INFORMATION AS POLITICS

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The Introduction

Information has become a politics, not just a political issue. Anonymous and their Ops, Twitter in Iran, Facebook in the Arab Spring, the human flesh search in China; these are some examples of the way information search, use and retrieval is embedded in political and popular movements. The question being explored in work that looks at the relationship between digitisation and political change involves the place of information in twenty-first century politics (Postigo, 2012; Gerbaudo, 2012; Coleman, 2012; Hands 2010). This work implies the issue of whether it has become important to say something more general about information as a politics. Is there an information revolution that is as needed and is as fundamentally socially changing as a workers' revolution or a women's revolution? In the context of such an information politics, the platform is a key component of the information landscape denoting something about their architectures, whether defining computer structures, operating systems, cloud infrastructures and so on. To understand platforms we will need to understand the politics of information (Gillespie, 2010).

While the work on digitisation and politics has emerged, it is also striking that there has been a significant resurgence of interest in and claims for the legitimacy of Marxist theories of society. Many of these interventions also locate new Marxist theory in relation to the rise of new information dependant socio-technological structures. The work of autonomist and post-autonomist thinkers in relation to precarity and technology, to immaterial labour and to the importance of networks is striking. In addition, the financial crisis of the West has given increased credence and heart to Marxist theorists (Lazzaratto & Jordan, 2012; Harvey, 2010; Boltanski & Chiapello, 2007). Complex Marxist theoretical debates have regained purpose and drive, after a time that was perceived to have at least diminished if not dismissed Marx's thought (Badiou, 2010, Douzinas & Žižek, 2010). At this point, early in the twenty-first century, it has become important, if we are to understand the politics of platforms, that the re-rise of a complex and varied Marxist political platform be questioned for the way it has framed understanding of the politics of information, networked or communicative societies (Gillespie, 2010). Fuchs and Dyer-Witheford review this work across the range of Marxist concepts and how it has contributed to understandings developed in Internet Studies, demonstrating both the extent and power of these interventions. In addition, while Fuchs and Dyer-Witheford connect the recent financial crisis to this resurgence they also make it clear that Marxism was important to debates about the Internet prior to this crisis (Fuchs & Dyer-Witheford, 2012).

I wish to explore the consequence of this coincidence of Marxist and information platforms. It seems important to recognise that understanding the politics of information and of platforms now requires understanding the Marxist framing of informational landscapes. To manage this extensive debate, I will focus on two interventions each of which may be seen as representative of a way of reinvigorating Marxism via informational contexts. The two paths reassert the importance of a Marxist vision that is faithful to Marx in new networked contexts. The second path takes in other thought and is willing to extensively rethink its roots. For the former, Jodi Dean's book The Communist Horizon (2012) is a clear enunciation of the importance of communism in the context of communicative capitalism. For the latter, Hardt and Negri's *Multitude* (2005) takes forward the tradition of Marxist theory both into a definition of new revolutionary subjectivity and into a close association with platforms and information through its focus on networks and immateriality.

Such a juxtaposition of Dean and Hardt and Negri is important for understanding platforms because, I claim, the question of a radical or transformative politics of information, which must frame the question of what platforms mean in the current socio-technological juncture, cannot now be separated from the question of the meaning of Marxism for radical thought and organisation. The intent here is to question what kind of understandings of platforms in information societies we are given by this resurgence of Marxism and communism. Following this I will suggest there is a need for a more multiple view of political antagonisms which does not take Marxism as its overarching framework but that also does not dissolve into a liberalism that equates social differences with radicalism. From an information politics that is open to but not subsumed by the resurgence of Marx it will be possible to start to articulate more clearly the politics of platforms.

The Communist Limited Horizon

Jodi Dean's work has reasserted the critical and liberatory potential of Marxist thinking in relation to twenty first century society, which she terms 'communicative capitalism'. She has particularly traced the recuperative qualities of communicative capitalism, in which what are often taken to be liberatory potentials in networked technologies turn out to fuel further profiting for communicative capitalists (Dean, 2010). In 2012, Dean turned to a defence of communism and its Marxist roots in the context of both communicative capitalism and the protests, particularly Occupy Wall Street, of the second wave alter-globalisation movement. Dean here is critical not only of capitalists and their exploitations but also of the failure of the Left to regenerate itself and to grasp the radical and necessary solution she sees in communism.

The dominance of capitalism, the capitalist *system*, is material. Rather than entrapping us in a paranoid fantasy, an analysis that treats capitalism as a global system of appropriation, exploitation, and circulation that enriches the few as it dispossesses the many *and* that has to expend an enormous amount of energy in doing so can anger, incite, and galvanize. (Dean, 2012: 5-6)

The emphasis on system is important here as Dean's articulation of the communist horizon, that she argues the Left has lost, is exactly the articulation of a particular systemic account of a political antagonism. Marxism is here the theory of what needs to be changed in society and is rooted in the theory of surplus-value as the definition of exploitation. This can be seen if we turn to Dean's analysis of issues of the commons and some of the most familiar platforms that information societies offer in social media such as Facebook and Twitter. In this way, the argument is located closely to issues of platforms and how the kind of theoretical frame Dean develops affects understanding them.

Dean argues that capitalism has subsumed communication in such a way that in networked societies communication is entirely within capitalist structures (Dean, 2012: 128). She extends this analysis to

how some of our most personal and intimate relations have been seized on by capitalism through its use of information technology enabled platforms that commodify such relations. Social networks are the most obvious subjects for analysis here but Dean's point applies widely across communication dependant on new information and Internet technologies:

> Communicative capitalism seizes, privatizes, and attempts to monetize the social substance. It doesn't depend on the commodity-thing. It directly exploits the social relation at the heart of value. Social relations don't have to take the fantastic form of the commodity to generate value for capitalism. Via networked, personalized communication and information technologies, capitalism has found a more straightforward way to appropriate value. (Dean, 2012: 129)

Here we see how Dean's analysis of new information technologies is connected closely to a revival of classical Marxist analysis, such as where value can be found. This allows Dean to identify the specific value form of communicative capitalism in the way that the common, that is 'the potential of creativity, thought, knowledge, and communication as themselves always plural, open and productive' (Dean, 2012: 134-5), is always in surplus and that this requires a new form of expropriation of value. Alongside old value forms for expropriation from labour, Dean argues this is a new form of exploitation that thrives on 'communicative capitalism's injunction to connect, participate, and share' (Dean, 2012: 134). Dean builds on a range of Marxist work, developing in conversation with Žižek, Pasquinelli, Marazzi and others in a way that itself suggests the resurgence of Marxist theory in the context of understanding the effects of digitisation and the rise of Internet technologies.

A difficulty Dean acknowledges and then faces is reconciling this systematic vision with the diverse and multiple forms of action that seem to have emerged to contest the nature of networked societies, not all of which are Marxist or communist. Gerbaudo's and Castells' surveys of recent activism and previous analyses of the first wave of alter-globalisation protests in the 1990s all suggest this to be the case. Not that class-based or Marxist-inspired movements are absent but that Marxism did not provide a systematic account that activists found persuasive and used or which seemed able to conceptualise the demands and nature of many movements (Gerbaudo, 2012; Hands, 2011; Castells 2012). However, such academic and activist work is also a target of Dean's critique as a considerable amount of her analysis is directed to the failures of the Left, both in analysis and action, to see the importance of the critique she is committed to. Dean's point is that given the analysis of communicative capitalism, such as the form of exploitation outlined above, then only a communist movement rooted in Marxism can really critique and change society (2012: 154-6).

It is hard to avoid the implication that if communicative capitalism is a systematic and integrative form of exploitation of the kind Dean defines then only a movement that addresses this can change society in fundamental ways. As Dean notes, all else can simply be recuperated to continue to feed the system (144-5). Her critique of Occupy follows along these thoughts in its questioning of Occupy's failure to integrate political differences within a collective cause, the collective cause being conceived of as communist, and her argument that therefore Occupy never collects itself into a powerful movement that might revolutionise society. She points out that while occupation can be a tactical method for drawing together all the different parts of society that have political grievances, it ignores 'the antagonism that connects the movement to its setting' (220). Here we see Dean critiquing Occupy for its failure to transform a politics validated by her own framework rather than evaluating it according to its own multiple, complex and at times contradictory terms. Does Dean consider platforms in a similar way? While she at times acknowledges other kinds of exploitations, such as sexism, the drive of her analysis is to connect the nature of communicative capitalism as a systemic form of exploitation to communism as the only movement that can fundamentally question the core dynamic of this system (203-4).

Such an approach raises the spectre of the 1970s and 1980s debates within the radical Left by which many other forms of exploitation asserted the legitimacy of their claims in their own right and not as integrated within a systemic Marxism. The struggle of second wave feminism, as recounted by many such feminists, was all too often initially against a Marxist understanding that reduced sexism to its role within a class-based theory; for example as the means by which labour is reproduced (Rowbotham, Wainwright & Segal, 1979). This story is all too common from the history of what came to be called 'new social movements' and which was repeated in the conflicts within many of the Social Forums that emerged in the first wave alter globalisation movement (Lent, 2001; Fisher & Ponniah, 2003). It also raises the issue of whether Dean's analysis will have similar problems understanding information politics. While Dean is aware of this issue, it is hard to understand the systemic and integrative nature of her analysis and her very strong attacks on the Left for failing to collectivise around a communist horizon, as not reproducing this problem. This is also a long standing argument within the radical left, followed through in activist contexts in arguments over where actions should be focused and in theoretical debates, of which Laclau and Mouffe's intervention is probably the best known (1995: 190-2).

This is not just a historical point or one for Left organising but is noted here primarily for its effects on understanding the politics of platforms. If Dean's arguments are accepted as defining the major framework for understanding and opposing exploitation then we should analyse the politics of platforms in the context of networked societies from within a Marxist framework. However, and in an analogy to the complaint of many in new social movements, it is important to ask what particular political configuration or antagonism might be specific to information platforms? While the Marxist critique is important and has been rightly influential, it can be conceived of as one theoretical frame from within which platforms will be viewed. The risk of Dean's approach is that she finds a Marxist account of information politics because she already knows this account will understand the system such politics are part of and that the only key components of an information politics are the ones that Marxism can identify. In short, any aspects of an information politics that are not easily understood within Marxism will either be invisible or their importance diminished. Just as feminists can object that understanding reproduction rights primarily as an issue of reproduction of labour power both diminishes the importance of such rights to ending sexism, and misunderstands key dimensions of them (even while acknowledging the connection to labour), we should be concerned that an account like Dean's of communicative capitalism may only address part of the picture. Until information politics are also analysed in their own terms we may be missing key dynamics, simply because Marxist accounts already-always know that the key issues are in value, labour, surplus-value and so on. Where Dean issues a call for unity and a radical response in the face of an economic crisis - for example when she asserts that 'The Left should be committed to the collective power of the people' (2012: 60) - I would be one who could not avoid asking the question 'which people?'

We see in Dean both the close integration of a Marxist account of society, along with its roots in the re-rise of Marxist theory in work like Žižek's and Marazzi's, with the nature of networked or information societies. The new nature of exploitation as the 'injunction to connect, participate, and share' (Dean, 2012: 134) can hardly be conceived of prior to the rise of the Internet and of digitisation while at the same time we see this injunction derived from a theory which does not put an understanding of information politics as its primary focus. This is a problematic position because it fails to offer a way of understanding a political antagonism for its own dynamics if those dynamics may not be class-based—whether that antagonism is patriarchal or informational. If platforms are embedded in information politics then understanding platforms in their own terms also means understanding information politics in its own terms. This distinction between examining a politics within its own frame or seeing it through the lens of Marxism can now be further developed by examining a second trend within the re-rise of Marxist theory that pursues a more differential and multiple, indeed multitudinous, account of the nature of politics in networked worlds. Hardt and Negri's account of multitude is not just a second form of reinvigorated Marxism in information societies but is also one that pursues a very different, almost opposite, intellectual trajectory to Dean's by focusing on differentiation and singularity instead of the unity of communism.

The Multitude

It may seem odd to some to locate Hardt and Negri's series of interventions into the state of modern politics by calling it Marxist because, however strong Negri's links are to autonomist thinking, an important part of their intervention is to connect autonomist insights to a range of thinkers, such as Foucault, Deleuze and latterly Haraway, whose relationship to Marxism is complex, thereby generating a view of modern politics that integrates but is not necessarily subsumed by a Marxist frame. There should however be no doubt about the strength of the Marxist roots of this work (Wright, 2002). What is striking in the context of this article's arguments is that Hardt and Negri take a strong Marxist base and develop it extensively as an analysis of networks and network society. For the present argument, this is useful because it provides a contrast to Dean's return to communism and Marxism. Again, the question is, what will developing a Marxist framework, however complex and open to other thought, mean when it is focused on information and platform politics?

That Hardt and Negri have in mind the nature of a network or informational kind of politics can be seen in their theory of networks as a constitutive feature of Empire's mechanisms of control and conflict and most importantly, for this discussion, in their conception of the liberation movement of the multitude as itself networked (Hardt & Negri, 2005: xiii-xiv). The multitude is densely defined by Hardt and Negri in this way:

The multitude is composed of a set of singularities—and by singularity here we mean a social subject whose difference cannot be reduced to a sameness, a difference that remains different. ... The multitude is an internally different, multiple social subject whose constitution and action is based not on identity or unity (or, much less, indifference) but on what it has in common. (Hardt & Negri, 2005: 99-100)

The singularity is a collective subject with something in common within its subjectivity, which cannot be reduced to sameness with other such subjects, and the multitude is the political struggle of these singularities. The complexity of such a position (complex enough to challenge its coherence) is that a singularity cannot have its difference reduced to sameness but, at the same time, the multitude cannot be constituted out of singularities unless singularities have something in common in the sense of being part of the multitude. Hardt and Negri define singularity little more than I have already quoted and they extend it into an understanding of exploitation, locating the multitude's commonality as all the different, singular relationships to exploitation (Virno, 2004).

Hardt and Negri begin from Marx's definition of exploitation in the extraction of surplus value but argue that under Empire the fundamental form of labour has shifted to immaterial labour in which the labour might be material but the products are immaterial; code, knowledge, affect and care. Labour in this latter sense produces collective goods that cannot be measured in terms of time; this means the old Marxist version of surplus value cannot function for immaterial labour. However, such labour produces common or collective goods which all can use, such as knowledge. Exploitation shifts, for Hardt and Negri, in this context to 'the expropriation of the commons.' (2005: 150). Such expropriations can be seen in Google's extraction of profit through advertisements that are built on top of the common created by the links of the World Wide Web that Google mines to create search. Or it can be seen in the attempts to expropriate through patenting things that are common to people in the information that constitutes certain forms of DNA. This also means that though derived from revising Marx's concept of exploitation, the multitude covers a wide range of forms of exploitation, each singularity has its own relationship to the expropriation of its singular commons (Hardt & Negri, 2005: 150-7).

Exploitation is, then, tied to the kinds of network societies that produce informational platforms because '[s]ingularities interact and communicate socially on the basis of the common, and their social communication in turn produces the common' (Hardt & Negri, 2005: 198). This centrality of communication marks Hardt and Negri's theory as one, as does their theory of immaterial labour, that makes little sense outside of late twentieth century shifts in information processing and information technologies. This extends to the characteristic form of organisation they ascribe to the multitude that activists of the 1990s christened 'dis-organisation' and which has strong affinities to networked forms of social relations (2005: 217). Just as was argued in relation to Dean, it is worth questioning whether this frames information politics for-itself or whether information and platform politics are only framed where they interact with the multitude or are part of the multitude.

Exploitation for Hardt and Negri now resides in the idea that each singularity forms an internally differentiated collective that has a relationship to the expropriation of the commons. This common relationship is based on the claim that each singularity forms itself through communication which makes communication an essential part of the common. This is a dizzying back and forward between the moments when no difference can be reduced, though each difference also generates the same relationship to a specific instantiation of expropriation of common goods. Dean, from her rather sharper definition of exploitation, criticises Hardt and Negri's work here because this dizzying back and forth obscures social antagonism:

> The multitude is a generative and creative force, the productive power that capitalism depends on, mobilizes, and tries to control. Yet the concept

includes too much—everyone in fact – and the cost of this inclusion is antagonism. Rather than labor against capital, haves against have-nots, the 99 per cent against the 1 per cent, we have a multitude of singularities combining and recombining in mobile, fluid, communicative, and affective networks. (Dean, 2012: 78)

The problem Dean points to is that the concept of multitude has difficulty expressing division (2012: 79). We might temper some of Dean's account by remembering Hardt and Negri's insistence on examining the poor as part of the topography of expropriation. However, her point is also surely accurate that the idea of producing something in common, which is then expropriated, has none of the specificity of Marxist ideas of exploitation. For example, a more specific idea might be that of Pasquinelli's who, among others, argues that this relationship has become one of rent rather than expropriation of surplus-value (as will be discussed in more detail later) (Pasquinelli, 2008: 92-4). If one issue is, as I have also already noted, the coherence of this account in which there is the complexity of singularities that are claimed to be irreconcilable and internally differentiated but which also construct the one of the multitude while reconciling their internal differences such that a singularity can be asserted in the first place, then a second issue is the one Dean identifies: a lack of political focus. Hardt and Negri at this point appear close to being the inverse of Dean. They radically refuse any conceptualisation that would frame other struggle from the viewpoint of one struggle, but in doing so they lose the ability to focus on antagonism in the face of multiple singularities.

Again we can see a key theoretical inheritance from Marx that only makes sense amid the kinds of informational politics that have become central to late twentieth and early twenty-first century societies. The analysis of platforms and informational politics is closely bound up with the re-conceptualisation of Marx in Hardt and Negri.

Multi-Polar Politics

Twin, if nearly opposite, problems emerge from looking at Dean and at Hardt and Negri for an understanding of the politics of informational platforms. On the one hand, Dean's work recuperates and, in principle, obscures things about platforms that may not fit clearly within a Marxist paradigm. On the other hand, Hardt and Negri's allegiance to multitude dissipates a political focus into many different, often difficult to conceptualise, struggles meaning informational platforms will only be understandable in local contexts in relation to specific singularities. If Dean is too integrative to allow a view of informational politics in its own right, then surely Hardt and Negri are too vague to achieve the power Dean draws from identifying a political antagonism. Two questions come to the fore now. Is there a way of framing radical, revolutionary politics that steps between reduction to a struggle or dissipation into many struggles? If this is possible, would it allow platforms to be framed as part of a specific politics of information?

The power and insight of Dean's analysis is that there is a form of exploitation that we can identify as a structural component of capitalist societies. This defines as a material system the production of inequality, poverty and so on and therefore also makes the case to change this system. The power and insight of Hardt and Negri's work is the recognition that there are different kinds of radical struggles and that these cannot be understood from the viewpoint of a different struggle but must be understood for the singularity of their own embedded, materially enacted exploitation. The question, then, is how to put these two seemingly contradictory viewpoints into one theory.

Such a path is related, but different in some crucial ways, to the one Laclau and Mouffe have pursued. The opposition Laclau and Mouffe work on is not quite the same as the one I have drawn between Dean and Hardt and Negri's work, as Laclau in particular has worked on the opposition between particularism and universalism. Yet it is clear they hold to some of the critique of Marxism as overly-integrative and move somewhat toward Hardt and Negri in seeing a multiple horizon for the Left (Laclau & Mouffe, 1985: 190-3). At this point two reactions emerge within their work as they try to articulate the positive basis for radical leftism, as opposed to their criticism of the Left.

One reaction is the attempt by Laclau to hold on to radicalism in his argument that each difference may at some point take on universality. Each specific struggle may take on the cloak of universalism, for example by relying on universal human rights, in order to articulate and pursue their liberation (Laclau, 1995). Such a view implies and leads to the second, and much better known, argument that this means the key struggle is for a radical democracy because radical democracy ensures the openness of the political field in which liberatory movements can emerge to claim a universality: 'Nowadays, the crucial issue is how to establish a new political frontier capable of giving a real impulse to democracy. I believe that this requires redefining the left as a horizon where the many different struggles against subordination could find a space of inscription (Mouffe, 1993: 6).

Such a view leads to radical democracy as the maintenance of the possibility of a particularism translating to a universal. However, this transforms the Left from movements engaged with exploitation into a commitment to a radicalised democracy that can allow different struggles to co-exist. The shift does not do away with the idea of exploitation but it shifts the focus to maintaining and extending radical democracy. Laclau and Mouffe drift from the radicalism of relations of exploitation to end up focusing on the way the field of radicalism is maintained so that singularities or particularities, when rendered as collective struggles, can surface to claim a universality that underpins radical change. The focus becomes not the radical change but the maintenance of such change's possibility and focus on exploitation is lost.

Even while accepting Laclau and Mouffe's, and implicitly Hardt and Negri's, point that a multi-pole politics has to pay attention to the field within which it exists, the still missing component compared to Dean is that of the relationship that constitutes an antagonism. Drawing on the model of exploitation, I suggest that what constitutes a political antagonism based on exploitation is a relationship between groups of actor/actants in which this relationship constitutes a systematic form in which one group benefits by extracting something from another group and that this 'other group' is automatically impoverished in some way by this extraction. This extraction is the definition of what constitutes a political antagonism, not that it is the only relationship that may exist between collectives but that it is the kind of relationship that matters in defining exploitation. Not all social relations need be integrated or subsumed within a theory of exploitation, only those social relations that constitute and maintain forms of extraction that enrich some by impoverishing others are strictly speaking relevant. These relations will be seen in specific instances of actions that will, in their form, give shape to a general structure of exploitation that defines a political antagonism.

Take the now outdated US government policy of 'don't ask, don't tell' in relation to gay and lesbian people serving in the US military. It created a hetero-normativity by making homosexuality invisible. It was a daily enacted and strongly enforced (by removing those who did not conform) extraction of visibility for one group by enforcing invisibility on another. Such relations of visibility/invisibility can be seen as one strand of the more general political antagonism that exploits gay, lesbian, bisexual and transgender people (Dow, 2001; Britton & Williams, 1995). Such an axis of visibility/invisibility is not the whole story of this political antagonism but it is an example of how daily acts of exploitation relate to a general form of exploitation. It also demonstrates how across both its general form and its specific moments exploitation is made when one group systematically benefits by depriving another group.

Such a set of relations, I suggest, also clearly holds for class theory as a theory of exploitation. There are the daily enacted struggles over working time, productivity and so on that are connected to the more general relation. This more general relation identifies how impoverishment comes by alienating labour and extracting through this value for one group that originally rested with others, whether in the form of surplus-value or, as some have suggested in current times, in the form of rent (Dean, 2012: 132-3; Pasquinelli, 2008: 91-8). Relations of class exploitation form a political antagonism that retains its powerful identification of extraction and its concomitant critique and call for change. In a multi-pole politics such an analysis can also be understood as one form of exploitation among others.

The point is made, I hope, that in principle a radical conception of exploitation can remain within a differentiated and multi-polar radical politics. One last example is relevant to connect the idea of multi-polar politics to the final argument of this paper in which I will claim that information should now be conceived of as a political antagonism and accordingly as one pole within twenty-first century radical, multi-polar politics. Consider Facebook; as Pasquinelli argues well, this is not really a relationship of surplus value but is instead a form of rent. But rent of what? (Pasquinelli, 2008: 92-4). Facebook, and other social media, famously produce social relations of different sorts. They produce connections expressed in the rather odd technological moments that are named for their sociality: friend, like, poke (Papacharissi, 2011). Surely, this is an extractive relationship legally enforced through 'terms and conditions' and securely enforced through Facebook corporation's ability to ban, remove and exclude users. It is an extractive relationship in which

sociality is taken by those who own the architecture and attempt to turn it into profit through advertising. Surely in the critical work on social media that builds this kind of an analysis we see some of the first components of a theory of information as a political antagonism. In the final section I will outline elements of such a theory of information politics.

Information as a Political Antagonism

To complete the argument, I will outline how underlying dynamics of exploitation in information environments might be theorised. I will first explain how dynamics can be understood in terms of forces and then outline three dynamics of recursion, devices, and networks and protocols. This will sketch out a theory of informational exploitation that, at the very least, demonstrates in-principle the viability of a theory of information as a political antagonism.¹

Forces will be understood as the characteristic kinds of conflicts and dynamics of a political antagonism. Forces in this sense define in the abstract the nature of a political antagonism by theorising the kinds of inter-relations and the nature of entities being inter-related that construct a relationship of exploitation. This draws on Deleuze's interpretation of Nietzsche in which forces are those relations in which dominations emerge. Tracing forces should offer insights into the nature of the political antagonism; that is, such a tracing should map out some of the abstract relations that constitute a relationship of exploitation. Further, Deleuze argues for the importance of understanding Nietzsche as offering a general semiology in which all kinds of phenomena-things, organisms, societies, cultures-are reflections of states of forces. 'We can ask, for any given thing, what state of exterior and interior forces it presupposes. Nietzsche was responsible for creating a whole typology to distinguish active, acted and reactive forces and to analyse their combinations' (Deleuze, 1983: x). Deleuze argues for a Nietzsche that sees every body, and not just a physical human body, as constituted by a 'plurality of irreducible forces' in which some forces are dominant and others dominated. Without extending theoretically here in a way that would require too much space, I will take this idea of forces and adjust it by assuming such forces attain repeated patterns that we can diagnose. Those repeated patterns are what I will call the dynamics that make up a political antagonism, and I will suggest three as a starting point for a politics of information: recursion, devices, and network and protocols.

Recursion refers to the use of a process within itself, this is so characteristic of software and computing that recursion is one of the foundational ideas of computing science, as seen for example in the Turing-Church thesis. In this context, we might think of the Universal Turing Machine, a machine that can mimic and operate as any other machine. Other machines recur within the Universal Turing Machine, much as a movie player or a music player may recur within a computer (Petzold, 2008; Davis, 2000). Recursions occur almost ubiquitously and at many levels of informationdependant environments. They are also not a version of the return of the same, but each time something recurses it in some way builds and offers a new difference within an informational environment.

This means that the addition of a difference through recursion may be harvested by whoever controls or oversees the particular environment in which a recursion occurs. For example, if we understand the addition of personal information on social media as a recursion, in the sense that social media is in part made up of this information so the addition adds the 'itself' of identity to the existing identity the social media is tracking, then we can see that recursion in the moment of differentiation opens up a 'something' that is additional and different but which will fall into the lap of whoever controls that particular environment. If this opens up the spectre, as outlined above, of environments that sell these identities back to us in the form of advertising, they also open up more radical informational responses in code that is protected by copyleft-like licenses that create an informational environment built around distribution (Coleman, 2012: 185-200). Harvesting in and for a commons is possible, as the platform of the World Wide Web and the World Wide Web Consortium show, though we are more familiar with being harvested by a corporation. Recursion is a dynamic of extraction of differences from those who produce them.

Recursion has a second effect in that it produces exponential increases in information flows because forms of recursion are used again within themselves. This is most obvious with software code that can be reused or plugged in and this effect covers such extensive recursive systems as the Internet itself, which has been deeply embedded within other information systems. This is a partial explanation for the phenomenon of information richness or even information overload and glut that is widely discussed (Jordan, 1999: 117-28). Exponential increases in information can threaten to overwhelm anyone in an information environment as the number of

posts, the need to update and so on increases beyond capacities to respond. Actors and actants do not always scale.

Devices emerge at this point as a term for those things, which may be hardware, software, firmware or some other combination, that we place in-between ourselves and our information flows to try and manage them. Who would be without a spam filter for their email? But also, who has not lost an email they wanted to a spam filter that incorrectly identified that email? Such devices as spam filters interpose themselves to control excess information but also, in their recursions, can produce further information and potentially further need for devices. And so we end up training our spam filters so that we are managing that device properly but we are also recursing it by adding more information to it. Ultimately, this can lead to spirals in which devices responding to information overload both deal with one form while producing a new form of overload, leading to further devices and so on.

This process embeds devices within each of our informational environments, leaving us dependant on these devices that then disappear, leaving their particular politics and cultures difficult to see and impossible to avoid relying on. We might in this context think of packet inspection on the Internet, particularly in the context of net neutrality debates. Packet inspection can be configured to allow some types of information packets flowing over the Internet to be prioritised over other packets. In this sense, it constitutes a moment when devices that construct the Internet and on which we have no choice but to rely, extract an advantage of speed for some packets by taking it from other packets. The device that creates deep packet inspection is hidden within internet technologies that the vast majority of users will not only not see but may never be aware of, yet it also constitutes a relationship of exploitation based on expropriation of speed. Devices extract obedience to their hidden mores and politics, as they become ever more buried within infrastructures.

Finally, there is considerable evidence now of networks as a key disorganisational form in informational environments – by looking at anything from technological architectures to social media – but networks are all too often discussed without attention to the protocols that define what or who is connecting and how they connect. Galloway's assertion of protocols as a new form of control may have some difficulties of detail but it is surely correct in its most important, larger claim that protocols are forms of control in the kind of decentralised environments of which networks are a key example (Galloway, 2004). For every network there is an accompanying protocol that defines who can connect and how they can connect to that network. The over-emphasis on flat, nonhierarchical network connections to the exclusion in many cases, such as Castells (2012), of consideration of the protocols that are embedded in each such network, is a major difficulty in grasping the politics of networks.

The key here is to recognise the contradictory forms networks and protocols seem to have even though they are essential to each other. Where protocols tend toward clear rules and often simple and strongly enforced hierarchies, networks tend toward ubiquitous connections that undermine pyramidal hierarchies. In this sense, protocols and hierarchies often contradict while remaining essential to each other. For example, access to a Facebook social network automatically means acceptance of surveillance and advertising; or consider the way in which decentralised packet switching goes with a hierarchical domain name system. Exploitation here resides in the almost absolute, black and white, demand of the protocol that states that you may play on this network but only if you connect in a specific way and continue to connect in that way. The failure to obey a protocol leads to disconnection from the network.

Recursions, devices and protocols define a number of ways in which the production of differences within informational environments may be extracted from some, embedded within environments and based on a demand to connect in a particular way. These three together provide a framework for a theory of information as a political antagonism in the twenty-first century. It is from the interworkings of these three that we may start to assert an analysis of the particular politics of informational platforms as a politics of its own.

In part, this follows Gillespie's identification of the discursive work that goes on in establishing such a term as platform. He argues, 'A term like "platform" does not drop from the sky, or emerge in some organic, unfettered way from the public discussion. It is drawn from the available cultural vocabulary by stakeholders with specific aims, and carefully massaged so as to have particular resonance for particular audiences inside particular discourses' (Gillespie, 2010: 359). I am suggesting that in order to frame a radical political understanding of the exploitations platforms may be part of and engage with them critically, we need to understand information politics as a political antagonism with its own dynamics of exploitation. It is from this basis that we can frame the nature of platform politics.

Such a framing is likely to be at least a two-stage process, moving from general observations about information platforms to understandings of specific platforms. A way forward would be to see platforms as specific architectures or assemblages of the three forces of recursion, devices and networks and protocols. Platforms in the abstract then reflect the creation of particular repeated forms of these forces. Such abstract architectures are then actualised in specific examples of different types of platforms; for example, Googledocs being an example of a cloud-platform, or Facebook an example of a social network site understood as a platform. Exploitation may then be traced in the way the production of differences in something like Facebook is an expression of the general architecture of social network site platforms in which the owner of the architecture of an individual platform is able to claim ownership over all the differences in identity and sociality produced within that site. This is close to Pasquinelli's more Marxist framing of social networks but it can be expressed here in terms of information politics and so begin to understand connections between sociality and profit without needing framing in terms of theories of surplus value (Pasquinelli, 2008: 92-6). In this way, an understanding of information politics, that may itself include feminist or Marxist concepts, can be applied both to platforms as a general category and to specific examples of platforms. This also does not prevent or invalidate the analysis of platforms from within other political antagonisms, nor does it mean it is impossible to make links across antagonisms. The aim is to ensure that such crucial entities as platforms and their various manifestations can be examined for their specific information politics.

I have argued that it has become necessary for analyses of digital cultures and capitalism to react to the re-rise of Marxist theory and that a theory of informational capitalism need not necessarily lead to critical, radical analysis being integrated into a Marxist framework or having to reject Marxist analysis. It is possible to theorise a multipolar radical politics and then to see that one pole is that of information understood as a political antagonism in-itself. I then provided the outline of a framework for developing a theory of information as a political antagonism. The distinctions I have tried to draw to construct this argument are important to the exploration of the specifics of information exploitation understood within in its own terms and as its own problematic. It will also be important to identify where and in what contexts the politics of information connects to other political antagonisms. Both these directions will be important in continuing to build a radical response to exploitation in the twenty-first century.

It is also important to be clear that these need to be comradely discussions and that some of the distinctions I have drawn are fine. Take, for example, a key theorist I have not mentioned so far: Nick Dyer-Witheford. On the issue of Marxism's potential reduction of other struggles to its problematic he points out the difficulties for both sides of over-exaggeration in either equating Marxism with a totalising repression of the rest of the left or refusing to recognise any politics as a legitimate liberatory struggle unless it is Marxist (Dyer-Witheford, 1999: 166-75). Dyer-Witheford does assert Marxism's ultimate governance of the overall conceptual framework of resistance and exploitation but combines that with a strong recognition of other struggles and their legitimacy, leaving any assertion of a reduction 'in the final instance' at some distance. This makes Dyer-Witherford's claim, like that of another important and similar theorist in this area, Joss Hands (2011), both different to my assertion of multi-pole politics, because they see Marxism ultimately as the framework for radicalism; but also substantively similar, because we all agree on the importance of Marxism to radicalism.

It is, however, important that the re-rise of Marxism does not obscure a radical analysis of the inequalities and exploitations that are characteristic of informational environments. As I hope is clear from my use of Dean, Pasquinelli, Hardt and Negri and others, I believe such Marxist and communist inspired work produces insights and analysis, feed essential passions, and assert angrily the demand for an end to exploitation. Yet, even while seeing their work as an analysis of class in the twenty-first century and using them within analysis of an informational problematic, I argue for the importance of a differentiated and multi-polar analysis of many kinds of exploitation, informational and other. The only way we will come to understand the politics of platforms is by understanding better the political antagonism of information and the exploitations produced by this antagonism.

Endnotes

¹ Fully theorising information politics as a political antagonism is a larger project due for publication in 2014.

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