



## UvA-DARE (Digital Academic Repository)

### Sand in the Information Society Machine: How Digital Technologies Change and Challenge the Paradigms of Civil Disobedience

Züger, T.; Milan, S.; Tanczer, L.M.

**DOI**

[10.15307/fcj.26.192.2015](https://doi.org/10.15307/fcj.26.192.2015)

**Publication date**

2015

**Document Version**

Final published version

**Published in**

The Fiberculture Journal

[Link to publication](#)

**Citation for published version (APA):**

Züger, T., Milan, S., & Tanczer, L. M. (2015). Sand in the Information Society Machine: How Digital Technologies Change and Challenge the Paradigms of Civil Disobedience. *The Fiberculture Journal*, 26, 108-135. [FCJ-192]. <https://doi.org/10.15307/fcj.26.192.2015>

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

*UvA-DARE is a service provided by the library of the University of Amsterdam (<https://dare.uva.nl>)*



issue 26: Entanglements – Activism and Technology

## FCJ-192 Sand in the Information Society Machine: How Digital Technologies Change and Challenge the Paradigms of Civil Disobedience

Theresa Züger  
Alexander von Humboldt Institute for Internet and Society

Stefania Milan  
University of Amsterdam

Leonie Maria Tanczer  
Queen's University Belfast

---

### **Abstract:**

Digital technologies have fostered the rise of new forms of civil disobedience that change and challenge established notions of this form of political action. This paper examines digital civil disobedience using the concept of friction to explore contested entanglements of this kind of protest and its new technological adaptations, as well as tensions on the conceptual level of civil disobedience. The paper is split into three sections which offer analyses of (a) the historical dimension of this form of protest, (b) seven factors that represent some of the features of contemporary digital forms of civil disobedience, and (c) the recurring motif of power of information within digital civil disobedience. The paper is centered on the notion that transformations of civil disobedience demand a reconsideration of traditional understandings of civil disobedience to meet the conditions of our current society.

**doi:** 10.15307/fcj.26.192.2015

## Introduction

Oscar Wilde (1909) once wrote that '[d]isobedience, in the eyes of anyone who has read history, is man's original virtue. It is through disobedience and rebellion that progress has been made.' In that sense, civil disobedience, which is a dissident form of political protest (Hahn, 2008: 1365), is embedded in a historical context and enables societal advancement while also leading to public friction. As society faces inequality, global mass surveillance and unequal power dynamics, civil disobedience has certainly not lost its importance in the twenty-first century.

However, due to the development of the Internet and its broad use and deployment, the tactics and tools of civil disobedience have changed. We are witnessing acts of disobedience in both an offline and online context, which highlight the diversity of mechanisms available to citizens to counteract injustices and dissatisfaction. Thus, just as the African-American Rosa Parks helped spark the civil rights movement in the 1950s by disobeying the racial segregation laws concerning buses, certain online acts, for example, those by the hacktivist collective Anonymous, are signs of political resistance.

As the attention paid to such digital actions increases, the question arises of how older, *traditional* forms of civil disobedience are transformed through the use of the Internet and what the effects of this transition are for both the act of civil disobedience, and also for society in general. The following paper will therefore try to identify the changes and challenges of this transformation and will make use of the concept of *friction* (Tsing, 2005). This should help to identify the difficulties presented by the new entanglement of activism and technology in the context of digital civil disobedience.

## Theoretical Underpinnings and Background

Civil disobedience is a form of political contestation (Celikates, forthcoming) that aims to address injustice in a broader sense. It opposes not only injustice in distribution but all kinds of democratic deficits (Celikates, 2010: 291). Hence, in some cases, civil disobedience is a vehicle for a deeper critique that finds fault within the design or implementation of democratic processes rather than addressing only one single issue. It opposes tendencies that de-politicise public issues by alienating them from the collective self-determination of the people (Volk, 2013). Civil disobedience seeks to combat the

democratic shortfalls that result from, for example, abuses of power or illegitimate power, structurally flawed processes, or even more subversive democratic deficits, such as exclusion or a lack of transparency (Kumar, 2013; Celikates, 2010: 291). It has the potential to initiate political transformation where institutions and laws are unable to perform this change due to inertia and their positivistic claim of absolute authority (Arendt, 1972: 101).

Civil disobedience has been theorised among others by Habermas (1985), Dworkin (1985) and Rawls (1972). All three adopted a so-called *liberal* approach to civil disobedience, though aspects of their perspectives have proven to be highly controversial: as shown by Zinn (1991) and Celikates (2014; forthcoming), who have for instance criticised the general understanding of civil disobedience as a symbolic act, rather than a confrontational act. In contrast to the earlier scholars, Celikates, for example, stands in a tradition of thought called *radical democratic theory*. Arendt (2012) can be seen as a pioneer of this line of thinking. Following this latter tradition of thinking in our argument, civil disobedience is here defined as:

*an intentionally unlawful and principled collective act of protest (in contrast to both legal protest and “ordinary” criminal offenses or “unmotivated” rioting) that (in contrast to conscientious objection, which is protected in some states as a fundamental right) has the political aim of changing (a set of) laws, policies, or institutions (Celikates, forthcoming).*

This minimal understanding of civil disobedience does not imply legitimacy *per se*. Instead, we have to recognise that legitimacy is not inherent to the act, but can only be evaluated *ex post* and will probably stay politically contested (Celikates, 2010: 294).

Drawing on Arendt’s political theory, civil disobedience is not easily determined by a set of criteria that, according to liberal theories, need to be evident when referring to the concept. Instead, civil disobedience gains its quality and political justification for each specific case from the democratic compatibility of these actions, meaning for instance the consideration of plurality and equal rights to political self-determination as a condition of the common world. Motivations such as personal interests or beliefs thereby don’t qualify to justify civil disobedience as a political action. On these terms, civil disobedience becomes legitimate by actualising the freedom to politics while at the same time acknowledging a self-limitation of freedom (Kalyvas, 2008: 243). This is rooted in the concern about a shared world between humans and implies respecting your *own* and *other’s* freedom.

Having now established a general understanding of civil disobedience, we may now turn to recent developments, which have seen this traditional concept challenged by the usage of digital strategies. Since the 1990s, when the World Wide Web entered our households, the opportunities for engaging in civil disobedience have multiplied, as the Internet has offered a novel terrain for expressing political dissent (Klang, 2008). This has been frequently touched upon in literature on online activism and hacktivism (Taylor, 2004; Hands, 2011; Ziccardi, 2012; Boler, 2008) as well as in single case examples of digital civil disobedience (George, 2013). The concept of digital civil disobedience, thus, expands the original notion, which referred to purely offline action, by transferring it into an online setting through the utilisation of information and communication tools (ICT).

However, this does not imply that civil disobediences simply transpose the tactics used offline to the Internet. Rather, digital tactics of civil disobedience foster the transformation of civil disobedience by changing and challenging the concept with new practices (Wray, 1999). They exploit the infrastructure's technical and ontological features for political or social change (Milan, 2015). We can therefore identify a matrix of tactics used for political actions, ranging from *traditional* forms of civil disobedience that have gone digital, to those that have emerged from Internet practices.

The Internet's early years were accompanied by the utopian and universal dream of a globally networked public sphere with the capacity to foster equal participation (Gimmler, 2001). Technology and activism were entangled, and online activism was connoted with high aspirations of democratisation and empowerment for civil society (Barlow, 1996). Viewed in light of this earlier literature, the current literature often gives a more ambivalent picture, which omits these universal yearnings (Morozov, 2011; Sifry, 2014). In *The Exploit: A Theory of Networks*, Galloway and Thacker (2007) portrayed the Internet as a platform for both corporate and subversive activity, due to a structure that is both highly centralised and dispersed. Surveillance, securitisation and commercialisation are increasingly turning the Internet into both an object of contestation in itself, and at the same time a tool and platform for a broad range of other political means.

This highlights the value of casting digital civil disobedience as a story of various forms of *frictions* (Tsing, 2005). The concept of friction can be understood as a metaphor for the diverse and sometimes conflicting entanglements of our contemporary society, leading to new arrangements of culture and power. This utopian vision of the Internet can reflect 'aspirations of global connection' which come to life in the 'sticky materiality of practical encounters' (Tsing, 2005: 1). However, friction should not be understood as being a synonym for resistance. Instead '[h]egemony is made as well as unmade with friction' (Tsing, 2005: 6).

The broad concept of civil disobedience in itself can be comprehended as a friction phenomenon, as state legislation or political measures collide with a dissenting claim for self-determination by citizens. Digital disobedience adds new critical momentum to this already tense situation and gives visibility to friction on two new levels. Firstly, it adds critical moments on the level of entanglements of activism and technology, as offline activism does not simply convert to digital equivalences. Secondly, there is also a less visible kind of friction that challenges the conceptual level of civil disobedience. These two aspects will be discussed in this paper more closely.

Overall, on the basis of the outlined arguments, the present paper aims to investigate a new diversity of approaches, objectives and articulations of civil disobedience, which are new points of encounters causing friction. Many of the current acts of digital civil disobedience are concerned with the (re-) conquest of power over information against the state or a private authority. This is done by either encrypting, manipulating, inventing, or distributing information. The recent transformation of civil disobedience requires taking a closer look at the nature of the digital tactics to facilitate an informed discussion about their justification. Both of the aforementioned two dimensions of friction—the action/technology level as well as the conceptual level—will therefore be explored and interlinked throughout this paper using selected examples of new forms of civil disobedience.

The paper itself is split into three parts. The first section briefly examines the historical dimension of digital civil disobedience starting with the earliest encounters of this form of protest. The second section highlights the new conditions of digital civil disobedience as observations that serve as a challenge to traditional forms of civil disobedience. It comprises seven specific factors including (a) semiotics, (b) automatisations, (c) individuality versus collectivity, (d) new formations of action, (e) anonymity, (f) publicity, and (g) asymmetry. We thereby acknowledge that the previously mentioned key principles of civil disobedience remain in existence. The third and last part of the paper identifies power of information as a recurring motif of digital civil disobedience. This is discussed in reference to the example of political whistleblowing. These aspects help to explore digital civil disobedience from a novel perspective.

## A Brief History of the Emergence of Digital Civil Disobedience

Digital civil disobedience emerged long before the advent of the World Wide Web. In 1985, the Berlin-based hacker collective known as the Chaos Computer Club (CCC) exploited a flaw in the German *Bildschirmtext* home terminal system to raise awareness of its security

risks (Denker, 2013). The Bildschirmtext was an interactive videotext system used for making payments and was operated by the West German postal service. CCC members hacked into the system, organising a massive transfer of money in their favour. However, in contempt of the expectations that this act was motivated by a driving self-interest, the CCC did in fact return the money one day later during an ad hoc press conference. This event clearly highlights how this symbolic but confrontational act had the intention of transmitting a political statement, despite the fact that the action itself was against the law. Hence, the collective effort of the CCC was aligned with the common interest of ensuring data protection and security of the system (Danyel, 2012). The fact that the CCC also made the action public to foster an informed debate emphasises the notion of an act of civil disobedience.

In 1996, the US tactical media collective Critical Art Ensemble (CAE) was the first to conceptualise the idea of *electronic civil disobedience* (Wray, 1999). This term started out dissociated from existing theories and was inspired but not embedded within existing concepts of civil disobedience. Nevertheless, in a series of influential publications, CAE activists declared electronic civil disobedience the most meaningful form of political resistance in light of the distributed power typical of late capitalism. As the very nature of power changed, they argued, traditional embodied forms of civil disobedience would lose traction, especially as authorities became more efficient in ‘evad[ing] the provocations of C[ivil] D[isobedient] participants’ (Critical Arts Ensemble, 1996: 9). Electronic civil disobedience was at that time thought of as ‘another option for digital resistance (...) that would produce multiple currents and trajectories to slow the velocity of capitalist political economy’ (Critical Arts Ensemble, 2001: 13–14).

Rather than attempting to create a mass movement, CAE activists envisioned electronic civil disobedience as a cell-based hit-and-run media intervention. It sought to disempower power-holders through symbolic disturbance and the corruption of information channels. It was assumed that blocking the flow of information within an organisation would disturb all its operations (Critical Arts Ensemble, 1996). Even though the CAE explained the primary tactics as being ‘trespass and blockage’ and the ‘same as traditional civil disobedience’ (Critical Arts Ensemble, 1996: 18), their model represents—to a certain extent—an inversion of the classical model of civil disobedience. It substituted the notion of the rebellious mass with a ‘decentralised flow of particularised micro-organisations’ (Tactical Media, n.d). At that time the CAE was aware that electronic civil disobedience could be misused. They therefore set up a kind of behavioural codex. The conditions they emphasised were based on guaranteeing no harm to humanitarian infrastructures or data, and abstaining from targeting individuals.

Although the CAE never tested their concept, relatively soon other activist groups experimented with disobedient tactics that drew on this understanding of political protest. The first experimental setting used by different activist groups was the distributed denial of service (DDoS) attack (Sauter, 2013: 1). One of the first incidents of a DDoS action dates back to September 1995, when the then-French President Jacques Chirac announced that France would run a series of nuclear tests on the Polynesian atoll of Mururoa. As a consequence, a group of Italian activists organised an attack against the websites of the French government to voice their opposition. The call for action invited people to join:

*a demonstration of 1,000, 10,000, 100,000 netusers all together making part of a line crossing French Government's sites. The result of this strike will be to stop for an hour the network activities of the French Government (Tozzi, 1995).*

On December 21, 1995 ten websites were targeted simultaneously by thousands of users who continuously reloaded the page. The process made the websites temporarily unavailable. This so-called *netstrike* was according to its promoters meant to be 'the networked version of a peaceful sit-in' (Milan, 2013a: 47).

The following year, a group of Italian activists—allegedly the same group as before—published a 145-page book designed to spread the tactic. The first chapter, titled *NetStrike Starter*, included a detailed explanation of how to organise this specific form of protest (Strano Network and Tozzi, 1996). Consequently, many netstrikes followed across the world. They typically targeted governmental websites and opposed, for example, the death penalty and the war in the former Yugoslavia (Bazzichelli, 2008: 171). The underpinning idea of the netstrike is still in use in present day actions.

In 1998, the *Electronic Disturbance Theatre* (EDT) was created as a spin-off of CAE and in support of the Zapatista struggle in Mexico (Paris and Ault, 2004). Amongst their various actions, EDT activists launched a piece of software called *FloodNet* (Tanczer, 2015). This was an HTML/Java applet that sent automatic requests to reload a target page, overexerting the server/website. In that sense, the tool enabled a more automated way of running a DDoS attack. These specific incidents further highlight an interconnectedness of offline and online forms of digital disobedience, as EDT's call for action was designed to encourage both tactics. In addition, the tool strategically translated a known tactic of civil disobedience from the offline to the online world, through the understanding of DDoS attacks being an equivalent to physical sit-ins.



Additionally, much of the street disobedience of the 1990s and early 2000s was made possible by alternative Internet Service Providers (ISPs). They functioned as the digital backbone of the emerging transnational social movements. They did not hesitate to disobey existing legislation to protect fellow activists (Milan, 2013a), although at present, this seems to be no longer the case. For example, in 2006 the European directive (2006/24/EU) forced providers of electronic communications to retain users' metadata and release them to the authorities upon request. This is in open contradiction with the principles of alternative ISPs. As a consequence the ISPs decided not to comply, and instead tried to create technical bypasses and awareness amongst their users. The *communiqué* released by participants in an anti-data retention workshop in Budapest called for civil disobedience by providers and users alike. The directive was accused of exercising 'pre-emptive surveillance of communication structures' and of forcing providers 'to work as outsourced police forces' (Milan, 2013a: 156). It concluded with the following provocation: 'We will pour as much sand into this machine of suspicion as we possibly can' (Milan, 2013a: 156). This shows how the struggle about the authority over information was not only fought using individual practices but also at the institutional level.

The examples provided indicate how digital civil disobedience—over fifty years after Rosa Parks and almost twenty years after CAE's vision—has become a common practice for activists across the globe. More recently, debates around the decentralised online community Anonymous have revived the concept. They resuscitated the idea of digital sit-ins and launched an online disruption campaign of DDoS attacks, 'protesting peacefully for freedom of expression on the Internet' (Colby, 2010). Political aspirations within Anonymous slowly crystallised in what started off as a loose assembly on the 4chan online forum (Sauter, 2014). Although initially primarily concerned with pranks or jokes (Coleman, 2013), the Anonymous collective increasingly mobilises against governments, companies and individuals in retaliation for behaviours they believe are harming society or cyberspace (Coleman, 2014; Sauter, 2014). Some observers have saluted them controversially as 'the new guardian of our civil liberties' (Coleman, 2013), others have equated them with 'armchair cyberwarriors' (Warner, 2010) or simply criminals, to the point that the 2011 *NATO Spring Report* listed them among cybersecurity threats (NATO, 2011).

## The Novel Frictions of Digital Civil Disobedience

The above stated contestation around Anonymous highlights the ongoing controversies around the concept of (digital) civil disobedience. As this form of protest has expanded its scope and tactics, new disputes on the justification of civil disobedience have been

created. In the following section we will trace and compile some of the factors influencing the changes and challenges of civil disobedience when shifting this form of protest to the online sphere. Starting off from the historical context described above, it is an explorative process to examine arising frictions, such as rejection or even sanctions against civil disobedience. This process will also highlight unintended consequences and open questions, of which we would like to name a few.

## Semiotics

On a semiotic level, the Internet entails new conditions of communication and visibility for civil disobedience. Traditional practices of civil disobedience combine a communicative level and confrontational level of action (see Raz, 1994: 264). Although in instances of digital disobedience, the physicality of presence and action is not simply replaced by virtuality, the modes of representation and action have shifted. Whereas, in the past, speech took the form of written or spoken words and body language, it becomes code and pixels in the digital realm. In other words, we examine a transformation of the symbolic format of civil disobedience. New performative strategies of civil disobedience are increasingly adopting technologically mediated appearance. Traditional physical presence and tangible disruption are now transformed into resistance exploiting the architectural and the information level of the Internet.

One of the chosen sites for this struggle is the disobedient use of semiotics, meaning the disobedient use of signs and symbols, content or code. These often represent a certain *purport* of an action. It therefore implies the manipulation of content such as graphics, text or pictures as in the case of political website defacements (Klang, 2008: 77) or so-called 'e-graffiti' (Auty, 2004: 216). The tactic can be exemplified through the *Spying Birds* incident, whereby the\* *website of the software company behind the game Angry Birds* \*was hacked. This happened as a reaction to claims that intelligence agencies had collected data through the exploitation of the smartphone app (Gibbs, 2014). The manipulation plays on the initial meaning of the video game, while using the alteration of the name and website to express dissent. In addition, it demonstrates a contest not only over freedom of speech and different versions of perceived truths, but also over access to network infrastructure and IT-security.

A change introduced by this semiotic shift concerns the visibility and appearance of the actor. While in many traditional forms of disobedience a person with her physical materiality becomes and constitutes part of the dissident action, this is no longer the

case in the online setting. For example, a protester chaining herself to a train track is more substantially linked to the dissident *product or action* than in digital forms of civil disobedience. Thus, while the defacement of\* Spying Birds\* is visible, it is detached from the person(s) performing the dissident action. Communicative effort and the appearance of the author are not intertwined online.

## Automatisation

A further factor and friction is that novel technological developments confront political action through automatisisation. Specifically, the utilisation of software such as the DDoS tools *FloodNet* or the more recent *Low Orbit Ion Cannon* (LOIC; Sauter, 2014) highlight this trend. It defies traditional notions of civil disobedience by reconsidering the role of technical actors in the course of political encounters. This poses concerns on the deliberateness or reflection of protesters.

Civil disobedience is characterised by intentionality and enacted principles. An argument made against the use of DDoS tools is that the availability and usability of such instruments leads to unreflective impulsive decisions. Intentions, consciousness or strategic goals are difficult to evaluate from an outsider or retrospective point of view. 'Risk and cost are relative to the experience of the individual' (Halupka, 2014: 118). Therefore, intentionality cannot be determined objectively.

Furthermore, it would be short-sighted to understand DDoS actions purely as a form of *clicktivism*, meaning 'low-risk, low-cost activity via social media whose purpose is to raise awareness, produce change, or grant satisfaction to the person engaged in the activity' (Rotman et al., 2011: 3). DDoS actions neither come at a low cost nor at a low risk. This is clearly evident from a legislative standpoint, according to which these acts are considered felonies.

Aside from this, Foredyke (2013) introduces the question of the disappearance of human subjects in automated political action:

*[w]hen the idea of networked political dissidence is compounded with the automated functions of software and hardware devices that are necessary to*

*mobilise in networked political dissent, then explicit human subjects start to disappear (Foredyke, 2013: 6).*

Foredyke raises the issue of over-prescribing intent to DDoS attackers and points to the lack of a connection or disconnect between the automated act and statements about motives.

Moreover, the automatising of digital civil disobedience leads to an increased use of certain tactics. This is specifically evident in the case of DDoS (Nazario, 2008). In spite of civil disobedience often being conducted as a creative and unique action to transmit a political message, the inflationary use of a method can affect the political value of a tactic. The quality of its performative character is crucial for its political impact. Frequent and common utilisation of DDoS may disregard the substance of each individual political claim. Increasing automatising of civil disobedience might therefore call for a re-evaluation of the trade-off between a unique political message and the cost of ordinariness.

## Individuality Versus Collectivity

According to Arendt (1972: 74), collectivity is a crucial part of what defines civil disobedience as a truly political act. She argues that civil disobedience can never be an isolated action in the interest of a single individual. This notion of the individual agent who is following a *higher law* or her personal conscience, which is being perceived as superior to legislation, is an ambiguous idea within the longstanding tradition of the philosophical discourse on civil disobedience. It can be traced back to Thoreau (1993) who is mistakenly considered the originator of the term civil disobedience (Laudani, 2013: 94).

Arendt (1972: 60) rejects Thoreau's actions as examples of civil disobedience, since for her, the individual conscience is a highly subjective and isolated entity that does not owe anyone but the *self*. Celikates (2010: 282) builds on this notion and calls this argument of legitimising civil disobedience the *individualistic-romantic model* and criticises it as fundamentally apolitical. Online actions performed individually, such as coding or launching a software program, can occur in complete isolation independently of a collective. They therefore pose the question if acts that are conducted by individuals can be categorically disqualified as civil disobedience.

Kalla (1986: 266) points out that it is not the *quantity* of actors that is decisive for the *quality* of the political act. Instead, the notion of civil disobedience is determined by the notion that an individual acts on behalf of a public and collective interest. Therefore, even individual acts of political hacking can be seen as civil disobedience in the case that they enact a common interest. Nevertheless, there are incidents where an individual is acting in isolation and in pure self-interest when conducting a dissident act. This would certainly not be compatible with the spirit of civil disobedience. Moreover, the debate around individuality and collectivity is further complicated by the fact that intentions of individuals are often highly subjective and not necessarily uncontroversial. Hence, an individual might potentially act on personal interests but *believes* herself to be acting on behalf of common concern.

## New Formations of Action

Political phenomena such as Anonymous promote new formations of online protest. These expand and defy conventional notions of collective action (Postmes and Brunsting, 2002; Calderaro and Kavada, 2013). Within the literature, some forms of contemporary digital disobedience are associated with concepts such as *connective action* (Bennett and Segerberg, 2012) or *cloud protesting* (Milan, 2013b). Connective action is regarded as 'personalised collective action formations in which digital media become integral organisational parts' (Bennett and Segerberg, 2012: 760). Likewise, the *cloud* is a metaphor for a specific way of connecting individuals in joint action that are supported both materially and symbolically by the Internet (Milan 2013b: 200).

The symbolic production mediated by the Internet allows for direct and flexible participation by a variety of individuals. Coleman (2014), who frames Anonymous as a mature and serious political movement, notes that:

*Anonymous is emblematic of a particular geography of resistance. Composed of multiple competing groups, short-term power is achievable for brief durations, while long-term dominance by single group or person is virtually impossible (Coleman, 2014: 393).*

Her description rejects the idea of an anarchic coalition as stated by Shantz and Tomblin (2014), pointing out '[w]ithin each network there are certain participants who can allow or disallow certain people (...) it kind of keeps people in line on that network. So there are

forms of control' (Garfield, 2011). Coleman (2014: 395) concludes that 'organising structures can never quite be apprehended, Anonymous is composed of people who decide together and separately to take a stand'. Thus, this newly gained flexibility for political protest through the Internet allows participants to tailor their engagement more specifically.

While these formations of actions may be seen as offering new potential for digital civil disobedience, they can also be perceived as friction within the public political discourse. If the formation consists of a flexible association of individuals, the question arises as to how reliable the multitude of internal political opinions will be in the public's eye. 'Anonymous simultaneously enacts liberation and control, dissent and a lack of accountability, privacy and piracy' (Ravetto-Biagioli, 2013: 190). The risk that this plurality of agendas and loose affiliation brings with it is that it might be questioned regarding its credibility or at least come with higher cost for the actors when they seek to gain public trust and support.

## Anonymity

The anonymity chosen by some disobedient actors in the context of online actions, poses a challenge for the concept of civil disobedience. In traditional forms of civil disobedience, actors either freely expose their identity or one can assume they at least face a constant risk of their identity being exposed. In the context of the Internet, *identifiability* is not necessarily a prerequisite. In fact, as various examples show, the position towards anonymity is controversial among different online activist cultures.

For instance, EDT activists are very keen to emphasise that they use their real names when engaging in disobedient actions. They base this on the understanding that '[electronic civil disobedience] is about bringing together real bodies and digital bodies in a transparent manner which is the same tradition as civil disobedience' (Dominguez, 2005). This is different within Anonymous, depending on a collective *moniker* as a 'floating signifier, or rather a signifier of something that is existing but rather undefinable' (Ravetto-Biagioli, 2013: 180). In this way, different activist groups choose to either use or refrain from anonymity in the course of their political activities.

However, digital anonymity, despite its insecurities and limits, offers new *abilities* and also lends new *qualities* to these kinds of actions. In sociological terms, anonymity thereby serves the purpose of fostering solidarity through flexible identification (Milan, 2013a). In

the course of an act of digital civil disobedience, the protagonist puts herself in the rear. As a consequence, the action itself comes to the fore. Coleman states in the course of an interview that anonymity 'is a kind of political gateway for a lot of geeks who may have not participated in politics before' (Garfield, 2011).

The use of anonymity highlights a tension with the earlier models of civil disobedience and public political discourse. Although we acknowledge the relativity of anonymity online, certain anonymising technologies impede the authorities in tracking down digital disobedient acts. From a liberal theoretical perspective this is relevant in regard to legitimacy. This school of thought argues that the acceptance of the punishment is decisive for the legitimacy of the disobedient act (Rawls, 1972: 404). In opposition to this notion, Arendt (1972: 67) finds it:

*most unfortunate, that in the eyes of many, a "self-sacrificial element" is the best proof of "intensity of concern" (...) for single-minded fanaticism is usually the hallmark of the crackpot and, in any case, makes impossible a rational discussion of the issue at stake.*

Thus, we may acknowledge that there are circumstances under which anonymity might be the only way to protect oneself from unjust and disproportional penalties while still articulating protest within one's action.

Yet, anonymity comes at the cost of hampered accountability (Davenport, 2002). Even if one might not agree with Davenport's (2002: 35) plea to 'embrace accountability and reject anonymous communications' anonymity at least comes with a strategic obstacle for civil disobedience: anonymity obscures political actors to the civilian community and impedes a process of understanding, identification and credibility of actors and actions. This becomes clearly evident in the fact that anyone could potentially claim to act in the name of Anonymous and as stated by Foredyke (2013: 18) and Mansfield Devine (2011), a majority of the most influential attacks seem to have in fact been organised 'outside of the input of the community'.

The risks associated with anonymity are exemplified by the case of Anonymous infighting, where certain groups have claimed to be more authentic than others (Stöcker, 2014). The case that Coleman (2014: 337) calls 'Sabutage', where she refers to a member cooperating with the FBI who went under the handle *Sabu*, also shows that accountability and trust are not only relevant for the public, but that an anonymous network can also suffer

internally from traitors or spies. [1] Hence, in many cases of political action, anonymity does not compromise the justification of civil disobedience but it often comes with strategic obstacles and costs that ask for thorough consideration.

## Publicity

Digital acts of civil disobedience have shifted the ways in which dissident tactics are publicised. This is underpinned by the understanding that communication is a crucial element of this form of protest (Brownlee, 2007). This becomes particularly important in instances where the dissident disruption targets the architectural level of the Internet, as is the case with DDoS attacks. In such case, the intention or goal of the civil disobedience often remains invisible to the average user, which is why an explicit articulation of the rationale and reference to the movement helps to create awareness among the public.

For Brownlee, the legitimacy of civil disobedience is influenced by the quality of communication (2012: 7), which encourages actors to articulate the dissident act to the public via various channels such as press releases, Twitter, videos, or websites. The communicative effort can help to explain motives or authorship of an action (Garfield 2011). The concept of publicity has also shifted in regard to the phase in which the disobedient act is revealed to the public. Unlike traditional liberal understandings of civil disobedience (Rawls, 1972: 366), some digital acts ‘depend on\* not\* giving authorities advance notice’ (Celikates, 2014: 213). To take this argument a step further, some acts of digital civil disobedience even depend on secrecy\* \*as a breach of law occurs, which is specifically relevant for dissident acts such as whistleblowing or website defacements.

Thus, public involvement of digital civil disobedience must often be created *after* the actual event of civil disobedience has taken place. Although this is not a new feature of civil disobedience, the fact that online actions often require some sort of technological knowledge highlights the necessity to articulate very clearly the method and intention of the dissident act to fellow members of civil society. This necessitates an informed, objective, and credible intermediary communication channel. Without additional media reports acts of digital civil disobedience potentially stay invisible, and remain or become (*mis*)understood.



Another friction between civil disobedience and the public are novel strategies of performance. In order to subvert and/or take advantage of the ongoing spectacularisation of politics by mass media (Mazzoleni and Schulz, 1999), activists have occasionally purposively promoted a cross-fertilisation of civil disobedience with the arts. This is used as yet another step to draw attention to the values they promote or protect. For instance, EDT created the *Transborder Immigrant Tool*, which enables the use of technology to support refugees and prevent deaths on the US-Mexican border by making GPS-maps of water caches available to immigrants (Tanczer, 2015). This project of the EDT led to an investigation by the FBI Office of Cybercrimes and a firestorm of political controversy in the USA (Nadir, 2012). Despite its inherent practical purpose and intent, the operation has been exhibited in the Museum of Contemporary Art San Diego as well as in the Orange County Museum of Art (Bang Lab and Electronic Disturbance Theatre 2.0, n.d.).

Similarly, servers running\* *as TOR relays—systems that enable private, un surveilled networked communications—were hosted at the Reina Sofia Museum in Madrid as part of the Really Useful Knowledge\** exhibition in 2015 (Museo Nacional Centro de Arte Reina Sofía, 2014). [2] This interconnectedness of civil disobedience with art practices is embedded in early notions of electronic civil disobedience, and enacted by groups like EDT. It is noteworthy that the EDT used the term *theatre* to describe their collective, as the term is historically framed as a civil institution educating society (Hentschel, 2000). This connection of EDT with the notion of theatre brings in play means of dramatisation, illusion and catharsis of performance.

Moreover, the perception of having *one singular* target audience is being questioned. Theorists increasingly reject the idea of *the public* as a solitary realm of deliberation. Instead, they announce the emergence of *plural* digital publics (Bunz, 2012; Münker, 2012) understood as ‘more dynamic, diverse, decentralised, and effective alternative networks of communication’ (Benkler et al., 2013: 10). The concept of the *networked fourth estate* (Benkler, 2013) also points out that the audience addressed by digital disobedient actors is not necessarily locally restricted but globally distributed. In addition to being occasionally transnational in nature, these publics sometimes gather quite spontaneously in what has been called ‘flash publics’ (Bratich, 2012; Schwarz, 2014: 185). The public perception of digital civil disobedience is therefore not restricted to\* *local witnesses\** or a media report. Yet, the question arises whether this decentralised public still has to be newly understood in the political context.

## Asymmetry

The final factor of friction which we will discuss, is the asymmetrical relation between the perceived threat and the activist intentions, evident in some cases of digital civil disobedience. An EDT member stated that governments responded to their actions ‘as if it was a real threat to them (..) it is being treated as if it is a serious, real attack like a bomb’ (Tanczer, 2015). This is an interesting claim, considering that the first *FloodNet* actions back in the 1990s were not then defined as illegal. In the course of this interview the EDT member further describes that

*[t]he media was sensationalising what we were doing, while in fact all we wanted to do is to bring attention to a particular event or situation. We were not really trying to—you know—bring down companies’ (Tanczer, 2015).*

This highlights a securitisation of the dissident act that equated the political action with a perceived security threat.

This phenomena has already been observed with hacktivism and the securitisation of Anonymous (Dunn, Caveltly and Jaeger forthcoming). Coleman (2014: 394) assumes ‘it may be the potency and the politically motivated character of the groups’ actions that prompts the state to so swiftly criminalize them.’ As a consequence, the dissident action or actors pose a threat to certain bases of the state’s ontological existence and challenges its claim to unrestrained surveillance (Dunn Caveltly and Jaeger, forthcoming). The asymmetry is also evident in the tactic of website defacements.

In this context, Franklin (2001) highlights that from an IT-security perspective there exists a potential to create greater damage than the defacement itself, for example, financial loss or data breaches. This potential exists, even though the actor might not exploit it. From a legal perspective, political defacements are not distinguished from other, more self-interested website defacements with malicious or criminal intent. This legal one-dimensionality again induces an asymmetry between perceived threat and political intent.

Furthermore, one could argue that website defacements are a logical evolution of culture jamming, which refers to the defacement of political or commercial messages on billboards and public wallpaper long before the Internet (Deitz, 2014). The qualitative difference

between the two evolves out of the need to have server access to enable a content manipulation in the course of a website defacement. This far-reaching access into a system the actor is trying to affect highlights how novel digital actions come with their own logic and frictions, and therefore require case-by-case assessments.

## Power of Information

The dynamics we have just outlined—those that affect the digital tactics of civil disobedience—can all be considered under the overarching idea of the *power of information*. Notions such as *information society*, *information age* (Webster, 1995) or simply\* *information and communication technologies\** (Castells, 2000) highlight the value and power of information in our current societies. Among other practices, civil disobedience has benefited from new and emergent forms of accessing, distributing, and using information to articulate and display dissent. Digitally networked information has, thus, become an instrument against authorities and power structures.

Whistleblowing—which existed long before the Internet—is one prominent phenomena that underpins the importance of understanding information power dynamics. The action itself does not necessarily depend on technology; however, ICTs contributed to the professionalisation of the act of whistleblowing, lowering the risks and developing new modes of action, such as online publishing technology, and security and privacy technologies (Heemsbergen, 2013: 67). Similar to the use of DDoS software tools to facilitate protest actions, the technical components of whistleblowing now frequently depend on specific services, which have become part of the action. Both technology and human action are shaping the political act.

Specifically since the case of Edward Snowden and his revelations about the US National Security Agency (NSA) global mass surveillance in 2012, whistleblowing as a political practice has become widely known and discussed. Yet, despite having been a common practice for centuries, the concept itself is still ‘far from having a settled definition’ (Davis, 2005). Different types of whistleblowing exist, and not all of them are necessarily a political action. Instead, they could potentially be motivated by personal interest and non-political gains.

In spite of this, the current paper conceives of cases of whistleblowing as forms of civil

disobedience when an element of political motivation is evident. We thereby refer to Kumar (2013), who discerns six inherent elements of whistleblowing: (a) it is a deliberate act; (b) it is often done by an insider having access to information and an expertise in assessing the information; (c) the information is directly related to threats to citizens' rights, their obligations or harm the public interest; (d) it is assumed by the whistleblower that withdrawing such information from the public is a grave wrong done to the citizens; (e) the information is such that the public ought to know, and (f) it is in the form of an appeal to the higher authorities, through publicity, with an intention to generate public pressure to correct the wrongs done (Kumar, 2013: 129f).

Kumar, who addresses the question *if and under which conditions* cases of political whistleblowing can be understood as civil disobedience, concludes that actions of whistleblowers meet civil disobedience as a form of *epistemic disobedience* when:

*[t]he disobedient fulfils his [or her] moral duty by exposing the informational asymmetry that protects the wrong-doers, and the democratic deficit within the institution. In doing so the disobedient moves beyond narrow constraints of legal duty, which binds her to the oath of secrecy, to fulfil their obligation to the citizens (Kumar, 2013: 29).*

Hence, the public is the main addressee of the information made transparent and numerous whistleblower platforms like *WikiLeaks.org*, *Publeaks.nl*, and *Globaleaks.org* describe their works as a fight against the threat of information asymmetry to citizens' rights. It is a peculiarity of the information society that this sort of epistemic disobedience changes the ground of what we can know and thereby links the transparency of political information to political power. From a theoretical point of view, whistleblowing is thus an example of how the relationship between publicity and secrecy changes power structures.

Despite these positive elements, whistleblowing can be a highly controversial strategy and it is a risky endeavour for many actors who are involved or affected. This again emphasises the friction around the topic of (digital) civil disobedience. One substantial critique against political whistleblowing is the lack of democratic legitimacy and transparency of decisions being made by a few actors (Lovink and Riemens, 2014; Sagar, 2011). Besides problems around the external transparency of whistleblowing platforms concerning their own processes, whistleblowers or whistleblowing platforms themselves are facing constant threats from legal and state authorities.

Notwithstanding these difficulties, numerous countries are offering increasing protection for whistleblowers as shown in the course of a comparative study of twenty countries (Wolfe et. al, 2014). Although these are favourable developments, frictions certainly remain in everyday practices such as social sanctions or job loss (Martin, 2003: 119). The power of and over information is therefore an essential element of current societal dynamics while the rising awareness that 'whistleblowing is a necessary modality of democratic self-correction' (Kumar, 2013: 126) will hopefully emphasise the political significance of whistleblowing and its relevant position as a pillar of civil disobedience in the information society.

## Conclusion: All Things New for Civil Disobedience?

This paper sought to investigate a new diversity of approaches, objectives and articulations of civil disobedience. We aimed at examining the frictions existent between traditional forms of this specific act of protest and its new technological adaptations, as well as the frictions existent on the conceptual level of civil disobedience. This was done in the course of three specific sections which centred on the idea that transformations of civil disobedience do not necessarily remove legitimacy of digital civil disobedience, but demand a reconsideration of traditional understandings of civil disobedience to meet the requirements of our current society.

Thus, in the course of the first part of this paper the historical dimension of digital civil disobedience was outlined as a background for the seven factors that represent some of the features of contemporary forms of digital civil disobedience. The paper argued for a deeper assessment of these factors while acknowledging the uniqueness of each political context. These observations led to the understanding that current acts of civil disobedience are often centered around an issue of power of information, which is exemplified through the case of whistleblowing.

From a theoretical perspective, digital forms of civil disobedience extend the widespread (and often liberal) understanding of civil disobedience in a multitude of ways. One major transformation is not caused but exemplified by digital acts of civil disobedience. Hence, while in most dominant philosophical theories civil disobedience is presented as a dialectical action between a citizen and the state (Allen, 2011: 133), civil disobedience in the present day increasingly emerges beyond the state level. In addition, civil disobedience addresses increasingly private or international actors instead of concentrating on governmental decisions or institutions (Bentouhami, 2007).

These and other challenges to existing theory lead to a process of rethinking civil disobedience in political philosophy that explores civil disobedience beyond the state paradigm (Allen, 2011; Cabrera, 2011). This is often described in terms of transnational and transversal civil disobedience (Bentouhami, 2007). As possibilities for worldwide surveillance enabled by the architecture of the Internet create new reasons for protest, the same architecture facilitates a new level of global inter-connective action that does not evolve within certain national borders. Rather it assembles around globally shared issues, whereby digital tactics of civil disobedience both enhance and enable this form of transnational dissent. We are also keen to emphasise that our paper is addressing a theoretical debate rather than aiming for empirical generalisations. Further theoretical, but certainly also empirical research is needed to examine these novel factors and frictions of digital dissent.

In conclusion, civil disobedience is not a label that can be attached to a practice or actor in general. Civil disobedience does not come with legitimacy\* per se\*. Stories of civil disobedience tend to be told as either stories of heroes or radical outlaws, depending on the interlocutor. To be sure, both approaches have the ability to offer a compelling story, but hero or villain narratives have their downsides, in that they falsely lead us to believe that the protagonists are either superhuman or inhumane. Both narratives conceal the fact that the disobedient individuals are people like any other, and that their actions come with risks and challenges. They are neither morally superior nor necessarily invincible, neither holy nor inviolable. Still, they often perform a very crucial task in society: they voice their concerns, disrupt routines, and demand that others listen and take action for change, which, regardless of whether one agrees or disagrees, deserves attention.

## Author Biographies

Theresa Züger is currently a PhD researcher at the Humboldt Institute for Internet and Society. In her PhD project and publications, she focuses on the topic of 'digital civil disobedience' and aims to rethink the traditional concept of civil disobedience for the digital age from the perspective of political theory.

Stefania Milan ([stefaniamilan.net](http://stefaniamilan.net)) is curious about the intersection of technology, activism, and cyberspace governance. Currently, she is Assistant Professor of New Media at the University of Amsterdam, where she works on the politics of big data. She is the author of *Social Movements and Their Technologies: Wiring Social Change* (Palgrave Macmillan, 2013) and co-author of *Media/Society* (Sage, 2011).

Leonie Maria Tanczer is PhD Candidate at the School of Politics, International Studies and Philosophy, Queen's University Belfast. Her interdisciplinary research includes input from both the social sciences and engineering and investigates emerging cyber security governance strategies, with a particular focus on hacking and hacktivism. Further research interests include Gender Studies, online collective action, and Science and Technology Studies.

## Notes

[1] Certainly not all actions of Anonymous have a connection to civil disobedience. However, their activism raises relevant questions about means of resistance and collective self-determination in the information society.

[2] Tor (<https://www.torproject.org/>) is an open source software that enables anonymity and counteracts surveillance.

## References

Allen, Michael. 'Civil Disobedience, International' in *Encyclopedia of Global Justice* (New York: Springer, 2011).

Arendt, Hannah. 'Civil Disobedience' in *Crises of the Republic: Lying in Politics, Civil Disobedience on Violence, Thoughts on Politics, and Revolution* (New York: Harvest\* Books, 1972): 49–102. Auty, Caroline. 'Political Hacktivism: Tool of the Underdog or Scourge of Cyberspace?', *Aslib Proceedings*\* 56 (2004): 212–221.

Bang Lab and Electronic Disturbance Theater, 2.0. 'Transborder Immigrant Tool A Mexico/ U.S Border Disturbance Art Project', (n.d.) <http://bang.transreal.org/transborder-immigrant-tool/>

Barlow, John Perry. 'A Declaration of the Independence of Cyberspace'\* \*(1996) <https://projects.eff.org/~barlow/Declaration-Final.html>

Bazzichelli, Tatiana. *Networking. The Net as Artwork* (Aarhus: Aarhus University, 2008).

Benkler, Yochai. 'WikiLeaks and the Networked Fourth Estate', in Benedetta Brevini, Arne Hintz and Patrick McCurdy (eds) *Beyond WikiLeaks: Implications for the Future of Communications, Journalism and Society* (Basingstoke: Palgrave Macmillan, 2013): 11–34.

Benkler, Yochai, Hal Roberts, Robert Faris, Alicia Solow-Niederman and Bruce Etling. 'Social Mobilization and the Networked Public Sphere: Mapping the SOPA-PIPA Debate', *Berkman Center Research Publication* 16 (2013): 1–54. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2295953](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2295953)

Bennett, Lance and Alexandra Segerberg. 'The Logic of Connective Action: Digital Media and the Personalization of Contentious Politics', *Information, Communication & Society* 15 (2012): 739–768.

Bentouhami, Hourya. 'Civil Disobedience From Thoreau to Transnational Mobilizations: The Global Challenge', *Essays in Philosophy. A Biannual Journal* 8.3 (2007): 1–11. <http://commons.pacificu.edu/eip/vol8/iss2/3/>

Boler, Megan. *Digital Media and Democracy: Tactics in Hard Times* (Cambridge: MIT Press, 2008).

Bratich, Jack. 'The Rise of Flashpublics—My Little Kony', *Counterpunch* (2012) <http://www.counterpunch.org/2012/03/13/my-little-kony/>

Brownlee, Kimberley. 'The Communicative Aspects of Civil Disobedience and Lawful Punishment', *Criminal Law and Philosophy* 1.2 (2007): 179–192.

Brownlee, Kimberley. *Conscience and Conviction: The Case for Civil Disobedience* (Oxford: Oxford University Press, 2012).

Bunz, Mercedes. *Die Stille Revolution: Wie Algorithmen Wissen, Arbeit, Öffentlichkeit Und Politik Verändern, Ohne Dabei Viel Lärm Zu Machen* (Berlin: Suhrkamp, 2012).\*

Castells, Manuel. *The Rise of the Network Society, The Information Age: Economy, Society and Culture* Vol. I. (Oxford: Blackwell, 2000).\*

Cabrera, Luis. 'Why Can't We Have That? "Global Civil Disobedience" and the European Living Laboratory', *Open Democracy* (2011), <https://www.opendemocracy.net/luis-cabrera/why-can%E2%80%99t-we-have-that-%E2%80%98global-civil-disobedience%E2%80%99-and-european-living-laboratory>

Calderaro, Andrea and Anastasia Kavada. 'Special Issue on Online Collective Action and Policy Change', *Policy & Internet* 5.1 (2013): 1–6.

Celikates, Robin. 'Ziviler Ungehorsam Und Radikale Demokratie', in Thomas Bedorf and Kurt Röttgers (eds.) *Das Politische Und Die Politik* (Berlin: Suhrkamp, 2010): 274–300.

Celikates, Robin. 'Civil Disobedience as A Practice of Civic Freedom', in James Tully (ed.) *On Global Citizenship. James Tully in Dialogue* (London: Bloomsbury Press, 2014): 207–228.

Celikates, Robin. 'Civil Disobedience' in Gianpietro Mazzoleni (ed.). *The International Encyclopedia of Political Communication* (Malden: Wiley-Blackwell, forthcoming).

Coleman, Gabriella. 'Geeks are the New Guardians of Our Civil Liberties', *Technology Review* (2013), <http://www.technologyreview.com/news/510641/geeks-are-the-new->



guardians-of-our-civil-liberties/

Coleman, Gabriella. *Hacker, Hoaxer, Whistleblower, Spy: The Many Faces of Anonymous* (New York: Verso, 2014).

Critical Arts Ensemble. *Electronic Civil Disobedience* (New York: Autonomedia, 1996).

Critical Arts Ensemble. *Digital Resistance: Explorations in Tactical Media*. (New York: Autonomedia, 2001).

Colby, Hall. 'Anonymous' Posts Video Describing "Operation Payback" In Defense Of WikiLeaks', *Mediaite* (2010), <http://www.mediaite.com/online/anonymous-posts-video-message-describing-their-mission-in-defense-of-wikileaks/>

Danyel, Jürgen. 'Zeitgeschichte der Informationsgesellschaft', *Zeithistorische Forschungen/Studies in Contemporary History* 9.2 (2012): 186–211.

Davenport, David. 'Anonymity on the Internet: Why the Price May Be Too High', *Communications of the ACM* 45.4 (2002): 33–35.

Davis, Michael. 'Whistleblowing', in Hugh LaFollette (ed.) \*The Oxford Handbook of Practical Ethics \*(Oxford: Oxford University Press, 2009): 539–566.

Deitz, Milissa. 'Cut and Paste: Australia's Original Culture Jammers, BUGA UP.'\* *Global Media Journal: Australian Edition* \*8.1 (2014): 1–10.

Denker, Kai. 'Heroes Yet Criminals of the German Computer Revolution' in Gerard Alberts and Ruth Oldenziel (eds.) *Hacking Europe: From Computer Cultures to Demoscenes* (London: Springer, 2014): 167–187.

Dominguez, Ricardo. 'A Transparent and Civil Act of Disobedience', *The Thing* (2005) <http://post.thing.net/node/304>

Dunn Caveltly, Myriam and Mark Daniel Jaeger. '(In)visible Ghosts in the Machine and the Powers that Bind: The Relational Securitization of Anonymous', *International Political Sociology* (forthcoming).

Dworkin, Ronald. 'Civil Disobedience and Nuclear Protest' in Ronald Dworkin (ed.). *A Matter of Principle* (Cambridge: Harvard University Press, 1985): 104–117.

Franklin, Iain. 'Saving Face - The Facts About Website Vandalism', *Computer Fraud & Security* 2 (2001): 8–18.

Foredyke, Robbie. 'DDoS Attacks As Political Assemblages', *Platform. Journal of Media and Communication* 5.1 (2013): 6–20.

Galloway, Alexander and Eugene Thacker. *The Exploit: A Theory of Networks* (Minneapolis and London: University of Minnesota Press, 2007).

Garfield, Bob. 'The Many Moods of Anonymous', *On The Media* (2011), <http://www.onthemedial.org/story/133097-the-many-moods-of-anonymous/transcript/>

George, Cherian. 'The Internet As A Platform for Civil Disobedience' in John Hartley, Jean Burgess and Axel Bruns (eds). \* A Companion to New Media Dynamics \*(Malden: Wiley-Blackwell, 2013), 385–395.

Gibbs, Samuel. 'Angry Birds site defaced with 'spying birds' spoof after NSA revelation', *The Guardian* (2014), <http://www.theguardian.com/technology/2014/jan/30/angry-birds-defaced-nsa-spying-birds-user-data>

Gimmler, Antje. 'Deliberative democracy, the public sphere and the Internet', *Philosophy & Social Criticism* 27.4 (2001): 21–39.

Habermas, Jürgen. 'Civil Disobedience: Litmus Test for the Democratic Constitutional State' *Berkeley Journal of Sociology* 30\* \*(1985): 95–116.

Hahn, Henning. 'Ungehorsam, Ziviler', in Stefan Gosepath, Wilfried Hinsch and Robin Celikates, Wulf Kellerwessel (eds). *Handbuch der politischen Philosophie und Sozialphilosophie* (Berlin: De Gruyter, 2008): 1365–1366.

Halupka, Max. 'Clicktivism: A Systematic Heuristic', \* Policy & Internet \*6. 2 (2014): 115–132.

Hands, Joss. @ *Is for Activism: Dissent, Resistance and Rebellion in a Digital Culture* (London: Pluto, 2011).

Heemsbergen, Luke. 'Whistleblowing and Digital Technologies: An Interview with Suelette Dreyfus', *PLATFORM Journal of Media and Communication* 5.1 (2013): 67–71.

Hentschel, Ulrike. 'Das Theater als moralisch-pädagogische Anstalt? Zum Wandel der Legitimationen von der Pädagogik des Theaters zur Theaterpädagogik' in Eckart Liebau, Leopold Klepacki, Dieter Linck, Andreas Schröer and Jörg Zirfas (eds). *Grundrisse des Schultheaters. Pädagogische und ästhetische Grundlegung des Darstellenden Spiels in der Schule* (München: Beltz Juventa, 2005): 31–52.

Jordan, Tim and Paul A. Taylor. *Hacktivism and Cyberwars. Rebels with a Cause?* (London: Routledge, 2004).

Kalyvas, Andreas. *Democracy and the Politics of the Extraordinary: Max Weber, Carl Schmitt, and Hannah Arendt.* (Cambridge: Cambridge University Press, 2008).

Klang, Mathias. 'Civil Disobedience Online', *Journal of Information, Communication and Ethics* 2.2 (2008): 75–83.

Kumar, Mandhar. 'For Whom the Whistle Blows? Secrecy, Civil Disobedience, and Democratic Accountability' PhD Thesis, LUISS Guido Carli.

Laudani, Raffaele. *Disobedience in Western Political Thought: A Genealogy* (New York, Cambridge University Press, 2013).

Lovink, Geert and Patrice Riemens. 'Twelve Theses on WikiLeaks', in Benedetta Brevini, Arne Hintz and Patrick McCurdy (eds.) *Beyond WikiLeaks: Implications for the Future of Communications, Journalism and Society* (Basingstoke: Palgrave Macmillan, 2013): 245–253.

- Mansfield-Devine, Steve. 'Hacktivism: Assessing the Damage', *Network Security* 8 (2011): 5–13.
- Martin, Brian. 'Illusions of Whistleblower Protection', *University of Technology Sydney Law Review* 5 (2003): 119–130.
- Mazzoleni, Gianpietro and Winfrid Schulz. "“Mediatization” of Politics: A Challenge for Democracy? Political Communication', *Political Communication* 16.3 (1999): 247–261.
- Milan, Stefania. 'Hacktivism As a Radical Media Practice', in Chris Atton (ed.). *Routledge Companion to Alternative and Community Media* (London: Routledge, 2015): 550–560.
- Milan, Stefania. *Social Movements and Their Technologies: Wiring Social Change*. (Basingstoke: Palgrave Macmillan, 2013a).
- Milan, Stefania. 'WikiLeaks, Anonymous, and the exercise of individuality: Protesting in the cloud', in Benedetta Brevini, Arne Hintz and Patrick McCurdy (eds). *Beyond WikiLeaks: Implications for the Future of Communications, Journalism and Society* (Basingstoke: Palgrave Macmillan, 2013b), 191–208.
- Morozov, Evgeny. *The Net Delusion: How Not to Liberate the World* (London: Penguin, 2011).
- Münker, Stefan. *Emergenz Digitaler Öffentlichkeiten* (Frankfurt: Suhrkamp, 2012).
- Nadir, Leila. *Poetry, Immigration and the FBI: The Transborder Immigrant Tool*. *Hyperallergic* (2012)<http://hyperallergic.com/54678/poetry-immigration-and-the-fbi-the-transborder-immigrant-tool/>
- NATO. 'Information and National Security. Draft General Report to the NATO Parliamentary Assembly by Lord Jopling (United Kingdom), General Rapporteur', NATO, (2010), <http://www.nato-pa.int/default.asp?SHORTCUT=2443>
- Nazario, Jose. 'DDoS Attack Evolution', *Network Security* 7 (2008): 7–10.
- Paris, Jeffrey and Michael Ault. 'Subcultures and Political Resistance', *Peace Review: A Journal of Social Justice* 16.4 (2004): 403–407.
- Postmes, Tom and Suzanne Brunsting. 'Collective Action in the Age of the Internet Mass Communication and Online Mobilization', *Social Science Computer Review* 20.3 (2002): 290–301.
- Ravetto-Biagioli, Kriss. 'Anonymous Social As Political', *Leonardo Electronic Almanac* 19.4 (2013): 178–196.
- Rawls, John. *A Theory of Justice* (Oxford: Clarendon Press, 1972).
- Raz, Joseph. *The Authority of Law: Essays on Law and Morality* (Oxford: Oxford University Press, 1994): 262–275.
- Rotman, Dana, Sarah Vieweg, Sarita Yardi, Ed Chi, Jenny Preece, Ben Shneiderman, Peter

Pirolli, Tom Glaisyer. 'From Slacktivism to Activism: Participatory Culture in the Age of Social Media', *Proceedings of the CHI '11 Extended Abstracts on Human Factors in Computing Systems* (2011): 819–22.

Sagar, Rahul. 'Das missbrauchte Staatsgeheimnis' in Geiselberger, Heinrich (ed.). *Wikileaks und die Folgen: Netz - Medien – Politik* (Berlin: Suhrkamp 2011): 201–223.

Sauter, Molly. 'Distributed Denial of Service Actions and the Challenge of Civil Disobedience on the Internet' \*Master Thesis, Center for Civic Media, MIT.

Sauter, Molly. *The Coming Swarm: DDOS Actions, Hacktivism, and Civil Disobedience on the Internet* (New York and London: Bloomsbury, 2014).

Schwarz, Elke. '@ Hannah\_arendt: An Arendtian Critique of Online Social Networks', *Millennium-Journal of International Studies* 43 (2014): 165–186.

Shantz, Jeff and Jordon Tomblin. *Cyber Disobedience: RE: //Presenting Online Anarchy* (Winchester: Zero Books, 2014).

Sifry, Micah. *The Big Disconnect: Why the Internet Hasn't Transformed Politics (Yet)* (New York: OR Books, 2014).

Strano Network and Tommaso Tozzi. *Net Strike, No Copyright, ecc.* (Bertiolo: \*AAA Edizioni, 1996).

Stöcker, Christian. 'Facebook-Spam: Russland-Freunde aus der rechten Ecke', *Spiegel Online* (2014), <http://www.spiegel.de/netzwelt/netzpolitik/facebook-spam-beideutschen-medien-unter-namen-anonymous-a-964869.html>

Tactical Media. 'Electronic Civil Disobedience, Simulation, and the Public Sphere', *Tactical Media Files* (n.d.), <http://www.tacticalmediafiles.net/article.jsp?objectnumber=42809>

Tanczer, Leonie. Hacking the Label: Hacktivism, Race, and Gender. *Ada: A Journal of Gender New Media and Technology*, 6 (2015) <http://adanewmedia.org/2015/01/issue6-tanczer/> Thoreau, Henry David. *Civil Disobedience, and Other Essays* (New York: Dover Publications, 1993).

Tsing, Anna Lowenhaupt. *Friction: An Ethnography of Global Connection* (Princeton N.J.: Princeton University Press, 2005).

Tozzi, Tommaso. 'Netstrike', *Netstrike* (1995) [http://www.tommasotozzi.it/index.php?title=Netstrike\\_%281995%29](http://www.tommasotozzi.it/index.php?title=Netstrike_%281995%29)

Volk, Cristian. 'Herrschaft in der Internationalen Politik—Widerstand zwischen Entpolitisierung und Radikalisierung', in Julian Junk and Christian Volk (eds.) *Macht und Widerstand in der globalen Politik* (Baden Baden: Nomos Verlag, 2013): 49–72.

Warner, Gary. 'Internet Anarchy: Anonymous Crowds Flex Their Muscles', *CyberCrime & Doing Time A Blog about Cyber Crime and Related Justice Issues*, (2010),\* \*<http://garwarner.blogspot.co.uk/2010/12/internet-anarchy-anonymous-crowds-flex.html>

Webster, Frank. *Theories of the Information Society* (Abingdon: Routledge, 1995).

Wilde, Oscar. *The Soul of Man Under Socialism* (Portland, Me: T.B. Mosher: 1909).

Wolfe, Simon, Mark Worth, Suelette Dreyfus, and A. J. Brown. *Whistleblower Protection Rules in G20 Countries: The Next Action Plan* (Melbourne: Public\* \*Consultation Draft, 2014).

Wray, Stefan. 'On Electronic Civil Disobedience', *Peace Review* 11.1 (1999): 107111.

Ziccardi, Giovanni. *Resistance, Liberation Technology and Human Rights in the Digital Age* (Dordrecht: Springer, 2012).

Zinn, Howard. 'Law, Justice and Disobedience', *Notre Dame Journal of Law, Ethics & Public Policy* 5 (1991): 899- 919.\*



The LOCKSS System has the permission to collect, preserve and serve this open access Archival Unit



This Issue of the Fibreculture Journal by The Fibreculture Journal Incorporated is licensed under a Creative Commons Attribution 4.0 International License.



**OPEN HUMANITIES PRESS**

The Fibreculture Journal is published by The Fibreculture Journal Incorporated in partnership with Open Humanities Press.