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Digital Tendencies: Intuition, Algorithmic Thought and New Social Movements

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Abstract

With the rise of new digital, smart and algorithmic technologies, it is claimed, 'the human' is being fundamentally re-mediated. For some, this is problematic: digitally colonised by capitalism at the level of gesture, affect and habit, it is argued, we are now increasingly politically disaffected. There are also, however, more hopeful socio-political visions: Michel Serres (2015), for example, argues that, in delegating habits of mental processing and synthesising to digital technologies, millennials have honed cognitive conditions for a more 'intuitive' mode of being-in-the-world. While there is no necessary link between intuition and progressive social transformation, there are, this essay argues, significant resonances between the 'intuitive digital subjects' that Serres imagines and the logics and sensibilities of new networked social movements like Occupy and Black Lives Matter. Vitaly enabled by digital technologies, these activisms combine a tendency to oppose exploitation and oppression with a capacity to sense change *as it is happening* and thus remain radically open to alternative futures.

Keywords:

Algorithm, digital media, habit, intuition, networked social movements, pre-figurative politics.

With the emergence of new digital, smart and algorithmic technologies, it has been argued, we are witnessing a fundamental re-mediation of human habits, capacities and behaviour. In *Thumbelina* (2015), for example, Michel Serres argues that millennials are not only the first generation to experience the internet and related forms of digital media in their adolescence, but that they have also been comprehensively '[re]-formatted by the media', and, thus, 'no longer have the same body or behavior' as previous generations (2015: 5-6).¹ While 'Thumbelina' and 'Tom Thumb', as Serres affectionately names his millennial prototypes, are characterised by their profound affinity with digital technologies - their ability to send a text message (with their thumb) in an instant – they have limited 'faculty of attention'. Indeed, through their immersion since birth in mass media and advertising cultures, he writes, their attention spans have been 'meticulously destroyed' (5).² Although they 'can manipulate several forms of information at the same time', Serres' millennials 'neither understand it, nor integrate it, nor synthesize it as we do, their ancestors' (6).

Yet, as Serres contends, Thumbelina and Tom Thumb do not possess the same cognitive habits or capacities as their parents or grandparents because *they do not need them*: 'With their cell phone, they have access to all people; with GPS, to all places; with the Internet, to all knowledge' (6). Just as the advent of previous communications technologies—from the practice of writing itself, to the printing press, to the telegraph—transformed the workings of human cognition and memory (as they made the need to mentally store huge amounts of information redundant) (Malin 2014; Chun 2016), with the rise of digital media and smart technologies, 'this head has now mutated yet again' (Serres 2015: 12). Thumbelina does not have to work hard to gain or memorise knowledge, Serres argues, because 'it is already

¹ While *Thumbelina* extends Serres' rich analysis of the relationship between media technologies and the emergence of a new humanity in *Hominescence* (2001), his discussion here is more speculative and he provides little scholarly evidence to support his claims. Although he acknowledges that humans have always been 'formatted by media', Serres is interested in what might be distinctive about the forms of cognitive and embodied mediation that digital technologies, from social media to smart phones, entail. For more detailed empirical analyses of these techno-social dynamics, see Van Dijck 2013; Malin 2014; Twenge 2017.

² For example, a study by Microsoft published by *Time* magazine in 2015 claimed, based on surveys of 2,000 participants in Canada and EEG analysis of the brain activity of 112 others, that 'since the year 2000 (or about when the mobile revolution began) the average attention span dropped from 12 seconds to eight seconds' (McSpadden, 2015: online).

in front of her, objective, collected, collective, connected, accessible at her leisure, already reviewed and edited' (19-20). As such, Serres extends a long genealogy of media theory - from Marshall McLuhan and Friedrich Kittler to Bruno Latour and Donna Haraway - which has explored how various 'new' technologies act as 'extensions[s] of ourselves'; functioning to shape 'not only habits of life, but patterns of thought and valuation' (McLuhan [1964]1994: 1, 12).³

Although tertiary memory is vital to social and cultural transformation—as James Ash notes, 'when information is stored outside of human memory it can be reliably recalled into the future' (2015: 121)—in the context of late capitalism, it is also associated with more disquieting effects. For Bernard Stiegler, efforts by a range of cultural industries to manipulate the content of digital tertiary memory in the interests of profit generation have led to a 'fundamental disaffection on the part of people who become oversaturated by the media that swamp their lives' (2015: 121). This saturation, he suggests, has fundamentally transformed the 'functioning of the nervous system', reducing human attention span and hindering 'critical and creative thought' (2012: 186 cited in Ash 2015: 121). Digitally re-programmed to accede to the will of corporate capital, contemporary subjects are increasingly trapped within 'cycles of mindless consumption' (ibid) and thus estranged from engagement with the political concerns and complexities of everyday life - a prospect prophesied by McLuhan in his diagnosis of the new technology of his day: television. 'Once we have surrendered our senses and nervous systems to the private manipulation of those who would try to benefit from taking a lease on our eyes and ears and nerves', McLuhan argued, 'we don't really have any rights left' ([1964]1994: 15).

These perspectives on human cognition and behaviour in the digital age would seem to paint a rather bleak picture of the future of radical politics and affirmative social transformation. If, as the digital media scholar Wendy Hui Kyong Chung puts it, 'through habits users become their machines' (2016: 1) then it might be argued that our contemporary media habitus is producing an *army of automatons*: digital humans programmed in what Serres (2015) calls an 'algorithmic mode of thought.' An algorithm is 'a

³ See Durham Peters 2015.

finite set of instructive steps that can be followed mechanically, without comprehension, and that is used to organise, calculate, control, shape and sometimes predict outcomes’ (Coleman et al 2018: 8).⁴ In our current age of media analytics, an ever-growing swath of ‘our cultural experiences, social interactions, and decision-making are governed by large-scale software systems’ that operate via algorithmic procedures (Manovich 2013: online). Indeed, whether via the aggregative nature of social media, the filtering of results on search engines, or the dynamics of contextual advertising and automatic news production, algorithms have come to play an increasingly central role in everyday life. In this context, the term ‘algorithmic thought’ can be employed to refer not only to the ways in which people think *about* algorithms but also to how our intermeshing with algorithmic technologies may be *changing the nature of thought itself*.⁵ As we become increasingly algorithmically mediated by digital capital at the micro-level of affect, gesture and habit, the above perspectives imply, our embodied capacity for political resistance and solidarity may be progressively diminished - or even irreparably destroyed.

However, as this essay explores in an analysis that brings together theories of mediation, philosophies of habit and affect and writing on new social movements, these emerging digital forms of personhood are also subject to more hopeful political visions. Serres’ own account of Thumbelina’s techno-embodied capacities and their socio-political implications is actually, as I discuss in the first section of the essay, much more affirmative than it first appears. In delegating habits of mental synthesizing and processing to digital technologies, he suggests, millennials have honed cognitive conditions for the development of a more ‘intuitive’ mode of being-in-the-world. A key term in early twentieth-century continental philosophy, as well as contemporary affect theories, *intuition* offers a form of sensorial

⁴ The OED defines an algorithm as ‘a process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer’ (2018: online) – for example, the ‘promise to be able to identify the relations of AB in association with XY, where W is also present’ (Amoore 2013: 43).

⁵ Social and media scholars have been increasingly interested in how algorithmic technologies condition our very existence. This work addresses ‘the algorithmic imaginary’ constituted by how users ‘imagine, perceive and experience algorithms’ (Bucher 2017: 31) and ‘the extent to which people are aware that “our daily digital life is full of algorithmically selected content”’ (Eslami et al., 2015 cited in Bucher 2017: 31). But it also maps how the ‘algorithmic condition’ has generated ‘a practice-based shift in knowledge production and acquisition’, while producing ‘a logic’ which ‘alters the cultural and social reality it organises, through its procedural dynamics’ (Coleman et al 2018: 9).

engagement with ‘the pre-emergent’ or that which is in process. As the second section of the essay acknowledges, there is no necessary link between intuition and radical or progressive social change. Nonetheless, there are, I will suggest, significant resonances between the ‘intuitive digital subjects’ that Serres imagines and the logics and sensibilities of new networked movements for social justice such as Occupy and Black Lives Matter. Vitally enabled by digital and algorithmic technologies and forms of technè, these activisms practice ‘pre-figurative politics’: that is, as I argue in the third section, they combine a tendency to oppose exploitation and oppression with a capacity to sense change *as it is happening* and thus remain radically open to alternative futures.

While there is much to say about the differences between current networked social movements and the varying effects of the affordances of particular digital and algorithmic technologies across cultural and geo-political domains⁶, I do not provide detailed analysis of these issues here. Rather, this paper offers a more speculative account of how we might re-encounter the emergent relations among digital ecologies, embodied subjectivities and political praxis in Euro-North American social life. In a context in which associations between digital media, capitalist colonization and political disaffection have become automatic and smart phones and social media are widely assumed to be detrimental to young people’s subjectivity, thinking speculatively can open up and complicate these processes of mediation in ways that may help us to better imagine, sense and enact other possibilities for techno-social existence.

Habit, intuition and the sensation of change

Although *Thumbelina* describes millennials as having diminished capacity for sustained attention and conceptual thinking, Serres nonetheless proclaims that ‘this newly born individual is good news’ (2015: 5). What their cognitive re-programming via digital media has made possible for Thumbelina and Tom Thumb, he argues, is ‘*an innovative and enduring intuition*’ (italics mine, 2015: 19). That is, precisely because millennials no longer have to dedicate so much mental energy and neural capacity to gathering, storing and

⁶ See, for example, Fuchs 2014; Benkler et al 2018.

organising information, they may develop greater aptitude for a different, more intuitive, mode of being-in-the-world. In delegating habits of mental synthesizing and processing to digital technologies, Thumbelina and her peers are participating in the development of ‘new genius’ and ‘inventive intelligence’ – ‘an authentic cognitive subjectivity’ (19). Importantly, Serres’ point here, as I read it, is not that cognitive capacity works as a standing reserve - that it has a quota or operates as a zero-sum game - but rather that capacities (to affect and be affected) are *relational*: they are (re)produced via ongoing transactions between organisms and environments (Dewey [1922]2012).⁷ *Thumbelina* thus compels us to confront how the idea of ‘human-machine hybrids’ has taken on new significance in our digital age characterised by the rise of media analytics and algorithmic technologies.

To be sure, Serres’ view of the potentialities of such techno-cultural transformations could be described as unrealistic or utopian - and certainly in stark contrast to the much more prevalent reports of the damaging impact of digital culture on young people’s subjectivities and mental health. In her bestselling book *iGen*, for example, the psychologist Jean Twenge argues that the generation of American youth born in 1995 onwards, who ‘grew up with cell phones, had an Instagram page before they started high school, and do not remember a time before the Internet’, are ‘at the forefront of the worst mental health crisis in decades’ (2017: 3). Similarly, a 2017 study by the UK’s Royal Society for Public Health (based on a survey of 1,479 14- to 24- year-olds) reported that social media platforms including Instagram, Snapchat, Facebook and Twitter were experienced negatively by many young people who found that they functioned to ‘exacerbate body image concerns’ and ‘worsen bullying, sleep problems and feelings of anxiety, depression and loneliness’. At its worst, social media is linked to increased feelings of ‘self-loathing’ and a growing risk of suicide (Campbell 2017: online). Moreover, given everything we know about the pernicious

⁷ Serres does not draw directly on neuroscientific research to flesh out his claims. Indeed, it is not clear that mainstream neuroscientific frameworks would support the emergent intuitive subjectivity that he envisions. What is important to underscore here, however, is that Serres is working in speculative mode that aims to read dominant scientific claims against the grain to explore how they might *work differently*. As William Connolly writes in *Neuropolitics*, such a philosophy of science involves translating ‘findings into a perspective that is not entirely that of neuroscientists themselves’ (2002: 7). In this way, *Thumbelina* resonates with other critical engagements with contemporary neuroculture such as Tony Sampson’s *The Assemblage Brain*, which aims ‘not to uncover the mechanisms that determine the experience of conscious awareness but to politically grasp affective realms of sense making beyond the limits of locationist doctrines in philosophy and science’ (2016: xiv).

interaction of networked technologies with global capitalism, international securitisation, racial profiling, political interference in national elections, 'fake news', conspiracy theories, echo chambers, trolling, and so forth, such an *affirmative* engagement might seem wilfully blind to the more disturbing realities of our contemporary digitally-mediated world.

My argument, however, is that precisely because such accounts of the corrupting influence of digital technologies have become so pervasive, it is increasingly difficult to imagine how techno-social life could be otherwise. To start, I want to return to the term 'intuition' that Serres associates with the emergent digital subjectivities of millennials. As 'the ability to understand something immediately, without need for conscious reasoning' (OED: online), intuition is often connected with direct sensing, instinctive reactions and 'gut feelings'. Extending these everyday associations, the French philosopher Henri Bergson famously figured intuition as an experiential mode of engagement with the richness and flux of material life. Highlighting the difference between intuition and what might now be referred to as 'representational thinking', Bergson contrasts the sense of a town one would gain from viewing photographs 'taken from all possible points of view' compared to the visceral experience of walking through it. While there is value in both encounters, he suggests, the two can 'never be equivalent' because only the latter allows for the 'unity' of experience ([1903]1999: 22). Unlike 'analysis', which reduces objects to 'elements already known', intuition is, for Bergson, a form of immersive inhabitation which connects one with 'what is unique' and 'consequently inexpressible' in an object ([1903]1999: 24). It is embodied experience prior to, or in excess of, its translation into the parsing categories of representational and analytical thought.

What is also important for Bergson is that both we and the objects we encounter are never static, but rather always moving and becoming. Indeed, Bergson's 'philosophy is underpinned by an ontology of movement, transformation and process' that understands the world as 'fundamentally dynamic' (Coleman 2008: 111). Within this framework, intuition allows us to appreciate that which is *in process*: It is, as Sarah Kember and Joanna Zylinska put it, 'a moment of our own duration that enables us to connect with a wider one' (2012: 15). Bergson's interest in temporality and mobility, as well as the non-representational thrust of his approach, resonates with more recent work associated with

the 'turn to affect'. As Greg Seigworth (2006) notes, although the Welsh cultural theorist Raymond Williams did not draw on Bergson explicitly, his analysis of 'structures of feeling' has much in common with Bergsonian intuition. Both thinkers were interested in how we encounter 'pre-emergent' social and material forces and relations; in how we become attuned to that which hovers 'at the very edge of semantic availability' (Williams 1977: 134 cited in Seigworth 2006: 112). In other words, Bergson and Williams each explored how it might be possible to sense change *as it is happening*.

This intuitive approach to engaging 'things that are in motion and that are defined by their capacity to affect and be affected' is perhaps most potently put to use in the cultural theorist and anthropologist Kathleen Stewart's *Ordinary Affects* (2007: 4). Through inhabiting the varied sensations of everyday life - from the feeling of being part of the mainstream to the lived textures of racism - Stewart seeks to interrupt the automatic 'jump to representational thinking and evaluative critique' (2007: 4). Similar to Bergson and Williams, she is interested not in processes of demystification 'that support a well-known picture of the world' but rather in 'speculation, curiosity and the concrete' (1). In socio-political terms, what is vital about Stewart's approach - and *intuition as method* more generally - is its ability to register that which *exceeds* weighty terms such as "neoliberalism", "advanced capitalism", "liberal democracy" or "populism" and yet nonetheless 'exert[s] palpable pressures' (3). That is, intuition's capacity to viscerally grasp how "the social" and "the political" are much more fragile, ambivalent and mobile than our concepts to explain them could possibly convey.

What, then, might be distinctive about the workings and implications of intuition in the digital age? This is a salient question given that, as Rebecca Coleman notes, for Bergson, 'true intuition' was 'an empiricism' that implied the need for direct embodied experience rather than technologically-mediated perception (2008: 112). Returning to Thumbelina, she is, on the one hand, skilled in a mode of algorithmic thought that seems antithetical to the kind of affective inhabitation that Bergson, Williams and Stewart advocate. When asked 'what beauty is', for instance, Thumbelina responds not with an incisive unpacking of the concept, or a rich description of its felt qualities, but rather in the manner of a search engine: 'a beautiful woman, a beautiful dance, a beautiful sunset...' (Serres 2015: 42). On

the other hand, what Thumbelina's endless list of examples may be seen to express is a resistance to unnecessary or stultifying abstraction. As Serres suggests, Thumbelina and Tom Thumb seem to understand intuitively that, while conceptual thinking has its place, 'we do not have an ineluctable need for concepts' and that there is value in lingering 'as long as necessary in narratives, examples, singularities – the things in themselves' (2015: 42-3). As such, although their experience of the world is continually mediated via networked technologies, these 'new humans' would seem to excel at the very kinds of more-than-representational thinking Bergson associated with intuition as method.

From this perspective, we can begin to appreciate how, precisely because they are not preoccupied by a particular kind of analytical labour, Thumbelina and her millennial peers may hone their capacity to sense that which 'exceeds and overflows the intellect' (Seigworth 2006: 118) – to engage those moving forces that escape the analytical purchase of our most prominent socio-political concepts. In doing so, these emergent digital subjects might also helpfully illuminate the ways in which, as Stewart suggests, 'politics starts in the animated inhabitation of things' (2007: 16). Or, as Coleman puts it, citing Bergson, the only way to know a thing is to 'enter into it' intuitively – a process that involves moving beyond 'the ready-made conceptions which thought employs in its everyday operations' (Bergson [1903]1999: 37 cited in Coleman 2008: 105, 112).

What I am suggesting here, then, is that the 'authentic cognitive subjectivity' that Serres speculatively attributes to Thumbelina and Tom Thumb is characterised by two key features: first, an emergent capacity for intuition (made possible, in part, through the delegation of human memory functions to digital technologies) which pushes against dominant modes of representational thinking to *connect with moving events as they unfold*, and, second, an algorithmic mode of thought (conditioned by our growing intertwinement with computational technologies and media analytics) which is *procedural, technical, calculative and data-oriented*. While Thumbelina's intuitive orientation attunes her to change as it is happening, and thus the potential inherent in the present for things to be otherwise, her algorithmic aptitude allows for a more precise 'arraying of possibilities such that they can be acted upon' in the future (Amoore 2013: 23).

Importantly, these newly ascendant cognitive and affective features continue to work in and through multiple other human modes of sensing, perceiving, thinking and acting – including more conceptual, analytical and representational registers. The rise of algorithmic thought, from this perspective, does not inevitably function to erode young people’s abilities to engage contextually, critically and politically. Rather, in its articulation with intuition, speculation and the pre-emergent, it might constitute a vital form of ‘quantum literacy’ – a ‘novel literacy’ which enables millennials to navigate shifting networked relations across (non-linear) time and (non-bounded) space and to recognise the ‘principle inadequacy of thinking about numbers and letters, mathematics and language, as two separate domains’ (Coleman et al 2018: 8).

Of course, Thumbelina and Tom Thumb are themselves abstractions – in ‘reality’ they exist only in the multiple; at lived intersections of gender, sexuality, race, class, ability and nation, and the various material, social and geo-political differences and inequalities such shifting relations entail. To the extent, however, that Thumbelina is a *useful* abstraction to think through, she compels us to deconstruct dualistic figurations of millennials as either apolitical automatons or overly-sensitive ‘snowflakes’. Indeed, from Serres’ perspective, ‘the new democracy in knowledge’ that digital media and tertiary memory offer - and which Thumbelina and Tom Thumb both cultivate and rely on - corresponds to a political ‘democracy-in-formation’ that will soon ‘become inescapable’ (2015: 55).

Movement, affect and digital activism

There is clearly no necessary link between intuition and socio-political change in the interests of freedom and social justice. As an embodied capacity and form of relationality, intuition is, in principle amenable to mobilisation by ‘progressive’ and ‘regressive’ ideologies alike. For example, as the political geographer Louise Amoore (2013) explores, a ‘politics of possibility’ premised on intuitive engagement with pre-emergent flows and relations characterises not only certain strands of continental philosophy and cultural theory, but also practices associated with capitalist financialization and international securitization. Algorithmic processes, moreover, are increasingly associated with problematic socio-

political patterns and prejudices. Safiya Umoja Noble argues, in this vein, that algorithms created and employed by global platforms such as Google are ‘serving up deleterious information about people, creating and normalizing structural and systematic isolation, or practicing digital redlining, all of which reinforce oppressive social and economic relations’ (2018: 10).

As such, I do not wish to downplay the importance of engaging critically with mobilisations of intuition and algorithm that perpetuate dominant relations of power and violence. Keeping these political dynamics in mind, however, I also seek to complicate narratives that associate digitally re-mediated forms of personhood predominately with capitalist colonialization and political apathy - or interpret engagement with the pre-emergent primarily as a mode of violent capture - to explore how these phenomena have the potential to be conducive to more affirmative modes of political relationality and solidarity.

In particular, there are, I want to suggest, significant resonances between the ‘intuitive digital subject’ that Thumbelina represents (or may become) and the logics and sensibilities of contemporary networked movements for social justice – including Occupy and Black Lives Matter as well as various feminist, queer, trans and anti-fascist mobilisations gaining momentum in the wake of Trumpism. As the ‘movement’ in social movement signifies, these forms of collective action and solidarity are continually *in process* – evolving and transforming as they attract new members and respond to unfolding events and emerging socio-political and environmental conditions. To the extent that ‘being moved’ is a necessary catalyst for participation in, or alignment with, particular political visions or ways-of-being-in-the-world, these new forms of activism (like older ones) are also highly *affective* – they are both fuelled by and productive of ‘bodily intensities, emotions, feeling, and passions’ (Gould 2009: 3). What is perhaps most distinctive, however, about current forms of ‘progressive’ political mobilisation is their *digitally networked* nature.

Extending technological techniques pioneered by the Arab Spring, the Occupy movement, launched in New York City in 2011, used a range of digital platforms and networks both to ‘spread the word’ and to coordinate embodied activity as it unfolded. As Paulo Guerbadó argues in his comparative analysis of the Arab Spring, Occupy Wall Street and the

Indignados movement in Spain, social media within new protest cultures are not simply means to ‘convey abstract opinions’; they also enable forms of *affective choreography* that give shape to how people feel, move and act together (2012: 13). Across these various networked movements, social media, and particularly Facebook and Twitter, have been ‘instrumental in instigating an emotional condensation of people’s anger’ and ‘acting as a spring-board for street-level agitation’ (2012: 15). Digital platforms and applications have also enabled protesters to re-direct crowd activity in real-time to avoid the containment strategies of authorities. During the student protests against the increase in UK university fees in 2011, which was linked in with Occupy UK, for example, a new digital app ‘Sukey’ enabled activists to avoid police kettleing in London by allowing them to both ‘submit and access information about which road junctions are clear and which are blocked by the authorities’ (Geere 2011: online).

Various digital technologies and forms of techné have also, of course, been vital to the emergence and effectivity of the Black Lives Matter (BLM) movement. Since its inauguration in 2013, BLM has, as Barnor Hesse and Juliet Hooker discuss, harnessed social media to ‘organize, heighten immediacy, and widen the scope of the public that acts as witness to the disposability of black lives’ (2017: 451). While repeated exposure to violent images tends to be associated with political desensitization and disaffection (Ash 2015; Pedwell 2017b), BLM’s mobilisation of a ‘continuous loop of viral videos showing police killing unarmed blacks’ has made ‘viscerally accessible’ to millions worldwide the habitual violent targeting of black bodies by the carceral state (Hooker 2017: 491) in ways that have intensified (rather than dissipated) collective anti-racist affect and activism. Moreover, Twitter hashtags such as #Ferguson, #Baltimore and #Cleveland (associated with the police killings of Michael Brown, Freddie Gray and Tamir Rice respectively) have functioned not only to expand the movement’s evolving digital network but also to convey instantaneous ‘information about unfolding events’ (Bonilla and Rosa 2015: 8) - thus enabling BLM to connect with and respond to *that which is in process*.

The fluid intersection of ‘the moving’, ‘the affective’ and ‘the digital’ characterising these movements, I want to suggest, is precisely the terrain with which Thumbelina’s combination of intuitive sense and algorithmic thought resounds. If intuition is ‘a moment of our own

duration that enables us to connect with a wider one' (Kember and Zylinska 2012: 15), Thumbelina is primed for this union. As Serres notes, Thumbelina and her millennial peers, via their propensity for movement and action, are ready to connect with moving events – to resonate with the rhythm of bodies coming together to occupy space, to protest the status quo and to engage 'the modalities of the possible and the contingent' (43). Although, as Sara Ahmed (2014) underscores, the embodied cadence of social movements is not simply about synchronicity: It may also involve the sensation of being 'out of time' with the mainstream.

Moreover, if Thumbelina's capacity for intuition attunes her to the mobility and affectivity of new social movements, her algorithmic capacities align her with the digital modes of communication and choreography central to these networked activisms. Indeed, in Serres' view, 'the objective, the collective, the technological, the organizational' now 'depend far more on this algorithmic or procedural cognition' than they do on 'the declarative abstractions' of 'philosophy' (2015: 71-2).⁸ This is not to invalidate the ongoing salience of conceptual and analytical thinking but rather to highlight what may be generative about algorithmic thought in an intellectual and socio-political context where it has been consistently devalued or aligned exclusively with that which is politically and ethically suspect. Think, for example, of the powerful (if contentious) political function of algorithmic practices of listing, counting and cataloguing within contemporary digital activisms – whether via the collective naming online of alleged sexual abusers by the #MeToo movement, or the real-time tally of unarmed people of colour killed by the police in the United States maintained by BuzzFeed and Gawker in solidarity with #BlackLivesMatter.

Indeed, the 'hashtag activisms' associated with these and other contemporary movements can be considered vital forms of *algorithmic politics*. As Yarimar Bonilla and Jonathan Rosa discuss in their digital ethnography of BLM and #Ferguson, in the immediate aftermath of Michael Brown's death, social media users 'well aware of the algorithmic nature of Twitter' were 'purposefully hashtagging to make Ferguson "trend"' (2015: 7). Such aggregative practices allowed Brown's murder to be connected to the perceived 'expendability of black

⁸ See also Durham Peters 2015.

bodies' underlying a multitude of past killings of people of colour by law enforcement in the United States (2015: 10). They also, however, facilitated connections with wider social and geo-political struggles - through tweets such as '#Egypt #Palestine #Ferguson #Turkey, U.S. made tear gas, sold on the almighty free market represses democracy' (2015: 10, 6) – enabling opportunities for transnational collaboration and solidarity (Hesse and Hooker, 2017).

Significantly, while such algorithmic dynamics enable the itemising, indexing and interlinking of 'the quotidian struggles against dehumanization every brown and black person lives simply because of skin color' (Rankine 2015: 14), they also offer potent opportunities for reimagining black materiality beyond mainstream mediations. For instance, through memes such as #IfTheyGunnedMeDown - in which young people of colour posted two contrasting photographs of themselves along with the text 'which one would they use' (referring to which image authorities and mainstream media would print if they were killed by the police)⁹ – Twitter users were able to 'contest the racialized devaluation of their person' and 'rematerialize their bodies in alternative ways' (Bonilla and Rosa 2015: 9). More generally, BLM's intersectional ethos, and its intertextual articulation with other feminist, queer, trans and anti-capitalist movements online, has enabled 'the complexity of black lives inscribed differently and multiply ... to be seen, heard, and encountered politically' (Hesse 2017: 600) – illustrating how algorithmic politics are not simply antithetical to political complexity and expansiveness.

Political tendencies and pre-figurative politics

Of course, there is no guarantee that the emergent cognitive and embodied features Serres ascribes to Thumbelina and Tom Thumb will orient millennials towards participation in progressive or left-wing movements rather than politically conservative, or even fascist, forms of mobilisation. It is clear that the 'alt right' and other forms of fascist politics aligned

⁹ For example, '18-year-old Houston native Tyler Atkins ... posted a picture of himself after a jazz concert in his high school, wearing a black tuxedo with his saxophone suspended from his neck strap. This was juxtaposed with a photo taken while filming a rap video with a friend, in which he is wearing a black T-shirt and a blue bandanna ties around his head and his finger is pointed at the camera' (Bonilla and Rosa 2015: 8).

with Trumpism have adopted similar digital techniques and strategies to those employed by progressive movements for social justice. As Yochai Benkler et al discuss in *Network Propaganda*, alt-right memes are amplified by major right-wing outlets such as Fox News in the US, which 'are adept at producing their own conspiracy theories and defamation campaigns' (2018: 13). Consolidating 'long-term changes in American politics' and 'the already present asymmetric architecture of news media' (2018: 21, 2), such digital dynamics leveraged a media ecosystem ripe for the violent re-emergence of far-right ideologies.

However, if regressive and fascist politics depend on rigid identity positions and seek a return to exclusionary version of an imagined 'the past' (i.e. 'Make America Great Again' and the colonial nostalgia of 'Brexit'), many of the new broadly leftist activisms are characterised precisely by their *openness* to the future – that is, by a deep commitment to pursuing democracy, freedom and solidarity that does not assume that we can know deterministically in advance what 'social justice' might constitute in a given context or indeed how, specifically, it might be delivered. As such, these various, broadly leftist, forms of political mobilisation can be considered part of what the political thinker and activist Chris Dixon calls '*another politics*': a shared politics bound together not by political party affiliation or sectarian lines, but rather by a '*political tendency*' – a tendency aligned with 'a rich democratic vision of everyone being able to directly participate in the decisions that affect them' and resistant to 'all forms of domination, exploitation and oppression' (italics mine, 2014: 6, 3).

The term 'tendency', as 'an inclination towards a particular characteristic or type of behaviour' (OED: 2017), conveys both a likelihood to lean in a particular direction and a propensity to act. Proceeding via 'inclination' rather than determination, tendencies coordinate habits and capacities to provide focus and propulsion, *yet not fixity*; they are flexible and responsive, rather than rigid and deterministic. Political tendencies, then, can be understood as evolving assemblages of habits which work in an anticipatory mode, but one that is *intuitive* and *speculative* instead of predictive and calculative – and are thus capable of connecting with 'a moving world' (Dewey [1922]2012: 83) and sensing the potentiality of that which 'has not yet come' (Williams 1977: 130). In other words, while we may associate the term 'tendency', like 'habit' and 'habituation', with the automatic

reproduction of the status quo (Malabou 2008; Pedwell 2017a, b, c), political tendencies are simultaneously what enable the potentiality of different futures.

From this perspective, if many of the movements which comprise the political tendency Dixon describes are not led by a clearly defined set of policies, goals or 'end-points' (which was, of course, one of the dominant critiques of Occupy), this is, in part, because they appreciate the importance, in a complex and shifting social world, of sensing and responding to change *as it is happening*. Moreover, they understand the political risks, as John Dewey puts it, of simply 'substituting one rigidity for another' ([1922]2012: 52). As an alternative to more rigid or essentialist modes of political mobilisation, these movements enact a 'pre-figurative politics' which aims to 'manifest and build, to the greatest extent possible, the egalitarian and deeply democratic world we would like to see through our means of fighting in this one' (Dixon, 2014: 7). As such, they highlight the vital links between social change and the affect, gestures, habits and solidarities of daily life. They pursue a 'politics of habit' and 'politics of feeling' that are, as Ann Cvetkovich puts it, 'manifest not just in overt or visible social movements of conventional politics but [also] in the more literal kinds of movement that make up everyday life' (2012: 199).

Consider, for example, not only Occupy, but also other anti-capitalist movements including the Indignados of Spain and the Outraged of Greece, which have repeatedly assembled to protest neoliberalism and austerity. As Judith Butler and Athena Athanasiou discuss, in performing habits and routines of everyday life in the public space of the square - sleeping and living there, cooking for one another, working remotely together - 'taking care of the environment and each other' - such activists are pursuing pre-figurative politics; they are cultivating 'the relations of equality that are precisely those that are *lacking* in the economic and political domain' (2013: 102). This 'ordinary and rather undramatic practice' of assembling together in public, Butler and Athanasiou suggest, actualises 'the living register of the event' (102); illustrating how social movements are not simply about constant motion and flux; they are, more precisely, about duration: the interplay between continuity and change (Bergson [1903]1999). While calling attention to the insidious harms of neoliberal governance and induced precarity, such performative practices also *constitute* collective relations and capacities which might support a range of immanent political possibilities.

If pre-figurative politics are unfolding in public squares around the world, they are also ongoing within a multitude of digital spaces and circuits – via practices of tweeting, meme-making, blogging and virtual community-building. Bonilla and Rosa, for instance, highlight the experience of a 25-year-old American protestor, Johnetta Elzie, who first encountered other activists online, with whom she ‘live-tweeted, Vined and Instagrammed’ every BLM protest in Ferguson during the summer of 2014 (2015: 10). Coming to call themselves ‘Millennial Activists United’, these social media users eventually expanded ‘their role from “documenting” their actions to “generating” new forms of community’ – including the use of the hashtag #Ferguson Friday to curate a weekly digital space for political reflection and ‘national “fireside” conference calls during which activists based in Ferguson could speak directly with those following the events from afar’ (2015: 10). In addition to ‘forging a shared politics through struggle’ transnationally (Dixon 2014: 3), these kinds of digital practices enable millennials to develop vital political *techné* - the embodied skills, techniques and habits of ‘doing politics’ online (Rentschler and Thrift, 2015). Such ‘learned and socially habituated way[s] of doing things with machines, tools, interfaces, instruments, and media’ (2015: 241) are amenable to mobilisation for multiple, yet to be imagined, political enactments.

In practical terms, this intuitive and speculative approach to politics is enabled, in part, by these movements’ networked qualities, including the capacity of digital and algorithmic media to connect members to *moving events as they unfold*. Much has been written about the propensity of social media to produce ‘echo chambers’ that polarize ideological differences rather than exploring what might be potentially generative about their grey areas (Miller 2017, Benkler et al 2018). Through a pre-figurative lens, however, we can alternatively consider how the immanent, ‘real-time’ dynamics of digital media might enable (potential) activists to ‘learn and act in the midst of ongoing, unforeclosed situations’ (Anderson 2017: 594). This is significant because, as the philosopher Erin Manning argues, it is through inhabiting the gestures, habits and relations of life *in process* that we can discern and exploit the potential for dominant cultural and socio-political tendencies to *become otherwise*. As such, we can consider how these movements have the capacity to leverage the affordances of digital technologies to pursue a pre-figurative politics that remains

attuned to the *potentialities pulsating within the actual* – thus ‘opening the way for new tendencies to emerge’ (Manning 2016: 8).

Of course, we know that the algorithmic dynamics of social media mean that results *tend in certain directions* and thus the forms of socio-political becoming that digital media might support are by no means open or unlimited - a reality that makes ongoing work to expose and contest ‘algorithmic oppression’ and the pernicious links between digital media and capitalism increasingly vital (Noble 2018; see also Fuchs 2014). Yet, for movements such as Occupy and BLM, staying ‘in the midst’ of socio-political and material relations in process (Manning 2016) also means recognising that there is no *politically pure* position from which to operate *outside* the dynamics of neoliberalism or racial capitalism. Rather, what is required are means of working speculatively within existing (infra)structures and relations of power to reorient the tendencies that comprise them. In this vein, one of the strengths of the pragmatic coalitions that algorithmic technologies enable is that they are flexible and responsive and can form and recalibrate tactics as situations unfold – thus potentially ‘mobilis[ing] a lithe and powerful response able to resist, rework, and undo [hegemonic] social relations and practices’ (Katz 2017: 598). In providing a running archive of the affects, gestures and habits of everyday life, social media may also aid activists in developing modes of intervening in ‘racial capitalism or patriarchy’ that more viscerally grasp how these structuring socio-political forces *work* - how they feel and take shape across particular contexts and sets of relations (ibid; see also Stewart 2007).

What is perhaps most important from a pre-figurative perspective is that networked projects of social justice remain ‘in process and unfinished, something that consciously pushes beyond available political categories, and yet something that can be shared, held in common’ (Dixon 2014: 6). It is precisely this kind of openness, inclusivity and processuality, I want to suggest, that constitutes the power of Occupy and Black Lives Matter as movements, statements and rallying calls. As Nicholas Mirzoeff argues, ‘to say “Black Lives Matter” is to reopen the dialogue about blackness, while taking action to insist on the presence and value of Black people’ (2017: 175). When those marching, occupying, filming or live-tweeting *repeat* ‘Black Lives Matter’, he suggests, the ‘sense of being present in a particular space is evoked and remains open’; the *reiteration* ‘makes common a way to be in

the future' that is 'always becoming, always in formation while being site-specific' (2017: 33, 92). Indeed, the formal similarity and repetition across BLM's actions, enabled partly by its powerful mobilisation of algorithmic technologies, 'shifts them from being simply protests ... to becoming pre-figurative invocations of what *anti-anti-blackness* would look like' (italics mine, 86-7). As Barnor Hesse suggests, in mobilising around the visceral materiality of 'black lives' instead of 'civil rights, human rights, or black rights', BLM signals its participation in a wider '*black life politics*' that aims to cultivate habits and 'capacities that release black life from being diminished in the racial instrumentalities of subordination, segregation, or socialization' (2017: 600). At the same time that it digitally tracks the quotidian denigration and destruction of black lives, then, BLM mobilises networked technologies to imagine and enact new material potentialities for *black life* beyond the status quo.

With respect to temporality, pre-figurative politics are oriented towards the future – to the possibility of 'becoming otherwise' (Deleuze and Guattari 1994) – yet they are materially grounded in the experiential flows, relations and struggles of *the present*. Nonetheless, and crucially, pre-figurative approaches do not operate through historical erasure, nor do they prioritise unity or uniformity over disagreement and difference. Indeed, acknowledging *how the past lives on in the present* - through habits of privilege, power and violence (Pedwell 2017a) is central to the affective, digital and political labour with which Thumbelina and Tom Thumb may seek to engage. 'Shared political tendencies' (Dixon 2014) then, do not, *and cannot*, signal the eradication of social, political, culture and economic *difference*. Moreover, as Ahmed underscores, 'there is no guarantee that in struggling for justice we will ourselves be just'; as such, we need to 'temper the strength of our tendencies with doubt; to waver when we are not sure, or even because we are sure' (2017: 6-7).

Conclusions

Drawing on *Thumbelina* (2015) for speculative inspiration, this essay has sought to complicate the pervasive linking of digital media with capitalist colonization and political disaffection – as well as the assumption that digital culture necessarily has corrosive effects

on young people's affects, habits and subjectivities. Expanding on Serres' account of millennials' affinity with digital technologies making possible more intuitive techno-embodied dispositions, I have explored the suggestive resonances between Thumbelina's mix of intuitive sense and algorithmic thought and the tendencies of new social movements such as Black Lives Matter and Occupy. Millennials have been at the heart of these emergent activisms in part, I have argued, because they practice forms of pre-figurative politics that combine 'the moving', 'the affective' and 'the digital'. While exploiting the aggregative and inter-textual capacities of algorithmic media to live-chronicle everyday inequalities and choreograph collective action and affect, these movements also cultivate transformative relations, capacities and forms of *techné* with the potential to actualise pre-emergent political and ethical futures.

The more general idea that I have begun to address through my speculative engagement with the possibilities inherent in the figurations of Thumbelina and Tom Thumb is that embodied and socio-political change is continually unfolding through ongoing processes of *mediation* - multiple, overlapping, non-linear processes that work primarily at the level of affect, sensation, gesture, habit and tendency. 'The digital' and 'the algorithmic' are central to such dynamics; indeed, we are all now 'digital humans' – but what this means (or has the potential to mean) materially, politically and ethically is not straightforward, pre-determined or easily predictable. It may, however, be through cultivating a more intuitive mode of engagement with everyday life that we are better able to sense and apprehend these kinds of transformations as they are happening - and the potentialities for becoming otherwise they entail.

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