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Surveillance capitalism and the derision of the digital denizen

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This article investigates the notion of the digital denizen and his/her relationship with modern informational and communicational technologies (ICTs) – including social media platforms and global search engines.

Particular attention is directed towards how such a relationship has resulted in the emergence of recent phenomena such as big data and surveillance capitalism. This investigation will then aim to elucidate the various strategies that the capitalistic enterprise of the 21st century has implemented via the various ICTs that now underpin extant society in order to both harness and hijack the attentional and cognitive faculties of the digital denizen so as to monetise every ounce of the attentional economy that the individual has to spare. As such, this investigation aims to highlight how this extractive process has resulted in the abject objectification and exploitation of the digital denizen, whilst also managing to result in a situation of attentional/retentional overload (on the part of the individual) which has resulted in the emaciation of the digital denizen's attentional faculties - ultimately placing them in an vulnerable position in which exploitation and manipulation can effectively take place.

Keywords: digital denizen; informational and communicational technologies (ICTs); big data; surveillance capitalism; social media; attentional economy

Introduction

The internet, with its digitalised mediums of communication and interaction, has assumed a central role in the social, political and cultural life of human beings around the globe. The use of social media and social networking services (SNS) – such as Facebook, Twitter, Instagram and YouTube – has become an increasingly accepted and integral (if not essential) part of everyday life. It is safe to say that Web 2.0[1] – the range of internet-based platforms that support various communication functions and technologies, and as such "constitute an architecture of participation and rich user experience" (Amiradakis 2016: 249) – has managed to permeate nearly all facets of the contemporary individual's existence.

Collin et al. (2011: 12-20) note that there are a number of significant benefits and progressive attributes that can be associated with the introduction of Web 2.0 to contemporary society, including: i) the delivery of educational outcomes; ii) the promotion, facilitation and strengthening of supportive relationships; iii) cultural enrichment; iv) identity formation; v) the encouragement of a sense of belonging for the individual (to a wider virtual community); vi) a greater sense of political engagement and involvement and; vii) the enhancement of one's self-esteem and self-efficacy. In light of such an auspicious series of assertions, it would seem like Web 2.0, contemporary digital media and the sophisticated Information Communication Technologies (ICTs) that underpin such an expansive electronic infrastructure could be regarded as nothing less than a modern day marvel and an electronic triumph that is explicitly geared towards the edification and emancipation of the digital denizen (i.e. the users of these technologies).

On a more cautionary note, critical media theorist Christian Fuchs (2014: 57) argues that while there may be some merit to the views of the more optimistically-oriented theorists such as Colin et al. (and their ilk), contributions such as these often tend to stress new technologies' transformative power alone – while ignoring many of the socio-economic/political/historical variables that will invariably have an impact upon such technologies and their efficacy/impact within the real world. As such, Fuchs (2014) argues that the aforementioned approaches are far too idealistic in their appraisal of the technological phenomena in question as they all tend to overlook (or simply ignore) critical aspects of

1 Tim O'Reilly (2005) introduced the notion of Web 2. Fuchs (2011: 134) points out that social networking services (SNS) and social media are typical applications of what is termed Web 2.0, due to the fact that 'they are web-based platforms that integrate different media, information and communication technologies, that allow at least the generation of profiles that display information that describes the users, the display of connections (connection list), the establishment of connections between users that are displayed on their connection lists and the communication between users'.

modern capitalist society that may serve to hinder/undermine the liberating/edifying potentialities of the technological phenomena in question[2].

This investigation is aimed at exploring the (adverse) impact that social media technology has on the attentional-retentional economy of the digital denizen. It is therefore crucial – following Fuch's (2014) critical caveat – to first come to terms with the wider socio-economic system in which such technologies are rooted, along with the variegated (and often well-concealed) functions they are designed to serve within such a system. Without taking note of such techno-economic changes, one will not be able to rigorously explore the role that digital communication technologies have assumed in the 21st century, as well as the array of conflicting and contradictory tendencies/propensities[3] that characterise them. It follows that any detailed description of such phenomena needs to take note of the manner in which capitalism has evolved – with a particular focus on its underlying technological infrastructure. The next section of this article considers this relation with reference to the critical works of Kellner (1989), Fuchs (2008) and Zuboff (2015).

The transformation of capitalism and its relation to modern technology

Techno-capitalism

Kellner (1989: 177) argues that with the introduction of sophisticated industrial, information and communication technologies into contemporary society, a significant transformation has occurred within the capitalistic franchise itself. According to Kellner, this transformation has given rise to what he calls "techno-capitalism", a term intended to describe a revised configuration of capitalist society in which technical and scientific knowledge, automation, computers and other advanced technologies play an increasingly prominent role (1989: 177).

2 It is interesting to note that there are some important similarities to be drawn – in the broader context of the Philosophy of Technology – from certain arguments that have been made by both Lewis Mumford (1964) and Langdon Winner (1980) which serve to support the rendition of Fuchs (2014). See Mumford (1964), *Authoritarian and Democratic Technics* and Winner (1980), *Do Artifacts Have Politics?*

3 Fuchs (2014: 1) makes it evident that his cautionary commentary – along with his proposal pertaining to the wider socio, economic and historical variables that one is required to take into consideration when attempting to undertake a thorough investigation of such technological phenomena – takes its cue directly from critical theorist Jürgen Habermas (1991), and the multifaceted research approach that he (i.e. Habermas) both advocates and adopts within one of his major works, namely: *The Structural Transformation of the Public Sphere*.

Kellner continues by noting that whereas the first industrial revolution was characterised exclusively by the process of manufacturing, in which machines replaced hands and mechanisation replaced manual labour, what he refers to as the "second industrial revolution" (which occurred roughly between 1870 – 1960), was characterised by another significant socio-economic transformation, whereby "machines and new technologies *replaced brains* and played a major role in the restructuring of the labour process and other domains of social life [emphasis added]" (Kellner 1989: 177).

According to Kellner's (1989) analysis, the process of automation and restructuring (as outlined above) rapidly accelerated during the 1960s and 1970s as corporate capital introduced new technologies to further rationalise the production process. What this then ultimately meant for late capitalist society (and its workforce) was that new technologies, electronics and computerisation came to displace older machines and mechanisation, while information and knowledge came to play increasingly important roles in the production process, the organisation of society and everyday life (Kellner 1989). This series of technological transformations would in turn have a significant impact on the further development of capitalism in the 21st century.

Transnational Informational/Network Capitalism

Fuchs (2008: 98) extends Kellner's notion of techno-capitalism into the digitalised context of the 21st century. He introduces the notion of 'Transnational Informational/Network Capitalism' to highlight how the internet and its associated digital communication technologies (including social media platforms) have contributed to a transformation within the capitalistic enterprise of the current era that sees the labour process itself assuming an *informational format* (Fuchs 2008: 103-104). This means that "contemporary capitalism [is] based on the rise of cognitive, communicative, and cooperative labor that is interconnected with the rise of technologies of and goods that objectify human cognition, communication, and cooperation." The myriad of computer networks and ICTs confronting the digital denizen on an incessant basis now form the interconnected technological foundation of informational capitalism (Fuchs 2008: 109).

For Fuchs (2008: 112), these interconnected communication-based technologies have managed to introduce a novel component to the contemporary capitalistic franchise in as far as they inherently allow for the analysis, classification and commodification of all the digitally induced forms of interaction and activity that occur on these devices/platforms. In light of these observations it becomes clear that the transformation of these electronically induced forms of interaction into commodified informational entities will require an element of data

surveillance. In the following section we turn our attention to the notion of data surveillance as it figures in Zuboff's critical analysis of surveillance capitalism.

Surveillance capitalism

Zuboff (2015: 75) introduces the reader to the notion of surveillance capitalism by citing a recent White House report dealing with the emergence of 'big data'. She draws our attention to the following ominous conclusion, stated unequivocally in the report: "The technological trajectory [of the contemporary epoch] [...] is clear: more and more data will be generated about individuals *and will persist under the control of others* [emphasis added]" (White House 2014: 9). This conclusion starkly summarises the conditions with reference to which Zuboff develops the notion of surveillance capitalism.

The notion of surveillance capitalism enables an understanding of how 'big data' has effectively come to reshape and redefine a significant portion of contemporary society and its economic endeavours. It does so by:

i) Highlighting how the technological trajectory of society has become increasingly dependent upon the modern individual and his/her relationship towards modern technology.

ii) Perhaps more importantly, illuminating how such a relationship affords contemporary technologies with the unprecedented opportunity to generate vast amounts of information/data about their users (via a process which Zuboff refers to as 'informating') that ultimately provides 'others' – including big businesses – with unparalleled opportunities for economic growth, diversification and exploitation.

It is in light of the aforementioned factors that Zuboff (2015: 75) points out that the notion of 'big data' is, above all, to be understood as "the foundational component in a deeply intentional and highly consequential new logic of accumulation that [she refers to as] *surveillance capitalism* [emphasis added]." Extrapolating from the above, Constantiou and Kallinikos (2014:10) assert that big data actually heralds nothing less than "[...] a transformation of contemporary economy and society ... a much wider shift that makes *everydayness qua* data imprints an intrinsic component of organizational and institutional life ... and also a primary target of commercialization strategies ... [author's emphasis]."

In order for the critical researcher to come to terms with such an unprecedented scenario, it is necessary to gain a wider understanding of the inner workings of surveillance capitalism, and to inquire into its key stakeholders. By exploring these aspects we will not only gain a critical insight into how the economic practices

of the contemporary era are inherently shaping the communicational mediums of the contemporary era (and vice versa), but it will also allow us to appreciate how the social media platforms of the 21st century are central to this current configuration of capitalism.

The inner workings of surveillance capitalism and its link to the world wide web

According to Mayer-Schönberger and Cukier (2013), Google is widely considered as being the progenitor and pioneer of 'big data'. This point is ratified by Zuboff (2019: 69) who notes that due to the wide embrace of Google's search platform in the late 1990s (as a direct result of its perceived efficiency, speed and accessibility), Google successfully managed to introduce a near-ubiquitous sense of computer mediation to a broad range of human activities. As these new online-oriented activities were being informated for the first time, they produced a new collection of "collateral behavioural data" such as the number and pattern of search terms, how a query is phrased, spelling, punctuation, dwell times, click patterns, and location (Zuboff 2019: 69). In late 2000, Google revised its business model in order to turn its ever-expanding reserves of behavioural data – along with its unrivalled computational power and expertise – toward the single task of 'matching ads with queries' (Zuboff 2019: 69). As time elapsed, a deeper grasp of the 'predictive power' associated with big data triggered a 'crucial mutation' that would ultimately turn Google, the internet, advertising and the very nature of information capitalism toward an *astonishingly lucrative surveillance project* (Zuboff, 2019: 78).

Based upon the synopsis provided above, one can argue that what Google effectively managed to introduce to the capitalistic foray of the 21st century is an unprecedented technological capability that had been designed so as to deduce the thoughts, feelings, intentions, and interests of billions of individuals across the entire globe (Zuboff, 2019: 81). From a systematic point of view, such a feat would ultimately be achieved by continuously recording and analysing the behavioural tendencies of each Google user via the aid of its search engine's "automating/informating architecture".[4] On a more ominous note, such an insidious process of capital accumulation can also be described as operating as an incredibly elaborate 'one-way mirror', that functions constantly, irrespective of a person's awareness,

4 One can further argue that such developments would eventually result in the creation and implementation of location tracking software and hardware – also referred to as 'Web 3.0' – which can now be found in mobile phone technology, satellite navigation systems, GPS devices and heath monitoring devices, that would then ultimately serve to fortify and further entrench this surveillance-based form of technological infrastructure.

knowledge, and consent, thus enabling 'privileged secret access to behavioural data'[5] (Zuboff 2019: 81).

While the aforementioned overview provides the reader with a fairly clear description of how Google managed to pioneer a new regime of capital accumulation, it does not – as yet – elucidate how any of this actually relates to the realm of social media. Furthermore, it is yet to be revealed how such a novel logic of capital accumulation is actually able to have an inimical effect upon the attentional-retentional economy of the digital denizen.

The role of social media within the context of surveillance capitalism

In light of Google's considerable accomplishments in the surveillance-based economy of the 21st century, its pioneering logic of accumulation (i.e. surveillance capitalism) has actually become the default model for most online start-ups and applications, and is now shared by the world's largest social media company, namely Facebook (Zuboff 2015: 77). Such a development can be traced back to March 2008, when Mark Zuckerberg opted to hire Google executive Sheryl Sandberg to be Facebook's Chief Operating Officer (COO). Zuckerberg's decision to hire Sandberg is to be regarded as being an imperative factor in relation to the expansion of surveillance capitalism on to the (as yet) uncharted domain of social media, due to the fact that while at Google, it was actually Sandberg who originally led the development of surveillance capitalism through the tremendous expansion of Google's advertising operations (Zuboff 2019: 92). Thus, in successfully signing on Sandberg as the COO of Facebook, Zuckerberg quickly became an ardent proponent of surveillance capitalism, and as a result, Sandberg effectively spearheaded the company's transformation from a major social networking site into an 'advertising behemoth' (Zuboff 2019: 92).

Vaidhyanathan (2018: 57) elaborates upon the above by arguing that in order to successfully accomplish the mission of 'targeting advertisements deftly', Sandberg needed more and better data about what users did, thought, and wanted to buy. It is as a result of such an avaricious – and no doubt invasive – pursuit that Sandberg effectively embarked on initiating a series of expansions pertaining to Facebook's technologically mediated capabilities to both track and profile its users. While this form of commercial surveillance may be argued to be

5 It is directly in relation to this point that a compelling argument can be made as to how Zuboff's (2015; 2019) critical insights both corroborate and extend Foucault's (1977) initial insights into the *development* and *expansion* of the *panoptic schema* within the modern world, along with Deleuze's (1992) later argument pertaining to the *emergence* of *societies of control*.

almost harmless by itself as it is supposedly geared at establishing an "enhanced user experience" (a common narrative that Facebook's PR department likes to spin), this is not to be regarded as being the case whatsoever due to the fact that when such surveillance practices are critically gauged, they can definitely be defined as being highly invasive, coercive, unethical and exploitative (if not in some cases, verging on illegal)[6].

Importantly, there are other significant (and often overlooked) dangers that are inherent to Facebook's strategy of commercial surveillance. In particular, an immense danger that is inherent to – and in fact instrumental to – the success of Facebook's commercial surveillance strategy resides in the fact that for such a commercial endeavour to be effective, it requires users to continuously and effectively engage with the social media platform itself. To be more precise, for such a platform to effectively undertake its commercial surveillance operations, it requires the attentional/retentional reserves of the user to be almost constantly directed towards the social media platform itself so as to ensure that the user is regularly interacting with it. What this then implies is that a social media platform such as Facebook – and no doubt the countless others that have pursed such a strategy of accumulation – is inherently designed to capture, and then retain, the attentional/retentional economy of the user so as to ensure that constant exposure and interaction is achieved. As shall shortly be disclosed, it is this hijacking of the attentional/retentional economy that is to be regarded as being highly problematic for the user(s) of such platforms/devices as there are often an array of inimical and adverse outcomes that can be directly attributed to this novel form of attentional/retentional enthrallment of which the digital denizen may not be aware.

6 Vaidhyanathan (2018: 57) expands upon such a critical appraisal by noting that, more often than not, Facebook gathers and deploys much of this information without its users' knowledge or consent. Furthermore, Facebook does not offer its users a full view of how their various uploads, likes, timelines, shares and links are used. To compound matters even further, Facebook does not offer the user with clear and easy ways to exempt themselves from this pervasive, and no doubt, invasive, form of surveillance. As such, most users do not have a full picture of the depth and breadth of Facebook's insidious and invasive activities. Thus, from a commercial perspective, one of the chief dangers to result from the Facebook commercial surveillance system lies in the concentration of power.

The hijacking of the attentional/retentional economy

According to critical media theorists such as Jackson (2008), Turkle (2011) and Vaidhyanathan (2018), along with a contemporary critical philosopher such as Stiegler (2010), the notion of attention is a constitutive element of an individual's sense of being-in-the-world (*Dasein* in the Heideggerean sense). In basic phenomenological terms, it is the faculty of attention that actively stimulates one's consciousness and directs the thought process itself. Furthermore, Vaidhyanathan (2018: 80) goes on to note that "thought works in streams. If those streams are limited by duration or not allowed to stay steady and focused, *the power of that thought diminishes* [emphasis added]."

Bernard Stiegler (2010: 8) offers a philosophically nuanced and detailed analysis to demonstrate the critical importance of attention and the attentional/retentional economy to which it is intimately related. He proceeds from a phenomenological perspective, drawing explicitly from – and then expanding upon – the works of Husserl (and Kant) and his insights into how consciousness functions. Stiegler (2010: 8) begins by pointing out that according to Husserl's phenomenological analysis, conscious time is woven with what he (i.e. Husserl) refers to as retentions (i.e. that which is remembered/retained) and protentions (that towards which our anticipatory consciousness will be directed as a result of our personalised retentions), understood in relation to the 'now'-point of the (perpetually moving) present of consciousness. While the Husserlian link between that which is remembered (i.e. in the form a particular retention) and that towards which one's attention will – potentially – be directed in the future (i.e. in the form of a protention) is in itself a perceptive observation regarding how one's attentional capacity functions, such an insight invariably raises the more fundamental issue of how one is actually able to remember/recall something in the first place.

In order to elucidate the ability to retain and recall that which has been experienced in one's lifeworld[7], Stiegler (2010) introduces the Husserlian notions of the *primary* and *secondary* retentions. Simply put, a primary retention is to be understood as that which the mind apprehends when one engages with the world in the present moment (Stiegler, 2010: 08). Stiegler (ibid.) then goes on to argue that with all temporal sequences, any event or occurrence which has just been experienced in the present (i.e. the *now* which I have just experienced), immediately becomes the moment of a *particularised past* and a compositional feature in one's *personalised history*. Again, in very rudimentary terms, secondary

7 The notion of the 'lifeworld' is a Husserlian term that is employed in this context so as to describe the world that is given to us most immediately: the world-horizon in which we live without making it thematic *as* a world (Husserl, 1970: 379).

retentions can be said to be constituted by those primary retentions that one is able to recall, retrieve and thus, remember, i.e. *one's memory*.

It is directly in relation to the above that Stiegler (2011: 111) – drawing explicitly from the insights of the French theorist Gilbert Simondon – argues that only through the dynamic interplay that occurs between the primary and secondary retentions, are we actually able to 'individuate' ourselves. In very broad terms, Simondon's notion of psychic and collective individuation can be understood as the process by which one manages to constitute oneself as an *I* as opposed to a collective *We* (with which the I is nevertheless intimately associated). Through this process, the individual is thus able to create unique and personalised narratives pertaining directly to *his/her* experiences in *his/her* lifeworld (ibid.). It is in this regard that Stiegler (2011: 112) goes on to argue that what is retained – as a secondary retention – should also be understood as a "filtering mechanism" that then creates a personalised horizon of expectation (i.e. in the sense that it will influence where my attention will be directed in the future).

Over and above the aforementioned description pertaining to how one is able to attain a collection of secondary retentions that arise from the direct experiences an individual may undergo (in the form of primary retentions), Stiegler makes it clear that there is also another set of collective secondary retentions that one inherits even though they are of experiences one has not directly lived through oneself. According to Stiegler (2011: 112), this is the case for "everything of which I have been *told*, of that into which I have been *initiated*, or of that which I have been *taught*, of that which forms *education* and *instruction* and through which I *raise myself above myself* [...] [emphasis added]." Very importantly, it is these collective secondary retentions that constitute what Stiegler (2011: 112) refers to as a 'pre-individual fund' that then effectively serves to acculturate, socialise, educate and orientate the individual, while also acting as *collective secondary protentions* – which then filter and influence where a particular group's collective consciousness will be directed in the future.

It is in direct relation to the concept of collective secondary retentions, along with the pre-individual fund that they are said to constitute, that the Stieglerian notion of a *tertiary retention*, and the various *mnemotechnologies* (or memory-technologies) with which such a notion is associated, become very important. In order to make sense of the aforementioned claim, Stiegler (2010: 9) alerts the reader to the fact that a tertiary retention is to be understood as "a mnemotechnical exteriorisation of secondary retentions which are themselves engendered by primary retentions". Furthermore, Stiegler (2010: 9) states that "all technical objects constitute an *intergenerational support of memory as*

material culture [...] To this extent, therefore, tertiary retention always already *precedes* the constitution of primary and secondary retention" [emphasis added].

The preceding excerpts highlight the crucial Stieglerian insight that, over the course of human history, memory-technologies (mnemotechnologies) have come to play an increasingly important role in society, as they have effectively served as a wealthy repository for those collective secondary retentions that have been accumulated over the course of time (i.e. history). As such, these mnemotechnologies have served to facilitate, foster and guide the attentional/retentional economy – as *tertiary retentions* – of both the individual and the larger collective within which the individual operates. Moreover, these technologies constitute a major source from where the individual, and society, can acquire those pre-individual funds through which the processes of *acculturation, education and edification occur*.

Stiegler stresses that these mnemotechnologies – as tertiary retentions – have come to play an increasingly crucial role in the retentional/attentional economy of the contemporary individual and society at large. Thus, in what appears to be an updated, and phenomenologically modified version of Horkheimer and Adorno's ([1944] 1997) Culture Industry thesis, along with Marcuse's ([1964] 2002) critique of the ubiquitous sense of one-dimensionality that is plaguing society, Stiegler (2011: 113) argues – in a fashion that is also highly evocative of what Kellner (1989), Fuchs (2008) and Zuboff (2015 and 2019) have delineated above[8] – that the mnemotechnologies of the contemporary era have essentially been *usurped by the imperatives and ideologies of capitalistic gain*. For Stiegler, it is clear that this state of affairs has had an adverse impact upon the individual's attentional capacities, and by implication, their ability to acculturate, educate and edify themselves.

Much like the first generation of critical theorists had argued back in the 1940s and 1950s, Stiegler (2011: 113) maintains that this outcome – i.e. the usurpation and harnessing of such mnemotechnologies for the pursuit of capitalistic gain – has been achieved primarily via the "culture and programming industries" that are continuously devising sophisticated ways in which they are able to influence

8 While authors such as Kellner (1989), Fuchs (2008) and Zuboff (2015 and 2019) may not explicitly refer to the term 'mnemotechnologies' or 'memory-technologies' in order to describe the various technologies that they consider in their respective works, it can nevertheless be argued that the technological phenomena with which they deal does fall under the wider rubric of contemporary mnemotechnologies or memory-technologies (in the Stieglerian sense), and it is in this regard that their critical insights regarding such phenomena contribute rather significantly to Stiegler's overarching argument.

the attentional faculties of the contemporary individual.[9] These industries are thus in a powerful position so as to manipulate where the modern individual needs to direct his/her attention, and where such attentional/retentional capacities should remain. What this then means is that not only has the modern individual's attentional/retentional economy been forced to submit to the imperatives of capitalistic gain by these culture and programming industries, but, as Stiegler (2011: 113) aptly notes, from a future-oriented perspective, it also implies that 'every bit of collective secondary protention' is now essentially obliged to submit to the interests of investment.

According to Stiegler's (2011: 114) critical analysis, another major problem to arise as a direct result of this process, is that the contemporary individual – who is now constantly linked up to, and connected with, the vast array of mnemotechnologies that are associated with the 'hyperindustrial' epoch – is quickly losing the ability to individuate himself/herself. For Stiegler (2011: 114), this can be attributed to the fact that the contemporary individual is "internalizing the collective secondary retentions produced every day in production studios, in television studios, and in the *artificial living spaces* of reality television" [emphasis added]. This ultimately implies that consciousnesses, and the bodies they inhabit as their behaviours, are:

> more and more woven by the same secondary retentions and tend to select the same primary retentions, and hence to increasingly resemble one another. Thus branded, they seem to have little to say, finding themselves meeting less and less

9 It is crucial to be mindful of the fact that for the first generation of critical theorists (such as Horkheimer, Adorno and Benjamin), when they developed their various critiques and arguments pertaining to the communicational and reproductional technologies of their respective epoch(s) (i.e. 1930s, 1940s and 1950s), the 'technological demonstrations' which effectively served as some of the key mnemotechnologies of that era included the likes of photography, radio and film. As such, these technological and cultural mediums can, and no doubt need to, be updated so as to include and take note of the later technological developments including those of television (which Marcuse and Adorno would later come to comment on), the Internet, social media, social networking and digital broadcasting/streaming, texting, tweeting, Facebooking, etc. It is in this regard that there is a direct link and continuation between then works of the first generation of critical theorists and that of Stiegler.

> often, and cast instead into their solitude in front of screens[10] [...] [emphasis added] (Stiegler 2011: 118).

The hijacking of the attentional/retentional economy on social media platforms

When Stiegler's analysis and critique is applied to the digitalised domain of social media, it soon becomes apparent that such platforms (or what can, in a suitably Stieglerian vernacular, be referred to as "digitalised culture industries") are rapidly forging ahead in their pursuit to hijack and commandeer the attentional/retentional economy of the individual. This becomes particularly evident when one acknowledges how the invasive and insidious methods of big data analysis and surveillance capitalism have been directly applied to the world's largest social media platforms (as explained in section 3.1). Having noted the increasing levels of sophistication and technical intricacy associated with such digitalised practices of attentional/retentional hijacking and control, it becomes clear that social media has immense power to structure the personalised forms of acculturation, education and orientation that mediate and make individuation possible. I will now argue that these platforms negatively impact the digital denizen by limiting the possibility for individuation to occur.

Vaidhyanathan (2018: 80) notes that while attention may be regarded as an increasingly scarce resource in a day and age in which there are so many competing sources vying to capture it, it is also a particularly valuable resource – *especially when it is brief and shallow*. While such a claim at first glance appears paradoxical – since one may (reasonably) assume that a steady stream of attention is more useful/beneficial than a whittled-down adumbration of it – *from a commercial perspective*, this is not the case. The major reason for this resides in the fact that *people are more easily manipulated when their attention is fleeting* (Vaidhyanathan 2018: 80).[11]

10 Rossouw (2013) provides some further insight as to why this is the case by averring that in light of the fact that the pre-individual fund is *the* necessary precondition upon which the existence of autonomous individuals is to be founded, if such a fund were to be destroyed/manipulated – which is precisely what Stiegler sees as occurring as a direct result of the (hyper)industrial nature of the contemporary culture and programming industries – *it would invariably lead to the loss of individuation and the increase of herd-like behaviour*.

11 In practical terms, what this then means is that the billions of individuals who make use of the various social media platforms (on a daily basis) are more likely to be convinced – i.e. manipulated – to click on a link on a web page, application, or email *if their attention is shallow and short* (Vaidhyanathan, 2018: 80).

According to Vaidhyanathan (2018: 80), this has led to an ever-increasing mass of advertisers, marketers and associated third parties attempting to gain control of – and then command – whatever amount of 'brain time'[12] the user is able to provide. What has ultimately resulted from such an avaricious series of developments is the creation of a digital 'media ecosystem' that has become increasingly "polluted and fractured, [with] each player in it experiment[ing] with new designs, targeting strategies, and stimuli to steal attention and then hold it long enough to convince the potential customer to take some action" (Vaidhyanathan, 2018: 80).

Furthermore, when one is to quantify the staggering number of parties who are all attempting to redirect – or, on a less generous interpretation, steal – the limited amounts of 'brain time' that are actually available, the accumulative logic of the attentional/retentional market tends to generate a cacophony that, more often than not, overwhelms the individual, leaving his/her attentional resources in an emaciated state of exhaustion and disarray[13] (Vaidhyanathan, 2018: 80).

What this then implies, is that within the digital age of the 21st century – i.e. the era of surveillance capitalism – information is no longer to be considered as being a scarce or limited resource (as it indubitably was in those periods of history that preceded it); it is in fact, *far too abundant* (Vaidhyanathan 2018: 80). It is as a direct result of the over-abundance of information circulating by means of the

12 The term 'brain time' is borrowed from Stiegler (2011: 28), when he cites Patrick Le Lay, who in 2004 was the president of the French TV channel TF-1. In a documented interview, Le Lay asserts that:, 'there are many ways of speaking about television. But from a "business" perspective, being realistic, the base, *the job of TF-1, is to help Coca-Cola, for example, sell its product*.' [emphasis added] Le Lay continues by noting that for 'an *advertisement to be perceived, it is necessary that the brain of the tele-spectator be available. Our programmes are there in order to make this available, that is, to divert it, and to relax it, to prepare it between two ads. What we sell to Coca-Cola is available brain time*' [emphasis added]. While this particular report refers to how *television* operates as an attention-harnessing machine in order to sell 'brain time' to various companies, with the advent of social media giants such as Facebook and globalised search engines such as Google, we shall soon see how this process has been highly refined and modified so as to exacerbate and accentuate the dubious situation.

13 It is directly in this regard that Vaidhyanathan (2018:83) goes on to note that if the attention of the social media user becomes 'so completely harvested' that there is nothing more for them to give, how would/could they actually be expected to possess the critical facilities and faculties that are necessary to allow them to effectively discern between dependable and reliable news/information (that is actually aimed towards education, edification and cultivation) and that which is merely intended to placate, manipulate and control? As has already been argued above, with the growing sense of attentional/retentional overload on the part of the user, this ability to critically discern becomes increasingly difficult to engender and facilitate, with the prognosis of developing such a critical faculty looking ever bleaker, as these technologies of attentional/retentional control are continuing to develop and transform at an astonishing rate.

worldwide web and the digital domains of social media, that major online entities such as Google and Facebook have "benevolently" offered to

> help us manage the torrent of information around us by doing the work of *deciding what's valuable or interesting to us*. [...] Monetizing our captured attention [then] pays for the labor and technology that *enable Google and Facebook to filter the flood of information so effectively* (Vaidhyanathan, 2018: 81) [emphasis added].

Vaidhyanathan (2018: 81) points out that in accordance with the central tenets upon which surveillance capitalism is founded, Google and Facebook are the most successful of the set of firms that filter the tremendous amounts of information online so as to connect advertisers to potential customers.

From a critical perspective, this sense of success – from an information-filtration point of view – seems to imply that as the world's largest social media platform, Facebook (and no doubt those platforms that are either owned by Facebook, such as Instagram, Messenger and WhatsApp, along with those who have adopted similar business practices such as Twitter and YouTube) has an inherent tendency to coerce its two billion users to immerse themselves in – and essentially operate according to – the prevailing exploitative structures that constitute the capitalistic order of the contemporary period. This insight becomes particularly evident when one considers what it now means to socialise and interact on a meaningful basis in the digital day and age, i.e. by commoditising and recommoditising oneself on an incessant basis. This fusion of the personal/social, with the categories of the commercial, thus seems to be a predetermined requisite with regard to what meaningful socialisation and interaction entails within the current context.

With the convergence of the personal/social with the commercial, the notion of *personal privacy* clearly seems to have fallen by the wayside, and has become *yet another collateral casualty* in relation to the dominance that social media platforms now exert over the contemporary individual's lifeworld. It is in this regard that Turkle (2015: 262-266) notes that within the digitalised landscapes that the contemporary individual chooses to inhabit, the conversations that one may have traditionally thought of as being private – such as talking on the phone, sending email and texts – are now actually *shared with corporations that claim ownership over such data*. This is because, according to the service provider's logic, they afford the denizens of the digital age with the necessary tools to communicate, and as such, the behavioural by-products generated by such communicational practices should (rightfully) belong to them.

Furthermore, Turkle (2015: 262) notes that wherever the digital denizen lets their gaze fall online, they invariably leave a 'digital trace' that is now someone else's data. As such, Turkle (2015: 262) argues that

> [i]nsofar as we soul-search when we search the web and let our minds wander as we wonder what to read, what to buy, what ideas intrigue us, these introspective activities, too, belong to the company that facilitates our search. It mines them for data it finds useful now and saves them for what it might find useful in the future.

Such an incessant process of data divulgence (on the part of the user) and data extraction/evaluation/emission (on the part of the social media platform) then provides social media entities such as Facebook, Twitter, Instagram and YouTube with an astoundingly rich trove of useful and lucrative data that can then be sold to – and utilised by – any/all parties that may be interested in what this data may reveal. This then has major implications not only for how the attentional/retentional economy of the individual is being commandeered by such digitalised industries, but it also means that a social media platform such as Facebook (and its ilk) now possesses an unprecedented ability to continuously influence and steer the attention of the individual[14].

This technological feat has been effectively achieved via the incessant stream of information that the platform manages to extract from, and then direct towards the user, which the user, in turn, redirects *back* towards the platform (with this process of data extraction, evaluation and emission then constantly repeating itself). What is unprecedented with regard to how this sense of attentional/retentional control is now being achieved, particularly when compared with those methods that the culture and programming industries of the 20th century employed upon their audiovisual systems, resides in the fact that a social media platform such as Facebook (and the numerous others that have followed in its footsteps) is now effectively able to deliver personally tailored information to every single one of its two billion users, in what can best be described as being a "reciprocating fashion".

14 If one were to phrase this matter in suitably Husserlian/Stieglerian terminology, one could argue that as part of the mnemotechnologies of the digital day and age, the algorithms underlying social media's information/filtration capacities have – as tertiary retentions – managed to dictate/define both the *primary* and *secondary retentions* to which the user is exposed, while also managing to assume a *protentional function*, by explicitly guiding where the individual's attention/consciousness will be directed in the future. As such, these algorithms seem to have *completely usurped those mechanisms of consciousness that Husserl saw as being constitutive in the weaving together of conscious time.*

This sense of reciprocation has been made possible in light of the fact that such a process is explicitly facilitated by what each individual's UPI (User Profile Information) reveals about him/her. The content that is then generated and directed toward each user – based upon what has been gleaned from his/her UPI – is then further refined via the information-filtration and commercial-interconnection capacities of the underlying algorithms inherent to all of these platforms. Furthermore, due to the user's incessant involvement with the platform itself, such a predictive process can thus be said to be based upon a *continuous* strategy of classification and categorisation that is *always up-to-date* (in terms of the personal information it has at its disposal) and *nearly instantaneous* (in terms of its generated outcomes). This then implies that the personalised content being generated by the algorithms on Facebook is incessantly updated, modified and revised so as to ensure that the user's attention is in a *perpetual state of electronic enthrallment*[15].

While the preceding description of the processes pertaining to the attentional/retentional hijacking and control of the user of social media platforms, along with the extremely sophisticated methods of surveillance and behaviour modification that have been introduced to these platforms, may be considered exceedingly

15 In order to corroborate this crucial point, the reader needs to be mindful of the fact that Facebook has accomplished such an insidious, yet commercially effective, undertaking most powerfully '*by harvesting data about our behavior and preferences to ensure we see ads that Facebook's algorithms judge to be "relevant" to us*' [emphasis added] (Vaidhyanathan, 2018: 84). It is in fact for this very reason that, on 9 February 2009, Facebook introduced the – now universally recognised – 'Like' button (of a thumb pointed upwards), so that the platform's algorithms can continuously track what piques the user's attention/interest. Due to the immense effectiveness of this strategy, the platform later – on 24 February 2016 – introduced a number of additional emotive indicators, which they referred to as 'Reactions'. These emotive indicators (or "emojis") have been specifically created by the design team at Facebook in order to offer the user five different ways to interact with the various posts that they are exposed to. Such emotive reactions are now aimed at tapping into the sentiments of: Love (a heart-shaped button), Humour (a "Laughing-Face" button), Amazement/Awe (an "Awe-Struck Face" button), Sadness/Dismay/Unhappiness (a "Sad-Face" button) and Anger/Disgust/Antipathy (an "Angry-Face" button) (Stinson, Calore and Pierce, 2016). When viewed from a critical perspective that attempts to take note of how the attentional/retentional economy of the individual is being effected by such developments, one can argue that such a series of innovations can indubitably be seen as a refinement of the surveillance and monitoring tactics that have been adopted by Facebook so as to constantly track, monitor and assess the user's engagement with/and reaction towards the barrage of information that is constantly being directed towards him/her. Such emotive indicators have thus been carefully designed so as to gauge, with increasing levels of precision, exactly what appeals to the user and what does not. From the perspective of surveillance capitalism, *this has all been undertaken so as to ensure that he/she is (and will continue to be) preoccupied with what the platform has to offer.*

problematic from both an ethical and legal perspective[16], and while it has also been argued that such insidious and invasive processes have an inimical impact upon the individual's privacy and his/her ability to engage in a process of individuation, this is *not* – unfortunately – to be regarded as being the end of this worrying story. One therefore also needs to be mindful of the fact that there are other major *socio-political problems* that have emerged out of such an unprecedented situation. This is made particularly evident when one critically reflects upon how such social media platforms, along with the vast array of strategies aimed at hijacking and controlling the attentional/retentional economy of the user, *have now also been adopted by and introduced to the socio-political sphere of the 21st century*. Furthermore, not only have these strategies and practices been introduced into the political realm of the 21st century, they have also been adapted and modified so as to *continuously influence and penetrate the socio-political consciousness of the wider public* (Vaidhyanathan, 2018: 87).

Thus, just as commercial marketers and advertisers regularly make use of Facebook's surveillance-based strategies so as to target, track and monitor those users who are classified as being susceptible to their campaigns, along with the fact that they (i.e. these marketers/advertisers) are able to take full advantage of how Facebook's data processors continuously flex their information-filtration/commercial-interconnection capabilities so as to cluster together an ensemble of users based upon the nature of their interaction and engagement – *so too are such services now available, on demand, to any and all interested political*

16 The fairly recent revelations of Edward Snowden have vividly illuminated how social media platforms (including Facebook) have been utilised to facilitate several illegal and illicit surveillance operations (Greenwald, MacAskill and Poitras, 2013). Furthermore, Zhukova (2017) offers some additional details pertaining to the invasive, insidious and unethical nature of Facebook's interaction with its users by referring the reader to several behaviour modification experiments that Facebook has conducted (often without the knowledge consent of its users), including: 1) 'A Massive-Scale Emotional Contagion' in which 689 003 users were unwittingly involved; 2) 'Social Influence in Social Advertising' in which 29 million users were unwittingly involved; 3) 'The Spread of Emotion via Facebook' in which 151 million users were unwittingly involved; 4) 'Self-Censorship on Facebook' in which 4 million users were unwittingly involved, 5) 'Selection Effects in Online Sharing' in which over 1 million users were unwittingly involved; and 6) 'Social Influence and Political Mobilization' in which 61 million users were unwittingly involved. For more information regarding these and other experiments that Facebook has conducted in order to manipulate, surveil and exploit its users, see Zhukova (2017) *Facebook's Fascinating (and Disturbing) History of Secret Experiments*. Available at: https://www.makeuseof.com/tag/facebook-secret-experiments/

actors/influences (who are, of course, prepared to pay for them)[17]. From a socio-political perspective then, Facebook's algorithms are now able to effectively create an array of new categories, clusters and classifications that are exclusively *based upon the users' socio-political proclivities*. Such data can then be utilised by the various political entities who may be interested in such information, so as to *systematically focus/limit/extend the reach of their particular initiatives*.

From the perspective of the public sphere – as delineated by Habermas (1991) – such a contrived and curated scenario has major ramifications for how people are actually able to critically engage with one another. This issue comes to the foreground when one becomes cognisant of the fact that it is the very information, news and socio-political content that the individual is able to access that is being systematically compromised, altered and even concealed by these very platforms. This is due to the fact that it is the *developers and designers of these political campaigns who now possess the unprecedented ability to systematically decide who has access to such content*. The information-filtration/commercial-interconnection capacities of the various social media platforms that are currently available can therefore be utilised in such a manner so as to undermine the ability of individuals to access relevant information that may have a direct impact upon their lives, and thus prevent them from taking meaningful political action that is free from coercion.

Secondly, what is also of major concern in relation to the above, is the fact that due to Facebook's explicit decision to operate as a social media platform that unwaveringly provides each of its two billion users with information/content that its algorithms have deemed as being 'relevant' or 'applicable', this sense of 'algorithmic gate-keeping' invariably has a direct impact upon the actual nature

17 Baynes (2017) provides the reader with some telling insight as to how the realm of politics has converged with the digital domain of commercial surveillance as found on social media. Baynes (2017) does so by noting that the current president of the United States, Donald Trump, both defended and lauded his embrace and utilisation of social media platforms (including Facebook and Twitter) in the 2016 Presidential race. As such, President Trump has actually admitted that he firmly believes he would not have won the presidency race without the assistance of such services. In addition to elucidating how social media platforms are impacting upon the political affairs within the United States, it is also crucial to note that from the perspective of international politics, social media platforms such as Facebook, Twitter and WhatsApp have also proved to play a major role in the (successful) election campaigns of Rodrigo Duterte (the current president of the Philippines), Narendra Modi (the current president of India) and Jair Bolsonaro (the current president of Brazil) (Vaidhyanathan, 2018). The fact that all of these leaders have been described as adopting and aligning themselves with authoritarian and right-wing strategies so as to consolidate their power bases then also manages to highlight the indiscriminate manner in which social media platforms can be utilised in order to pursue the agenda of any/all political parties and agents who are willing to pay for the services that such platforms offer.

and format of the information/news that the user receives in his/her news feed (Morozov, 2013: 140). Morozov (2013: 143) provides the reader with some critical insight regarding this dubious matter by noting that the major online entities of the 21st century, such as Google, Facebook, Amazon, Twitter and Instagram, repeatedly insist that that their algorithms '*offer an unmediated and objective access to Truth*' [emphasis added]. However, as Morozov (ibid.) notes, the 'mirror' (of truth) to which these entities refer is actually an exceedingly poor metaphor for capturing the role that is being played by such online entities in today's public sphere. According to Morozov's (2013: 145) critical analysis, this is due to the fact that these companies do not merely reflect what they deem as being 'the truth', but they also *take an active part in shaping, creating, and distorting it* – and *they do so in numerous ways*.

According to Vaidhyanathan (2018:89) this "slicing of reality so as to create an entirely new one" can be attributed to the fact that it is the same logic that favours some advertisements over others, and some user-generated content (in the form of photos, posts, videos and questions) over other content on Facebook that also *influences the information and content (whether it be of commercial or political persuasion) that the users actually receive*. As such, it is yet again the notion of engagement – i.e. where one's attention is most likely to be directed, harnessed and commodified – that essentially determines the nature of the information/content to which the user will be exposed. Thus, while the commercial logic that underpins social media's algorithmic sense of information-filtration/commercial-interconnection has indubitably worked very well for product-placement and service advertising, when that same logic is extended and applied to all posts, irrespective of whether they are legitimate news or news-like items, or videos of cats on skateboards, the experience over time is one of a narrowing field of vision (Vaidhyanathan, 2018: 90).

What this then means, is that as time elapses and the algorithms underlying the information-filtration process manage to classify users according to their affiliations and affinities, the users of the platform start to see more items that have been posted by 'friends' and those online entities with whom they have 'richly engaged before' – along with those individuals/entities whom they choose to follow, 'like' or comment upon (Vaidhyanathan, 2018: 90). As such, the profile of each user is then classified and programmed in such a manner so as to receive more items, news feeds and articles that have been posted from publications or entertainment outlets with which they have engaged before, ultimately resulting in an unprecedented – and unnerving – scenario whereby the users of these social media platforms experience what Vaidhyanathan (2018: 90) refers to as 'funnel vision'.

This phenomenon of 'funnel vision' is actually what Pariser (2011) coined as being the 'filter bubble' which, more often than not, features on social media platforms. Pariser introduced the term in order to describe the situation whereby – as we have already seen – Facebook gives each of its users more of the sorts of items that they are likely to respond to with clicks, likes, shares and comments, thus pushing aside things that might not interest them. While such a process may not seem as being too invasive or problematic if the subject matter with which the user is dealing is considered as being either commercial or trivial, the *matter takes a very serious turn when socio-political matters are broached and considered*.

Morozov (2013: 147) corroborates Pariser's concerns by arguing that major online entities such as Google, Facebook and Twitter like to invoke noble terms like 'democracy', 'objectivity' and 'neutrality' so as to show that what their algorithms manage to compute, at near instantaneous levels, is in fact aligned with the ideals *of justice and redemocratisation*. Morozov (ibid.) is however quick to point out that this is indeed a very strange description and definition of democracy. Morozov (2013: 147) ratifies this claim by asserting that due to the fact that these very entities effectively act as the digital 'gatekeepers' to massive amounts of information that are available online within the current epoch, the scenario tends to depict, at best, '*more of an oligarchy than a democracy*' [emphasis added].

It is in this regard that Morozov (2013: 174) argues that for the democracy metaphor to work in the context of social media, 'democracy itself needs to be redefined'. In reality, then, Morozov (2013: 149) concludes by asserting that we need to accept that some of these new digital filters don't just refuse to reveal the 'whole truth' but, in fact manage to conceal it in an array of ways that our current internet culture precludes us from noticing. While it may be incorrect to generalise as to how social media platforms, and their users, have managed to forge impregnable 'echo chambers' and 'epistemic bubbles' that seal out divergent views, Vaidhyanathan (2018: 90) nevertheless maintains that

> it's reasonable to believe that our vision is narrower than it might otherwise be if we were not engaging with Facebook so often and about such important matters. The choices we make and the choices Facebook makes for us feed each other. *We are part of the system. The technology is not distinct from the culture, the politics, and the ideologies in which it operates* [emphasis added].

Conclusion

Within this investigation, the notion of the digital denizen and his/her relationship with modern informational and communicational technologies (ICTs) – including social media platforms and global search engines – has been closely scrutinised, with a particular focus directed towards how such a relationship has resulted in the emergence of big data and surveillance capitalism. This investigation then sought to elucidate the various strategies that the capitalistic enterprise of the 21st century has implemented via the various ICTs that now underpin extant society – in order to both harness and hijack the attentional and cognitive faculties of the digital denizen, so as to monetise every ounce of the attentional economy that the individual has to spare. As such, this investigation managed to highlight how this extractive process has resulted in the abject objectification and exploitation of the digital denizen, while also managing to result in a situation of attentional/retentional overload (on the part of the individual) which has resulted in the emaciation of the digital denizen's attentional faculties – ultimately placing them in a vulnerable position in which exploitation and manipulation can effectively take place.

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