

The Potential of New and Social Media for Environmental Activism

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Recently, many claims about the potential of new and social media to enhance civic engagement have been issued. In relation to this potential for pressuring governments, organisations, and institutions for enhancing environmental protection and sustainability, the focus of this paper lies on ‘digital environmental activism’. Three meta–themes are explored: (i) ‘new and social media as enabling environmental activism’, (ii) ‘engaging in the environmental activist terrain’, and (iii) ‘potential constraints to digital environmental activism’. It is found that digital environmental activism focuses substantially on chronic technological disasters and protest campaigns. Potential constraints to enhanced digital activism include expanding corporate control of new and social media, and digital surveillance. In conclusion, and informed by new and social media’s main conduit of horizontal (or many–to–many) communication, we find a robust potential of new and social media to enhance activism tempered by potential constraints of increasing corporate control and surveillance.

Keywords: *New and social media; digital environmental activism; environmental politics; pressure politics; counterpublics*

Introduction

The potential of new and social media for environmental activism— or ‘digital environmental activism’ as we refer to—poses an emergent publicly significant topic. First, this is because new and social media are beginning to both complement and compete against conventional mass media. Media has long been a key conduit for the environmental movement to communicate issues and promote campaigns on environmental degradation (Hansen, 2010; also, Doyle, 2007).

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Second, digital technologies, as a new enabling media and knowledge source (e.g. Parks and Starosielski, 2015), have much potential to expand the repertoire of protest (Carter, 2007; Earl and Kimport, 2011). As Milan and Hintz (2013, pp. 7–8) also observed: ‘New forms of networked action and informal collaboration are challenging traditional notions of the civil society ... decentralized cyberactivist groups play a crucial role in building the backbone of contemporary social movements ... enabling innovative forms of organization and citizen action typical of the digital age’.

In such contexts, our aim is to explore the potential of new and social media to enhance environmental activism to protect the environment and advance global environmental sustainability through social transformation; a potential so far little explored, particularly in regard to the pressure politics of environmental activism (Doyle and McEachern, 2008; Rootes, 2008). As such, digital environmental activism can be seen to blend ‘active’ environmental citizenship with the empowering participatory thrust of ‘digital citizenship’ (Bennett, 2008); as particularly informed by the online advocacy/activist domain.

The significance of exploring such potential is because of growing environmental problems worldwide that need redress, and because new and social media are now primary components of social communication, particularly relevant to action. That said, the terms ‘new media’ and ‘social media’ have some difference in meaning: new media ‘refers to on-demand access to content anytime, anywhere, on any digital device’, and social media ‘refers to the means of interactions among people in which they create, share, and exchange information’ (Southren, 2013).

Growing environmental problems worldwide include overshooting the carrying capacity and health of many ecosystems through, for example, large-scale monoculture agriculture, excessive industrial pollution, wasteful consumption, resource overuse, and anthropocentric climate change; and not least, ever-expanding population growth. Such problems have nurtured environmental movements and activism, where digital environmental activism is now increasingly apparent. Illustrative of the digital potential for enhancing environmental activism is the online Environmental Justice Atlas. It shows where the exploitation of natural resources worldwide affects populations, degrades the environment, and generates social and environmental conflicts. As such, its makers ‘hope to dispel consumer blindness and suggest policy recommendations and consumption changes’ (Temper, del Bene and Martinez–Alier, 2015). At the time of writing, the

Atlas featured 1658 hotspots with information supplied by activist contributors.

Claims of the potential of new and social media to enhance civic engagement particularly emerged from the mid–1990s. A key argument was that political discussion and citizen engagement would be enhanced through more universal and rapid communication access and information coverage, and easier deliberation than face–to–face forums (Dahlgren, 2006, p. 151; Fuchs, 2005; Van Aelst and Walgrave, 2002).

However, Van Aelst and Walgrave (2002, p. 465) argued that the political potential of the Internet to engage society would best be realised by those outside the boundaries of traditional public institutions or political organisations; a terrain that environmental activism often resides in, in terms of pressure politics. Yet the Internet also poses a significant conundrum for activists because it is a commercially controlled system (Penney and Dadas, 2014).

Against this background and in addressing our aim, we explore three meta–themes: (i) *new and social media as enabling environmental activism*; (ii) *engaging in the environmental activist terrain*, with subthemes of the environmental political potential of new and social media, other online environmental pressure politics, and ecologies of dissent and tactical media; and (iii) *potential constraints to digital environmental activism*.

These meta–themes were distilled from the relevant literatures in new media studies, environmental politics, and science, technology and society studies—as well as from blogs, activist media, and websites, as representing new forms of databases and archives (Kahn and Kellner, 2004, p. 94).

New and social media as enabling environmental activism

On the Internet as a facilitative context or conduit for enabling activism as a sociotechnical system (also Parks and Starosielski, 2015, p. 4), Fuchs (2005, p. 2) was notable in advocating its ‘large intrinsic democratic potential’ where information is shared and exchanged to produce new information, as strengthened by the communicative structure of new and social media. In contrast to conventional mass media communication based on vertical (one–to–one) communication, new and social media are largely based on horizontal (one–to many and many–to–many) communication. New and social media users can thus easily become media ‘editors’ and active participants (Croteau and Hoynes, 2006); for example, as bloggers.

In the social infrastructure of the Internet, vis-à-vis its technical infrastructure, digital environmental activists, as ‘counterpublics’ (Fraser, 1990, p. 67), expand pressure for global environmental change, if desired, with widely dispersed global user populations (Milan and Hintz, 2013; Mutz, 2006). Facilitating more this global reach ‘are the speeds of mobilizations, the flexibility of mediated crowds to shift among issue foci and action tactics ... both directly through digital media and indirectly via conventional mass media channels’ (Bennett, Segerberg and Walker, 2014, p. 233).

On the nature of environmental activists, they are both reformist, and transformative, in seeking new ways to impact on, or pressure, existing political terrains and systems (Hudson and Kane, 2008; Parks and Starosielski, 2015). For example, environmentalist ‘web-based communities’ represent new forms of cultural production and ecological citizenship, whereby environmental knowledge and environmental dialogue are readily disseminated (Rokka and Moisander, 2009, p. 200).

Here, ecological citizenship or ecocitizenship aligns to the notion of cosmopolitanism citizenship in transformational sustainability transitions. As Cao (2015, p. 82) argued, most critical environmental issues including ozone depletion, nuclear waste, and climate change ‘transcend national borders, and demand transnational solutions and cooperation’. But as many major environmental issues are also technologically informed, digital environmental activism also embraces ‘technological citizenship’ (Longford, 2005), and ‘science citizenship’ (Elam and Bertilsson, 2003), which robustly questions and critiques controversial science and technology, socially and environmentally.

Engaging in the environmental activist terrain

The environmental political potential of new and social media

An early demonstration of the mass environmental political potential of new and social media was in the anti-globalisation protest against the 1998 Multilateral Agreement on Investment. The protestors raised issues about ‘the unequal distribution of wealth and the dubious role of international organizations like the IMF and the World Bank ...’ (Van Aelst and Walgrave, 2002, p. 468); with many associated adverse environmental issues. Informing the protest, Van Aelst and Walgrave (2002, p. 468) found that ‘an Internet-based campaign of an international network of organisations (600 in the end) from seventy countries ... led to ... the failure of the agreement’.

A decade later, the first online environmental mass e–mobilisation occurred in response to BP’s disastrous 2010 Gulf of Mexico ‘Deepwater Horizon’ oil spill. In 2014, a US District Court judge ruled that BP was primarily responsible for the oil spill due to gross negligence and reckless conduct (Robertson and Krauss, 2014). In 2015, this ruling led to a massive US\$18.7 billion fine—the largest corporate settlement in US history (Wade and Hays, 2015). Part of the ‘e–mobilisation’ facilitated information sharing by highlighting BP’s poor record of safety measures and environmental standards (Earl and Kimport, 2011). Reflecting on the social power of this new and social media engagement, Jodi Callaghan (n.d.) in her blog ‘Talking logic’ opined: ‘Facebook ... enabled these public citizens to gain groundswell at a grassroots level with the Facebook page ‘Boycott BP’ ... having more than 675,000 members. Not only does this group have a web presence, they have a voice and they have influence’.

The BP e–mobilisation spread rapidly due to the capacity of horizontal communication (Dahlgren, 2006). However, online actions are also organised vertically from one source, particularly for public awareness and lobbying actions. Greenpeace, for example, has produced a number of very short YouTube videos, which find what is called ‘rhetorical velocity’ (Sheridan, Ridolfo and Michel, 2012, p. 179). One, a 45–second video called ‘Stop Coca Cola trashing Australia’, published 5 May, 2013, attracted almost two million hits by December 2015. It featured parts of plastic bottles killing seabirds and mentioned Coca Cola fighting proposed legislation to solve the issue, with a punch line proclaiming: ‘Tell our politicians to stand up for our wildlife’ (Greenpeace, 2013).

Other online environmental pressure politics

On industrial production, a key online strategy called ‘political consumerism’ motivates activists to ‘shop for change’, to make selective choices of consumer products or brands, based on social, political, environmental, and/or ethical grounds (Baek, 2010, p. 1066). Also, as counterpublics, these activists primarily use horizontal networks to facilitate ‘more effective and massive pressure’ (Baek, 2010, p. 1067).

‘Adbusters’—which uses Twitter and YouTube in a mix of horizontal and vertical communication—proclaim themselves as a ‘global network of meme warriors working to change the way meaning is produced in our society’ (Adbusters, n.d.). A key practice is ‘culture jamming’. It politicises ‘corporate logotypes’ in ethical, environmental sustainability, and corporate responsibility contexts. The aim is to affect citizen consciousness—raising

and, ultimately, value and behavioural change in today's 'runaway consumer societies' (Micheletti and Stolle, 2008, p. 761).

The success of culture jamming was demonstrated by Greenpeace in 2014 thus: 'German retailer Tchibo ... promised to make sure its products are toxic-free ... After more than one million people responded to Greenpeace's Save the Arctic campaign LEGO ended its 50-year link with Shell. ... [and] British luxury brand Burberry made a commitment to eliminate the use of hazardous chemicals from its supply chain by 1 January 2020' (Greenpeace, 2014).

Ecologies of dissent and tactical media

The term 'ecologies of dissent' describes online protest actions particularly through Twitter. Twitter hashtags are a strategic digital media device that brings 'publics together to act in concerted or less organized ways'. For example, protests at the 2009 UN Climate Summit in Copenhagen convincingly demonstrated the deployment of twitter conversation 'streams' (Segerberg and Bennett, 2011, p. 212).

The expression 'tactical media', in turn, describes a media of 'crisis, criticism and opposition' (Garcia and Lovink, 1997). Through digital devices, 'tactical media do not just report events, as they are never impartial, they always participate and it is this more than anything that separates them from mainstream media' (Lester and Hutchins, 2009, p. 581).

Tactical media was apparent during the summer of 2003–2004 when Greenpeace Australia and the Wilderness Society established a 'Global Rescue Station' in Tasmania's Styx Valley; as a base camp for activists undertaking a vigil platform in a giant *Eucalyptus regnans*, 65 metres above ground. This initiative was part of a four-decade long campaign to protect old-growth forest wilderness from logging. The vigil's purpose was to gain conventional mass media attention to stop the logging of some of the tallest trees globally, through 'cyber-activists' pressuring the logging industry and government as a 'community of opposition' (Lester and Hutchins, 2009).

Over 19,000 online visits to the Global Rescue Station website were recorded in its first month of action. The story was then aired in conventional media particularly in Japan, Mexico, South Africa, the US, and Germany. Australian politicians visited the site, which placed the issue prominently on public, media, and policy agendas (Lester and Hutchins, 2009). On 5 July 2013, Senator Christine Milne, incumbent leader of the Australian Greens, implicitly acknowledged the communicative power of

new and social media in sending an Instagram post of the trees with the comment: 'Saved at last Styx Valley World Heritage 2013' (Milne, 2015).

Tactical media has also been adopted by whale hunting protestors in Australia's Southern Ocean to achieve online 'mediated visibility', through audio-visual footage, 'of clashes between protesters and whalers ... broadcast and streamed by news outlets, providing a shocking immediacy to the reality and danger of the 'whale wars' fought annually many miles from land' (Lester and Hutchins, 2012, p. 848). Mediated visibility thus communicates many 'hidden' environmental struggles. For example, Greenpeace has deployed this strategy to make climate change effects in the Arctic and Antarctic landscapes more publicly visible through images of retreating or cracked glaciers (Doyle, 2007, p. 129). In addition, many publics effectively conveyed the Fukushima (invisible) radiation issue through new and social media globally (Hindmarsh, 2013; Hindmarsh and Priestley, 2016).

Potential constraints to digital environmental activism

Of key importance to the potential of digital environmental activism are interrelated questions of participation and mobilisation through new and social media; which Milan (2015) also refers to as the 'material constraints' of new and social media (see also Akrich, 1992). The key questions discussed here include expanding concentration of media corporate ownership; and online surveillance. Both questions concern the new and social media capacity of counterpublics to perform effectively in protest actions over time.

The first question concerns the increasing embedment of new and social media systems within expanding global systems of corporate concentration, potentially imposing information constraints like those characterising traditional mass media. Such constraints would potentially limit democratic deliberation and knowledge dissemination though an increasing focus on entertainment, news, advertising, personal texting, and public relations endeavours (Artz and Kamalipour, 2003; Elliott and Lemert, 2006).

Concerns are thus held by digital counterpublics about 'relying on an external, corporate-owned social media platform' for their activities also in relation to potential censorship, and in narrowing activism and online deliberation (Penney and Dadas, 2014, p. 86). For example, in the 2011 Occupy Wall Street (OWS) movement, 'Twitter users apparently

encountered more direct censorship when using movement-related hashtags' (Penney and Dadas, 2014, p. 87).

Secondly, and in close relation to issues of corporate media ownership, other concerns are held about the participatory potential of new and social media (Fuchs, 2014; Taylor, 2014). First, some scholars have advanced that social media encourages individual creativity (Castells, 2009; Stiegler, 2009). As Fenton and Barrasi (2011, p. 180) argued, 'the self-centred forms of communication that these platforms enable can challenge rather than reinforce the collective creativity of social movements'. Secondly, due to an asymmetry 'between the power of corporations and other powerful groups and the actual counter-power of citizens' (Fuchs, 2014, p. 77), not all user-generated content receives the same visibility through new and social media.

Fuchs (2014, p. 100) thus contended that new and social media are being 'colonized by corporations, especially by multimedia companies that dominate attention and visibility'. A key material conduit to domination is the global technical infrastructure of networked data centres of companies like Google. These 'media infrastructures' are comprised of broadband pipelines, cloud computing systems, digital compression centres, and protocols 'integral to the movement and storage of audiovisual signal worldwide' (Parks and Starosielski, 2015, p. 10). The argument is then that while new and social media can 'contribute to greater fragmentation and pluralism in the structure of civic engagement', corporate ownership of the expanding technical infrastructure may eventually 'undermine the coherence of the public sphere'; and thus potentially reduce or counter the democratising effect of new and social media (Bimber, 2000, pp. 332–333).

At the same time, however, regarding privacy issues of what we refer to as 'digital communication risk', competitive new media platforms have emerged to offer more privacy for users as a key sales point of selecting their platforms. In response, established new and social media companies are now also offering encrypted communication technologies. In addition, horizontal communication is being relied on more to further strengthen expanding counterpublic movements (Castells, 2009; Dahlgren, 2006).

On the coherence of the public digital sphere, Kahn and Kellner (2004, pp. 92–93) also observed that: 'Increasingly, bloggers are not tied to their desktops, writing in a virtual alienation of the world, but are posting pictures, text, audio and video ... Large political events, such as the World Summit for Sustainable Development, the World Social Forum, and the G8

forums all now have wireless bloggers all providing real time alternative coverage’.

In the case of the OWS movement, for example, inclusive participation of citizens in the movement’s activities strengthened through new and social media. Penney and Dadas (2014) identified several roles regarding activist participation that Twitter enabled: from ‘facilitating face-to-face protests via advertisements and donation solicitations’ and ‘live reporting from face-to-face protests’, to ‘making personal connections with fellow activists; and facilitating online-based actions’.

Further, ‘For protest movements like OWS that adopt a non-hierarchical, horizontal structure as a matter of political and philosophical principle, Twitter’s participatory and networked structure of circulation seems to hold particular importance, as its very form resonates with these broader organizational dynamics’ (Penney and Dadas, 2014, p. 89). The open-ended networking capacity of Twitter and alternative digital platforms can also be seen to align with the ‘connectivity architecture’ of the environmental movement, as further enabling a highly flexible and ever-changing action network of activists, groups, and communities (e.g. Doyle and McEachern, 2008; Rainie and Wellman, 2012).

The third notable concern we raise that challenges digital environmental activism is growing State propensity to build panoptic digital surveillance in the claimed interest of the ‘security of the state’, for example, in the adoption of online metadata surveillance strategies. Such strategies aim to protect the security of the state by detecting and monitoring online activities of potential terrorists (Lyon, 2006). As part of this development, the definition of ‘terrorist activities’ extended post-9/11 beyond the traditional focus on criminal activities to civic ‘influencers’.

Included in this remit is environmental activism, which questionably builds on the ‘ecoterrorism’ frame (Taylor, 1998, p. 2; also, Calibeo and Hindmarsh, in this volume; Loadenthal, 2013). The latter is a negative serotyping frame that emerged in the 1970s in relation to highly confrontational or so-called ‘radical’ or ‘militant’ activists—particularly members of the Earth Liberation Front and Animal Liberation (Button, John and Brearley, 2002; Leader and Probst, 2004).

Consequently, for a wide range of contemporary social movement activism, digital communication risk of online surveillance through new and social media has become a potential new reality. New and social media users can then become considered ‘digital suspects’ (in following the concept of ‘genetic suspects’ coined by Hindmarsh and Prainsack, 2010, p.

2). For example, OWS activists came to learn that local protests in Massachusetts were being 'heavily monitored by law enforcement', as one OWS activist commented: 'The police department watches our Twitter like crazy' (Penney and Dadas, 2014, p. 88).

In the environmental protest arena, similar episodes have occurred that involved both online and offline surveillance strategies; from monitoring the activities of digital suspects on social media to more traditional forms of targeted surveillance including the infiltration of undercover officers among activists. For instance, shale gas drilling opponents in Pennsylvania came under State surveillance in 2010; as did activists contesting the Keystone XL tar sand pipeline project in Canada. The latter were placed under police surveillance in 2011 by the Canadian Police 'as [economic] threats to national security' (Leahy, 2013; Potter, 2011). More recently, in 2016, 'Keep it in the Ground', an environmental movement opposing drilling projects for coal mining in Colorado, was put under police surveillance (Fang and Horn, 2016).

On the effectiveness of mass online surveillance, however, Krueger (2005, p. 442) argued: 'For surveillance to discipline individuals also requires the lack of horizontal communication between individuals' (see also, Doyle and Fraser, 2010). Through new and social media, environmental activists also attempt to subvert surveillance by turning the 'watchers' into 'the watched' –a response known as 'sousveillance' or 'participatory surveillance' (Albrechtslund, 2012; Krueger 2005). Also notable is that since 2008, a series of protests has occurred, most notably in Europe and the US, against data retention, surveillance, and any relaxation of media ownership rules (Milan and Hintz, 2013, p. 17).

Conclusion

To reiterate, the aim of this research was to investigate the potential of new and social media to enhance environmental activism to protect the environment, and advance global environmental sustainability through social transformation. In considering the claims and counter claims made in relation to this potential, we are persuaded, by weight of available evidences, to posit a significantly enabling potential of new and social media for enhanced environmental activism, tempered by minimising its potential material and social constraints. Of key importance is the evidence related to horizontal communication, complemented by vertical communication and/or their mix. These communication forms are clearly significant in

informing the strategic and flexible architecture of environmental activism, thus allowing it to engage more effectively in the environmental issues terrain, in complementing and building on traditional (offline) forms of activism, pressure politics, and media targeting.

Of substance, as the Ejolt Environmental Justice Atlas and e–mobilisations and campaigns referred to above indicate, geographically remote and more ‘hidden’ issues will likely be increasingly revealed–including, for example, deforestation in dense old–growth forests and the Amazon, whale hunting in the vast oceans, and mining activities in remote areas. Turning to the potential constraints of corporate control and surveillance, counterpublics are already adapting to political censorship and surveillance through ‘strategic new and social media’. Emergent democracy and technical critiques are also growing of whole population notions of panoptic surveillance through metadata; which involves billions of users with the hard–to–monitor horizontal communication dominant.

To conclude, it seems clear that new and social media is already enhancing environmental activism to engage more effectively in pressure politics, in tandem with conventional forms of pressure, to better protect the environment and constructively advance global environmental sustainability.

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