Rethinking Digital Democracy

From the Disembodied Discursive Self to New Materialist Corporealities

Abstract: To understand what digital democracy is, this article suggests looking at the individual level of democratic subjectivity and ask: Who are we in digital democracy? It revisits the poststructuralist inspired debate about cyberdemocracy in the 1990s, which conceptualised the democratic subject as disembodied self, reifying through textuality in cyberspace. In contrast, current debates on new materialism offer novel perspectives with attention to the materiality of bodies and things. New materialist perspectives have been fruitfully incorporated by media and communication studies for social interaction online, but they have yet to be incorporated by democratic theory. By discussing three examples of political online participation, in which users materialise their bodies as classed, raced, and gendered, this essay contributes to a novel understanding of embodied democratic subjectivity in the Information Age.

Introduction

In just about two decades, digital communication has become a central, yet invisible factor in current societies. The fact that we are surrounded by screens of smartphones, tablets, smartwatches, laptops, smart TVs, electronic check-out counters in supermarkets etc. goes almost unnoticed and lets digital communication become a naturalised part of our social interaction. As we immerse in big data clouds of the Internet of Things, the dynamics not just of social but also of political interaction change. The term "digital democracy" is often used to refer to forms of political engagement like electronic voting, e-campaigning, online sit-ins, digital forms of disobedience, online demonstrations, and e-deliberation. I contend, however, that digital democracy goes far beyond this. What has been dismissed as "clicktivism" by some, is part of a complex and deep reconfiguration of democratic subjectivity through processes of everyday cyborgization (Asenbaum 2017). Just as human and machine integrate and converge, so do online and offline spheres of interaction (cf. Gerbaudo 2012). Thus, digital democracy as political participation on- and offline in the context of profound social and cultural shifts is only comprehensible by examining the reconfiguration of democratic subjectivity.

While common conceptualisations of digital democracy focus on macro-processes of political participation on the internet (cf. Dahlberg 2011), I propose to look on the micro-level of participation and examine the individual, the democratic subject itself. If the spread of online communication – not only around the globe but also within societies – affects ever more of our daily lives, from politics, to work, friendships, sexuality, and romantic relationships, how does this affect how we see ourselves and others? How is democratic subjectivity reconfigured in the Information Age? To put it more plainly: Who are we in digital democracy? To date, democratic theory is mute about these questions. While in media and communication studies

vivid discussions are led about the democratic subject in and through new forms of digital participation (e.g. Papacharissi 2011), these discussions and the topic itself have yet to be acknowledged by democratic theory.

Social scientists in the 1990s explored these questions. Spurred by early enthusiasm about the possibilities of online communication and filled with a pioneer spirit, poststructuralist thinkers conceptualised the subject in what they termed *cyberdemocracy* as disembodied being existing only by the words it uttered (e.g. Rheingold 1993). The textuality of online communication appeared to realise poststructuralist imaginations of the self as constructed through discourse. The anonymity of online communication was seen as a possibility for leaving the bourdon of the body, tainted with exclusion, hierarchy, and discrimination, behind.

While cyberdemocratic thought contributed a lot to understanding novel reconfigurations of subjectivity in digital democracy, it also proves problematic. First, recent technological developments of increased visualisation enabled by broadband internet combined with commercial data collection and government surveillance outdate the cyberdemocratic vision. Second, it is questionable whether anonymity is desirable on a normative level since members of marginalised groups in society are made invisible and thus cannot claim inclusion through visual presence (cf. Kolko et al. 2000; Nakamura 2002). Thus, in the light of current technological developments and because of the normative ideal of diversity, the theory of democratic subjectivity in the Information Age needs to be updated.

A rather recent debate in social theory emerged around the term *new materialism* (e.g. Connolly 2013). Far from being a unified set of ideas but rather a multi-disciplinary discourse, new materialism draws attention to the materiality of bodies and things. Rather than describing the world as social and linguistic construction, new materialists describe it in terms of vibrant matter. While insights from new materialism have made their way into media and communication studies, they have hardly been acknowledged by democratic theory (for an exception see Machin 2015). And how embodiment and re-embodiment comes into effect in digital democracy remains entirely unexplored. By drawing on discussions of new materialism and its application in media and communication studies, this paper generates a novel understanding of embodied democratic subjectivity in the Information Age. Answering the question: Who are we in digital democracy?, it calls into question the disembodiment thesis and demonstrates how affectivity and agency are transmitted through and generated by digital corporealities.

This paper will first revisit poststructuralist conceptions of the disembodied self in cyberdemocracy. It will then investigate new materialist thought and its notions of materiality, embodiment, and agency. Then it will turn to discussions in media and communication studies and explore what I call *digital new materialism*, which demonstrates the vital role of digital embodiment in social communication on the internet. In the final step, it will connect insights

of digital embodiment to democratic politics and participation. It illustrates along three empirical examples how bodies of democratic subjects materialise online as classed, raced, and gendered. In the conclusion, major findings and both advantages and disadvantages of new materialist perspectives are discussed.

The cyberdemocratic self: Revisiting the poststructuralist disembodiment thesis

Personal computers and internet access rapidly spread in the Global North of the 1990s. The spatial metaphor of cyberspace in which users navigate, soon dominated the everyday understanding of digital communication. This socio-technological development was paralleled by increasing popularity of poststructuralist thought. With Judith Butler's theory of performativity adding to and actualising the thought of thinkers like Michael Foucault and Jacques Derrida and increasing the interest in these continental European discussions in the US, poststructuralist thought acquired an almost hegemonic position in social theory. The linguistic turn also affected democratic theory now moving from discussions of realist, pluralist, and participatory democracy to deliberative (e.g. Habermas [1992] 1996) and agonistic democracy (e.g. Mouffe 1993).

Inspired by concepts of linguistic reality construction, identity performance, and the discursive power of knowledge, textual online communication detaching the speaker's body from the uttered word appeared as the realisation of poststructuralist thought. All being consisted of text. Virtual reality in cyberdemocratic writing is often compared to hallucination from drugs or travel to outer space. Disembodied democratic subjects perceptible only by textual expression moved in cyberspace as a parallel world separated from "RL, real life". Cyberspace conceptualised as detached from the outer world raised hopes of deliberative democrats for the practical realisation of a sphere free from domination (e.g. Bohman 1998). These poststructuralist discussions are today perceived as classic ideas of cyberdemocracy.

Howard Rheingold's *The Virtual Community* (1993) is usually cited as the most influential and most characteristic book of the 90s discourse on cyberdemocracy. Already in 1991 in the essay "The Great Equalizer" Rheingold describes the internet as democratising force shifting the power balance between citizens' grass roots movements and governments. In *The Virtual Community* he is more cautious. The chapter "Disinformocracy" (p.276ff) extensively elaborates the dangers of commodification and government surveillance. The focus of the book, however, are Rheingold's personal experiences of the WELL (Whole Earth 'Lectronic Link), one of the oldest virtual communities with discussion forums on different everyday topics. Anonymity appeared as a core feature of this kind of textual interaction:

> Mask and self-disclosures are part of the grammar of cyberspace, the way quick
> cuts and intense images are part of the grammar of television. The grammar of
> CMC media involves a syntax of identity play: new identities, false identities,

multiple identities, exploratory identities, are available in different manifestations of the medium. (Rheingold 1993, p.147)

According to Rheingold, this kind of identity play needs to be differentiated from intentional deception (ibid., p.164ff). Rheingold tells a story that became a central narrative in cyberdemocratic discourse. An online character called Joan in some accounts (Poster 1997, p.222f; Rheingold 1993, p.164f; Turkle 1995, p.228f) and Julie Graham in others (Stone 1991, pp.82ff; Wajcman 2004, p.68) claiming to be a New York psychologist who had been paralyzed and muted in a car accident, had won the trust of several women in online communities, sharing intimate details about themselves. As it later turned out that Joan/Julie really was Alex (Lewin in Wajcman 2004), a psychiatrist with curiosity for women's private lives, many users felt betrayed and exploited.

In *Life on the Screen,* psychologist Sherry Turkle tells the same story. She observes how internet users "use the anonymity of cyberspace to project alternate personae" (Turkle 1995, p.209). These online personae are not perceived as fake but living a true aspect of the self, which is hidden in common public interaction. Thus "donning a mask, adopting a persona, is a step toward reaching a deeper truth about the real" (Turkle 1995, p.216).

Through qualitative interviews and ethnography *Life on the Screen* investigates MUDs (Multi-User Dungeons/Domains) – online spaces for synchronous textual role play, where users collectively create an interactive story. As in analogous role play or improvisational theatre, participants can investigate and experiment with sides of their personality which are usually hidden. Some users even claim that their online identities feel more real than their analogous identities: "I am not one thing, I am many things. Each part gets to be more fully expressed in MUDs than in the real world. So even though I play more than one self on MUDs, I feel more like 'myself' when I'm MUDding" (cited in Turkle 1995, p.185). Turkle investigates online role play as therapeutic activity, in which hidden and underdeveloped qualities can be practiced and eventually carried over into analogous interaction (ibid., p.189ff).

Turkle's notion of the decentred, multiple self is deeply rooted in poststructuralist thought. The rhizomatic structure of the internet itself embodied the fragmentation of the online self. Turkle illustrates this by the curious digital object called a "window".

This kind of cycling through MUDs and RL [real life] is made possible by the existence of those boxed-off areas on the screen, commonly called windows… [W]indows have become a powerful metaphor for thinking about the self as multiple, distributed system… The life practice of windows is that of a decentred self that exists in many worlds and plays many roles at the same time. (Turkle 1995, p.13f)

The arguably most elaborate attempt at developing a poststructuralist theory of new information and communication technologies is presented in the work of media theorist Mark

Poster (1990, 1995, 2001). In *The Second Media Age* (1995) Poster moves from German post-Marxist thinkers like Horkheimer, Adorno, and Habermas to French poststructuralists like Foucault and Baudrillard. Putting these theories in relation to new media allows him to develop a critical theory for the Information Age. His main focus lies on novel subject constitutions through computer-mediated language characterised by decentralised, horizontal interaction.

> [T]he mode of information enacts a radical reconfiguration of language, one which constitutes subjects outside the pattern of the rational, autonomous individual. This familiar modern subject is displaced by the mode of information in favour of one that is multiplied, disseminated and decentered, continuously interpellated as an unstable identity. At the level of culture, this instability poses both dangers and challenges which, if they become part of a political movement, or are connected with the politics of feminism, ethnic/racial minorities, gay and lesbian positions, may lead to a fundamental challenge to modern social institutions and structures. (Poster 1995, p.57)

Poster elaborates how the modern subject of the Enlightenment period is constructed as autonomous, individual thinker with a critical distance to the object of communication: the written word on paper. As producer of communication this subject has sole control of its well reflected expressions as it ponders in isolation. The subject as reader, on the other hand, is powerless regarding the content of the communication. Upon receiving the written word – again in isolation – it strives for correct interpretation in accordance with the original meaning. Thus, senders and receivers of communication are stable entities positioned in time and space through words which function as clear representation of intelligible reality. Senders call upon readers as subjects through their sole authority – thus author – via the word. This configuration drastically changes through digital communication: while the spatial distance between senders and receivers remains consistent – the temporary difference is eliminated. The rhizomatic structure of hypertext alters the representational character of the word. Text takes on a performative character continuously resituating both senders and receivers in a mutual process of interpellation and self-construction (cf. Landow 1992; Lanham 1993). Thus, "the subject can only be understood as partially stable, as repeatedly reconfiguring at different points of time and space, as non-self-identical and therefore as always partly Other" (Poster 1995, p.59).

Like Turkle (1995), Poster explains anonymity as contributing to equality among participants in online discussions (ibid., p.35, 71). In the essay "Cyberdemocracy: The Internet and the Public Sphere" Poster (1997) elaborates:

> On the Internet individuals construct their identities, doing so in relation to ongoing dialogue, not as an act of pure consciousness... [This] does connote a 'democratization' of subject constitution because the acts of course are not limited

to one-way address and not constrained by the gender and ethnic traces inscribed in face-to-face communications." (Poster 1997, p.222)

Poster illustrates these new possibilities of identity constitution with the example of online gender representations. On the one hand, analogous hierarchies are reconstructed online through harassment and insult, on the other, new possibilities of gender experimentation, swapping, mixing and neutralising, emerge. The mere fact that gender has to be actively chosen and can be completely rejected by opting for neuter characters, provides space for resistance to analogous gender binaries and hierarchies:

> Internet communities function as places of difference from and resistance to modern society. In a sense, they serve the function of a Habermasian public sphere, however reconfigured, without intentionally or even actually being one. They are places not of the presence of validity-claims or the actuality of critical reason, but of the inscription of new assemblages of self- constitution. (Poster 1997, p.224)

The poststructuralist discussions of democratic subjectivity in digital communication by Rheingold, Turkle, Poster and many others (e.g. Holmes 1997; Saco 2002; Strate et al. 1996) could be characterised as classical or the golden age of cyberdemocracy. Their pioneer studies have contributed a lot to understanding the effects of the internet on democracy. Social media today are crucial for campaigning and mobilization both to social movements and political parties (cf. Gerbaudo 2012, 2017; Kavada 2015). Discussions on cyberdemocracy have unfairly been portrait as naïve. While they indeed raised hopes regarding the participatory and equalising prospects of digital communication for democracy, they also extensively elaborated the dangers of government surveillance and commodification. Both Turkle (1995, p.233ff) and Poster (1995, pp.68f, 78ff), like many other cyberdemocrats, refer to Foucault's metaphor of the Panopticon developed in *Discipline and Punish* ([1975] 1979). The "unequal gaze" from the tower that potentially observes all inmates of a prison at all time lets the inmates internalise this disciplinary control and adjust their behaviour accordingly, without physical threat or force. Through the surveillance of online behaviour, visits of webpages, and buying habits a profile of the subject is constructed which is reflected to the subject through computerised algorithms by targeted advertising, order of web search results etc. The subject is thus called upon in certain ways serving mostly economic purposes.

While cyberdemocrats thus carefully positioned their thought between optimism and pessimism, their most important contribution consists in their sensible exploration of the reconfiguration of democratic subjectivity and identity through digital interaction. Early online communication was indeed characterised by experimentation with and exploration of the multiple aspects of personal identity. And anonymity does still play a crucial role in online communication today.

Nevertheless, cyberdemocratic accounts are problematic: They tend to imagine the subject as bodiless being in a realm cut off from "real reality". Turkle, for example, claims that by employing digital communications "[w]e are able to step through the looking glass" (Turkle 1995, p.9). Employing the metaphor of Alice's Wonderland characterises virtual reality as unreal, as a dream from which one can wake up, a separate space one can enter and exit. Elaborating her thesis of the multiple self Turkle (1995, p.14) cites an interviewee: "Why grant such superior status to the self that has the body when the selves that don't have bodies are able to have different kinds of experiences?" characterising the body as burden. Similarly, Poster's notion of the digital public sphere, which facilitate inclusion by concealing physical embodiment, negates the continuation of analogous to virtual inequalities and tends to approve hiding instead of actively claiming subjugated identities. In sum, cyberdemocrats' deep entrenchment in poststructuralist thought has led them to underplay the role of the body and partly overlook the continuation of structural inequalities rooted in the materiality of capitalist societies.

The materialist turn: Why bodies matter

Recent discussions focusing around terms like new materialism, object oriented ontology, speculative realism, material feminism, posthumanism, and the like offer a different perspective. While new materialism is all but a coherent body of thought but rather a heterogeneous multidisciplinary discourse – which is why many new materialists insist on the pluralization of the term (cf. Coole & Frost 2010) – these varied approaches have in common that they shift attention from the discursive construction of reality through language to the materiality and vitality of things. The democratic subject appears as embodied and mortal, as physical being mutually acting upon and being acted upon by the material world. New materialism – a term coined simultaneously by Manuel DeLanda and Rosi Braidotti (Dolphijn & van der Tuin 2012, p.93) – criticises the poststructuralist sole focus on discourses as all powerful, thus obscuring the role of materiality and the body: "We need a way to talk about these bodies and the materiality they inhabit. Focusing exclusively on representations, ideology, and discourse excludes living experience, corporeal practice, and biological substance from consideration" (Alaimo & Hekman 2008, p.4). Moreover, new materialists, inspired by Marxist historical materialism, shift the focus back to structural inequalities in society. The unequal distribution of resources – as a matter of materiality – has been neglected by poststructuralist thinking:

> From this materialist point of view, it is ideological naïveté to believe that significant social change can be engendered solely by reconstructing subjectivities, discourses, ethics, and identities – that is, without also altering their socioeconomic conditions or tracing crucial aspects of their reproduction to the economic interests they unwittingly serve. (Coole & Frost 2010, p.25)

The poststructuralist focus on language, ideas, meaning, and representation and its neglect of physical materiality appears particularly troubling when considering the history of Western thought which continuously privileges the mind over the body: first, through the Christian duality of body versus mind – corporeal suffering and spiritual salvation – chastising the body by fasting and suppressing sexual urges; and second through the humanist conception of reason, civilisation, science, and politics in opposition to emotion, irrationality, brutishness, nature, savagery, and the wild. This split goes hand in hand with a conception of masculinity associated with enlightened, rational subjects in the public sphere and femininity associated with irrational, sexual, embodied objects in the private sphere. This analysis and the attempt at overcoming such dualisms (Connolly 2013, p.399f; Dolphijn & van der Tuin 2012, p.85) characterises new materialism as an inherently feminist ontology (cf. Pitts-Taylor 2016, p.2).

Many who have struggled with the poststructuralist paradigm imagining the body, physical objects, and reality itself determined by language, culture, and socialisation will agree with new materialist approaches claiming: "It is difficult to imagine how psychic and sociohistorical forces alone could account for the production of matter. Surely it is the case – even when the focus is restricted to the materiality of 'human' bodies – that there are 'natural,' not merely 'social,' forces that matter" (Barad 2008, p.128). This approach inspires new materialists, situated in the humanities and social sciences, to draw on empirical work in the natural sciences. Freed from the limits of poststructuralists' sole focus on discourse analysis, new materialists reinterpret empirical findings from biology and physics in terms of philosophy and social sciences (Alaimo & Hekman 2008, p.5; Coole & Frost 2010, p.6). Feminist new materialists, for example, turn to neurosciences that have so long been the sole domain of those who want to prove essential differences between the sexes (Pitts-Taylor 2016, p.8).

The focus on materiality, reality as physical, and the recourse to natural sciences might give the impression that new materialism is nothing but old materialism accompanied by its association with positivism and realism. This is, however, not the case as new materialism criticises and distances itself from the core positivist assumptions just as much as it criticises poststructuralism (cf. Alaimo & Hekman 2008, p.6):

> New materialists are interested in exposing the movement, vitality, morphogenesis, and *becoming* of the material world, its dynamic processes, as opposed to discovering immutable truths. New materialism sees a physical and biological world operating not according to fixed laws and blueprints, but rather one teeming with dynamism, flexibility, and novelty. Such a world is not determined; rather it is constantly in the process of its making. (Pitts-Taylor 2016, p.4)

It situates itself in equidistance to positivism and poststructuralism, both criticising and creatively building on their foundations. From positivism, it takes the focus on the body and material objects but rejects its assumption of an empirically measurable and quantifiable

objective reality. From poststructuralism, it takes the notion of relativity of subjective few points, the mutability, and contingency of things, while it rejects its sole focus on language and the notion of all powerful discourses determining reality.

It overcomes the binaries produced by both positivist and poststructuralist assumptions between language/ideas/reason and the material/body/flesh, between representation and the represented, with a simple concept: the vitality of all things (Dolphijn & van der Tuin 2012, p.107). New materialism declares everything – even thought and abstract concepts – a material object. And declares all objects alive and carrier of agency. This way it revokes the core dualism between object and subject. Things are not fixed, opaque, explorable, and definable entities, rather they are always active in continuous processes of materialisation, they are always becoming: "Matter is a substance in its intra-active becoming – not a thing, but a doing, a congealing of agency. Matter is a stabilizing and destabilizing process of iterative intra-activity" (Barad 2008, p.139). New materialism thus describes the world in procedural terms as in constant flux. It observes "objects forming and emerging within relational fields, bodies composing their natural environment in ways that are corporeally meaningful for them, and subjectivities being constituted as open series of capacities or potencies that emerge hazardously and ambiguously within a multitude of organic and social processes" (Coole & Frost 2010, p.10).

This mutability of things does not only stand in contrast with positivism's fixed reality but also with poststructuralism's all powerful discourse. Unlike the discursive subject as trapped in a tight corset of words and meanings, like in Judith Butler's (1993) citational performativity, new materialism's agentic object/subject navigates in a world of meaningful matter and material meaning (Connolly 2013, p.400; Coole & Frost 2010, p.8ff, 26f; Dolphijn & van der Tuin 2012, pp.97, 107). Primarily, however, new materialism is not to be understood as the negation and rejection of other scientific traditions and ontologies but in their creative incorporation and continuation (Dolphijn & van der Tuin 2010, 2012, p.89): "The strength of new materialism is precisely this nomadic traversing of the territories of science *and* humanities, performing the agential or *non-innocent* nature of all matter that seems to have escaped *both* modernist (positivist) and postmodern humanist epistemologies" (Dolphijn & van der Tuin 2012, p.100f, emphasis in original).

Tracing digital new materialism

The emerging ontology, while not in full opposition to poststructuralism, still opens up entirely new perspectives on subjectivity in digital democracy. In contrast with the cyberdemocratic discourse of disembodiment and a public sphere separate from the outside world, it draws attention to online embodiment, the affectivity of digital things and reconfigured perceptions of analogous bodies. The traces of these ideas, which I refer to as *digital new materialism*, can be found already in the 1980s and thus predate the poststructuralist inspired cyberdemocratic

discourse. Donna Haraway ([1985] 1991), for example, created the powerful metaphor of the cyborg as material configuration of human and machine, flesh and hardware. And before Sherry Turkle engaged in the cyberdemocratic discourse, she described computers as evocative-objects wielding affective power over their users (Turkle 1984). These early discussions employing digital new materialism were amplified around the 2000s by the emerging materialist turn in social sciences. Today's conceptualisations of subjectivity through the digital are inspired by new materialist perspectives. This is also due to the development of online communication from sole textual to visual and audible communication. The digital new materialist literature, which will be briefly discussed in this section, however only addresses social interaction. The question what this means for political participation defining the nature of digital democracy will be addressed in the following section.

In *Configuring the Networked Self* Julie Cohen (2012) starts her discussion of reality, space, and the body online with a critique of the poststructuralist notion of the disembodied multiple self in cyberspace. The conception of cyberspace as separate, alternative world is blind to material inequalities and their digital continuations. Instead, Cohen claims, digital space is intertwined with analogous space. Both are only perceptible through the organic body (cf. Gies 2008, p.312). Brophy (2010, p.932f) adds that online communication is based on material prerequisite: the body, its physical and cognitive capabilities, the material infrastructure (hardware), and financial resources (digital divide). By adding perspectives from cognitive science (positivist inspirations) to ideas of discursive and performative creation of space (poststructuralist inspirations), Cohen explains space as result of embodied perception. Images, sound, and smell are ordered in relation to the specific location of the individual subject. Cognition, and thus the knowledge of space, is radically relational. It is perceived differently from each perspective and through each body (Cohen 2012, p.36ff).

Technological change, Cohen goes on to argue, alters embodied perceptions of reality. Just like the use of cars alters relations of time and space, so does digital communication. These new perspectives affect not just the perception of reality online, but on the perception of reality in analogous society at large. The digital subject thus does not consist merely of a digital body, but also of the reconfigured physical body, which it perceives differently through the digital. This is even more true in the age of the Internet of Things, in which digital communication is not mediated only through single immobile computer screens but through numerous mobile devices, multiplying interfaces around the subject:

> Data flows escape the obvious bounds of the networked computer and cross into and out of homes, cars, personal accessories, and public spaces by many avenues… Networked space is neither empty nor abstract, and is certainly not separate; it is a network of connections wrapped around every artefact and human being. (Cohen 2012, p.46f)

In contrast to earlier cyberdemocrats, today's discussions incorporate new technological developments like the Internet of Things and broadband connections, which are identified as the prime reason for the emergence of new digital corporealities (Daniels 2009; Gies 2008). While writers like Poster and Rheingold investigated purely textual online communication, broadband connections enable uploading and sharing or live streaming images, videos, and sounds. As a result, current online communication is far from disembodied. Rather the most prominent topics discussed and visualized online revolve around the body: sexuality, pornography, and online dating being one; health, disease and medical support another; and fitness, fashion, and nutrition a third. Even primarily not somatic purposes for online communication, like the everyday communication with friends, family, and colleagues through social media attain a focus on embodiment through the increasing prioritization of visuals via platforms like Instagram, Flickr, YouTube, and Snapchat.

This focus of online embodiment is illustrated in the literature by several empirical examples. On pro-ana websites, mostly young girls suffering from anorexia exchange diet and self-starving tips and share pictures of skinny female bodies as "thinspiration" (Daniels 2009, p.112ff; Gies 2008, p.321). Other websites serve communities of obese men to positively affirm their body image and reinterpret mainstream conceptualizations of fatness (Monaghan 2005). And websites of transgender communities give advice on physical body transformations, hormone therapy, surgery etc. In relation to pro-ana and trans groups Daniels argues:

> Instead of seeing cyberspace as a place in which to experience the absence of the body… these girls and self-identified women use digital technologies in ways that simultaneously bring the body 'online' (through digital photos uploaded to the web) and take the digital 'offline' (through information gleaned online to transform their embodied selves). (Daniels 2009, p.117)

Anorexic girls and trans people strive to transform their *physical* bodies *through the digital* and fat men attain a positive image of their physical body in the analogous world. Like Cohen, Daniels makes the point that the digital reconfigures perceptions of analogous reality and the body. Reminiscent of Turkle's (1984) computer as evocative object both Cohen (2012, p.46) and Brophy (2010, p.938) describe technological apparatuses as calling upon the democratic subject in certain ways by affording possibilities of identity performance while restricting others. Like everyday performances of the self through physical bodies, clothes, body language, make-up etc., digital identity performances rely on material devices. Through Judith Butler (1993) and Elisabeth Grosz (1994), Brophy explains the body as material process constituted by performance, rather than opaque measurable unit. The digital body thus is constituted through the performative act of going online and simply extending common communicative performance through a different medium (Brophy 2010, cf. Gies 2008, p.314).

Materialising classed, raced, and gendered bodies in digital democracy

The discussions outlined above show how new materialist perspectives can contribute to understanding social interaction online as embodied and material. But how can the focus on corporeality contribute to understanding democratic subjectivity and digital democracy itself? While poststructuralist cyberdemocrats of the 1990s were eager to relate their concepts to democracy, this step has yet to be undertaken for digital new materialism. In this section, I will contribute to a new materialist inspired understanding of subjectivity in digital democracy. Three examples will illustrate how bodies are reified and reconfigured through the digital in political participation. These examples demonstrate how digital bodies both mirror analogous bodies and are thus subjected to material inequalities and discursive power structures outside digital communication, yet at the same time defy such external power relations through their agentic and mutable qualities. Digital bodies prove to be both mutable and solid.

The three examples illustrate how digital bodies materialise as classed, raced, and gendered. The first example tells of the selfie meme "I am the 99%" as part of the Occupy movement, in which people struck by poverty materialise their bodies as classed subjects of protest. The second example tells the story of an online-swarm that reified raced bodies as African-American avatars to protest racism. And the third example tells of misogynist and anti-Semitic Twitter trolls reifying their digital bodies as anime girls.

Example 1: The classed bodies of the 99 percent

In August 2011, just a few weeks before the first major protest in New York's Zuccotti Park erupted, an Occupy activist going by the name of Chris created a Tumblr blog entitled "We are the 99 percent." On this blog, he invited people to tell their personal stories of hardship caused by austerity politics through selfies: "Let us know who you are. Take picture of yourself holding a sign that describes your situation… Below write 'I am the 99 percent'" (We are the 99 percent blog). Within weeks the blog was being flooded with around 100 selfies per day of people telling their stories. These images walk a thin line between self-exposure and anonymity. Individual self-portraits of people holding up hand-written signs which cover their faces either completely, partly or not at all both reveal and cover physical embodiment. Some are signed with first names or pseudonyms, but most carry no name at all (cf. McDonald 2015, p.976ff). While this gives some credibility to the poststructuralist disembodiment thesis, many participants also materialize their bodies both through visuals and text.

An obese man, probably in his 30s, with his naked shoulders, arms, and chest exposed, holds up a sign close to his face that reads: "I play World of Warcraft naked 40 hours a week. I eat mostly McDonald's. I am probably unemployable. I am the 99%" (We are the 99 percent blog). Another naked man with a noticeable scar on his chest holds up a sign telling his story of cancer, precarious work, and difficulties getting health insurance. Another picture shows a

pregnant belly with only the lower part of a female face. Her sign reads: "At 21 years old I am… about to become mother to a baby whose illness has gotten us booted off gov't health insurance… at 9 months pregnant… Scared for our future. I am the 99%" (We are the 99 percent blog).

These images and texts materialise classed bodies protesting their precarious conditions. In this example, subjects decide to perform their vulnerability. They reveal their precarious, crises-stricken bodies to regain agency. This act reconfigures their material bodies as digital objects. In this process, they both reify their bodies as firm substance that replicates their "real life" self. At the same time, however, they have control over the angle and the lighting of the picture, what they wear, how much of their bodies is covered or revealed, how much of their faces and bodies is visible within the frames of the image, and not least how they depict their bodies in the textual narration. Their bodies prove both fixed and mutable. It is not only the text, it is the body and the image itself that speaks and thus wields agency.

Example 2: The raced bodies of anti-racist raiders

In 2006, users of Habbo Hotel, which facilitates social interaction between mostly US-American White teenagers in a hotel setting, repeatedly faced difficulties navigating in the virtual outdoor hotel areas. The entrance to the pool was blocked by African-American avatars with big afros in black suits shouted: "Pool's closed due to AIDS." The repeated raids of Habbo Hotel were the work of an online-swarm originating on 4Chan, the birthplace of the online collective Anonymous (Asenbaum 2017). The image board providing a completely anonymous space to share and comment on pictures, gave rise to a subculture characterised by a mix of doing things "just for the lulz" (pluralisation of lol, laughing out loud), sharing sexual and violent shock images, and political motivations mostly concerning free speech (Bernstein et al. 2011, Beyer 2014a). The online-swarm had formed in response to alleged discrimination of Black avatars by moderators and the overrepresentation of White avatars. As moderators started to block Black avatars and automatically impede their registration to regain control, the online protesters charged them with racism. These "online-sit ins", mimicking peaceful protest tactics of the US Civil Rights movement of the 1960s, were repeated on Habbo Hotel and other sites. Manuals instructing protestors how to design the uniform Black avatar and how to avoid deletion by moderators were circulated. In a follow-up action on World of Warcraft, Black avatars where marched to a virtual market place to be sold as slaves (McDonald 2015, p.974). Memes inspired by the raids like the slogan "Pool's closed" spread via social media. The memetic protest action even materialised outside the internet as White people dressed in black suits with afro wigs formed a swastika out of their bodies in front of the headquarters of Habbo Hotel's mother company Saluke in Finland.

This example illustrates how digital bodies can be used for radical democratic politics. Like in the example of the classed bodies of the 99 percent, digital media are used to materialise

subaltern bodies, to draw attention to inequality and injustice. The digital embodiment actively performs subjugation. Black avatars are design in a stereotypical fashion with afros both bringing attention to racial prejudice and at the same time citing the Black revolutionary spirit of the 1970s expressed in slogans like "Black is beautiful." The most significant difference in contrast with the example of the 99 percent, however, consists in the identity-crossing, the performance "as" Black characters by majority White users. The digital reification of bodies as avatars allows for the swapping of identity markers, in contrast with the use of selfies. This swapping of race is, however, not a serious attempt at deception, but rather an obvious parody both mocking opponents' prejudice and joyfully affirming Black Power.

Example 3: The gendered bodies of misogynist trolls

As Maris Kreizman, an US-American author and blogger, tweeted a critical comment about Donald Trump's use of the Star of David in July 2016, a Twitter user responded by simply putting her name in triple parentheses – a right-wing code calling to harass Jews. Within hours Kreizman's Twitter account was filled with anti-Semitic and misogynist tweets, including death and rape threats. The user calling for harassment was engaging on Twitter with an anonymous account with few followers, which indicates that the account had been recently created, probably for the sole purpose of trolling. The profile picture of the account showed a Japanese anime girl. So did the profile pictures of many who followed the call (Charity 2016).

This incident is not the only one, in which Twitter users with few followers and an anime girl on their profile pictures engage in misogynist, racist, anti-Semitic or homophobic trolling. They are also associated with what came to be known as the #GamerGate controversy. As a growing number of female computer game programmers publicly uttered concern about sexist and misogynist content of video games few mostly anonymous gamers started an online campaign against the feminist advancements. Under the hashtag #GamerGate they advocated freedom of expression but also brutally harassed female game programmers, including death and rape threats. A public speaking event of Anita Sarkeesian, a leading anti-sexism advocate, at Utah State University had to be cancelled after Sarkeesian received the threat of a mass shooting (Mortensen 2016). Many proponents of #GamerGate used Anime girls as profile pictures (Read 2015).

Like in the example of the Habbo Hotel raid, Twitter users change a central identity marker through digital re-embodiment, in this case from male to female. But while the raiders of Habbo Hotel created their avatars in a stereotypical fashion to ridicule prejudice, anime Twitter trolls affirmed sexist stereotypes. Their digital embodiment confronts their victims with sexist female images portraying them as shy, weak, and sexually desirable. This objectification of women adds to the insult of their victims. Yet at the same time perpetrators also associate themselves with this specific type of femininity. Many trolls using images of anime girls come from an

anonymous subculture emerging on websites like 4chan, 8chan, and Reddit, where mostly White, North-American, male teenagers interact. The sexual objectification of shy and cute anime girls is mixed with identification, adoration and homosexual desires. In the act of sexually harassing women through female user identities an odd mixture of identification and subjugation is at work.

Rethinking Digital Democracy Through the Bodies of the Cyborg

Informed by the discussions on cyberdemocracy, new materialism, and the examples of embodied online participation, I return to the question: Who are we in digital democracy? The early digital new materialist writings of Donna Haraway ([1985] 1991) and Sherry Turkle (1984) that have been overshadowed by the poststructuralist cyberdemocracy discourse, help answer this question. Their foresight only becomes evident in the context of today's era of the Internet of Things, big data, and cloud computing. Inspired by Donna Haraway's powerful metaphor of the cyborg we can recognise ourselves as defined by the constant technological mediation of social and political interaction. And Turkle's (1984) description of computers as evocative objects brings attention to the ever more intimate connections we engage in with smart devices. Smart phones now not only recognise users by their individual finger print but also their faces. And as we inquire our smart personal assistants like Siri, their answers get ever more personalised. Thus, not only humans create computers, but computers and their algorithmic logics co-create us. Turkle elaborates on the vision of the cyborg without using the term itself:

> Where we once were rational animals, now we are feeling computers, emotional machines. But we have no way to really put these terms together. The hard-to-live-with, self-contradictory notion of the emotional machine captures the fact that what we live now is a new and deeply felt tension. (Turkle 1984, p.320f, 326)

We do need to cope with this tension. It is almost as if we need to learn to walk again – how to use ever more advanced technologies, how to mediate emotions through them, and how to interact technologically as humans. While this process of reconfiguration might not be easy, technologies also enhance our abilities. Cyborgs can be in physical and virtual places simultaneously, interact with people around the world, and change appearance (cf. Asenbaum 2017). The bodies of the cyborg as reconfiguration of human/machine, mind/digital are central to understanding democratic subjectivity in the Information Age. And this novel democratic subjectivity is the defining element of digital democracy.

So what, after all, does a deep understanding of digital democracy look like? Digital democracy is defined by the cyborgian nature of its subjects. It does not only consist of online engagement like e-voting and e-campaigning. Every political interaction – be it on or offline – is reconfigured as democratic subjects redefine themselves through embodied digital communication. Digital bodies matter not only online but also through the altered perception

of physical bodies they induce. The emergence of cyborg subjects (Garfield 2016), digital citizens (Isin & Ruppert 2015), and cyborg activists (Asenbaum 2017) online, offline and in the liminal sphere generated by clouds and the Internet of Things constitutes digital democracy.

The poststructuralist inspired cyberdemocracy discourse that followed the traces of early digital new materialism of Haraway and Turkle lost sight of the materiality of things and bodies. In cyberdemocracy physical things and bodies disappear as the democratic subject enters cyberspace, in which reality is constructed through the flickering pixels of the written word. This perspective is problematic as it does not take into account current developments of visualization and the normative aspect of promoting diversity through visual presence of marginalised groups. It nevertheless proves useful even in the context of current developments. Anonymity is still a common mode of interaction online. On the one hand, it plays a crucial role for hacktivist collectives of the freedom of information movement like Anonymous and WikiLeaks (Beyer 2014b). On the other hand, it is also employed in more formalised settings of bottom up participation on the internet like participatory budgets (Ruesch & Märker 2012), e-petitions (Berg 2017) and news commenting sites (Fredheim et al. 2015). Moreover, the practice of identity play is prevalent on the internet today and is also observable in the three examples presented above. The insights from new materialism should not be read as in opposition to but rather as extension and actualization of cyberdemocratic thought.

The examples of classed, raced, and gendered bodies in online engagement demonstrate that bodies do matter in digital democracy. New materialist perspectives draw attention to agentic and affective bodies online. From a new materialist perspective, public spheres online are characterised by a continuation of offline inequalities. It draws attention to the unequal access to the material infrastructure allowing for online communication (digital divide). This unequal distribution of (material) resources offline is mirrored in digital hierarchies between those creating, structuring, and gaining financial profits from online spaces on the one hand and those who just use them on the other.

These inequalities are also linked to physical bodies and their visual identity markers of class, race, gender, age, able-bodiedness, sexuality, beauty standards etc. The examples above illustrate that these body markers play a crucial role in digital democratic engagement. It proves much harder to change embodiment online than cyberdemocrats suggested – and this is not only due to the change from textuality to visuality as earlier critique of cyberdemocrats illustrate (Kolko et al. 2000; Nakamura 2002). This is most apparent in the example of selfie campaign of the 99 percent, which stands for many other cases including the use colour filters, ribbons, and the like on social media profile pictures (Gerbaudo 2015). This continuation of offline identities can also be observed in cases where fully digital avatars are used like in the digital Mayday parade (Mattoni & Doerr 2007) and the LGBTIQ movement on World of Warcraft (McKenna et al. 2011). So even though the creation of fully digital bodies provides the opportunity of identity change, users often opt for extending offline identities. And in the

cases where identity change was enacted, this occurred as parody: both African American raiders and anime trolls engaged in identity change as obvious parody and mockery. Thus, the physical body with its blood flows, hormones, genes and the brain inscribed with memories, socialisation, and personality traits is always present and determines the limits of identity play.

While new materialist perspectives thus shift the focus to online-offline continuities they also pay attention to the cyberdemocratic notion of identity play by defining bodies as agentic. The examples of the Occupy movement, the anti-racist raid of Habbo Hotel, and anime profile pictures of Twitter trolls illustrate how users materialise their bodies as agentic and affective. This entails both, expression *through* bodies (as medium) and expression *by* bodies. Not only the verbal articulation of political content via the body counts, but also the mere presence of the body as a materialised political claim. The assemblage of a Black avatar in a White dominated online game, for example, marks an intentional political intervention. Just as profile pictures of anime girls to harass women intentionally enacts objectivication. The digital body has agency without even uttering content verbally. Here the digital body proves more agentic than the physical one as it has been constructed intentionally. In the example of the selfies of the 99 percent, already the physical body itself, not the message written on signs, expresses agency, in its digital replication when it is depicted in a way intentionally drawing attention to problems of precariousness and poverty, thus materialising as classed object of protest. Moreover, digital bodies do prove mutable, as the democratic subject gains control by determining the angles, lighting, and frame of selfies, which avatar to build, and which profile picture to use.

While new materialist perspectives contribute a lot to understanding the reconfiguration of subjectivity in digital democracy, some assumptions need to be questioned. The central notion declaring all things vivid, for example, needs further explanation. Connolly (2013, p.400) is right in arguing that agency of humans, animals, robots, computers, and other objects like tables, books, shoes etc. is a matter of degree and must be differentiated. What does it really mean to say a chair, for example, has agency? It surely does not mean that the chair has a will or desires that it expresses. It rather means that the chair makes its users sit in a certain way. The chair is affective, but it has no intention. The danger I see with declaring all things vivid is that it might obscure the intentions of those who actually made the chair. These humans, with surely a different degree of agency than the chair, made the chair to affect its user in a certain way. The political implications of this reasoning become evident, when thinking about those constructing computer programs, especially those who profit from their revenues. They are the ones with agency, interests, and intentionality that influence online programs, like social networks, to affords certain use and not other. The same is true for poststructuralist discourse theory. Here often the discourse itself is described in agentic terms, while it would be much more plausible to pay attention to discursive actors and their intentions, interests, and desires.

In short both notions, the agency of things and the agency of discourses, might function to obscure the agency of people.

Notwithstanding its open questions regarding the specific nature of the agency of things and its partly exaggerated criticism of poststructuralism, new materialism opens new perspectives for democratic theory in general and democratic subjectivity in the Information Age, in particular. The democratic subject as physically embodied being with all its limitations and its mortality, affectivity and emotionality, its biology, genes, hormones, flesh and blood stands in contrast with the deliberative conception of the rational, truth-seeking subject dominating current discussion in democratic theory. Coole and Frost (2010) suggest "that this emphasis on bodily processes and corporeal capacities… is indispensable to any adequate appreciation of democratic processes" (p.19). And Amanda Machin (2015) undertakes a first investigation of the significance of physical corporeality in "Deliberating Bodies". In this essay, I have generated a point of departure for the discussion of digital reconfigurations of subjectivity in democratic theory. We need to find theories, concepts, and terms to guide empirical research and to reflect upon the rapid changes in democratic politics current societies are undergoing. Or else these processes will go unnoticed and escape our attention and influence.

References

Alaimo, S. and Hekman, S. (eds) (2008). *Material Feminisms*. Bloomington/Indianapolis: Indiana University Press.

Asenbaum, H. (2017). Cyborg Activism: Exploring the Reconfigurations of Democratic Subjectivity in Anonymous. *New Media & Society*,1–21.

Barad, K. (2008). Posthumanist Performativity: Toward an Understanding of how Matter Comes to Matter. In: Alaimo, S., and Hekman, S., eds. *Material Feminisms*. Bloomington/Indianapolis: Indiana University Press, 120–154.

Benjamin, G. (2016). *The Cyborg Subject: Reality, Consciousness, Parallax*. London: Palgrave Macmillan.

Berg, J. (2017). The Dark Side of E-Petitions? Exploring Anonymous Signatures. *First Monday*, 22 (2), 1–11.

Bernstein, M. et al. (2011). 4chan and /b/: An Analysis of Anonymity and Ephemerality in a Large Online Community. In: *Proceedings of the Fifth AAAI Conference on Weblogs and Social Media.*, 50–57.

Beyer, J. (2014a). *Expect Us: Online Communities and Political Mobilization*. Oxford: Oxford University Press.

Beyer, J. (2014b). The Emergence of a Freedom of Information Movement: Anonymous, WikiLeaks, the Pirate Party, and Iceland. *Journal of Computer-Mediated Communication*, (19), 141–154.

Bohman, J. (2004). Expanding Dialogue: The Internet, the Public Sphere and Prospects for Transnational Democracy. *Sociological Review*, 52 (1), 131–155.

Brophy, J. (2010). Developing a Corporeal Cyberfeminism: Beyond Cyberutopia. *New Media & Society*, 12 (6), 929–945.

Bruckman, A. (1996). Gender Swapping on the Internet. In: Ludlow, P., ed. *High Noon on the Electronic Frontier: Conceptual Issues in Cyberspace*. Cambridge, MA: MIT Press, 317–326.

Butler, J. (1993). *Bodies that Matter: On the Discursive Limits of 'Sex'*. New York: Routledge.

Charity, J. (2016). Why Do Anonymous Twitter Trolls Use Anime Avatars? *The Ringer*, 9 August. Available from https://www.theringer.com/2016/8/9/16046698/anonymous-twitter-trolls-anime-avatars-harassment-4chan-8578d36b2920-8578d36b2920.

Cohen, J. (2012). *Configuring the Networked Self: Law, Code, and the Play of Everyday Practice*. New Haven/London: Yale University Press.

Connolly, W.E. (2013). The 'New Materialism' and the Fragility of Things. *Millennium: Journal of International Studies*, 41 (3), 399–412.

Coole, D. and Frost, S. (eds) (2010). *New Materialisms: Ontology, Agency, and Politics*. Durham/London: Duke University Press.

Dahlberg, L. (2011). Re-Constructing Digital Democracy: An Outline of Four 'Positions'. *New Media & Society*, 13 (6), 855–872.

Daniels, J. (2009). Rethinking Cyberfeminism(s): Race, Gender, and Embodiment. *Women's Studies Quarterly*, 37 (1&2), 101–124.

Dolphijn, R. and van der Tuin, I. (2012). *New Materialism: Interviews and Cartographies*. Ann Arbor: Open Humanities Press.

Foucault, M. (1979). *Discipline and Punish: The Birth of the Prison*. Harmondsworth: Penguin Books.

Fredheim, R., Moore, A. and Naughton, J. (2015). Anonymity and Online Commenting: The Broken Windows Effect and the End of Drive-by Commenting. In: *WebSci '15 Proceedings of the ACM Web Science Conference*, Article 11.

Gerbaudo, P. (2012). *Tweets and the Streets: Social Media and Contemporary Activism*. New York: Pluto Press.

Gerbaudo, P. (2015). Protest Avatars as Memetic Signifiers: Political Profile Pictures and the Construction of Collective Identity on Social Media in the 2011 Protest Wave. *Information, Communication & Society*, 18 (8), 916–929. Available from http://dx.doi.org/10.1080/1369118X.2015.1043316.

Gerbaudo, P. (2017). *The Mask and the Flag: Populism, Citizenism, and Global Protest*. Oxford: Oxford University Press.

Gies, L. (2008). How Material are Cyberbodies? Broadband Internet and Embodied Subjectivity. *Crime Media Culture*, 4 (3), 311–330.

Grosz, E. (1994). *Volatile Bodies: Toward a Corporeal Feminism*. Bloomington: Indiana University Press.

Habermas, J. (1996). *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*. Cambridge, MA: MIT Press.

Haraway, D. (1991). A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century. In: *Simians, Cyborgs and Women: The Reinvention of Nature*. London: Free Association Books, 149–181.

Holmes, D. (1997). *Virtual Politics: Identity and Community in Cyberspace*. London: Sage.

Isin, E. and Ruppert, E. (2015). *Being Digital Citizens*. London: Rowman & Littlefield Publishers.

Kavada, A. (2015). Creating the Collective: Social Media, the Occupy Movement and its Constitution as a Collective Actor. *Information, Communication & Society*, 18 (8), 872–886.

Landow, G. (1992). *Hypertext: The Convergence of Contemporary Critical Theory and Technology*. Baltimore: The John Hopkins University Press.

Lanham, R. (1993). *The Electronic Word: Democracy, Technology, and the Arts*. Chicago/London: University of Chicago Press.

Machin, A. (2015). Deliberating Bodies: Democracy, Identification, and Embodiment. *Democratic Theory*, 2 (1), 42–62.

Mattoni, A. and Doerr, N. (2007). Images Within the Precarity Movement in Italy. *Feminist Review*, 87 130–135.

McDonald, K. (2015). From Indymedia to Anonymous: Rethinking action and identity in digital cultures. *Information, Communication & Society*, 18 (8), 968–982.

McKenna, B., Gardner, L.A. and Myers, M.D. (2011). Social Movements in World of Warcraft. In: *Proceedings of the Seventeenth Americas Conference on Information Systems*. Detroit, 1–8.

Monaghan, L. (2005). Big Handsome Men, Bears and Others: Virtual Constructions of 'Fat Male Embodiment'. *Body & Society*, 11 (2), 81–111.

Mortensen, T.E. (2016). Anger, Fear, and Games: The Long Event of #GamerGate. *Games and Culture*,1–20.

Mouffe, C. (1993). *The Return of the Political*. New York: Verso.

Papacharissi, Z. (2011). A Networked Self: Identity Performance and Sociability on Social Network Sites. In: Papacharissi, Z., ed. *A Networked Self: Identity, Community, and Culture on Social Network Sites*. New York: Routledge, 207–221.

Pitts-Taylor, V. (ed.) (2016). *Mattering: Feminism, Science, and Materialism*. New York/London: New York University Press.

Poster, M. (1990). *The Mode of Information: Poststructuralism and Social Contexts*. Cambridge: Polity Press.

Poster, M. (1995). *The Second Media Age*. Cambridge: Polity Press.

Poster, M. (1997). Cyberdemocracy: The Internet and the Public Sphere. In: Holmes, D., ed. *Virtual Politics: Identities & Community in Cyberspace*. London: Sage, 201–218.

Poster, M. (2001). *What's the Matter with the Internet*. Minneapolis: University of Minnesota Press.

Read, M. (2015). How Anime Avatars on Twitter Help Explain Politics Online in 2015. *Selectall*, 5 November. Available from http://nymag.com/selectall/2015/11/dreaded-anime-avatar-explained.html.

Rheingold, H. (1991). The Great Equalizer. *Whole Earth Review*, (Summer), 5–11.

Rheingold, H. (1993). *Virtual Community: Finding Connection in a Computerized World*. London: Secker & Warburg.

Ruesch, M.A. and Märker, O. (2012). Real Name Policy in E-Participation: The Case of Gütersloh's Second Participatory Budget. In: Parycek, P., and Edelmann, N., eds. *CeDEM12 – Conference for E-Democracy and Open Government*. Krems: Edition Donau-Universität Krems, 109–124.

Saco, D. (2002). *Cybering Democracy: Public Space and the Internet*. Minneapolis: University of Minnesota Press.

Stone, A.R. (1991). Will the Real Body Please Stand Up? Boundary Stories about Virtual Cultures. In: Benedikt, M., ed. *Cyberspace: First Steps*. Cambridge: MIT Press, 81–118.

Strate, L., Jacobson, R. and Gibson, S. (1996). *Communication and Cyberspace: Social Interaction in an Electronic Environment*. Cresskill: Hampton Press.

Turkle, S. (1984). *The Second Self: Computers and the Human Spirit*. London: Granada.

Turkle, S. (1995). *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster Paperbacks.

van der Tuin, I. and Dolphijn, R. (2010). The Transversality of New Materialism. *Women: A Cultural Review*, 21 (2), 153–171.

Wajcman, J. (2004). *TechnoFeminism*. Cambridge: Polity Press.

We are the 99 percent blog. Available from http://wearethe99percent.tumblr.com/ [Accessed 19 September 2017].