

Introduction

The emergence of new technology has a recurring history of being understood in terms of emancipation, as if access to new functions provides the potential for liberating social organisation. Walter Benjamin has argued that new technologies of mechanical reproduction have the potential to liberate and politicise humans. This argument has been applied most recently by Marcus Breen in his book *Uprising* to the internet's potential for liberating politicisation. However, questions remain about the emancipatory power of the internet. Is it really a tool of liberation or a space of control? Focusing on the underlying systemic structures of the internet, the stance taken in this paper is to dispute the possibilities of new media functioning as an emancipatory tool.

Central to the approach taken in this paper, is a consideration of the role of the algorithm in controlling the flow of internet data. Algorithm is a mathematical term used to define the binary code that enables command operations in computer systems (Judith 157). In recent years the algorithm has been used to describe the technology behind the internet search engine. A search engine such as Google uses algorithmic processing to electronically decide the order and importance of search results. Similar algorithms are used to link search terms with product advertising. Algorithms work at the level of the network and produce difference. They order and control the way internet users gain access to information and knowledge. As such, they are not inherently liberating, but constitute a powerful tool of intellectual oppression which, I argue, replaces the ideological oppression of the older technologies.

My hypothesis is that the public sphere – a space of centralising ideologies in which a general consensus can be formed, as proposed by Habermas -- becomes a network of differences when applied to the internet. Differences within the internet are broken down to the level of the individual and at such a micro-level that the *macro*, i.e. the political, has already disappeared. In the enhanced subjectivity of personal monitor space (Breen 110-111), ideology becomes subjective and individualised. In such a space, the unifying modality of ideology gives way to the differential processing of the algorithm which shapes social space as a *controlled experiment*, and which may be adapted to create different output results. I will argue that in its capacity to shape the social space of the individualised internet user, the algorithm has now become a more effective method of intellectual oppression than the ideology of the outdated mass media technologies.

The Paradox of Emancipation

The idea that the internet can provide a better and more efficient form of politicisation is the latest of a series of emancipatory narratives concerned with the emergence of new technologies. For example, Walter Benjamin, in his influential essay "The Work of Art in the Age of its Technical Reproducibility," expressed an emancipatory narrative of new technologies against the backdrop of an emerging fascist state obsessed with the ritual function of media. He saw the rise of mass-media, in terms of the ability for mass-replication, as a chance to separate culture from the "parasitic subservience to ritual" (256). For Benjamin, ritual use of media located culture in a specific authorised space far removed from the everyday. This remoteness of culture from the common space of the everyday was a form of social control which disempowered the masses and allowed a "priesthood" to exert power.

The new technologies of replication enabled a closer connection between the masses and the source of media, a culture Benjamin saw as potentially coming from the masses and a situation in which “the whole social function of art is revolutionized. Instead of being founded on ritual, it is based on a different practice: politics” (256-257). The technology of mechanical reproduction, for Benjamin, was a way in which culture could be politicised through its closer association to everyday life, evolving into more relevant forms of expression.

In this Benjaminian sense, the internet can be understood as a powerful tool in relocating culture away from remote ritual locations, and closer to the individual’s interaction with the computer monitor. For Breen, monitor space is an empowerment of the individual user based on Enlightenment principles, where “the individual [as a knowing subject] is positioned alone in a unique relationship with a global digital delivery network that manifests itself in the video monitor” (110-111). With the Web 2.0 platform, monitor space becomes an interactive global distribution network, enabling the individual user to interact with the system according to rationalist-liberal ideals of freedom.

And yet, there is a paradox in monitor space, for whilst the interactive space is integrated into the everyday, the network to which it connects is centralised within server space owned by a small number of transnational companies, and through which all data passes. The monopolies on data controlled by the “priesthood” of the transnational corporations locate the cultural flow of the internet within a space as remote as the one Benjamin identifies as symptomatic of the ritual function of art. So, whilst the content of culture is relocated in the everyday, its mode of delivery is concurrently centralised and remote from the isolated individual user. In this sense, culture, in the form of content and data, has become both individualised and remote.

The form of agency offered by participatory media such as social networking sites and on-line social groupings, becomes the basis of the technological connectedness between large groups of people. Following Benjamin’s argument, this ability for networking offers the potential for an *uprising* of commonality against an oppressive elite. It can be argued that the narrative of emancipation, occurring with each major technological development, is centred on the ability of technology to simultaneously provide the means of emancipation whilst perpetually delaying its arrival through the emergence of new and absorbing social paradigms. For the internet, this means that the ability of networking and grouping is combined with the perception that ideology is no longer a politicising force. This is what Marcus Breen indicates as an “escape from ideology . . . into the arms of a perversely illogical non-ideological marketplace” (121) offered by the internet. The non-ideological space of the internet is part of its open participatory nature which allows the impression of being a deregulated *public sphere* devoid of agenda.

The Network of Networks

The public space of the internet can be compared with Jürgen **Habermas’** ideal of the *public sphere* described in his work *Theory of Communicative Action* in which common consensus forms the basis for a space of participation. Habermas saw the sphere of participation as a public meeting point in which differences could be worked out and synthesised into a system which would benefit all participants. The formation of consensus was vital to Habermas, since this was the method of “validation” of a unified sphere of participation, one in which all could participate and be represented within. The emancipatory narrative of the internet as a

politicised space draws on the concept of the public sphere as a place in which individuals can group together and form a larger collective force. The question is: within the fragmentation and divisions inherent in the “non-ideological” and deregulated space of the internet, where is the unified space of the internet situated and who has access to the data to bring this space into being? My hypothesis is that the public sphere of the internet is only visible to those who have access to aggregated data: nodes positioned in the network as centralised data flows controlled by the transnational corporations. This is an inverted public sphere, where privatised access to publically generated data forms the larger unified network. Jaron Lanier calls the controllers of this upper echelon “the lords of the clouds” (54), since they are the transnational companies which have positioned themselves as major nodes of the network through which large amounts of data pass. The “clouds” are a reference to the technical process of “cloud servers,” a commercial service which offers to store personal data in a centralised web-server under ambiguous privacy agreements. For this paper the term *network of networks* also functions as a signifier of a centralised over-network comprising access to the aggregation of data from multiple decentralised participatory networks.

By describing the internet as a *network of networks* attention is drawn to the overarching structure within which multiple networks operate. This entails a look at the technical side of the internet, the so-called *back-end* of the internet rather than the publically visible *front-end*. Positioning the back-end technology of the internet as the overarching network creates the image of a private-sphere running parallel to the visible internet: a reversal of **Habermas’** idea of the public sphere. It is also a unified system in which a vast percentage of interaction can be contained and rationalised. This can also be looked at through network theory in which nodes are understood to be points in the network which have varying degrees of agency (or ability to exert effect on other nodes) (Smith and Fink 235). The distribution of power in the form of agency depends on the positioning within the network of the specific nodes of interaction. Individual participants can be seen as nodes which have connections to other nodes, thereby forming networks. But beyond this, it is the *network of networks* which is the most powerful single node. An example of a *single node* could be seen as the oligarchy of monopolising transnationals of which Google and Facebook are amongst the most dominant. Participants within the technology of the internet are granted agency to create their own social networks freely and in a deregulated fashion. But behind this seemingly free interaction are the opaque mechanisms of new technologies, operating at the back-end which diverts and coordinates network traffic for its own ends.

An example of back-end coordination can be seen in Google, the dominant search engine of the internet, which, like all computer based programming, uses the *algorithm* to determine responses to search terms entered by users to match user profiles with relevant advertising in the form of Google Adwords. The use of algorithms to match advertising categories with user profiles determined from users’ internet search histories means that advertisements can be made more specific to the users’ perceived interests in the form of delivered search results. The use of algorithms in suggesting the object of our search, particularly where we do not know the exact keyword or phrase to activate access, results in a closer mesh between consumerism and information. Within this system, information becomes ghettoised and segmented: we only see that which our previous search histories dictate; our search histories are categorised to connect with available commercial interests; and more importantly *what we don’t know now we may never know*. In this sense the internet acts as an aggregator of known knowledge rather than as a tool for dissemination of alternative ideologies. It is not the “ideological” content which is important within the play of power, but the positioning of actors or agents within its flow. Of these “agents,” either human or technological

determinants, it is the algorithm which occupies a central position as an affecter of knowledge. Michael Pepi argues that the algorithm is a colonising instrument: “arguably the singular cultural and intellectual achievement of our era: the web-based power of the Algorithm, the method by which we access content . . . has colonized nearly all aspects of our daily life.”

The Society of Control

With the mathematical algorithm at the centre of our internet experience we see the tracings of an emerging society, determined by the manipulation of minute parameters which affect our access and organisation of knowledge, and more generally based on the flow of information rather than material production. This situation is described by Gilles Deleuze as a *society of control*, a descriptor of a deregulated society, seemingly non-ideological, but which uses controls such as the algorithm to determine the flow of information as power. The algorithm can be compared with what Deleuze identifies as “the numerical language of control,” a series of “codes that mark access to information, or reject it” (5).

Deleuze describes societies of control in terms of a decentralised system of management through the modulation and filtering of interactions based on varying degrees of access to controlled spaces. In Deleuze’s vision, control is everywhere, deeply enmeshed within interactions of the everyday through surveillance, and exerted at the micro-level of engagement as “continuous forms of control” (7). Societies of control are extensions and mutations of what Michel Foucault calls disciplinary societies – societies reproduced through the institutions we inhabit: family, school, factory, workspace, prison.

However, societies of **control are not institutionally** formed, but based on the computer, electronics networks and the circulation of capital as data. They involve the use of passwords to control access to data spaces and the flow of information exchange which decentralises institutions into networked interactive spaces. This process of decentralisation transforms social interactions, breaking down the institutionalised, self-integrated individual as part of a “mass”, becoming the “dividual” (5) which exists within a system of coded passwords denoting access to data from different nodes in the network. The “dividual” exists in shifting affiliations with the larger networks, which are known as “banks,” “samples,” “markets” or temporary swarms, with the corporation offering not membership but competition as the coherent factor (5). The control of dividuals does not follow the disciplinary path because ideology is not centred around the disciplinary rules arising from the institution; rather, control becomes decentred, free-flowing, ubiquitous and opaque. Deleuze’s concept of the control society describes the deregulated society currently being shaped by the technologies of the internet, where ideology has been sublimated into the structures of interaction and where controls such as the algorithm determine movement and agency.

Ideas circulated by the emancipatory narrative of the internet propose the dissolution of the institution as a controlling agent and, with it, the use of ideology as a means of control. Clay Shirky, one of the internet’s most vocal supporters, suggests that the structures of the internet closely resemble the amorphous forms of transnational corporations built from the more “open-systems” of affiliation: “closed groups and companies will give way to looser networks where . . . fluid cooperation replaces rigid planning . . . new technologies enabling loose collaboration.” The definition of the “looser network” structure of the internet which Shirky presents here can be applied to the global propagation of the transnational (liberal economic) model, with its contradictory combination of decentralised agency and

concentration of power. Here Shirky is speaking about the power of the *swarm*, a loose deregulated network which is optimised for the rapid formation of short lived but vibrant events of participation. This can be the swarming of attention which makes a particular media item go “viral,” generating accelerated interest through social networks via the actions of users until a very large number of viewers are exposed to the item. For example, the stock market can be understood in terms of the swarm, where a surge of interest drives buying and selling of shares into spiralling exchanges out of all proportion to any real economic productivity and capital growth. Both the stock market and the internet are subject to these looser networks associated with societies of control. By removing regulation, the activity within these networks can be momentarily accelerated. But something is needed to direct this activity towards a focus point, which amplifies attention and creates the swarm occurrence. In this case, this “something” can be written into a search engine algorithm as a directing parameter of the social order. In effect, the society of control is produced by the algorithmic feedback which defines and circumscribes the relations between the “dividuals” that use, and are consequently defined by, the network as a network of networks.

The Internet as a Politicising instrument

How is this shift to a society of control connected to the question of the internet as a politicising instrument? As the algorithm becomes closely connected with the formation of our identity, entire populations living on the other side of the digital divide become drawn into new societies of control. This can appear as a narrative of emancipation from the rules and constraints of disciplinary societies and, on the surface, their entry into the digital network must seem nothing short of a *revolution 2.0*.

The role of Web 2.0 in the recent Egyptian uprising is an interesting example of the narrative of technological emancipation. The photographed image entitled “Facebook graffiti in Cairo during the Arab Spring,” by Dylan Martinez, shows the word “Facebook” spray-painted onto a wall by Egyptian protesters during the uprisings of 2011. The image is perhaps one of the more extreme versions of the recurrent narrative of emancipation connected with the technology of the internet as it implicates a transnational corporation into the language of political uprising. The image circulated widely in the media as a representation of the events of the Arab spring and its presence suggests a correlation between the rhetoric of revolution and consumer social-technologies. The Egyptian uprising has been documented as beginning with the posting of the Facebook page *We are all Khaled Said* around which the events of January 25th 2011 allegedly unfolded. What is often left out in the shorthand version of this narrative is that the Facebook page was written and posted by Wael Ghonim, who was at the time, according to Will Heaven writing on the NATO website, the head of Google marketing in the Middle East and North Africa. The implication in a social revolution of the names of two powerful internet transnationals – Facebook and Google – continues the celebratory view of the liberating functions of new participatory technologies as part of globalising capital. The theme of technological emancipation intermeshed with social revolution and marketing continues with Wael Ghonim’s subsequently authored book *Revolution 2.0*, in which emancipation enabled by technology is suggested as the main catalyst for the revolution. Perhaps this reads better as an effective co-opting of a social movement as a marketing operation: successful because the underlying issues can now be dropped from the media since its viral moment has passed.

A comparable event in London in the same year also included the Facebook name but this time in a different function. Jordan Blackshaw and Perry Sutcliffe-Keenan each received four

year jail sentences for attempting to promote the 2011 British riots via “private” messages on Facebook (Bowcott). The contrast between the perceived roles of social media in the Egyptian and British uprisings (the former seen as emancipatory, the latter as subversive) highlights the ambiguity of the internet as both a tool of revolutionary change and as a means of supporting the establishment through omnipresent surveillance.

It would be accurate to describe the small number of transnational companies running the internet as oligarchies bent on the political exploitation of the participatory sphere for their own good. This suspicion of oligarchical power is suggested by Mark Andrejevic who argues that the operations of information capture companies point to a politicisation of market forces through a combination of market research and political surveillance: “information capture is only part of the story. When we participate in the interactive digital economy we become lab rats, subject to large-scale, ongoing controlled experiments conducted by a new breed of market researchers” (47). Andrejevic suggests that the opaque power structures of the network enclose the internet in an act of politicisation. The unprecedented access by transnationals to personal data, driven by an unseen “new breed of market researchers” entangles the public sphere in the directives of the transnational oligarchy. The subtle effects that this opaque structure has on all interactions occurring within its realm recasts the internet not so much as a public sphere resembling **Habermas’** vision of (participatory) democracy, but as a controlled space of unequal and asymmetrical data exchange.

The emancipatory narrative of the internet is propagated through what David Kreps calls the “utopian rhetoric surrounding Web 2.0 social networking [which] creates an image of a social space, mediated by transnational communication tools, [as] democratic, anti-hierarchical, open, and unconcerned with excessive capitalist agendas” (697). There are parallels here with **Habermas’** concept of the public sphere (already mentioned): a technology-enabled arena wherein social and political differences can be communicated and dialectically resolved to create emancipation. The democratic potentials of the internet intermesh with ideas of participatory democracy espoused by the “uprisings” of the Arab Spring. Here democracy is entwined with the function of new technologies which allow the masses to organise against corrupt regimes. But what is the form of democracy and empowerment when it is delivered through the convenience of technology controlled by an oligarchy of transnational companies? Is it, as Douglas Schuler suggests, a reduction of democracy to the passivity of interaction with the ready-made nature of digital tools, and therefore should politicisation be separated from consumer convenience?

It seems inevitable that empowerment facilitated by technology will always be shaped and delimited by the agendas of technological providers. In this light it would seem unlikely that a commercial product providing social networking convenience can or should be entwined with the mass-movements of the proletariat, and yet, as Eran Fisher identifies, in the celebratory digital discourse of *Wire Magazine*: “the emancipatory desire of individuals for dealienation . . . and the system’s desire for new sources of profit are presented as complimentary and even codependent” (137-138). These parallel discourses form part of the new systems of capital in which “eradication of distinctions between these components: companies and the network, producers and consumers, producers and users, labour and fun, forces of production and the production process” (140) creates a closer intrusion of the market as a rationalising force. Within the environment of Web 2.0 the divisions between producers and consumers and between the “forces of production and the production process” offer a narrative of emancipation which follows a highly decentralised mode of being. On the surface it appears that structures which maintain divisions have been liquefied, enabling a

new form of participatory capitalism in which alienation is eradicated through the introduction of meaningful self-motivated modes of production.

David Kreps employs a Gramscian concept of power as hegemony to draw attention to the economic structures which surround technology-driven participatory culture and the practices which occur within this context:

Social Networking Sites – and Facebook in particular – display precisely the Gramscian constellation of behaviours between a dominant bloc of venture capitalists who have achieved hegemony in the New World Order of Empire and the tens of millions of us who willingly surrender our personal data and the conduct of our friendships and (online) social ties to their marketplace. (694)

In its Gramscian form, hegemony describes the power relation that emerges between dominant and subordinate groups in contexts of modern mediated, decentralised power flows. Hegemony works not through the direct force of the dominating group, but through compliance and active support of practices as accepted norms within the dominated group: “The spontaneous consent given by the great masses of the population to the general direction imposed on social life by the dominant fundamental group” (Gramsci 12). The sense that hegemony requires the active consent and action of the population is brought further into the foreground with the advent of the algorithm, since hegemony comes less from the institution than from the active participation in the technological means of emancipation. In this sense, the subject of the algorithm’s control – the “dividual” sitting at her computer monitor – becomes the dominated locus of power.

As we become more acclimatised to sharing our data on-line, those entities which Lanier calls the “Lords of the clouds,” will accrue increasing power over other less important nodes. However, the surface qualities of the “looser network,” with their emancipatory narratives of individual enhanced agency, defuses the underlining hegemonic aspects of oligarchical power. Within this network, the domain of the algorithm, *social organisation, power and democracy* are not only questioned, as suggested by Breen, but also reassigned new meanings and significance.

The capitalism which reaches into every aspect of social-life, forming the decentralised hegemony supported by *spontaneous consent*, relies on the illusion of free expression, free will and the cultivation and the pursuit of our own interests and desires. This can be related to the dual nature of the internet’s ability to both decentralise agency and to concentrate aggregated data, and can be paralleled with Breen’s observation of “invigorated fundamentalism” which results from combined “privatization and deregulation” (176). This can be seen in the ideals of free-trade which promotes itself as a deregulated, decentralised, chaotic and free-for-all, whilst being part and parcel of a definitive practice of centralised concentration of power. Whilst the breakdown of the institution as the visible site of power may appear on the surface to be emancipatory, it constitutes a shift into a more opaque era which is at the heart of the society of control.

Whilst the technology of the social network may appear to get us to where we think we want to go quicker and more conveniently, the “end product” will always not quite be what we expected. The fluidity of the age of the algorithm ensures that even the most developed ideology of emancipation is capable of being transmuted into *(back-)end product*. Real emancipation, if such a thing exists, will only occur when we begin to develop our own networks, connections and strategies outside of the centralised hegemony of technology.

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Works Cited

Andrejevic, Mark. "Privacy, Exploitation, and the Digital Enclosure." *The Amsterdam Law Forum* 4.1 (2009): 47-61.

Benjamin, Walter. "The Work of Art in the Age of Its Technological Reproducibility." Third version. Trans. Harry Zohn and Edmund Jephcott. *Walter Benjamin Selected Writings, Vol. 4, 1938-1940*. Eds. Howard Eiland and Michael W. Jennings. Cambridge: Harvard University Press, 2003. 251-83.

Bowcott, Owen. "Facebook Riot Calls Earn Men Four-Year Jail Terms Amid Sentencing Outcry." *The Guardian* 16 August 2011. 7 November 2012
<www.guardian.co.uk/uk/2011/aug/16/facebook-riot-calls-men-jailed>

Breen, Marcus. *Uprising: The Internet's Unintended Consequences*. Champaign, Illinois: Common Ground Publishing, 2011.

Deleuze, Gilles. "Postscript on Societies of Control." *October* 59 (1992): 3-7.

Fisher, Eran. *Media and New Capitalism in the Digital Age: The Spirit of Networks*. New York: Palgrave Macmillan, 2010.

Foucault, Michel. *Discipline and Punish: The Birth of the Prison*. Trans. Alan Sheridan. New York: Vintage Books, 1995.

Gramsci, Antonio. *Selections from the Prison Notebooks*. Kings Lynn, UK: MPG Books, 2007.

Habermas, Jürgen. *The Theory of Communicative Action*. Trans. Thomas McCarthy. Vol. Reason and the Rationalisation of Society. 2 vols. Cambridge: Polity Press, 1984.

Judit Bar-Ilan, "Manipulating Search Engine Algorithms: the Case of Google." *Journal of Information, Communication and Ethics in Society* 5.2/3 (2007): 155 – 166.

Kreps, David. "Social Networking and Transnational Capitalism." *Triple C* 9.2(2011): 689-701.

Lanier, Jaron. *You Are Not a Gadget: A Manifesto*. New York: Random House, 2010.

Martinez, Dylan. "Facebook Graffiti in Cairo During the Arab Spring."
<www.flickr.com/photos/interactegypt/with/7029060335/> Reuters, 2011. CC license BY-NC-SA 2.0. Photograph.

Pepi, Michael. "Iconology in the Age of the Algorithm." *ArtWrit*. Spring (2011).
<www.artwrit.com/article/iconology-in-the-age-of-the-algorithm/>.

Schuler, Douglas. "Reports of the Close Relationship between Democracy and the Internet May Have Been Exaggerated." *Democracy and New Media*. Ed. Henry Jenkins and David Thorburn. Cambridge, Massachusetts: The MIT Press, 2003. 68-84.