Is Anonymous a New Form of Luddism? A Comparative Analysis of Industrial Machine-Breaking, Computer Hacking, and Related Rhetorical Strategies*

Marco Deseriis

At a first sight, the Luddites and Anonymous belong to entirely different worlds. While the English machine-breakers of the early nineteenth century went down in history as the technophobic movement par excellence, in the contemporary imagination the hacker network Anonymous is associated with technical dexterity and an unconditional love for information technology.

In this article I argue that in spite of this striking contrast, Anonymous and the Luddites share at least three remarkable features. First, both movements target machines of a specific kind—labor-saving machines in the case of the Luddites, machines that restrict access to information and information technology in the case of Anonymous. Second, both Anonymous and Ned Ludd (the eponymous leader of the Luddites) function as collective pseudonyms or "multiple-use names" that anyone can borrow to claim individual and collective actions. Third, while the openness of shared pseudonymous enables unpredictable appropriations, I maintain that such names bring seemingly unrelated struggles within a common discursive space.

After examining the historiography of Luddism and the current literature on Anonymous, I argue that from the perspective of political economy industrial machine-breaking and computer hacking are comparable in that they both reduce the productivity of labor and capital. Yet while the Luddite subjectivity constituted itself in opposition to the most advanced machines of its time the hacker subjectivity is constituted by as much

as it exerts mastery over information technology. This means that a fundamental operational difference between industrial machines and cybernetic machines sets in motion processes of subjectivation and class composition that are not reducible to one another.

Three Affinities between Anonymous and the Luddites

Both the Luddites and Anonymous emerge at two critical historic junctures—namely, the onsets of the Industrial Revolution and the information society. In both circumstances, technological innovation sets in motion a radical restructuring of the relations of production. And in both cases, these movements resist the private accumulation of wealth and the expropriation of knowledge enabled by the introduction of new machinery in the sphere of production. In this respect, it is no accident that both the Luddites and Anonymous target machines of a specific kind.

In fact, the Luddites (1811-17) attacked the new labor-saving machines that were being introduced in the English textile industry at the time of the Industrial Revolution while preserving the machines that had been in use in the early-modern system of manufacture. Anonymous, on the other hand, targets the websites and the communication infrastructure of institutions that limit access to information technology, seclude sensitive information from public scrutiny, or prosecute those who struggle for unrestrained access to these technologies. While the Luddites destroyed the hardware of wide knitting frames, shearing frames, gig mills, and power looms the hackers and activists affiliated with Anonymous hack passwords and firewalls, protected databases, and Internet filtering software.[1] Although the difference between targeting hardware and software is not a

minor one, as we shall see both movements attack machines that have the threefold function of increasing productivity, rationalizing the production process, and disciplining or controlling the workforce.

On a second level, both Anonymous and the Luddites adopt organizational forms that are adequate to carrying out these attacks. Since these attacks are often illegal, both movements appear in the symbolic realm as pseudonyms that can be claimed by anyone without the need of a formal affiliation. The Luddites derived their name from "Ned Ludd," "General Ludd," "Captain Ludd," or "King Ludd"—an eponymous leader invented by the Luddites themselves to author ballads, chalkings, declarations and threatening letters to the manufacturers who adopted the new machines and the magistrates who protected them. Anonymous derives its name from the tag used to mark unsigned comments in 4chan, a popular imageboard where hundreds of thousands of Internet users communicate by exchanging images and short texts on a daily basis. This means that Anonymous is also a shared pseudonym and *not* a pure marker of anonymity. While pure anonymity does not express, in my view, a process of subjectivation, the shared use of a pseudonym does as it provides a medium for mutual recognition to its adopters. Furthermore, each usage affects the perception of what the alias can do and therefore its subsequent usages.

Elsewhere I have called those names that cannot be disambiguated and assigned a discrete referent—be it collective or individual—"improper names."[2] I maintain that improper names such as Ned Ludd and Anonymous have the threefold function of providing a medium for mutual recognition to their users, expressing a symbolic power outside the boundaries of an institutional practice, and setting in motion a process of

subjectivation characterized by the proliferation of difference. This means that improper names always imply a certain level of publicity and dissemination, which opens them up to unforeseen appropriations and third-party usages. For example, in its circulation across different regions of England, the name Ned Ludd was appropriated not only to oppose specific technologies, but also to advance a variety of demands such as higher wages in the cotton industry, lower food prices, and the abolition of the monarchy. In the case of Anonymous, the moniker has been used to coordinate cyber-attacks against corporate websites, help citizens bypass government filters on the Internet, attacking the public and private cyber-security apparatus, and harassing clueless Internet users.

It is on this level that we can identify the third affinity between Ned Ludd and Anonymous. While the plurality of molecular usages of a shared pseudonym suggests that improper names are not always controlled by collective decision-making bodies, they also fulfill the important function of linking a variety of seemingly unrelated practices. In this respect, the idiosyncratic uses of an improper name may signal the beginning of a process of social and political recomposition of which the name is a symbolic expression. To be sure, recomposition does not only occur on a symbolic level. Rather, recomposition occurs when different segments of the populace begin to understand their interests as common through practices that have both a material and symbolic dimension. I will first focus on a comparative analysis of the material practice of attacking machines, to turn then to the discursive practices associated with those attacks.

The Historical and Political Significance of Luddism

As previously noted, although the Luddite movement is generally identified with an anti-

modern and anti-technological stance, historians of the labor movement agree that the Luddites did not reject technology as such, but only a specific set of machines.[3]

As David Harvey has argued, in spite of their technical differences, the industrial machines shared three characteristics: increasing the productive output, rationalizing the production process, and disciplining the workforce by reducing capital's reliance on manual labor.[4] By incorporating the tools and skills of the handicraftsmen, the new mechanized machines subjected the workers to their time, separated intellectual faculties from manual skills and created vast strata of deskilled workers, which could be easily laid off and replaced. In *Capital, Vol. I*, Marx describes the expropriation of the workers' skills as a process of de-subectivation: "In manufacture, it is the workers who, either singly or in groups, must carry on each peculiar process with their manual implements. The worker has been appropriated by the process; but the process had previously to be adapted to the worker. This subjective principle of division of labor no longer exists in production by machinery. Here the total process is examined objectively, viewed in and for itself, and analyzed into its constitutive phases."[5]

Thus it is no surprise if the Luddites smashed not only the machines that threatened their livelihood, but also wiped out the customary norms that had regulated for centuries the mode of disposition and usage of knitting tools, the system of apprenticeship, and the division of labor in multiple branches of the woolen trades. In this respect, the Luddite revolt can be seen as a desperate attempt at reaffirming the centrality of the subjective division of labor that had characterized the Guild system, against the objective division of labor stemming from the Industrial Revolution.

Thus, the historical and political significance of the Luddite resistance can be

appreciated from three distinct perspectives. First, because the new industrial machines reduced capital's reliance on manual labor, machine-breaking was a form of resistance to the expropriation of the workers' knowledge that had been perpetuated through automation and technological innovation. Second, by destroying the new industrial machines the Luddites attacked the new technical and organic composition of capital that was emerging with the Industrial Revolution, that is, they increased both the ratio of workers to machinery and of variable capital to constant capital.[6] In other words, the initial efficacy of the Luddites' tactics forced the industrialists to revert to a less intensive system of exploitation of the workforce. Third, because the Luddite movement spread from Nottinghamshire to Yorkshire and the booming cotton districts of the Manchester region, Luddism cannot be framed exclusively as a movement of resistance of the old guilds.[7] Rather, as E. P. Thompson has pointed out, Luddism was a hybrid movement, which simultaneously looked backwards, at the protection of a traditional political economy, *and* forward, towards modern forms of class struggle.[8]

The accelerated transfer of knowledge from living labor to dead labor that begins with industrial automation has multiple material effects. If on the level of political economy automation reduces the workforce and produces a new division of labor, on the level of the manufacturing process it separates the source of energy from the source of information. As Gilbert Simondon notes, "The industrial modality appears when the source of information and the source of energy separate, namely when the Human Being is merely the source of information, and Nature is required to furnish the energy. The machine is different from the tool in that it is a relay: it has two different entry points, that of energy and that of information."[9] Matteo Pasquinelli has acutely noted that

Simondon's insight points to what Deleuze and Guattari would call a "bifurcation in the machinic phylum," that is, the emergence of a singularity that cuts through the flows of matter-energy.[10] If the tool allowed the craftsmen to apply both muscular force and specialized knowledge to the dynamic modeling of a material, the industrial machine transforms primary materials into finished products by requiring humans to provide information and nature to provide energy in the form of steam power, hydropower, fossil fuels, nuclear power, and so on.

To be sure, in the beginning factory workers were also employed for their physical force. But as automation and the proportion between constant capital and variable capital increases, workers are increasingly mobilized as information sources and less so as energy sources. In this respect, the Luddite attacks on machinery are truly anti-modern as they reject the bifurcation between manual labor and intellectual labor, natural productivity and human productivity, craft and industrial production—a bifurcation that lays at the very heart of modernity. Within the industrial paradigm, the machine subjects the worker's body to its own rhythms, but in doing so is unable to put her subjectivity—or, to put it with Franco Berardi—her "soul at work."[11] As we have seen, the Marxian critique of alienation is rooted in this fundamental dichotomy between the scientific organization of production that characterizes the industrial modality and the irreducibility of the worker's subjectivity to this organization.

Machine-Breaking vs. Computer Hacking

The rise of networked computing as the central technology of informational capitalism entails instead a different process of subjectivation as the worker is no longer subjected to the machine, but integrated within its apparatus. As Deleuze and Guattari note in *Milles Plateaux*, while the factory worker is *subjected* to a machine that is extrinsic to her body the cybernetic worker is *enslaved* by a machine of which she has become an internal component. And this is because with cybernetics "the relation between human and machine is based on internal, mutual communication, and no longer on usage or action."[12] Deleuze and Guattari use the example of broadcast television to explain the coexistence of these two regimes within the same machine. As a signifying machine, TV subjectifies individuals by assigning them (as either subjects of enunciation or spectators) a role within pre-codified statements that reflect the dominant order. As an a-signifying machine, TV enslaves its spectators by turning them into input/output elements that either block or allow the flow of information every time they turn the TV set on and off.[13] Likewise, Internet users can be seen as relays of a machine that is made of both human and non-human components.

It is from this point of view that we can gauge analogies and differences between Luddite machine-breaking and Anonymous' hacking. As we have seen, by destroying the machines that subjected them as dequalified sources of labor the Luddites resisted the bifurcation in the machinic phylum between energy and information, manual labor and intellectual labor. I shall argue that Anonymous resists another bifurcation in the machinic phylum between data and metadata or between information as end product and information about information. I take this distinction from Pasquinelli, who argues that metadata have the threefold function of measuring the value of social relations,

improving machinic intelligence, and modeling social behavior through dataveillance and biopolitical control.[14] Likewise, as previously noted, industrial machines had the threefold function of increasing the productive output, rationalizing the production process, and disciplining the workforce. If the Luddites' attacks on machinery posed an objective threat to capital's material mode of existence and therefore to the machinic disciplining of the workforce, Anonymous poses a threat to the ability of cybernetic machines to measure social relations, improve themselves through user feedback, and control the workforce.

To begin with, Anonymous makes it extremely difficult for algorithms to measure social relations. Cybernetic machines measure social relations by breaking down the continuity of the social bios into "dividual" sessions and transactions.[15] Not only social network sites analyze users' individual preferences and tastes, but the interoperability of social media platforms has enabled the introduction of "social buttons" such as Facebook likes, re-Tweets, and Tumblr re-blogs that transform social sentiment and status into comparable metrics.[16] Furthermore, the move towards cloud computing, persistent online identity, predictive search, and ubiquitous computing suggests that capital points at refining these metrics not only by monitoring the behaviors of Internet users, but also by modulating and predicting those behaviors with increasing precision.

As a *co-dividual* process of subjectivation—i.e., a form of subjectivity that stems from the composition of several dividual transactions—Anonymous escapes and undermines these metrics. As previously noted, Anonymous came into being when some users of /b/—the random board of 4chan—began to reclaim the tag that marks anonymous posts as a collective moniker. In imageboards such as 4chan not only

attribution is technically difficult and discouraged by the community, but discussion threads continuously expire and go out of existence.[17] Thus the anonymity and ephemerality of imageboards make it difficult for algorithms to learn from users' behaviors and improve themselves through user feedback.[18]

Thirdly, Anonymous poses a threat to the mechanisms of biopolitical control in that many of its operations have disrupted governmental and corporate attempts at monitoring, filtering, and censoring the Internet. Even though these operations have rarely caused significant damage their unpredictability and ability to mobilize clusters of Internet users on a whim have made them highly effective. Operations carried out by Anonymous include a prolonged campaign against the Church of Scientology, consisting of a series of distributed-denial-of-service attacks (DDoSs),[19] coordinated worldwide street protests, phone pranks and other forms of cyber-sabotage; a wave of DDoSs on the Recording Industy Association of America (RIAA), Motion Picture Association of America (MPAA) and other anti-piracy lobbies websites held responsible for the outage of Torrent trackers such as the Pirate Bay; DDoSing PayPal, Visa and Mastercard websites for cutting their finance services to whistleblower website WikiLeaks; providing circumvention software to Tunisian citizens and hacking several websites of the Tunisian and Egyptian governments during the 2011 Arab Spring; DDoSing and possibly hacking the PlayStation network in retaliation for Sony's decision of locking the PS3 game console and prosecuting hacker George Hotz for jailbreaking it; hacking several websites of the Malaysian government for blocking access to Torrent websites; hacking and publishing the email correspondence of security, intelligence, and law firms such as HBGary Federal, Stratfor, and ACS:Law; DDoSing and defacing the MPAA, RIAA,

BMI, Universal Music, the Department of Justice, and the FBI websites for shutting down the popular file-sharing service MegaUpload.

Such operations have both a political and economic function. On a political level, they express an organized response of Internet users against all forms of restriction on the free circulation of information. Furthermore, by taking offline symbolic targets such as the official websites of state institutions and hacking security firms they expose the vulnerability of the corporate and state apparatus of control.

On an economic level, such actions have the effect of devaluing classified information, proprietary data and technologies. As previously noted, Luddite machine-breaking decreased the productivity of the newborn textile factories by forcing industrialists to revert to a less intensive system of exploitation of the workforce. Likewise, if we consider that capital extracts value from Internet users by monitoring, modulating, and predicting their behaviors, we can see how computer hacks may decrease the productivity of proprietary cybernetic machines by threatening the artificial scarcities through which capital segments the workforce and limits access to information.

I should clarify that I use the notion of hacking in its etymological and primary meaning of effecting a cut. From this angle, whether Anonymous' hacks are a legitimate form of electronic civil disobedience or cyberterrorism is less relevant than they are aimed at liberating information from the electronic fetters that reduce it to a form of property—be it public (in the form of the state secret) or private (in the form of intellectual property).[20] In this respect, Anonymous' struggle against censorship and for an open information society is also a material struggle against what Mark Andrejevic has described as the "digital enclosures" and for the redistribution of value within a universal

network of "prod-users."[21]

As previously noted, while the industrial machine subjects the workers to its own rhythms—therefore turning them into an external appendage—the cybernetic machine integrates workers in its apparatus as information sources. This bifurcation entails two distinct processes of subjectivation as the industrial worker recognizes the factory as external and independent from her subjectivity whereas the cybernetic worker sees the network as coextensive with her subjectivity and those of other workers. This explains why the Luddites targeted physical machines whereas Anonymous wages its attacks at the software level, that is, at a specific *configuration* of the network. While the Luddites used traditional tools such as hammers and pick axes to destroy the new industrial machines, Anonymous uses the cybernetic machines against themselves.

For example, in DDoSing websites Anonymous often recurs to a combination of software. On the one hand, hundreds or thousands of Internet users are invited to download and simultaneously fire the Low Orbit Ion Cannon, a software that enables them to flood a target web site with an excessive number of packets requests. On the other hand, one or two users who control a botnet—a network of tens of thousands of infected or "zombie" computers—occasionally join a DDoS and amplify its firepower by several orders of magnitude. With the exception of a core group of organizers, LOIC users are usually unaware that their attack contributes only a fraction as compared to the power of a botnet operated by a single botmaster. Yet, this lack of transparency is not considered problematic by the core organizers of a DDoS. In a detailed account of the DDoS launched on December 8, 2010 on Paypal.com in support of Wikileaks investigative journalist Parmy Olson writes:

The upper tier of operators and botnet masters also did not see themselves as being manipulative. This is partly because they did not distinguish the hive of real people using LOIC from the hive of infected computers in a botnet. In the end they were all just numbers to them, the source added. If there weren't enough computers overall, the organizers just added more, and it didn't matter if they were zombies computers or real volunteers.[22]

Thus Anonymous sees the cooperation between human and non-human agents as essential to the effectiveness of its war machine. If the struggle of the Luddites is still, to a certain extent, a struggle of the human body against overpowering machines, Anonymous does not discriminate between human and machinic contributions. Rather, it is the ability to master these machines that determines status and the emergence of informal hierarchies within the hacker community.

Anonymous and Ned Ludd as Improper Names

While the Luddites and Anonymous occupy a mirror-like subject position in relation to (information) technology, the two movements are not exclusively defined by their anti- or pro-technological stance. In fact, both Anonymous and the Luddites are defined by computer hacking and machine-breaking as much as by a significant body of texts and set of rhetorical strategies that are relatively independent from these practices. As we have seen, in its circulation across different regions of England, the name Ned Ludd was used not only to oppose the introduction of new labor-saving machines, but also to advance a variety of demands such as higher wages in the cotton industry, lower food prices, and even the abolition of the monarchy.[23] In the case of Anonymous, the moniker has been adopted in dozens of countries to support the most disparate causes. Furthermore, although Anonymous is now mostly associated with hacking and hacktivism, it was originally used to author mostly apolitical pranks.

This ambivalence is due to the hybrid social composition of both movements as well as to the very nature of collective pseudonyms and multiple-use names—what I call "improper names." In contrast to a proper name, whose function is to fix a referent in all its possible universes, an improper name is unable to designate a clearly defined domain. Rather, an improper name is explicitly constructed to obfuscate both the identity and number of its referents. Thus, on a first level, an improper name provides a medium for obfuscation and mutual recognition to its users. On a second level, it allows those who do not have a voice of their own to acquire a symbolic power outside the boundaries of an institutional practice. And on a third level, an improper name entails a certain level of publicity and dissemination, which detaches it from the initial conditions of its production and opens it up to unpredictable appropriations and third-party usages.[24]

This means that an improper name can be appropriated outside of its original authorizing context. In the case of the Luddites, the partial detachment of Ludd from its original association with machine-breaking is due to the fact that as it migrated from Nottinghamshire to Yorkshire and the booming cotton districts of the Northwest the symbolic power of the alias was claimed to reach objectives that went beyond the defense of a traditional political economy. While in Nottinghamshire and Yorkshire Ludd is metonymically anchored to a specific signified—namely, the destruction of labor-saving machinery on behalf of the community—in the Northwest the eponym loses this material reference and begins floating among different signifieds. In particular, the fact that Ludd surfaces in the booming cotton districts of the Industrial Revolution in conjunction with requests for higher wages signals that Luddism is not just confronting industrial

capitalism from without, but also comes to embody a modern form of class struggle, which is internal to the capitalist system.

The notion that the improper name is a *political technology* that enables different communities to tap into a distributed form of symbolic power while escaping identification is also exemplified by Anonymous. The social composition of Anonymous is less known than that of the Luddites. This is partly due to the general elusiveness of the hacker world and to the ethos of Anonymous, which bars individuals from appropriating the improper name for personal gain. And it is partly due to the global and deterritorialized nature of the Internet, which has enabled users to access the moniker from all over the world. In fact, among the dozens of operations coordinated under the banner of Anonymous, many of them have a regional focus. Yet the circulation of the same pseudonym, iconography, and set of rhetorical strategies within different national contexts has had the effect of linking an emerging global "hacker class" that struggles to keep the information in common to a new wave of nationalist struggles against political oppression and censorship.[25] *This means that the hybrid character of Luddism and its ability to link economic and political grievances is also a distinctive feature of Anonymous.*

The polyvalent character of Anonymous is well evident from the way in which the name has emerged from and circulated in different authorizing contexts. In 4chan, the improper name operates at its highest level of abstraction as each user is unknown to everybody else. Here it is worth remembering the circumstances that led to the constitution of Anonymous. In 2004, a flame war erupted in /b/ between the so-called "tripfags" (channers who author their posts through the use of a tripcode) and the Anons.

While the former argued that only a recognizable user can take responsibility for her statements and actions, the latter believed that complete anonymity in the board ensures a more egalitarian form of communication. As the Anons prevailed and the ethics of anonymity became widely accepted in /b/, Anonymous morphed from a function of the software into an organized force.

The first organizational form of Anonymous is the raid, a sudden attack on a target such as a website, an online game, a forum, or an Internet user. From 2006 through early 2008, the Anonymous' raids organized through 4chan include a series of temporary occupations and disruptions of the Habbo hotel, a social network site designed as a virtual hotel; repeated prank calls and distributed-denial-of-service attacks against the online radio show of white supremacist Hal Turner; the enticement and identification of alleged Internet pedophile Chris Forcand; the trolling of a virtual memorial dedicated to a seventh-grader suicide named Mitchell Henderson; and the insertion of flashy animations in the forums of the Epilepsy Foundation website.[26]

Because of their ephemeral nature, raids leave few traces behind them. Here the self-organizing properties of the "swarm" well describe a movement in which the affective and goliardic dimension of the lulz (a corruption of lol, "laugh out loud") prevails over ethical and political concerns. Yet as Anonymous undertook prolonged and increasingly sophisticated campaigns, imageboards proved inadequate both as platforms for coordination and repositories of knowledge. Thus, on the one hand, the Internet Relay Chat network—a protocol for real-time text messaging—became a critical tool for coordinating operations that require an advanced specialization of tasks and skills. On the other hand, Wikis such as Encyclopedia Dramatica began archiving the collective

knowledge and memory of a network that was growing broad and diversified.

Such diversification became apparent as, beginning in early 2008, a political wing of Anonymous emerged. Set in motion by the leaking of an internal promotional video of the Church of Scientology in which Hollywood star Tom Cruise professes his ardent faith in the writings, policies and technologies of L. Ron Hubbard, Project Chanology initially unfolded along rehearsed patterns such as a series of DDoS attacks against the Scientology servers, prank phone calls at the Dianetics hotline, and the transmission of black faxes to dry up print cartridges. However, the sudden and unexpected participation of thousands of enthusiastic users required a whole new level of coordination that could not be sustained only through imageboards, where, as we have seen, discussion threads expire within few hours or even minutes.

Since 2007, some Anons had begun setting up Partyvan, a sprawling network of Internet Relay Chats that had the function of connecting users of different imageboards. Because of its flexibility, the IRC protocol enables the creation of multiple text-based chats that users can join by simply creating a handle. The Project Chanology IRC channels included #xenu for general discussion, #raids for the coordination of specific actions, and #press for announcements and press releases. After releasing *Message to Scientology*—a YouTube video announcement through which Anonymous officially declared war on Scientology—the organizers in #press created #marblecake, which soon became an organizational hub for the entire Project.[27] It is in this channel that the decision was made to take the protest from the Internet to the streets.[28]

On February 10, 2008, an estimated seven thousand demonstrators staged simultaneous protests against the Church in over one hundred cities across the globe.

Sporting Guy Fawkes masks—the hero of the Hollywood movie *V for Vendetta*—and holding signs reading "Religion Is Free $cientology Is Neither," "Scientology=Epic Fail," and "Don't Worry We Are From the Internet," the protesters denounced the Church's manipulative practices and the intimidation of former affiliates. A second wave of street protests took place on March 15, with participation matching or exceeding that of the previous month. As the young Anons forged bonds with older generations of activists, international days of protest continued to be held in the following months to taper off only in the summer.

Project Chanology marked a phase transition in Anonymous. If until 2008 raids and pranks were mostly organized "for the lulz," with Project Chanology Anonymous begins to resemble an organized political movement. This is clear from the emergence of a self-appointed group of organizers who took on multiple tasks in IRC such as dividing up a global network in city-based chat rooms, distributing guidelines for the street protests, setting up discussion forums, writing press releases, holding regular meetings, and coordinating the work of many others.

It did not take long before some Anons accused the organizers in #marblecake of being "leaderfags" and "moralfags" that is to say, of violating Anonymous' anti-celebrity ethos for their self-serving political agendas.[29] The tension between these two factions continued in the following years, even though the political side came to the foreground as it organized highly visible operations in support of the Pirate Bay, Wikileaks, the Arab Spring, and against the cyber-security apparatus. Yet the emergence of an informal leadership within Anonymous was less a byproduct of personal ambition than of the exponential growth of a network that now mobilized thousands of participants. In fact,

the simple need of setting up an infrastructure to facilitate the remote interaction of such a large group of hacktivists entailed the emergence of hierarchies based on technical competence.

As Coleman notes, in IRC a great deal of power is concentrated in the hands of the administrators who install, configure, and maintain the server.[30] Furthermore, while in 4chan the rhetoric of Anonymous as an undifferentiated swarm is supported by a software that enforces an almost complete anonymity, IRC enables pseudonymous personae to acquire a distinctive status within a network. This has led to the formation of tight-knit hacking teams who have affected and changed the course of specific operations behind closed doors.[31] Put different, while the ethos of Anonymous remains strongly egalitarian and anti-celebrity some individuals have technical skills that make them more powerful than others within the network as IRC administrators, botmasters, or skilled hackers.

My point is that imageboards and IRC function as two distinct authorizing contexts and machines of subjectivation. While the swarm is the organizational form and the raid is the impromptu action that stem from the imageboard, the hacktivist network is the organizational form and the operation the structured action that stem from IRC. Borrowing a metaphor from Deleuze and Guattari, we might say that the imageboard is a *smooth machine of subjectivation* in which each post both contributes to and is an expression of Anonymous—i.e., each dividual transaction can be exclusively attributed to the co-dividual Anonymous. The IRC network is instead a *striated machine of subjectivation* in which pseudonymous users contribute to Anonymous as an open reputation, but also grow a personal reputation through their contributions.[32]

The co-existence of these authorizing contexts explains why seemingly incongruous definitions of Anonymous as swarm, collective, vigilante group, hive mind, movement, and network are not necessarily incompatible. Depending on the authorizing context, Anonymous can take the more structured form of a networked movement (with its nodes, hubs and more or less recognized leadership) or the less structured and emergent properties of the swarm. Thus, as an improper name, Anonymous does not only economic and political struggles that would be otherwise disconnected, but designates different organizational forms, ethos and rhetorical strategies that coexist and sometimes clash within the same discursive space.

Conclusion

To sum up, in this article I have argued that from the perspective of political economy the Luddites and Anonymous' attacks are comparable as they both decrease the productivity of industrial machines and cybernetic machines. In the case of industrial machines, the Luddite riots forced factory owners to recur to a less intensive system of exploitation of the workforce. In the case of cybernetic machines, the organized defense of peer-to-peer networks, whistleblower websites, and open technologies devalues proprietary and classified information as those are distributed among a much larger community of users than paying subscribers, copyright owners and state institutions. Industrial machine-breaking and computer hacking, however, set in motion different processes of subjectivation as the Industrial Revolution constitutes the Luddite subjectivity from without (that is, as an antagonistic response to it) whereas the information revolution constitutes the Anonymous subjectivity from within as networked computing is a positive

condition for the emergence of contemporary hacktivism.

But if the Luddites and Anonymous occupy a mirror-like subject position in relation to technology, as shared pseudonyms and improper names Ludd and Anonymous bring different economic and political struggles within a common discursive space. Yet behind the relative independence of machine-breaking and Luddite discourse we can recognize the relative autonomy of the economy and the political that still characterizes the modern era. While the Luddite destruction of machinery was undoubtedly a political act of insubordination (and as such was sanctioned by the death penalty), the recomposition of different demands coming from different segments of the English working classes occurred through the shared usage of a pseudonym that did not have per se an economic function. In other words, Luddite recomposition took place at a symbolic and discursive level, but not necessarily through common economic struggles. This is due to the fact that the craftsmen's struggle against the formal subsumption of their labor under capital was in many ways at odds with the struggles waged by the cotton factory workers of the Manchester region—struggles that were all internal to the capitalist mode of production and hence presupposed industrial manufacture.

As the production of subjectivity becomes increasingly central to capitalist accumulation, the formation and reproduction of collective and opaque processes of subjectivation poses both an economic threat and political threat to capitalist accumulation and command. Thus, in the case of Anonymous, recomposition acquires an immediately economic and political value. In an age in which every Internet user is de facto a cyber-worker, Anonymous expresses the organized power of these users to reclaim unrestrained access to information, thereby threatening the artificial scarcities

through which capital segments the workforce and limits access to information. To be sure, Internet users are not, in strictly economic terms, a class as significant socioeconomic differences exist among them. But if we understand class as a political concept we can see how Anonymous may express a process of recomposition that passes through creative usage and experimentation rather than labor. McKenzie Wark has proposed the notion of the hacker class to describe the class of those who struggle to keep information in common.[33] In the case of Anonymous such struggle coincides with the formation of a co-dividual process of subjectivation that resists capital's attempts to break down the continuity of social praxis in dividual and discrete units.

As previously agued, Marx noted how the Industrial Revolution had replaced the subjective division of labor that characterized the early-modern system of manufacture with an objective division of labor based on the scientific organization of production. The return to the subjective division of labor that characterizes the age of the general intellect suggests that computer hacks do not only transform the technical and organic composition of capital but also the very configuration of the subject as the cyber-worker is no longer subjected to the machine as an external appendage but is now fully integrated in its apparatus.[34] In this respect, (Anonymous) hacks are not only a reconfiguration of the network but also a hack on the networked forms of subjectivity that are yet to come.

Notes

[1] Many actions organized by Anonymous fall more within the realm of electronic civil disobedience and cyber-activism than in that of hacking. However, as I will explain later, I use the term hacking in its etymological sense to refer to a "cut" that opens up information to its virtual dimension.

[2] Marco Deseriis, "Improper Names: Collective Pseudonyms and Multiple-Use Names as Minor Processes of Subjectivation," *Subjectivity* 5, no. 2 (2012): 140-160, doi:10.1057/sub.2012.3.

[3] Among the more important works on Luddism it is worth citing J. L Hammond and Barbara Hammond, *The Skilled Labourer: 1760-1832*, (London: Longmans, Green & Co, 1919); Edward P. Thompson, *The Making of the English Working Class* (London: Vintage, 1966); Malcolm Thomis, *The Luddites: Machine-Breaking in Regency England* (Newton Abbott: David and Charles, 1970); and Kevin Binfield, *Writings of the Luddites* (Baltimore and London: The John Hopkins University Press, 2004).

[4] David Harvey, *A Companion to Marx's Capital* (London and New York: Verso, 2010), 220.

[5] Karl Marx. *Capital: A Critique of the Political Economy, Vol. I*, trans. Ben Fowkes (New York: Penguin, 1976), 501.

[6] Marx defines the technical and organic composition of capital in *Capital, Vol. 1*, 762.

[7] In *Capital, Vol. 1*, Marx reads Luddism as a backward form of resistance that is directed against the manufacturing base and therefore prevents the unfolding of modern class struggle. Marx, 554-55.

[8] E. P. Thompson, *The Making*, 551-52.

[9] Gilbert Simondon, "Technical Mentality," trans. Arne de Boever, *Parrhesia* 7 (2009): 20.

[10] Matteo Pasquinelli, "Machinic Capitalism and Network Surplus Value: Notes on the Political Economy of the Turing Machine," matteopasquinelli.com/docs/Pasquinelli_Machinic_Capitalism.pdf (accessed June 8, 2012).

[11] Franco Berardi, *The Soul at Work: From Alienation to Autonomy*, trans. Francesca Cadei and Giuseppina Mecchia (Los Angeles: Semiotext(e): 2009).

[12] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 458.

[13] Maurizio Lazzarato furthers Deleuze and Guattari's point by noting that "machinic enslavement operates by making no distinction between the 'human' and the non-human, subject and object, sentient and intelligible. Social subjection regards individuals and machines as entirely self-contained entities (the subject and the object) and establishes insurmountable boundaries between them. Machinic enslavement, by contrast, considers individuals and machines as open multiplicities." M. Lazzarato, "The Machine," trans. Mary O'Neill, *Transversal*, October 2006, http://eipcp.net/transversal/1106/lazzarato/en.

[14] Pasquinelli, Machinic Capitalism.

[15] A dividual unit is an electronic transaction such as a credit card purchase or a Facebook like. The concept was first developed by Gilles Deleuze, "Postscript on the Societies of Control," *October* 59, no. 1 (1992): 3-7.

[16] Adam Arvidsson and Elanor Colleoni, "Value in Informational Capitalism and on the Internet," *The Information Society* 28, no. 3 (2012): 135-150, doi:10.1080/01972243.2012.669449.

[17] Michael S. Bernstein et. al. "4chan and /b/: An Analysis of Anonymity and Ephemerality in a Large Online Community" (paper presented at the 5th International AAAI Conference on Weblogs and Social Media [ICWSM], Barcelona, July 17-21 2011), http://projects.csail.mit.edu/chanthropology/4chan.pdf (accessed June 11, 2012).

[18] In this respect, 4chan belongs to what Michael Bergman has defined as the "deep web," the massive amount of data and resources that while physically present on the Internet are not indexed by search engines. M. K. Bergman, "White Paper: The Deep Web: Surfacing Hidden Value," *Journal of Electronic Publishing* 7, no. 1 (2001), www.press.umich.edu/jep/07-01/bergman.html.

[19] A DDoS attack is aimed at making a web server temporarily unavailable to its intended users by flooding it with an excessive number of requests. Although there are many typologies of DDoS attacks most times the ones organized by Anonymous can be likened to a form of civil disobedience in that only a high volume of participants can make the server unavailable in the same way as many protesters can block access to a government building with a sit-in. Occasionally, however, Anonymous combines distributed forms of cyber-protest with the employment of botnets—networks of thousands of infected computers that are controlled by a single user.

[20] This notion of hacking as reappropriation of the collective knowledge that has been privatized and monopolized by the new owning class of the information society is advanced by McKenzie Wark in *A Hacker Manifesto* (Cambridge: Harvard University Press, 2004).

[21] Andrejevic defines the digital enclosure as an "interactive realm wherein every action and transaction generates information about itself." M. Andrejevic, *iSpy: Surveillance and Power in the Interactive Era* (Lawrence: University Press of Kansas, 2007), 2. For the notion of produsage see Alex Bruns, *Blogs, Wikipedia, Second Life and Beyond: From Production to Produsage* (New York: Peter Lang, 2008).

[22] Parmy Olson, *We are Anonymous: Inside the World of LulzSec, Anonymous, and the Global Cyber Insurgency* (New York: Little Brown & Company, 2012), 120-121.

[23] Kevin Binfield, *Writings*.

[24] Marco Deseriis, Improper Names.

[25] The concept of the hacker class has been advanced by McKenzie Wark in *A Hacker Manifesto*.

[26] See Mattathias Schwartz, "The Trolls Among Us," *The New York Times* magazine, August 3, 2008, www.nytimes.com/2008/08/03/magazine/03trolls-t.html.

[27] *Message to Scientology* is available at www.youtube.com/watch?v=JCbKv9yiLiQ (accessed November 26, 2012).

[28] Parmy Olson, *We Are Anonymous*, 67-81.

[29] The conflict between the "moralfags" and the lulzy faction of Anonymous is well illustrated in *We Are Legion: The Story of the Hacktivists*, a documentary film directed by Brian Knappenberger (USA, 2012).

[30] Gabriella Coleman, "Anonymous," in *Depletion Design: A Glossary of Network Ecologies*, eds. Carolin Wiedemann and Soenke Zehle (Amsterdam: Institute of Network Cultures, 2012).

[31] A case in point is that of the hackers who hacked the cybersecurity company HBGary Federal in February 2011 and went on to found LulzSec, a hacker group that claimed several high profile cyber-attacks in the summer of 2011. Even though some of these attacks seemed to be politically motivated, their prankish nature and the very name of the group (Lulz Security) represented in many ways a revenge and return of the amoral faction of Anonymous.

[32] Deleuze and Guattari develop the concept of the smooth and the striated in *A Thousand Plateaus*, 474-500.

[33] Wark, *A Hacker Manifesto*.

[34] Marx develops the concept of the general intellect in the *Grundrisse: Foundations of the Critique of Political Economy*, trans. Martin Nicolaus (New York: Penguin, 1973), 690-712.