them large amounts of ‘accumulated functionality’” (Pollock and Williams 2009: 11). Neil Pollock and Robin Williams note how “this ‘history’ had important implications for the reshaping of adopting organisations (public organisations and specifically universities)” (11). ERP and CRM systems are promoted as real-time digital platforms that bring the diversity of organizational practices into a single operation. Their implementation is motivated by a managerial desire to obtain “a clear and unobstructed view of overall financial operations” (Williams 2002: 118). Interoperability is valorized across a range of packages or modules. In the case of ERP and CRM systems, an organization might choose to implement functional and technical modules that deal with financial management, logistics, sales and distribution, human resources, procurement, materials management, workflow planning, and so forth. Upon implementation, these modules enable operational oversight of both internal and external events as well as activities determined as relevant to an organization. The determination of relevance is an automated process choreographed by the algorithmic parameters of particular modules and their capacity to communicate with other modules.

This essay sets out to explore the production of a seamless, standardized world as both fantasy and material condition. Central to such an account is the implementation and use of ERP systems, but also their economy within organizations that find supplementary lines of income generation through the mining of data. The distinction between implementation and economy registers in both organizational techniques and methods of analysis. The study of implementation lends itself to ethnographies of organizational cultures, and this has largely been the case in research on ERPs in university settings. A study of the economy of ERP systems, for the purpose of the argument I develop here, is more interested in how the technical parameters of software determine organizational practices and financial transactions within a logistical paradigm. While not exclusive of issues around implementation, the term *economy* marks a difference of method from ethnographic approaches, which analyze the implementation of ERP systems in institutions from the perspective of users and stakeholders. A study of the economy of enterprise systems points instead to the program-

ming of measure, calculation, and decision that, due to the constraints of parameters, determine the production of subjectivity and circuits of movement. This does not mean that there is no resistance to ERP systems in workplace settings, nor does it mean that enterprise software is immune from computational errors or problems associated with implementation. It rather points to the indifference of enterprise systems and algorithmic architectures more broadly: operating below the threshold of perception, we have no idea of the time and force of algorithmic action.

Software coupled with infrastructure determines our situation. And while both are heavily engineered and seemingly constrain, even repress, any possibility for action outside of parameters, they nonetheless present new sites of struggle against practices of extraction. A politics of alternatives remains possible despite the seeming impossibility and futility of such work. Less clear is whether alternative politics correspond with a life free of algorithmic determination. To develop this line of argument, the essay presents a series of vignettes that register the operation and transformative effect of enterprise software systems on the economy of data and governance of labor. The essay tracks the inception and governance of ERP systems within universities, then moves to finance capitalism and gamification to extend the analysis of logistical software and infrastructure as key apparatuses that govern culture, society, and economy within the historical present.

### **Debt and the Enterprise University**

The rise of the “global university” as an institution characterized by highly mobile students and locally adjusted pay rates for faculty is an instantiation of the offshoring of what have become known as educational services. As a service, education provision is organized around economic factors much like any other operation. As Andrew Ross (2009: 201) observes, “it is not at all easy to distinguish some of the new offshore academic centers from free trade industrial zones where outsourcing corporations are welcomed with a lavish package of tax holidays, virtually free land, and duty-free privileges.” Ross goes on to suggest that the global university is not a simple case of corporate culture migrating to the academy, although these features do figure substantively in the composition of higher education institutions over the past twenty years or so. Ross rather proposes that the university is also a key point of reference for post-Fordist management culture across the knowledge industry more broadly, where workers are not required to clock in their hours on the time sheet but are afforded a flexibility in time and the spaces

of work similar to those experienced by the informatized academic (204). Within the cultural industries, much of this work is analyzed in the name of precarity, the condition of which sees the at times liberating aspects of individual self-determination underscored by economic struggle and existential insecurity (see Gill and Pratt 2008).

A further point of indistinction between the higher education sector and other organizations can be found when ERP and CRM systems occupy the center of analysis. Indeed, I would go so far as to suggest that the correspondence between the academy and the corporate world may best be understood not from the traffic in managerial culture and labor practices across institutional settings, though there is no doubt such movements are key at the level of what Ross (2009: 205) terms institutional “coevolution.” One sees such coevolution not only in the management discourse that dominates institutional life but also in the mobility of labor between corporate and university settings along with the numerous examples of collaborative research projects between industry and academia. Rather than posit a constitutive force between discourse, subjects, and institutions, I would instead propose that attention to enterprise software systems may help explain the emulation of conduct between otherwise diverse institutional forms and organizational cultures.

Outside of business and management studies, computer science, and accounting, critical research on ERP implementation and use has often adopted science and technology studies and actor-network theory approaches in the analysis of organizational cultures and identification of key “stakeholders” (see Pollock and Williams 2009; Quattrone and Hopper 2006; Chong 2012). A consistent finding across this literature concludes that ERP systems function to centralize administrative and managerial power in conjunction with a further displacement of academic staff and students already isolated from arenas of decision making. Writing from a quite different perspective and drawing on his experiences in the academic labor movement, Marc Bousquet (2008: 60–61) analyzes how the “informationalization of labor” is a managerial undertaking that “manipulate[s] objects *as if* they were data.” Irrespective of whether they are car parts, novels, military armories, or, for that matter, knowledge workers, all can be made available according to “an informatic logic: on demand, just in time, and fully catalogued” (61).

In Britain, Europe, and Australia, ERP systems are coincident with neoliberal policies geared toward the corporate turn within universities characterized by a decline in government funding for higher education and a subsequent commercialization of knowledge and introduction of fee pay-

ing models for student tuition. As Erica L. Wagner and Sue Newell (2004: 307) explain, “The trend toward ERP ‘business solutions’ reflects the ‘marketisation’ of universities where institutional governance is now the domain of professional managers who aim to mitigate risks while remaining competitive in an increasingly complex global higher education marketplace.” Moreover, ERP systems have a leveling effect on institutions, making universities much like any other organization (see Pollock and Cornford 2004). When ERP systems are taken as the object of study, the extent to which new modes of governance special to higher education institutions extend to other sectors of industry and society begins to appear as less a case of universities setting policy agendas vis-à-vis institutional reform or, vice versa, universities being subject to the external force of corporatization wrought by neoliberal policies and the commercialization of daily life. Instead, the university becomes one of many institutional settings whose economy increasingly comprises data extracted from routine practices managed through digital interfaces, databases, and software systems. The enormous costs of ERP consultancy, implementation, customization, and maintenance—running into the tens and often hundreds of millions of dollars—is offset by the promise of future cost savings through leaner, more efficient operations following the restructuring of organizations brought about by enterprise systems. The reality is somewhat different, with organizations having to wait years before seeing economic returns on their ERP investment and running the risk of financially crippling themselves in the intervening years.

Unless organizations have finances to meet the considerable costs associated with customization, they will be forced to adjust their practices to parameters embedded in generic software packages. As historian of technology Rosalind Williams (2002: 119) notes, “Since the cost of adaptation is high, the bias is toward standardization.” A further risk is therefore born with modifying the default settings of ERP systems. The more localized customization becomes, the greater the chance of conflicts in the standards and protocols that enable updates from software suppliers and communication between organizations and operations (see Pollock and Cornford 2004: 34–35). The implications here for coordinating the movement of people, things, and finance along global supply chains are not hard to imagine. Without real-time interconnection logistical operations become exercises in inefficiency. Customization becomes the culprit of protocological conflict. It is in this sense that software determines organizational change. Who really needs a manager when decisions become computational calculations? The world increasingly becomes coded vanilla.<sup>1</sup>

A few words need to be said on how the technological force of determinism is invoked in this essay's analysis of logistical media. Countless textbooks and introductory works crowding the field of media and communication attribute a moral depravity to those perceived as sliding into techno-determinist positions.<sup>2</sup> Certainly, on the face of it there seems something sensible in pointing out the clear limitations of the classic sender-message-receiver model of communication. Let your kids watch too many violent cartoons or load up on aggressive video games and they will flip into rampant psychos. That sort of thing. Aside from the often hysterical claims of an evil media, the critique of linearity here usually overlooks the more nuanced model of cybernetics that Norbert Wiener (1961) proposed, which was interested in processes of nonlinearity, random noise, and feedback (see Pias 2003). Within models of second-order cybernetics, complexity and variation are subsumed within a dynamic system. Determinism does not dispense with contingency. Pairing German media theorist Friedrich Kittler with the economic writings of Marx and Engels (1975), Geoffrey Winthrop-Young (2011: 123) quotes the following correspondence between Engels and Joseph Bloch in 1890: "According to the materialist conception of history, the ultimately determining element in history is the production and reproduction of real life. Other than this neither Marx nor I have ever asserted anything else. Hence if somebody twists this into saying that the economic element is the only determining one, he transforms that proposition into a meaningless, abstract, senseless phrase."

By Winthrop-Young's (2011: 123–24) account, a Kittlerian approach can replay this proposition as the media-technological determination of "the production and reproduction of data" and discourse as a force underscored by contingency. Similarly, ERP software is not the only determining element in the transformation of organizational cultures and economies. Budget cuts, policy directives, labor composition, geographic location, and currency exchange rates are among the key elements that shape organizational change. But, very specifically, enterprise software coordinates activity in a wide range of material settings (ports, warehouses, transport, university activities, military operations, etc.) through predefined and, for the most part, fixed parameters. That ERP systems function through computational processes that require certain personnel in an organization to be allocated role X as distinct from others being assigned access to area Y or to be granted permission to undertake task Z demonstrates the relation between ERP systems and security as it pertains to those working within an organization, which I take here as an instance of subjectivization determined by code.

In the case of enterprise software, the tendency is for organizations to accept the supplier's template in order to minimize immediate costs associated with implementation and future costs resulting from ongoing maintenance. The sum effect makes for diminished organizational and cultural variation within and between industrial sectors and institutional practices. The now widespread adoption of ERP systems across the higher education sector registers the rise of the enterprise university as an institution whose component parts function as interoperable units able to respond to external contingencies as they arise. Fluctuations in currency exchange rates and visa regulations that affect international student enrollments can be offset in the marketing office by adjusting ERP modules that inform a policy directive issued across the university to target domestic students and increase local enrollments in degree programs. As Williams (2002: 116) recollects following the implementation of SAP's R/3 client-server enterprise system and relational database at the Massachusetts Institute of Technology in the mid-1990s as part of its reengineering project: "Once work is reconfigured in technological terms . . . it is profoundly shaped by the logic of the supporting technological system. The rules that govern the technology start to govern everything else." Simon Head (2003: 8) considers the impact of ERP implementation on labor as a reiteration of Taylorist techniques of labor management, in which workplace routines "are the assembly lines of the digital age, complete with their own new digital proletariat."

As soon as informal and contingent elements such as infrastructural sabotage, economies off the grid, software glitches, labor strikes, and financial crashes are introduced into the logistical scenario, then parallel worlds come into being. This means not that the "failed" determinism of the technical system enters the realm of the fantastic but rather that the constraints of the system prompted unforeseen action. While economies off the grid would seem to be outside of logistical technical systems, and therefore immune to technical determinism, they nonetheless hold a relation to such systems either because they are excluded or as a consequence of their force. Moreover, if one were to experience a guided tour of informal economies off the grid, there would in all likelihood be encounters with material objects whose presence was made possible precisely because of systems of production and distribution enabled by the grid. So the invocation here of economies off the grid needs to be read as a condition that is only even partial, outside perhaps the more extreme off-the-grid lifestyles entirely absent of goods obtained through supply chain networks.

Even if contingency can't formally be incorporated into the parameters of logistical operations defined by software architectures and strategic

interests, it doesn't mean that it is outside the universe of logistics per se. Instead, another manifestation or extension of logistics emerges, when understood as an operation underscored by the problem of movement: financial transaction, labor migration, military deployment, administrative routine, and so forth. Logistics, in other words, is not only an adaptive technology able to accommodate contingency. It is also a technology of penetration, seeping into reserves of life that exist beyond the world of supply chains. As Stefano Harney and Fred Moten (2013: 88) ascertain: "Logistics is no longer content with diagrams or with flows, with calculations or with predictions. It wants to live in the concrete itself in space at once, time at once, form at once." For now, the economy and design of enterprise software does not have that kind of traction, though it is worth noting how social media technologies instantiate the moment of "lifestream logistics" (Zehle 2012) in which our relations of touch, perception, and response are captured by gesture-based interfaces whose user experience design is framed within a juridical regime that sees life as the object of patent law.<sup>4</sup>

It would be negligent of critique to overlook the politics of parameters in a study of how ERP and CRM systems shape organizational practices and economies of extraction. How might the rules and parameters of enterprise systems govern the economy of data accumulated through routine organizational practices? What sorts of data are gathered and where do they go? What are we to make of provocations by university CEOs who declare with zeal that their organization's finances can be expanded substantially through the sale of data amassed through ERP systems to interested third-party clients? Is this just part of a logistical life stream moving from social media data-mining economies to the higher education sector in dire need of new models of revenue generation? No doubt that is part of the sales logic coming out of the information technology sector. But it is not one that is widely advertised or discussed within university settings, since issues around privacy and data security are understandably highly sensitive and do not augur well for placating the already nervous state of a frazzled faculty.

With the financial models on income returns stemming from student debt repayments looking to fall considerably short of expectation, universities may become emboldened—if they are not so already—to explore alternative options for supplementing their operating budgets through the trade in data.<sup>5</sup> As one business report on higher education management put it in 2007, "Higher education institutions across the globe are rethinking their ERP and CRM investments with a new goal in mind: total financial management coupled with total student relationship management from recruitment and



enrollment, through retention, graduation, and even alumni giving” (Panettieri 2007). The sale of data to third parties in search of new market demographics is an extension of the logic of financialization of debt by the university sector. My interest is in how data derived from ERP operations within but not limited to higher education institutions constitute a new form of finance capital in logistical economies.

### Financialization and Algorithmic Extraction

Since the mid-1990s, high-frequency trading has involved an algorithmically engineered world of automated securities trades (stocks, bonds, derivatives, options, futures) that execute mathematical calculations, crunching data and performing trades that frequently exceed the capacity of the human brain to compute (see Columbia 2013). In a Twitter post on April 20, 2014, media theorist Geert Lovink (@geertlovink) wrote, “The topic of High-Frequency-Trading quickly dissolves into a smorgasbord of mnemonics and technical terms.” But what if instead of examining finance software, we considered algorithmic operations adjacent to finance capital and in so doing identified dynamics, conditions, and processes that might open new lines of critique of finance capital? Central to such an inquiry is the relation between finance capital, algorithms, and labor. Again, ERP systems provide a point of entry here.

Algorithmic architectures are central to the organization of communication systems that make possible the circulation of capital. According to Tiziana Terranova (2014), “an algorithm is an abstraction.” Their power is to “modulate our relationship with data, digital devices and each other.” Algorithms reorganize production, distribution, and consumption, constituting new modes of value creation. If one leading software developer’s declaration that “63% of the world’s transaction revenue touches an SAP system” is anywhere near accurate, then a considerable portion of this activity is of a logistical kind (SAP 2013: 4).<sup>6</sup> Algorithms hold value as a means of production upon converting what Terranova (2014) calls the social knowledge “abstracted from that elaborated by mathematicians, programmers, but also users’ activities . . . into exchange value (monetization) and its (exponentially increasing) accumulation (the titanic quasi-monopolies of the social Internet).” Terranova is careful to point out that while capital—and more orthodox variations of Marxism—view algorithms as forms of “fixed capital” or “instrumental rationality” in the pursuit of capture and control, “it seems important to remember how for Marx, the evolution of machinery also indexes a level of development of productive powers that are unleashed but never totally

contained by the capitalist economy.” Translated to the work of code, this means that algorithms cannot be reduced to homogeneous rules, functions, instructions, and infallible executions.

In *The New Ruthless Economy: Work and Power in the Digital Age*, Head (2003) identifies a series of connections between the rise of ERP systems in US corporations, the stagnation of wages throughout the “golden years” of the 1990s, and mass layoffs despite increases in workers’ productivity. In Head’s narrative, ERP systems control labor in ways that amount to a continuation of the model of the Fordist assembly line and the Taylorist science of managing labor. In her study of financialization and global management consultancy in China, Kimberly Chong (2012: 18) gently contests Head’s view that ERP systems mark a continuity of Fordism and recounts how “ERP systems started to be installed en masse in the 1980s—around the same time that the predominant model of capitalism, which has its roots in the United States, shifted away from the welfare capitalism that characterised Fordism” (see also Head 2003, 2014). Chong (2012) notes instead how this period coincided with the role of stock markets as a determinant force in the “allocation of resources” coupled with the rise of “shareholder value,” or, in a more extensive sense, what Randy Martin (2002) terms “the financialization of daily life.” The “new economy” of the dot-com era was soon to follow, then crash, only to be reborn as subprime mortgages, which, following the 2008 financial crisis, migrated in part to the financialization of student debt. The consultancy culture and business of ERP implementation have largely managed to ride through the past thirty years remarkably unscathed; indeed, it has been a period of exceptional growth in the enterprise software market. One key reason for the success of ERP systems rests with their allure for corporations as “a representation of modernity and vector of value” (Chong 2012: 21). They become a measure within both corporate and nonprofit sectors of best practice and a standard for organizational reform geared toward greater productivity, efficiency, and profit generation.

Chong places labor as the centerpiece of management consultancy: “the crucial work of management consulting is to establish the practice of managing labour *as* financial capital” (11). And the chief device for managing labor is through ERP systems: “ERP systems are a means of automating and disseminating the fundamental practices of financialisation” (26). Building on the ethnographic research of Anna Tsing and Marilyn Strathern, and the science and technology studies/actor-network theory work of Annemarie Mol and John Law, Chong considers ERP systems as constructing labor as a “financialised subject” to be governed within an array of an organization’s

financial assets (see 37–40, 49). Labor is reduced to the status of data, able to be managed, and shuffled about within the algorithmic environment of ERP systems. Moreover, ERP systems are perfectly suited to the logic of neoliberalism vis-à-vis the organization of production and management of labor: “ERP systems both institute the economic rationale for, and provide the technical means of, contracting-out” (25).

How, though, do ERP systems extract value from the dual uncertainty of both living labor and algorithmic architectures? ERP modules in finance, payroll, and human resource management calculate wages, deductions, overtime, annual leave, financial risk, market growth, and the like. These modules do not extract value so much as manage its allocation. Designed to automate basic financial and administrative operations within and across organizations, these particular ERP modules make labor accountable and measurable, albeit in fairly limited ways. As extraction machines, ERP systems are realized once the data accumulated through routine organizational practices are aggregated and packaged as tradable commodities to third-party clients. By mining ERP data, organizations are able to develop new revenue streams usually associated with the economy of social media corporations such as Facebook and Twitter. In the case of ERP systems within universities if not other organizations, the economy of data mining is easily undertaken without the consent, let alone awareness, of academic employees, prospective students, or even high-level management who may then find themselves targets of marketing campaigns based on demographic data supplied. Such is the abstract operation of algorithmic architectures, where computational processes whir along in the background of daily institutional practices.

Despite the seemingly totalizing force of ERP systems, Luciana Parisi insists that there is an incomputable ontology intrinsic to algorithmic architectures. Receptive to uncertainty and randomness, incomputable algorithms are, for Parisi (2013: 81), “instances of postcybernetic control” able toprehend (anticipate) and preempt change and transformation immanent in the present. If we are to take ERP systems as a technology of control in which labor is constituted as a financial subject to be made accountable within a temporal regime that coincides with the extraction of value, what sort of design flaws within algorithmic architectures corresponding with ERP systems occasion the possibility of refusal or subtraction from the logistics of control?

The backend security of ERP systems such as those provided by SAP is known to have glitches and software vulnerabilities, and intentionally so: as with most software developers, ERP providers require an automated traffic in data on software performance as part of the system testing, development,

and updating process. However, this access to an organization's data opens the potential for ERP companies or their subsidiaries to have advance insight into a client's market strategies and financial transactions. Such a practice effectively transfers the power of what ERP providers like to promote to clients as "real-time business intelligence" enabled through data analytics that make possible the prediction of market trends and management of organizational operations. The migration of an ERP system to cloud computing increases the likelihood of security vulnerabilities associated with Internet communications (see Mosco 2014: 144–47).

The design of computational exploits to hack into ERP systems should not be seen as the stuff of organized crime alone. In October 2012 the hacktivist network Anonymous claims to have breached the SAP ERP system of Greece's Ministry of Finance in the lead-up to another round of economic austerity measures to be voted on by the government. Earlier in 2012, Anonymous had taken down the website of Greece's Ministry of Justice. Mobilizing under the Twitter hashtag #OpGreece, Anonymous (2012) called on Greek citizens to revolt, and claims to have "gained full access to the Greek Ministry of Finance" were followed by a list of username and password details for numerous leaked documents (see also Polyakov and Tyurin 2013: 40; *Infosecurity* 2012). Before signing off with a passing critique of Greek citizens' financing of European banks and international hedge funds, the announcement makes clear the weakness of the Ministry of Finance's ERP systems: "Those funky IBM servers don't look so safe now, do they. . . . We have new guns in our arsenal. A sweet oday SAP exploit is in our hands and oh boy we're gonna sploit the hell out of it" (Anonymous 2012). While the hack by Anonymous was not acknowledged by SAP, it is worth noting in as much as it signals a political awareness on the part of social-political movements of the power of ERP systems and the need to focus critical attention on logistical media and financial infrastructure. Key to the power of logistical media such as ERP systems is the capacity to govern labor in real time. The temporal regime of ERPs thus marks an obvious target for technopolitical attack.

### **Refusing Gamification**

All too often resistance to the distribution of power and the penetration of financial capitalism is, as Max Haiven (2013) argues, not only futile but quite often reinforcing of that which it claims to oppose. Resistance is not interventionist so much as affirmative: "finance as we now have it, as a system that 'reads' the world by calculating the 'risk' of 'resistance' to 'liquidity' and allo-

cating resources accordingly, already incorporates ‘resistance’ into its ‘systemic imagination’” (99). In this slaughterous world, the nihilistic option is to find joy in the pleasure of immediacy, consumption, and aesthetic gestures of critical self-affirmation.<sup>7</sup>

No matter the foibles of human life, predictive analytics and algorithmic modeling deploy the currency of data to measure labor against variables such as productivity, risk, compliance, and contingency. What, then, for labor and life outside the extractive machine of algorithmic capitalism? Can sociality reside in the space and time of relative invisibility afforded by the vulnerable status of postpopulations? Can living labor assert itself beyond the calculations of enterprise software and the subjugation of life to debt by instruments of finance capital? These are disturbing, complicated questions that require collective analysis if we are to design a life without determination.

In an attempt to reassert the power of control over the all-too-human tendency to shirk from the task at hand, the managerial class has been on the lookout for strategies and techniques that bring labor back into the fold of efficiency and increased productivity. Gameplay is now seen as one key “solution” to recapture the distracted soul of workers. Gamification techniques designed for organizational reform are increasingly implemented across a range of institutions in an effort to further enhance productivity levels from labor and organizational activities through the logic of play. According to ex-SAP employee and gamification consultant Mario Herger: “Gamification generates a tremendous amount of data on your employees’ skill levels. . . . If you gamified every system and every interaction in your corporation, you’d know exactly what each person does and at what level of skill” (quoted in Harbert 2013). Gamification brings game design and the logic of play into nonentertainment settings. A key goal is to change social behavior, forging closer links between companies, employees, and their customers by generating data for computational analysis. At the information technology firm Accenture, “collaboration scores are included in their annual performance reviews” (Harbert 2013). In various games designed in conjunction with ERP systems, employees “earn” points for inputting data, teams are assigned “goals” and “challenges,” performances are evaluated, and “desired behaviors” are modulated through user experiences of play. The coupling of play and labor—what game theorist Julian Kücklich (2005) coins as “playbor”—registers the current level of managerial discourse and software engineering that casts the worker as a subject optimized for efficiency. The next step for capital’s cycle of replenishment would be to make the realm of the unconscious a site of “primitive accumulation” from which economic value can be extracted through computational means.<sup>8</sup>

According to Gartner analyst Brian Burke, gamification is also “leveraged for change management” in organizational settings. And as Imran Sayeed, chief technology officer of NTT Data Inc., explains: “The nice thing about a game is that it collects incredible analytics, and so every manager can see the progress of their team members through the game—where they did well and where they are having issues—so they can offer to help them offline” (quoted in Harbert 2013). This centrality of management within the seat of control is one that resonates across sectors. *Virtual U* is a computer simulation and serious game of university management training released in 2000 and designed by Stanford University senior education administrator William Massy. As Massy and his colleagues explain: “While Virtual U is necessarily a simulation of real academic life, it is grounded in authentic data and provides serious lessons in higher education. Toward these ends, Virtual U draws on data from 1,200 colleges and universities in the United States” (Rainwater et al. n.d.). Bousquet (2008: 73) describes how players of *Virtual U* have but one option: to occupy the seat of power as president of a university. In producing the subjectivity of the manager in control, *PR Newswire* (2000) reports, “*Virtual U* players strive for continuous improvement by setting, monitoring, and modifying a variety of institutional parameters and policies. Players are challenged to manage and improve their institution of higher education through techniques such as creative resource allocation, minority enrollment policies, and tenure parameters, among others.”

While *Virtual U* has now become an obscure artifact in the history of digital games for workplace settings, countless others have taken its place. The logic of play within *Virtual U* is duplicated over a decade later in *Lead in One*, a game concept developed within the SAP Community Network for an iPad application in which players assume the role of a sales manager. Business leads are received, duties are assigned to members of a sales team, and market prospects are analyzed based on data from previous sales, Twitter, and social media feeds. The infant world of play made computational increasingly intersects with ERP systems within institutional settings seeking to extract greater value from data generated by their workforces.

As much as ERP systems are designed with the intention to control worlds, their reach will remain highly circumscribed, at least for the foreseeable future. Labor refuses, parameters by definition have limits, and the extraction of value by capital’s machines can only subsume that which is named. Anonymity becomes a strategy of subtraction. The anonymity that attends the culture of improper names has historically been a resource for political work seeking to refuse the logic of identity and its susceptibility to

apparatuses of capture. As detailed by Marco Deseriis (forthcoming), a genealogy of improper names includes acts of collective struggle perhaps best exemplified by Ned Ludd, “the eponymous leader invented by English Luddites to resist the introduction of labor-saving machines during the Industrial Revolution.” Other examples of improper names central to Deseriis’s study include North American mail artists in the 1980s adopting the alias of Monty Cantsin, the collective pseudonym of Alan Smithee assumed by Hollywood film directors since the late 1960s who wished to dissociate themselves from films meddled with by Hollywood studios without their consent, and activists in Italy gathering from the mid-1990s around Luther Blissett as “a figure of immaterial labor.” More recently, anonymity is often associated with the pranks, hacks, and collective actions organized in the name of Anonymous, an improper name spawned on the image-based Internet bulletin board of 4chan.

Anonymity may seem a strategy of collective withdrawal not feasible in the case of enterprise planning systems whose real-time monitoring of movement and calculation of labor productivity require people, finance, and things to register within databases and screen interfaces as objects to manage in the interests of efficiency. Yet while we all need our user accounts to sign into platforms of work and play, these devices require a subject to activate a new file of data generation and compilation. At least this is the case for tasks not fully automated. At this point, the political limits of object-orientated ontology become clearly apparent. For as long as there are subjects that are more than just an addition to the expansive agency of objects, there is also scope for a political imaginary not reducible to, or able to be readily replaced by, the ontology of objects. The strategies of subtraction offered by techniques of anonymity may not combat the economy of data generation and its subsequent exploitation within economies of exchange, but they can shield against the often assumed correspondence between data and the empirical thing in itself. For as much as we know in the post-Snowden world of the National Security Agency that our data are never secret, at least for now our dreams remain free as sources of the imaginary beyond the actionable.

## Notes

- 1 Wagner and Newell (2004: 306) note that “organizations adopting ERP software need to configure the software to meet their local needs but are encouraged to adopt the ‘vanilla system’ (that is without modifications) since the ‘best’ industry practices are supposedly embedded in this standard configuration.” Jessica Davis (1998: 57), citing a Forrester Research industry survey presumably made in the United States in

- the mid-1990s, makes the point that “only 5 percent of companies buy an application with the intention of modifying it to match their business processes.”
- 2 As Winthrop-Young (2011: 121) so delightfully phrases this predicament: “To label someone a technodeterminist is a bit like saying that he enjoys strangling cute puppies.”
  - 3 SAP is a German-based software developer specializing in ERP and CRM systems. One recent report placed SAP as holding 25 percent of the worldwide market share in ERP revenue. SAP’s closest competitor, Oracle, held 13 percent of the market share. See Columbus 2013.
  - 4 As Soenke Zehle (2012: 342) notes, “On 25 October 2011, computer and mobile gadget maker Apple was assigned patent 8,046,721 by the US Patent Office, granting the lifestyle corporation additional rights over the ‘slide-to-unlock’ gesture of its touch-based devices.”
  - 5 On the budget implications for universities in the United Kingdom not accurately factoring in the default rate on student loans, see Mason and Malik 2014.
  - 6 A presentation for the US-based University Alliances Program (2009) claims that 80–85 percent of all business transactions are through ERP systems of one kind of another.
  - 7 The phrase “slaughterous world” is lifted from Wood 2014.
  - 8 For a harrowing account of the exploitation of sleep by capitalism, see Jonathan Crary 2013.

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