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Participatory democracy and information and communications technology: A legal pluralist perspective

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Abstract

This article explains why democracy and the important process of democratisation include but go beyond the ambit of the state and state laws, and how democracy and democratisation are both negotiated, contested, engaged with and made up by diverse state and non-state actors within plural legal orders and across multiple sites and transnational networks. This article aims to re-imagine the conception of democracy vis-à-vis information and communications technology from the perspectives of demo-diversity and legal pluralism. Furthermore, the author discusses why the transnational anti-DRM campaign is a successful example of democratisation in the digital networked environment.

1. The Democratic Promise of Technology

The emergence and widespread use of information and communications technologies (ICTs) like the Internet in the 1990s gave rise to optimistic visions of a more participatory and inclusive democracy. [2] The Internet was touted as a solution to the democratic deficit that was symptomatic of the twin pathologies of lack of legitimacy and representation that hobbled most liberal representative democracies around the world. [3] Nation-states undertook various technological interventions from electronic government projects to online consultations and e-voting in order to achieve the objectives of making their governments more relevant and responsive to their citizens and fostering greater political involvement and civic consciousness in the latter. [4] However, despite the considerable attention and billions of sums spent on these techno-governmental initiatives, the aim of establishing a more participatory democracy had proved to be elusive. [5] As a result, the utopian belief in a technologically-mediated and enhanced democracy was first countered by a reactionary, dystopian view of technology, [6] which was also subsequently replaced by the currently dominant reinforcement view that sees technology as offering nothing substantially new to democracy and believes ICT merely reinforces existing political and social institutions and practices. [7] This article argues that the utopian,

dystopian and reinforcement theories of democracy vis-à-vis ICT do not capture completely or precisely the complexity, multiplicity and plurality of democratising democracy within the transnational inter-networked society. While the utopian and dystopian views are clearly misguided for labouring under the assumption of technological determinism, the reinforcement view is similarly problematic because it generally tends to conceive democracy as the sole and exclusive responsibility of state governments in the political arena and conflates the lack of success of electronic government projects with the broader and continuing struggles for greater democratic participation and inclusion in the digital age. [8] All three views of democracy and ICT fall short because they have very limited and uni-dimensional notions of what democracy is, where it takes place and who are involved in its making and preservation. This article will explain why democracy and the important process of democratisation include but go beyond the ambit of the state and state laws, and how democracy and democratisation are both negotiated, contested, engaged with and made up by diverse state and non-state actors within plural legal orders and across multiple sites and transnational networks. A better approach then to understanding the relations between democracy and ICT requires looking beyond the unsuccessful state-centred and legal centralist approaches to electronic democracy and studying experiences of 'democracy in action' [9] from below, at the peripheries, and in the everyday. Part II of this article analyses the problems with the three popular views of democracy and ICT particularly in relation to the UK's much criticised electronic democracy projects. Part III expands and re-imagines the conception of democracy from the perspectives of demo-diversity, democratic culture and legal pluralism. Part IV explains why the transnational anti-DRM campaign is a successful example of democratisation in the digital networked environment. Finally, Part V concludes with a reflection on why a legal pluralist perspective is useful in deepening one's understanding of the relationship between democracy and ICT.

2. The Dilemmas of Technological Democracy

2.1 Three Visions of Democracy and ICT

Explorations and experiments with the democratic promise of ICT are not a recent phenomena. According to Vedel, 'the idea of enhancing democratic processes with information technology did not appear with the Internet, but gradually developed since the end of the Second World War and the advent of computers'. [10] He identifies 'three ages of electronic democracy' [11]: the first age of the governing machine from the 1950s to the 1960s when computers were considered 'an aid for effective managing and rationalising government practices' [12]; the age of teledemocracy from the 1970s to the 1980s when the goal was 'fostering a decentralised, human-sized, convivial usage of information technologies' [13]; and the present age of cyber-democracy which began in the 1990s. [14] It is worth noting that similar to the situation today, during the first two ages of electronic democracy, not only were there technical and social problems that hindered the development and widespread use of technological solutions to democracy, [15] but debates on the value and meaning of technology to the democratic process were divided into two familiar camps - those who predicted a utopian electronic democracy and

those who foresaw a dystopian technocracy or anarchy. [16] Despite their seemingly opposing positions, the arguments of both sides are grounded on the same theoretical assumption, that of technological determinism. [17] Technological determinism is based on two main premises: '(1) that the technological base of a society is the fundamental condition affecting all patterns of social existence and (2) that changes in technology are the single most important source of change in society'. [18] Technological determinism has been criticised for its failure to take account of the 'limitations of the technology itself, social adaptation of the technology, or problems inherent in the vision itself'. [19] According to Winner, there are methodological and moral objections to technological determinism. In the first place, the position that technology is the primary determinant of social change is impossible to prove since 'patterns of technology are themselves largely influenced by conditions of the societies in which they exist'. [20] Further, 'the determinist doctrine offends our sense that fundamental technological conditions are chosen and that social forms related to technology are not merely the passive imprint of new varieties of apparatus or technique'. [21] Thus, it is not surprising that, by and large, neither the utopian nor the dystopian visions have ever come to fruition.

Despite the well-known critique of technological determinism and its similarly problematic counterpart instrumentalism (the belief that technology is completely subject to the supremacy of human agency), [22] throughout the over half a century of interactions between democracy and ICT, the general discourse has tended to oscillate between the seemingly binary extremes of technological utopianism and dystopian visions. Time and again, the initial euphoria over a new technology and its promise of democratic and social change was quickly followed by a dystopian counter-response. [23] Unsurprisingly, with the emergence of new ICTs in the early 1990s, those who were predisposed to liberal-democratic ideals once again proclaimed that the Internet would revolutionise political and social systems because it was inherently democratic due to its technical architecture and design. [24] For these utopian-liberalists, the Internet was a unique, converged medium that combined different modalities of communication and different kinds of content [25] and it permitted interactive discourses and multimedia communications among different parties whether from top down or bottom up. [26] The widely-held belief then was 'the Internet could have a significant impact on broadening political participation by lowering the cost of involvement, creating new mechanisms for organising groups and opening up new channels of information that bypass traditional media gatekeepers'. [27] The Internet symbolised a kind of *democracy ex machina* that would in one fell swoop create an ideal public sphere or a utopian electronic agora [28] and produce disintermediation and open up access to information. [29] Not only would the Internet result in unmediated intimacy within groups and communities, it was also expected to rationalise and depoliticise the functions of government and establish innovative ways of participating in civil and political processes like online consultations, e-voting, and new forms of direct democracy that would enhance the deliberative character of democracy. [30] Further, it would promote social equality, the integration of minorities and the marginalised in society [31] and allow people to escape the control of geographically-limited territorial sovereigns. [32] The Internet was seen as a significant democratising force. [33]

The utopian vision was quickly countered by cyber-realists and pessimists who argued that, as with other technologies, the Internet and its underlying architecture are not

immune to control and they may even be misused to advance governmental regulation or private commercial interests at the expense of democratic freedoms. [34] They pointed out that 'potentially revolutionary technologies are enmeshed into existing social processes' [35] and new technologies are often adapted or adopted within the organisational or social fields in which they are introduced especially by those who hold political or socio-economic dominance. [36] For example, a plan by the Government of Ireland to introduce e-voting in the local and European elections in 2004 was called off after members of the public raised concerns about privacy and the integrity and security of the electronic voting system. [37] Lack of access to the voting system's source code added to the public's distrust of the Government's efforts to upgrade the electoral process with new technologies.

Interestingly, dystopian cyber-pessimist writings have gradually softened and gained general acceptance in the form of the third view of democracy and ICT - that of reinforcement. Under the reinforcement view, it is believed that the Internet has not revolutionised but has been normalised and co-opted into traditional political and social systems. [38] The process of normalisation occurs because ICTs like the Internet are 'embedded in larger social processes' [39] and their 'democratic potential is limited by the existing character of social, political and economic relations, as well as by the attitudes, orientation and activities of governments, citizens and corporations'. [40] While it shares similar characteristics with the dystopian view of technology (and may be considered a less radical version of the latter), the reinforcement model seemingly positions itself as a neutral but realistic middle ground between the utopian and dystopian schools of thought. [41] The reinforcement view benefits from what critical theorists of technology call the 'ambivalence of technology' [42] and its corollary principle of conservation of hierarchy - i.e., 'social hierarchy can generally be preserved and reproduced as new technology is introduced'. [43] The experiences of the United Kingdom ('UK'), as discussed in the next section, appear to bolster the reinforcement view.

2.2 Failings of Electronic Democracy

While there have been other countries that have undertaken electronic democracy projects, [44] the UK is a good case study because it is considered one of the leading states in the field and 'no other government has funded or conducted e-democracy initiatives on a similar scale'. [45] The UK experience with democracy and ICT in the past decade provides valuable insights into the competing triadic views of technological democracy.

Like other states, the UK's interest in using ICT for democracy was set against the backdrop of citizen apathy, general political malaise and disenfranchisement, and an apparent crisis of traditional democratic institutions. [46] Believing that ICT could reinvigorate democracy, [47] the UK Government spearheaded various techno-governmental projects like large-scale computerisation of the bureaucracy, online government services, web-based consultations and discussion forums, [48] and e-voting. [49] However, the UK's electronic democracy projects were troubled from the outset because, despite the 'twin goals of better governance through a better quality of regulation and more open governance', [50] electronic democracy was merely a part of a

broader agenda of the Labour Government to modernise governmental bureaucracy. [51] The Government treated electronic democracy as a modernisation rather than a democratisation project. [52] Thus, despite the persistent flowery, democracy-laced rhetoric, greater attention was given to matters relating to government rather than governance or democracy. [53] Participation and social inclusion seemingly took a backseat to the goals of rationality, efficiency and cost-reduction. [54] E-government was about 'using the power of ICT to help transform the accessibility, quality and cost-effectiveness of public services and to help revitalise the relationships between citizens and government through improved consultation and participation in governance'. [55] Some writers saw e-government as nothing more than 'e-commerce in the public sector' [56] where 'what has emerged is a form of thin, consumerist style of democracy.... ICT is used primarily to improve the efficiency of government services and citizens are regarded as consumers'. [57] As a result, people are 'served but not empowered'. [58] On top of this, governmental institutions 'have tended to be more interested in applying the new technologies to help them become more effective, rather than adopting innovations that might undermine their traditional status or authority'. [59] The matter of e-government was considered 'little more than a technical adjustment to business practices, implemented through managerial tools'. [60] But, ironically, even from the perspective of managerial efficiency, all was not well - 'most of the later projects either run considerably over budget and time, or did not deliver at all'. [61] In addition, there was concern that 'massive outsourcing of previously public functions to the private sector' [62] could lead to 'weakening of democratic structures' [63] and the institutions themselves. [64]

Thus, despite the high hopes, the UK's attempts at electronic democracy did not have a substantial impact on democratic participation and social inclusion. [65] Assessing the decade-long attempt at technology-led democracy in the UK, Ward and Vedel conclude that: (i) 'relatively small numbers are involved in active online politics'; [66] (ii) 'the profile of online participants is not significantly different from traditional activists'; [67] and finally (iii) 'evidence suggests a reinforcement effect, if not the possibility of exacerbating existing political divides'. [68] As a whole, there has been low citizen uptake to the new techno-modernised bureaucracy. [69] The UK Government's online consultations were criticised for lacking interactivity and failing to give citizens a genuine opportunity to participate and influence political decisions, [70] while experiments with e-voting only increased voter turnout by a miniscule five percent. [71] Furthermore, government agencies were more concerned with internal efficiency and 'generally chose methods that normalised rather than re-invigorated or revolutionised existing arrangements'. [72] Echoing the findings of Ward and Vedel, Wright concludes that in the UK 'the radical potential of the Internet has largely been normalised to support existing processes'. [73]

The reinforcement effect observed in the UK is also evident in other electronic democracy projects around the world. According to Di Gennaro and Dutton, 'Most studies of the impact of the Internet on political participation have concluded that this potential has yet to be realised'. [74] Large-scale e-government projects have not resulted in more democratic practices or greater citizen participation. [75] While the technologies of government have been significantly modernised, 'there has not been a commensurate transformation in the character and quality of electoral democracy'. [76] Noveck laments that 'despite the explosion of outlets for communication, there is in fact no noticeable

improvement of the democratic quality of political institutions.' [77] Evidently, a successful e-government project, if one were ever to exist, does not naturally equate with or produce strengthened democracy. [78]

2.3 Tyranny of Novelty

Despite the seemingly strong evidence that supports the reinforcement theory, to conclude that ICT has no role or value to the process of democratisation is both unhelpful and problematic. The main argument against the reinforcement view is that it attempts to reduce the complexity and nuance of the relations between democracy and ICT into the coarse and unrealistic standard of novelty - that technology is only significant to democracy if it generates a novel institutional outcome or produces new socio-political processes. [79] It is a self-fulfilling prophecy to say that the Internet makes nothing new because, as Agre says, 'And what does 'new' even mean? After all, few political phenomena are completely unprecedented'. [80]

Balkin explains the problem with using novelty as the standard for reckoning the impact of technology on democracy:

> "In studying the Internet, to ask 'What is genuinely new here?' is to ask the wrong question. If we assume that a technological development is important to law only if it creates something utterly new, and we can find analogues in the past - as we always can - we are likely to conclude that because the development is not new, it changes nothing important. That is the wrong way to think about technological change and public policy, and in particular, it is the wrong way to think about the Internet and digital technologies." [81]

Because the reinforcement model is 'predicated on outcomes rather than causes', [82] it cannot detect changing social conditions and forces that may transform society and possibly lead to greater democracy. [83] The key then to a richer and deeper understanding of techno-democratisation is to study not what changes ICT brings *to* democracy but why and how ICT changes the conditions *for* democracy. [84]

Agre and Balkin offer the closely-related concepts of 'amplification' and 'salience' as more fine-grained and useful alternatives to the reinforcement model's standard of novelty. Under his amplification model, Agre believes that: 'The Internet changes nothing on its own, but it can amplify existing forces, and those amplified forces might change something'. [85] For Balkin:

> "Instead of focusing on novelty, we should focus on salience. What elements of the social world does a new technology make particularly salient that went relatively unnoticed before? What features of human activity or of the human condition does a technological change foreground, emphasize, or problematize?" [86]

By emphasising changes to social conditions and forces, it becomes possible to detect signs of democratisation even within the relatively unremarkable e-government and e-democracy projects. In the UK, there is evidence of changing democratic conditions. Di

Gennaro and Dutton point out that 'while social inequalities in offline political participation tend to be reproduced and magnified in the online world, it is not simply the case that the same people are active on- and offline… the Internet can bring new people into the political realm'. [87] Furthermore, their research has shown that:

> "... growing familiarity and proficiency with the Internet could potentially increase online involvement among all social groups… use of the Internet tends to reinforce existing inequalities but also holds out the potential to broaden the pool of activists, especially among the younger generations. Thus, efforts aimed at increasing levels of literacy among Internet users - old and young - could contribute to an expansion of online political engagement." [88]

In addition, a study by the UK Department of Communities and Local Government on the experiences of community empowerment found that mechanisms for citizen governance palpably improved 'a community's level of political efficacy, social capital and social cohesiveness'. [89] While mechanisms of electronic participation (e.g., e-forms and petitions) did not have a clear impact on the larger community, they did have 'positive empowerment effects on those directly taking part'. [90]

Thus, while there is a general reinforcement effect, it does not rule out the possibility of increased democratic participation and inclusion in different areas of the global networked society. [91] A better standard therefore to gauge the impact of democratic change brought about by new technologies is not the newness of the tools used or the institutions produced but whether the changing techno-social conditions allow more people to be included in the democratic discourse and whether they are able to participate in a deeper and more culturally-significant manner. It is not an issue of novelty but of quality and inclusivity.

3. Re-imagining Democracy in an Inter-networked Society

By shifting the focus on changing social conditions rather than on novel institutional outcomes, it becomes clear that technology can and does have a very real impact on democracy. The problem with the popular theories of democracy and ICT - whether utopian, dystopian or reinforcement - is that they have a very limited and singular view of what democracy is, where to look for it and who are involved in its constitution. In order to better understand the relations between democracy and ICT and to strive for genuine democratic changes, it is necessary to deconstruct and re-imagine the conception of democracy itself beyond the traditional state-centred and legal centralist assumptions. [92]

3.1 Multiple Forms and Sites of Democracy

The main issue with recent electronic democracy projects is that they are working under a universal notion of democracy that is singularly associated with the governmental machinery and political processes of the state. [93] E-government and its often neglected counterpart, e-democracy, are exclusively tied to the concept of liberal representative democracy. [94] There is a failure to recognise the multiplicity and plurality of democracy

itself - that 'there is not one but rather many forms of democracy'. [95] 'The very discourse of e-democracy is heterogeneous', [96] and it manifests itself in different ways and forms. Santos describes this plural condition of democracy as 'demo-democracy' or 'the peaceful or conflictive coexistence in a given social field of different models and practices of democracy'. [97] Contrary to the belief of governments that ascribe to the Western governmental tradition, liberal representative democracy is not *the* universal democratic form [98] because there is no *a priori* definition nor singular experience of democracy. [99] Paley states that 'the multiple meanings given to the term democracy… suggests that democracy is not a single condition that countries do or do not have, but rather a set of processes unevenly enacted over time'. [100] Clearly, democracy is not an inert status but it is an ever-changing outcome of the continuing debates and struggles for democratisation. [101] Santos points out that 'from a substantive point of view, there is no true democracy, there is only democratization, a process without end.' [102]

Therefore, instead of attempting to define what democracy is, which is an impossible task due to its inherent complexity, fluidity and multivalence, [103] it may be more fruitful to observe and analyse the actual processes and interactions between the social actors themselves that give rise to experiences of democracy. A more insightful approach then to democracy and ICT is not merely to 'disentangle democratic systems from the actual distribution of democratic values', [104] which has a tendency to essentialise democratic values and see them as independent and divorced from society, but to see how democratic values and processes are negotiated and contested by diverse social actors who belong to multiple and often overlapping social fields. [105]

Aside from recognising the plural forms and the dynamic processes of democracy, it is also critical to expand and multiply the locus of democracy beyond the narrow confines of the state and its systems of government. In a post-Westphalian world, the traditional notion of government itself has been questioned and reconfigured by Foucault's concept of governmentality. [106] Building on Foucault's concept, Morison proposes a 'governmentality approach' to e-government:

> " Governmentality puts less emphasis on ideas of high constitutionalism - of Parliament, Cabinet, statute or budget - and stresses instead the importance of the *active subject* as the entity through which and by means of which power is actually exercised beyond traditional state boundaries. [107]
>
> In sum, the governmentality approach suggests that power exists beyond the state and that the centres and levels of governmental power, like its objectives and its techniques, are multiple and differentiated. Power is less about imposing sovereign will and more about engaging with the many networks and alliances that make up a chain or network which translates power from one locale to another." [108]

Under this approach, power is viewed 'as a field of multiple forces challenged the notion of the state as a unitary centre of power, and more specifically it challenged the notion that the state was necessarily the most important target of political struggles'. [109] By moving beyond the restrictions of 'territory, sovereignty and law', [110] the state and its governmental apparatus cease to be the sole centre and locus of democracy. By

deconstructing the traditionally central place of state governments in relation to democracy and seeing the process of democratisation distributed widely across multiple and multilevel social fields, ICTs like the Internet are no longer just a part of the technologies of government but are more properly deemed as 'technologies of the self' through which people shape their own subjectivity and 'make themselves up' as active subjects of power who can make choices'. [111] Once one breaks free from a state-centred view of democracy, democracy becomes a common, everyday experience that occurs everywhere and is shared by everyone.

It is worth noting that the reinforcement effect is strongest in relation to state government and other top-down and hierarchical regulatory systems. The reinforcement theory is self-fulfilling because it narrowly defines and measures democracy in relation to government. [112] But democracy through technology is 'unlikely to take the form of stand-alone "digital democracy projects" and will more likely involve a diversity' [113] of actors and locations. While there is a general consensus that e-government projects have not significantly democratised democracy, there are various sites (mostly outside of the governmental sphere) where ICT is having a positive effect on democratisation. For example, 'the Internet appears to be accelerating the globalisation of political and social protest'. [114] By expanding the conception of democracy beyond governmental regulation and political activity, a broader yet more socially-intimate and fine-grained experience of democracy becomes apparent. [115] The dilemmas of electronic government and the reinforcement effect give way to the promise of democratic participation and inclusion.

3.2 A Matter of Democratic Culture

With the multiplication of the sites of democracy, it is also necessary to expand the scope and meaning of democracy. In light of the changing social conditions brought about by globalisation and the technologisation of society, [116] democracy in relation to technology is not merely an issue of government or politics but it has a profound cultural dimension. [117] New ICTs help 'diffuse, decentralize and de-hierarchize the means of cultural production, distribution and consumption' [118] thereby catalysing a participatory turn in culture. [119] Balkin convincingly argues that one of the main concerns of democracy in the digital age is the promotion of 'democratic culture'. [120] For Balkin, democracy includes but goes beyond the limited sphere of politics and state-centred decision-making.

> "Democratic culture is more than representative institutions of democracy, and it is more than deliberation about public issues. Rather, a democratic culture is a culture in which individuals have a fair opportunity to participate in the forms of meaning making that constitute them as individuals. Democratic culture is about individual liberty as well as collective self-governance; it is about each individual's ability to participate in the production and distribution of culture. [121]

What makes a culture democratic, then, is not democratic governance but democratic participation. A democratic culture includes the institutions of representative democracy,

but it also exists beyond them, and, indeed undergirds them. A democratic culture is the culture of a democratized society; a democratic culture is a participatory culture." [122]

By culture, he means 'the collective processes of meaning-making in a society'. [123] Balkin advances a broader conception of democratic participation and inclusion by highlighting the close links between democratisation and cultural participation.

> Culture is more than governance, more than politics, more than law. And if democracy is giving power to the people, then true democracy means allowing people not only to have a say about who represents them in a legislature, or what laws are passed, but also to have a say about the shape and growth of the culture that they live in and that is inevitably part of them. Power to the people - democracy - in its broadest, thickest sense, must include our relationship not simply to the state but to culture as a whole, to the processes of meaning-making that constitute us as individuals." [124]

It makes sense to relate democracy with culture and vice versa. Democracy and its processual counterpart democratisation at their deepest and most elemental levels are concerned with 'the quality of human experience and the social relations that it makes possible. It can be defined as the entire process through which unequal power relations are replaced by relations of shared authority' [125] as well as equal participation in all aspects of social life. Democratisation 'always contains a promise of a decentralized and participatory kind of democracy that is inclusive rather than exclusive'. [126] Further, democracy also naturally involves culture because the former is generally 'understood as the wide participation of different types of social actors in decision-making' [127] and cultural expression.

A cultural approach to democracy is very appropriate especially in light of the increasingly cosmopolitan and multicultural communities and networks people belong to. Democracy demands the equal participation by different persons and groups, who are often not on equal footing culturally, socially, politically or economically, in the experience of shared governance. As an ideal, persons and groups must be allowed to be 'architects of their culture, building on what others did before them and shaping the world that will shape them and those who follow them'. [128] Democratisation means empowering differently-situated people 'to participate in the growth and development of the cultures and subcultures that, in turn, help constitute [them] as individuals'. [129] Open cultural exchange and free democratic discourse are essential requisites to self improvement and community development.

Participatory democracy, therefore, is ultimately about *social inclusion and cultural innovation*. [130] By interfacing democracy with culture, the essential issues of cultural plurality and social inclusion are properly reintroduced into the democratic agenda. [131]

3.3 From the Perspective of Legal Pluralism

Breaking away from a state-centred conception of democracy in order to reveal the multiple forms and loci of democracy and its important cultural dimension is only the first step to a richer and more complete understanding of democracy and the role ICT plays in

its protection and promotion. A further step is necessary, and this requires excoriating the legal centralist assumptions that afflict traditional electronic democracy discourses. A legal pluralist perspective can help bring to fore the complex processes and interactions involved in democratisation that do not usually come to light when one focuses mainly on the state and state laws.

Legal pluralism is described by John Griffiths 'as that state of affairs, for any social field, in which behaviour pursuant to more than one legal order occurs'. [132] While the concept of legal pluralism has been the subject of much intense debate, [133] legal pluralism is better understood not as a theory but as 'a starting point for looking at the complexities of cognitive and normative orders, and the even more complex ways in which these become involved in human interaction'. [134] Thus, legal pluralism 'does not describe a type of society but is a condition found' [135] in all societies. [136]

Legal pluralism is a response to the 'ideology of legal centralism', [137] which believes that 'law is and should be the law of the state, uniform for all persons, exclusive of all other law, and administered by a single set of state institutions'. [138] Legal centralism bears close similarities to legal formalism which is the theory that 'law is "rationally" determinate' [139] and decisions relating to law can be made without resorting to 'non-legal normative considerations'. [140] Like governmentality which questions the role and place of the state in regulating society, legal pluralism questions the role and place of state law in regulating behaviour. [141] When one gets over this deeply-ingrained but problematic legal centralist mindset that conceives of state law as the sole or supreme normative order in society, [142] it becomes quite easy and even natural to observe conditions of legal plurality arising out of the everyday and taking place everywhere. [143] It should be noted that this article will use the concept of legal pluralism as described above by Griffiths, which should not be confused with the concept of constitutional pluralism or polycentricity, which draws on the idea of legal plurality but primarily focuses on institutions and the state. [144] Legal pluralism has connections with constitutional pluralism but the two are distinct subjects.

It is not difficult to come to terms with legal pluralism in today's global, digital networked environment. Prominent ICT legal scholars like Lessig and Reidenberg have long recognised the existence of plural legal orders within techno-social fields. [145] It may even be said that the utopian view of early Internet scholars, problematic though these may have been, was grounded on the idea that cyberspace was not only a distinct space from the real world but it was also subject to its own set of laws that were autonomous from the laws of the state. [146] Lessig's pronouncement that 'code is law' [147] is an acknowledgment that there are others laws besides state law that affect people's behaviour. Therefore, these non-state legal orders are equally deserving to be called 'law' and are the proper subjects of legal study. [148] When Lessig outlines his oft-cited concept of the four modalities that constrain behaviour (i.e., law, social norms, the market and architecture), [149] he is in fact broadly describing the condition of legal pluralism in the ICT field.

But legal pluralism does not end with the mere observance of plural legal orders within a techno-social field. As an analytical tool, legal pluralism is most useful when it is utilised as a starting point to describe how plural legal orders interact with one another and how

these interactions influence society. [150] Plural legal orders then are not static but are continually interacting with each other and reshaping conditions in society. [151] Santos refers to this 'intersection of different legal orders' as *interlegality*. [152] According Santos, interlegality is:

> "... the phenomenological counterpart of legal pluralism… the conception of different legal spaces superimposed, interpenetrated and mixed in our minds as much as in our actions, in occasions of qualitative leaps or sweeping crises in our life trajectories as well as in the dull routine of eventless everyday life. We live in a time of porous legality or of legal porosity, of multiple networks of legal orders forcing us to constant transition and trespassings." [153]

Legal pluralism or interlegality is significant to the study of democracy and ICT because it allows one to be sensitive to the complexity, multiplicity and plurality of democratic phenomena. [154] Instead of reducing the discussion of the democratic potential of technology to unworkable dichotomies that lead to the tired and circuitous debates of utopian versus dystopian, old against new, or technological determinism versus instrumentalism, [155] legal pluralism offers a more empirically-grounded, open-ended and flexible approach that permits one to see various and multi-modal cases of democratisation. It enables one to observe heightened situations and experiences of democracy taking place in the dynamic interactions among diverse state and non-state actors across the entire networked society. [156]

3.4 The Role of Non-State Actors and Changing Interlegal Conditions

Legal pluralism is able to highlight the key role that various non-state actors play in democratisation, which has been generally overlooked or glossed over in traditional e-government literature. This is especially true in cases where individual citizens are considered mere consumers of public services. It should be noted though that there has always been a recognition of the value of citizen involvement in most e-government projects, but, as seen in the UK experience, this has not gone beyond the realm of rhetoric. Recently, however, possibly responding to the failings of top-down e-government projects and spurred on by changing socio-technical conditions such as the social web and user-generated content, there has been a renewed attempt to put individual citizens and users and other non-state actors at the forefront of efforts to democratise democracy through technology. Morison calls this development 'Gov 2.0', which applies 'the interactive, user-generated elements of Web 2.0 to the practice of government'. [157] For example, the UK and US Governments are now allowing their citizens open access to government data. Since individual citizens and users are 'expert[s] in their own condition[s]', [158] by giving them control over the data and technologies of government, they could possibly become more active and committed participants in their own governance. [159] Gov 2.0, in theory, represents a shift from hierarchical, state-focused ideas of e-government to a more inclusive and participatory approach to governance that is focused on and led by citizens themselves and the communities and networks they belong to and make up. Whether Gov 2.0 will create the conditions for a more engaged citizenship remains to be seen. However, it introduces a significant way of seeing individual citizens and users as important actors in democratisation.

Aside from the expansion of the actors involve in democratisation, technology and law (in the plural sense) also have a significant role to play in changing and reshaping the conditions that make more participatory and inclusive forms of democracy possible. [160] This is especially true in light of the increasing technologisation and juridification of society. [161] Democratic 'norms, rights, obligations and practices are *encoded* in the design and structure of our increasingly digital surroundings'. [162] As Noveck explains:

> "It is not technology per se which either fosters or denigrates the connection between communications media and participatory democratic culture. Technology exists within a framework of values and ideals both inherent to it and imposed by the external legal and institutional structures. Avoiding the negative potential requires solutions that engage law and public policy. But, because the network communications are global, decentralized and uncontrollable, we must also utilize the *technology itself* in maximizing the civic and democratic potential. Without 'programming democracy' into the code - building it into the architecture - of virtual spaces, the way we design public spaces for maximum advantage in real space, little can be made of the promise of digital network communications media." [163]

Thus, democracy in the information age requires resorting to hybrid and multi-prong tactics that involve a mixed bag of state laws, social norms, market forces and technological architecture and tools. [164] This requires diverse social actors engaging in democratic struggles across plural yet interconnected legal orders within different social fields. [165]

While it is true that 'new technologies have not revolutionised or destroyed traditional representative institutions or collective organisations', [166] due to changing conditions such as increased efficiencies and lower barriers to entry, ICTs are in fact:

> "... facilitating the growth of new networks and organisations allowing them to operate in ways that weren't previously possible…. the Internet is widening the political playing field and also accelerating established trends such as growth of direct action protest, single-issue politics that predate the arrival of the Internet." [167]

By reducing costs related to information sharing, dissemination and mobilisation, 'the Internet amplifies the forces that bring communities of practice together' [168] whose interests and goals are not limited to politics. But the impact of new ICTs goes beyond mere efficiency and cost reductions - ICTs 'can create qualitative shifts in the values as well as the strategies and relative power of groups and movements'. [169] Democratising the tools of cultural production and distribution creates the conditions for a more participatory and inclusive democracy. [170]

While ICT may not be revolutionising liberal representative democracies in the traditional sense, it is creating conditions for greater democratic activisms and struggles on a global, regional and local level. The scarcity of successful state-led electronic democracy projects stands in sharp contrast to the growing number of transnational social movements that advocate for greater participation and inclusion with respect to a whole range of political,

social, economic and cultural concerns. [171] Perceiving democracy within the context of plural legal orders opens up the possibility of not only 'pluralizing the public' [172] and creating spaces for 'counterpublics' [173] but also diversifying the locations and means of democratic engagement. The transnational anti-DRM campaign exemplifies the multiple yet interdependent struggles for democracy in the global information society.

4. Hacking Democracy - The Transnational Anti-DRM Campaign

4.1 Democracy and DRM

Traditional public law scholars coming from strict legal centralist and formalist points-of-view will find it hard to see a connection between democracy and digital rights management ('DRM'), which 'refers to technology-based protections that permit a rights holder to restrict a user's access to and control of digital content'. [174] An example of DRM is the Content Scrambling System ('CSS') copy-protection technology used on DVDs which restricts the ways that movies may be played or copied by consumers. As a copy-protection mechanism, DRM, for these public law scholars, would be an intellectual property law concern and, in case of disputes, a private matter between the rights holders and ordinary users and consumers. Why would DRM be a democratic issue when it does not directly involve agencies of the state nor impact how governments rule? But from the more expansive perspective of democratic culture, DRM is clearly an important matter and may be considered one of the most significant challenges to democratic participation today. DRM may be considered democratically suspect because of its tendency to restrict cultural production and innovation. Furthermore, legal pluralism breaks down and opens up the traditionally neat categories of what are considered the proper subjects of legal inquiry and the appropriate fields of expertise that may be resorted to in order to conduct such studies. Having a legal pluralist approach to democracy means having a more expansive and inclusive outlook of where democratisation is taking place as well as where it is threatened, which means also seeing the democratic struggles in the common and even mundane experiences of ordinary users. This means that a seemingly innocuous piece of software code that private companies utilise to protect their technologies and content which they sell to consumers is a matter of urgent concern for democratic study as much as the grand e-government projects that states undertake. In the digital, inter-networked society, technology has a profound impact on democracy especially with respect to what context, why and by whom such technology is used.

Through DRM, copyright owners are able to literally lockdown culture through technical means and restrict the ability of people to democratically participate and culturally innovate. DRM has a profound impact on participatory democracy because it transforms the interlegal conditions of society by making them less open, inclusive and democratic. There are serious democratic objections to DRM technologies because they change 'the foundations upon which the global information society of the 21st century is being built' [175] and they 'represent a major renegotiation of the terms and conditions of cybercitizenship as embodied in the design of the early Internet'. [176] DRM does not only

concern intellectual property rights, which are undoubtedly of major importance in the information age, but it also produces adverse effects on public interest concerns 'as diverse as freedom of expression, privacy, competition law, academic research and consumer protection'. [177] McCullagh and Homsi note that DRM 'can curb fair use, limit access to material that has passed out of copyright and into the public domain, work in consumer-unfriendly ways, and require disclosure of personal information that could raise privacy concerns'. [178] The Electronic Frontier Foundation ('EFF'), a US non-profit organisation that is actively involved in digital rights issues, [179] found that DRM use chills free expression and scientific research, jeopardises fair use, impedes competition and innovation, and interferes with computer intrusion laws. [180]

DRM evidently conflicts with and restricts key democratic rights and values like freedom of expression and the right to seek, receive and impart information and ideas. [181] It has a 'dramatic impact on the terms and practices of cultural citizenship'. [182] These digital locks have been used a number of times to curtail freedom of speech [183] and the essential right of fair use. [184] DRM impedes cultural and social progress because it establishes a new kind of de facto access rights that do not only prohibit unauthorised copying of digital works but also create techno-legal barriers that restrict wider access to and dissemination of knowledge especially with respect to marginalised individuals and groups. [185] There have been cases where DRM has prevented visually-impaired persons from accessing works that they lawfully purchased because the text-to-speech software on their computers are not interoperable with content with DRM. [186] Access to knowledge is indeed one of the central issues of digital democracy. [187] Further, DRM raises serious privacy issues that may impact democratic discourse. [188] As Brown states: 'The ability of [DRM] to collect data on the usage of protected content can have a direct impact on users' privacy…. the monitoring of citizens' access to news and political information has the potential to stifle democratic debate and "inhibit the expression of non-conformist opinions and preferences"'. [189]

4.2 Questioning the Laws of DRM

The democratic issues with DRM are compounded by the fact that these technical copy-protection technologies themselves are protected by a techno-legal anti-circumvention regime. [190] This anti-circumvention regime consists of different international and state laws that prohibit anyone from breaking or circumventing copy-protection mechanisms. The WIPO Internet Treaties [191] provide that states should 'provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures'. [192] Further, states are required to provide adequate and effective legal remedies against the removal or alteration of any electronic rights management information without authority, and against the distribution and communication to the public of works which the electronic management information has been removed or altered without authority. [193] In essence, the international and state laws on anti-circumvention make it illegal to circumvent DRM and to distribute DRM circumvention technologies or any information relating to circumventing DRM. [194] Anti-circumvention laws reinforce 'DRM's technological protections with legal prohibitions'. [195]

It is not disputed that copyright holders have the right to protect their intellectual property

rights through legal, technical, contractual and other means. But the problem with DRM is that the law itself prevents users from exercising their own right to respond to these techno-legal restrictions. When the act of circumvention per se is rendered unlawful under international and state laws, regardless of whether the circumvention is carried out for a lawful use (e.g., in exercise of fair use rights), to a certain extent this is tantamount to a restriction on users' democratic rights to speak, participate and innovate. DRM is particularly problematic because it nullifies users' right to protest and dissent. As a result, this anti-circumvention regime fosters interlegal conditions that hinder democratic participation and inclusion.

If the process of democratisation was confined solely to and influenced by state laws and governmental actions, then the adoption of the WIPO Internet Treaties in 1996 and the subsequent enactment of national anti-circumventions laws such as the United States ('US') Digital Millennium Copyright Act ('DMCA') and the European Directive on copyright in the information society ('Information Society Directive') should have been the final word on DRM and democracy. [196] The laws on the matter are unambiguous. However, this was not the case. While the international community of nations came to an agreement on providing additional legal and technological protections for digital works, [197] non-state actors - individuals, groups, nongovernmental organisations and members of civil society - questioned the legitimacy and democratic underpinnings of DRM and its supporting anti-circumvention regime. The various but interconnected protests and civil actions against DRM over the past decade constitute a distinct transnational campaign that has been relatively successful in overturning the legal, social, economic and technological effects of the anti-circumvention regime in order to promote cultural innovation and social inclusion.

4.3 Interlegal Actions against DRM

Given the manifold problems and objections to DRM, it is not surprising that, despite the clear international and state laws on the matter, this has not stopped different actors from negotiating, contesting and even disobeying the techno-legal regime of DRM in multiple and hybrid ways to serve democratic ends. While this section generally follows Lessig's four modalities of regulation in both describing and categorising the different actions against DRM, in truth, the transnational anti-DRM campaign consists of hybrid, interconnected responses to DRM (i.e., state law, social norms, market and architecture). These actions do not fall within neat categories because they are all interlegal actions - they simultaneously involved and take place across plural legal orders.

The anti-DRM campaign, which may be considered part of the broader open source and access to knowledge social movements, [198] illustrates why participatory democracy need not come from revolutionary institutional changes but may arise from common, everyday experiences of protest and subversion. [199] The legitimacy of anti-circumvention laws and the acceptability of DRM have been the object of criticisms even at the time of the adoption of the WIPO Internet Treaties. [200] Like other national implementations of the anti-circumvention provisions of the WIPO Copyright Treaty, 'the DMCA was controversial legislation driven by and affecting many related areas of information policy, including copyright and fair use, software code as speech, software reverse engineering, and global data flows'. [201] There was a common sentiment that

anti-circumvention laws were enacted to benefit multinational content companies. [202] As a result, the undemocratic imposition of the anti-circumvention regime on users not only failed to gain broad acceptance because it did not represent or take account of the interests of users but, remarkably, it sparked various acts of protest against DRM worldwide, and it continues to stoke the fires of activism not only among hackers, cyber-activists and other epistemic technical communities but in the larger community of individual users and ordinary citizens as well. [203] To the surprise of state governments and the commercial content industry which lobbied for DRM legislations nationally and internationally, [204] the anti-circumvention regime did not go unopposed and has been the target of continuing and widening protest actions 'by increasingly organized groups of hackers and consumers who, through their everyday practices of new media consumption and skilled use of technology, are articulating new cultural citizenship rights and obligation'. [205] In fact, 'hackers and consumers have engaged in new rounds of resistance to DRM code and other attempts to control their habits and practices on-line'. [206]

4.3.1 Market Failure

Whether it is due to technical complexities, intrusiveness of the technology, or a conscious ideological attempt to protect democratic ideals, there is a clear lack of normative support for DRM among users. [207] Individual users and ordinary consumers reject DRM with the simple expedient of not purchasing content with DRM. [208] In 2005, when it was discovered that Sony-BMG was selling music CDs in the US that installed DRM on users' computers that potentially compromised their security, not only was there a public outcry but a number of private and government-initiated court actions were filed against the company. [209] As a result of the so-called rootkit debacle and the negative press that it generated, record labels have generally shied away from using copy protection on CDs. [210]

From the perspective of the ordinary user, DRM is experiencing a crisis of democratic legitimacy. The mere enactment of state laws on anti-circumvention does not mean that DRM will be automatically accepted by people nor that it will effectively control people's behaviour. It is often forgotten that compliance with state law is not solely based on the coercive threat of state punishment and it also involves other considerations like social norms, market forces and the availability of techno-legal means of avoidance. [211] Together with other factors, the legitimacy or the perception of legitimacy of state law (or in certain cases, the lack thereof) 'is a particularly important normative factor' that influences people's behaviour. [212] Plural 'normative considerations are central to understanding the public's decision whether to comply or not' with the laws of the state. [213]

4.3.2 Technical Circumvention

Communities of computer hackers and software developers have also sought to defeat DRM on the level of technical architecture and code. [214] Like other technical systems, DRM is not foolproof and it can be defeated using software codes and technical tools. [215] The CSS copy-protection technology placed on DVDs was easily broken by a young

Swedish programmer who wanted to play DVDs using free and open source software ('FOSS'). [216] After the numerous instances of DRM systems being cracked, [217] the belief that it is *not if but when* copy-protection will be broken has become a truism. [218] Circumventing DRM becomes a mechanism by which these groups influence, shape and make up law in the plural sense. [219] By avoiding the anti-circumvention regime, computer programmers are in fact changing conditions in society that give people a 'margin for maneuver' [220] or gaps within which to struggle for greater participation and inclusion in spite of the techno-legal obstacles. [221] ICT can be used for subversive ends because 'new technology can also be used to undermine the existing social hierarchy or to force it to meet needs it has ignored. This principle explains the technical initiatives that sometimes accompany the strategies of structural reform pursued by union, environmental and other social movements'. [222] The democratic power of code advances the idea that:

> "Genuine technological citizenship in the digital era entails a critical awareness of how code constitutes the conditions of possibility for different norms, models, and practices of online citizenship, along with the capacity to resist and reshape - to *hack*, if you will - the prevailing terms and conditions of citizenship if they no longer serve our needs." [223]

Code as a means of democratic engagement is especially useful for ordinary individuals and people who exist at the peripheries of society - those 'individuals or large, disorganized groups poorly equipped to take advantage of existing means of political influence'. [224] While technology may not be the sole organising force of democracy, together with other normative orders, it still plays a significant role in democratisation because 'it can respond to the assertion of new goals and values by incorporating new "technical codes" into the design and structure'. [225]

However, unlike average users or consumers who may not be very conscious of DRM's negative effects on participatory democracy, software developer communities, in particular FOSS communities, [226] recognise that the act of circumventing DRM does not only make information and knowledge more accessible, but it also preserves and promotes certain democratic norms and values within their communities and in society as a whole. [227] DRM has particularly raised the ire of FOSS developers because it goes against their community norms and values. For most FOSS developers and computer hackers, DRM circumvention does not only protect well-known democratic principles of equality, autonomy, accountability, transparency, publicity, reciprocity, deliberation, and representation, [228] but also their own communal, techno-democratic values of openness, collaboration, decentralisation, universal accessibility, consensus, flexibility, and the freedom to build on the works of others. [229] Within the social field of software developers and hackers, the state laws of anti-circumvention are simultaneously opposed on multiple fronts - on the level of technical code and in relation to social norms.

4.3.3 Formal Legislative Lobbying

The anti-circumvention regime is not only the target of external protests but it is also being subverted from within. In the past decade, aside from opposing the further adoption of stronger and more invasive DRM laws, [230] diverse individuals and groups have

resorted to traditional state institutions and formal legislative mechanisms to counteract the undemocratic effects of DRM. A number of bills have been proposed in different legislatures to modify or overhaul anti-circumvention laws. [231]

In the US, anti-DRM supporters are utilising the triennial rulemaking procedures in the DMCA, which empowers the Librarian of Congress to grant limited exceptions to the anti-circumvention rules, [232] in order to make the DMCA less oppressive. Since the first triennial rulemaking in 2000, the anti-DRM campaign has successfully lobbied for DMCA exemptions for: security research on copy-protection software on CDs; [233] 'film professors to create compilations of motion pictures for educational use in the classroom'; [234] cellular phone unlocking; [235] and the visually-impaired in relation to ebooks. [236] In July 2010, the Copyright Office and Librarian of Congress granted important exemptions to the anti-circumvention provisions of the DMCA. [237]

4.3.4 Transnational Protest Actions

What is interesting about the anti-DRM campaign is that it has both local and global dimensions. [238] While protest activities are mainly undertaken by local actors within their specific national territories or local communities, their actions are closely watched, coordinated and supported across transnational networks. [239] Like other transnational inter-networked social movements, the anti-DRM campaign has come to depend on the Internet and other ICTs as means to further their objectives. [240] Croeser notes that 'social movements rely on the Internet and affordable telecommunications to build and maintain inter- and intra-movement connections, to mobilise movement participants at short notice, and to bypass government controls and resource constraints that may prevent the flow of information through traditional media'. [241] According to Chadwick, 'loose alliances of groups are often able to use the Internet to simultaneously mobilise and focus their efforts on different levels of politics, seamlessly shifting from the national to the transnational'. [242] Organisations like the EFF and the Free Software Foundation [243] have been spearheading transnational grassroots actions against DRM. [244] As a result of this multi-form and multi-situs transnational campaigning, 'consumers have also shown they are extremely unhappy with [DRM] that restrict previously common uses of products such as format-shifting music from CDs to PCs…. The Internet has made consumer discussion of and campaigning over [DRM] much easier and hence potentially more damaging to companies that release works using them'. [245] A recent example of consumers rallying against DRM is the case of Spore, a much anticipated videogame. After the release of Spore, users who bought the game began giving the game a low rating on Amazon.com, an online store, because of the overly-restrictive DRM that was used on the game. [246] It was a sporadic and uncoordinated protest against DRM; [247] users were making their disdain for anti-circumvention laws publicly known. [248] The downgrading of Spore had a potentially negative effect on the sales of the game. As a result, Electronic Arts, the video game publisher of Spore, subsequently announced that in the future it will release videogames without DRM. [249] The Spore case illustrates how 'low-level, individual forms of protest quickly blossom into widely known viral campaigns due to the nature of the Internet'. [250]

The bottom up yet interconnected actions that make up the transnational anti-DRM

campaign have been relatively successful in subverting the anti-circumvention regime. Record labels and content companies are now generally abandoning the use of DRM on digital content because of, among others, low consumer uptake, negative public opinion and perception, interoperability issues, and the fact that DRM has not proven to significantly reduce piracy. [251] Even Apple's iTunes Store, which is the leading online music store and uses minimally-intrusive DRM that appeals to users, [252] made its music catalogue completely DRM-free in April 2009. [253] The techno-democratic struggles against DRM are clearly succeeding.

4.4. Democratic Subversion

The success of the transnational anti-DRM campaign highlights the importance of legitimacy in the struggles for participatory democracy. [254] If governmental or social institutions and processes are considered by the demos themselves to be undemocratic and unacceptable, [255] people will not only try to avoid the effects of an undemocratic system through interlegal means as shown above, but they may even resort to 'illegal' acts (i.e., only in the sense of being contrary to black-letter law) in order to preserve and promote participatory democratic culture. [256] Moore explains the relationship between state law and other normative orders within a particular social field:

> "It is not unreasonable to infer that at least some of those legal rules that are obeyed, are obeyed as much (if not more) because of the very same kinds of pressures and inducements that produce compliance to the non-legal mores of the social field rather than because of any direct potentiality of enforcement by the state. In fact, many of the pressures to conform to 'the law' probably emanate from the several social milieux in which an individual participates. The potentiality of state action is often far less immediate than other pressures and inducements." [257]

The landmark anti-circumvention case in the US of *Universal City Studies v. Corley* [258] shows how resorting to technically unlawful means plays a significant role in democratising democracy in the ICT field, and why subversive normative orders are also the proper subjects of democratic study. In the *Corley* case, a US court ruled that it was unlawful for a hacker website to link to the DeCSS software code, which permitted the circumvention of the CSS copy-protection system. [259] The Court upheld the validity of the anti-circumvention rules despite the website's freedom of speech claims. However, in spite of the judicial ruling, people in the US and around the world continued to link to and post information about the DeCSS code even when the code itself had already become technically obsolete as a circumvention tool. [260] The DeCSS protest became an international phenomenon. [261] What was most interesting was that, in addition to linking to or posting the DeCSS code in defiance of the court's order, a significant number of people were doing so as part of broader democratic discussions about 'copyright laws, fair use, code as speech, or reverse engineering'. [262] The vociferous online reaction against the *Corley* ruling came about because people believed that the DMCA was being used to directly impinge on democratic freedoms that were essential in the digital age. [263] Eschenfelder and Desai explain that 'in this sense, the resiliency of DeCSS was driven by its value as a protest symbol against the broader aims of *Corley* and the DMCA.

If this is correct, then the very fact that distribution of DeCSS was deemed illegal may have contributed to the software's resiliency'. [264] Recently, a similar incident transpired in relation to the HD-DVD copy-protection technology called Advanced Access Content System ('AACS'). When Digg.com, a popular social news website where users submit their own news stories for publication on the site and members of the community vote up the ones they like, started to take down users posts that contained the code or links to the code for breaking AACS pursuant to the DMCA, there was a Digg user revolt and people started flooding the website with posts containing the circumvention code and voting those news stories up. Seeing the overwhelming response of its users, the website begrudgingly gave in and stopped taking down the AACS circumvention code even if the website would be violating the DMCA and could be subject to legal prosecution following the *Corley* ruling. [265] The above cases illustrate why people sometimes engage in unlawful acts in order to further their democratic struggles.

The creation and distribution of the DeCSS and AACS decryption codes act as valuable symbols of protest that directly engage with the complex democratic issues surrounding DRM. [266] These revolts may be considered forms of public online protests or acts of electronic civil disobedience. [267] Dissent and resistance serve an important function in democratising the information society. [268] This so because 'dissent, whether in culture or in politics, is not mere negation. Rather, dissent is creative and cumulative. It appropriates elements of what it objects to and uses them in the process of critique, often through subverting or parodying them'. [269] The transnational anti-DRM campaign shows how the cumulative acts of lack of consumer acceptance, public outcry, legislative lobbying, and unlawful software hacks creatively subvert the anti-circumvention regime from outside and within in order to bring about greater democracy. [270] These unorganised but concerted actions by private individuals and groups 'subvert the dominant codes from within, through the way they distribute their effects over time, combine with each other, pay lip service or exaggerate in the application'. [271] Resorting to interlegal means is particularly useful for those who are politically, socially or technologically marginalised because 'forgotten groups do not necessarily suffer in silence; instead they avoid laws with which they disagree'. [272] For example, some writers believe that peer-to-peer ('P2P') file-sharing is a social movement that expresses itself in mass disobedience to international and state copyright laws. [273] Longford suggests that 'the explosion in popularity of music downloading and P2P networking represents a form of resistance to proprietary code and an example of social appropriation of the cultural and political possibilities of code'. [274] Ward and Vedel similarly observe that 'outsider, oppositional or fringe organisations are likely to benefit disproportionately from the rise of new ICTs and potentially pose more of a challenge to mainstream political establishment'. [275] Thus, in the ICT field, subversive acts like hacking DRM become a significant means to 'restructure the domination at a higher level, sometimes in ways that weaken its control' [276] in order to create conditions for democratisation. [277]

5. Emerging Democratic Consciousness

Democracy and ICT have had a long and contentious history, [278] and debates over the democratic potential of ICT have vacillated schizophrenically between 'the celebration of

technocracy triumphant and the gloomy Heideggerian prediction of techno-cultural disaster'. [279] The problem with past and ongoing debates about democracy and ICT is that they attempt, whether consciously or unconsciously, to come up with a unified theory of democracy in an increasingly technological society. But the trouble with these top-down theoretical approaches is that they do not take account of the unpredictability and ambivalence of technology and, more importantly, they fail to come to terms with the full complexity and messiness of people's actual experiences of democracy. In most cases, the unaccountable and messy facts that do not fall neatly within monolithic models are considered aberrations and are conveniently disregarded. [280]

In contrast, legal pluralism offers a more dynamic, empirical and open-ended way to observe and understand the relationship between democracy and ICT. The value that legal pluralism brings to techno-democratic discourse is a new way of seeing and describing participatory democracy in the inter-networked society. It accomplishes this by going beyond the severely limited and problematic state-centred and legal centralist conceptions of democracy. A legal pluralist perspective helps expand and multiply one's understanding of democracy, where to look for it and who are involved in its constitution. [281] As this article has shown, democracy is not limited to the state and governmental processes, and it is better understood as the dynamic process of democratisation taking place within and across different techno-social fields. There are multiple forms and sites of democracy in an inter-networked society - hackers breaking DRM in cyberspace, consumers protesting the use of DRM in an online store, or advocacy groups lobbying against anti-circumvention laws in legislatures around the world. Far from being the sole concern of nation-states, democracy involves the active participation of diverse state and non-state actors, including nongovernmental organisations, software communities and even ordinary users.

Re-imagining democracy and ICT from the lens of legal pluralism produces a profound democratic consciousness that heightens both the awareness and the experience of democratisation that is happening all around us. As illustrated in the transnational anti-DRM campaign, democratisation can be carried out in multiple interlegal ways. Participatory democracy, or in some cases the struggle for it, occurs across the entire inter-networked environment - not just at the centres but most especially from below, at the peripheries, and in the everyday interactions among actors belonging to different social networks. Democratising democracy through technology therefore is less about changing systems of government but being more attuned to the always changing conditions of interlegality in society, and how these emerging yet interdependent conditions can provide new spaces and sites for greater cultural innovation and social inclusion.

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[3] Boaventura de Sousa Santos and Leonardo Avritzer, 'Introduction: Opening Up the Canon of Democracy' in B Santos (ed), *Democratizing Democracy: Beyond the Liberal Democratic Canon* (Verso, London 2007) xxxvi and lxvi; Boaventura de Sousa Santos, 'Reinventing Social Emancipation: Toward New Manifestos' in B Santos (ed), *Democratizing Democracy: Beyond the Liberal Democratic Canon* (Verso, London 2007) xxx; Stephen Ward and Thierry Vedel, 'Introduction: The Potential of the Internet Revisited' (2006) 59 Parliamentary Affairs 210, 213; Arjun Appadurai, 'Deep Democracy: Urban Governmentality and the Horizon of Politics' (2002) 14 Public Culture 21, 24; Karen McCullagh, 'E-democracy: potential for political revolution?' (2003) 11 I.J.L. & I.T. 149, 151.

[4] John Morison, 'Online government and e-constitutionalism' [2003] Public Law Spr 14, 15; Peter Ferdinand, 'The Internet, Democracy and Democratization' (2007) 7 Democratization 1, 8; McCullagh (n 3) 156.

[5] Burkhard Schafer, 'Democratic Revival or E-Sell Out? A Sceptic's Report on the State of E-Governance in the UK' Report to the XVIIth International Congress of Comparative Law, July 2006, 9 and 11; Graham Longford and Steve Patten, 'Democracy in the Age of the Internet' (2007) 56 U.N.B.L.J. 5, 5.

[6] Bert-Jaap Koops, 'Criteria for Normative Technology: The Acceptability of "Code as Law" in Light of Democratic and Constitutional Values' in R Brownsword and K Yeung (eds) *Regulating Technologies: Legal Futures, Regulatory Frames and Technological Fixes* (Hart Publishing, Oxford 2008) 158 (dystopian in the sense of either anarchy or technocracy).

[7] Philip E. Agre, 'Real-Time Politics: The Internet and the Political Process' (2002) 18 The Information Society 311, 317; Longford and Patten (n 5) 9.

[8] See Santos 'Reinventing' (n 3) xxiii and xxvi.

[9] See Schafer (n 5) 19 (see distinction between law in books and law in action).

[10] Thierry Vedel, 'The Idea of Electronic Democracy: Origins, Visions and Questions' (2006) 59 Parliamentary Affairs 226, 226.

[11] Vedel (n 10) 227.

[12] Vedel (n 10) 228.

[13] Vedel (n 10) 228.

[14] Vedel (n 10) 229.

[15] See Vedel (n 10) 227.

[16] Jacques Ellul, 'The Technological Order' (1962) 3 Technology and Culture 394, 395, 400 and 401-402; Beth Simone Noveck, 'Paradoxical Partners: Electronic Communication and Electronic Democracy' (2000) 7 Democratization 18, 18; Begoña Aretxaga, 'Maddening States' (2003) 32 Annual Review of Anthropology 394, 399; Graham Longford, 'Pedagogies

of Digital Citizenship and the Politics of Code' (2005) 9 Techne 68, 71-72; see Carl Mitcham, 'Why the Public Should Participate in Technical Decision Making' in R Schomberg (ed), *Democratising Technology: Theory and Practice of Deliberative Technology Policy* (International Centre for Human and Public Affairs, The Netherlands 1999) 40.

[17] Langdon Winner, *Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought* (MIT Press, Massachusetts 1977) 74-75.

[18] Winner (n 17) 76.

[19] Margaret S. Elliot and Walt Scacchi, 'Mobilization of software developers: the free software movement' (2008) 21 Information Technology & People 4, 9-10.

[20] Winner (n 17) 76.

[21] Winner (n 17) 77 (but Winner also states that despite the problems with technological determinism, it should not be rejected out of hand).

[22] Andrew Feenberg, *Critical Theory of Technology* (Oxford University Press, Oxford 1991) 5-8 (discussion on the instrumental and substantive theories of technology); John Griffiths, 'What is Legal Pluralism' (1986) 24 J. Legal Pluralism & Unofficial L. 2, 29; see Arthur J. Cockfield, 'Towards a Law and Technology Theory' (2004) 30 Manitoba Law Journal 383, 399; see Arthur Cockfield and Jason Pridmore, 'A Synthetic Theory of Law and Technology' (2007) 8 Minn. J. L. Sci. & Tech. 475, 480 and 497; Longford (n 16) 71-72; see Sally Falk Moore, 'Law and Social Change: The Semi-Autonomous Social Field as an Appropriate Subject of Study' (1973) 7 Law & Society Review 719, 719 (instrumentalism can also be seen in the attempts by state actors at different forms of social engineering).

[23] Paul DiMaggio, Eszter Hargittai, W. Russel Neuman and John P. Robinson, 'Social Implications of the Internet' (2001) 27 Annual Review of Sociology 307, 310; Olaf Winkel, 'The Democratic Potentials of Interactive Information Technologies under Discussion - Problems, Viewpoints, and Perspectives' (2000-2001) International Journal of Communications Law and Policy, Issue 6, 3 and 8.

[24] See Andrew D. Murray, *The Regulation of Cyberspace: Control in the Online Environment* (Routledge-Cavendish, Abingdon 2007) 6; Ward and Vedel (n 3) 210 and 221; see Vedel (n 10) 229, see Scott Wright, 'Electrifying Democracy? 10 Years of Policy and Practice' (2006) 59 Parliamentary Affairs 236, 236.

[25] DiMaggio (n 23) 308; Oren Perez, 'Electronic Democracy as a Multi-Dimensional Praxis' (2002-2003) 4 N.C. J.L. & Tech. 275, 276.

[26] Corinna Di Gennaro and William Dutton, 'The Internet and the Public: Online and Offline Political Participation in the United Kingdom' (2006) 59 Parliamentary Affairs 299, 299; Ferdinand (n 4) 1; McCullagh (n 3) 159; Longford and Patten (n 5) 5.

[27] Di Gennaro and Dutton (n 26) 299.

[28] McCullagh (n 3) 150 and 158; Longford and Patten (n 5) 9.

[29] Ferdinand (n 4) 2.

[30] Ferdinand (n 4) 6 (citing Barber's idea of 'strong democracy'); McCullagh (n 3) 153;

see Richard E. Sclove, *Democracy and Technology* (The Guildford Press, New York 1995) 26; Longford and Patten (n 5) 8.

[31] Ferdinand (n 4) 10.

[32] Ferdinand (n 4) 11.

[33] See Agre (n 7) 311-314 (lists 10 common beliefs and proposals of how the Internet will change political life in democratic societies); Ferdinand (n 4) 1.

[34] See Lawrence Lessig, *Code: version 2.0* (Basic Books, New York 2006) 24 and 136; see Murray (n 24) 8 and 42; see Tim Wu, 'When Code Isn't Law' (2003) 89 Virginia Law Review 679, 680; see Francois Bar, John E. Richards and Christian Sandvig, 'The Jeffersonian Syndrome: The Predictable Misperception of the Internet's Boon to Commerce, Politics, and Community' March 2000 <http://www-rcf.usc.edu/~fbar/Publications/jeffersonian-syndrome.PDF> accessed on 15 April 2009.

[35] Wright (n 24) 237.

[36] Ward and Vedel (n 3) 221.

[37] See Bruno Zelic and Bernd Carsten Stahl, 'Does Ontology Influence Technological Projects?: The Case of Irish Electronic Voting' (2005) Professional Knowledge Management 657 <http://www.cse.dmu.ac.uk/~bstahl/publications/2005_ontology_irish_voting.pdf> accessed on 21 October 2010.

[38] Di Gennaro and Dutton (n 26) 300; Ward and Vedel (n 3) 210; Wright (n 24) 237; see Noveck (n 16) 19-20; Agre (n 7) 323 (some believe that the Internet's impact on society is essentially conservative).

[39] Agre (n 7) 315.

[40] Longford and Patten (n 5) 6 and 14.

[41] DiMaggio (n 23) 310.

[42] Andrew Feenberg, 'The Ambivalence of Technology' (1990) 33 Sociological Perspectives 35; Winner (n 17) 74; Ellul (n 16) 395; see Feenberg (n 22) 42-43.

[43] Andrew Feenberg, 'Escaping the Iron Cage, or, Subversive Rationalization and Democratic Theory' in R Schomberg (ed), *Democratising Technology: Theory and Practice of Deliberative Technology Policy* (International Centre for Human and Public Affairs, The Netherlands 1999) 1; Richard E. Sclove, 'Design Criteria and Political Strategies for Democratizing Technology' in R Schomberg (ed), *Democratising Technology: Theory and Practice of Deliberative Technology Policy* (International Centre for Human and Public Affairs, The Netherlands 1999) 19; see Moore (n 22) 723 (on the unplanned and unexpected results of social engineering projects).

[44] Schafer (n 5) 1.

[45] Wright (n 24) 239 and 247; John Morison, 'Modernising Government and the E-Government Revolution: Technologies of Government and Technologies of Democracy' in N Bamforth and P Leyland (eds), *Public Law in a Multi-Layered Constitution* (Hart Publishing, Oxford 2003) 15; see Schafer (n 5) 11 and 14; McCullagh (n 3) 156.

[46] Ward and Vedel (n 3) 213 and 220; Wright (n 24) 236; DiMaggio (n 23) 320; Di Gennaro and Dutton (n 26) 299; Ferdinand (n 4) 4, 5 and 7; McCullagh (n 3) 149 and 152.

[47] Morison (n 4) 15.

[48] Wright (n 24) 240-242,

[49] Wright (n 24) 245; Morison (n 45) 173.

[50] Schafer (n 5) 4.

[51] Wright (n 24) 238; Morison (n 4) 15 and 22; Morison (n 45) 168-169 and 187.

[52] Ward and Vedel (n 3) 223.

[53] Schafer (n 5) 5 and 12; Wright (n 24) 238-239; Longford and Patten (n 4) 7 (distinguishing between top-down e-government and horizontal e-governance).

[54] Morison (n 4)16; Ward and Vedel (n 3) 222; see Schafer (n 5) 19; see Ferdinand (n 4) 3; see McCullagh (n 3) 155.

[55] Morison (n 4) 14; Morison (n 45) 179.

[56] Schafer (n 5) 3.

[57] Longford and Patten (n 5) 6; Ward and Vedel (n 3) 222; Schafer (n 5) 6

[58] Longford and Patten (n 5) 7; Morison (n 45) 180.

[59] Ferdinand (n 4) 9.

[60] Schafer (n 5) 8 and 18; Longford and Patten (n 5) 7; see McCullagh (n 3) 155.

[61] Schafer (n 5) 5.

[62] Schafer (n 5) 19; Morison (n 4) 21.

[63] Schafer (n 5) 21

[64] Morison (n 4) 22.

[65] Schafer (n 5) 10; Vedel (n 10) 232.

[66] Ward and Vedel (n 3) 214.

[67] Ward and Vedel (n 3) 214.

[68] Ward and Vedel (n 3) 214; Agre (n 7) 316.

[69] Schafer (n 5) 3 and 10.

[70] Wright (n 24) 243; McCullagh (n 3) 158.

[71] Wright (n 24) 247.

[72] Wright (n 24) 244; Ward and Vedel (n 3) 222; Schafer (n 5) 10.

[73] Wright (n 24) 248.

[74] Di Gennaro and Dutton (n 26) 300.

[75] Morison (n 4) 21.

[76] Longford and Patten (n 5) 6.

[77] Noveck (n 16) 18.

[78] McCullagh (n 3) 155.

[79] Agre (n 7) 317-318; see Wu (n 34) 681.

[80] Agre (n 7) 317.

[81] Jack M. Balkin, 'Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society' (2004) 79 N.Y.U. L. Rev. 1, 2.

[82] Agre (n 7) 318.

[83] Vedel (n 10) 232.

[84] See Balkin (n 81) 2; see Sclove (n 43) 21.

[85] Agre (n 7) 317.

[86] Balkin (n 81) 2.

[87] Di Gennaro and Dutton (n 26) 306.

[88] Di Gennaro and Dutton (n 26) 311-312.

[89] Pratchett et al, 'Empowering communities to influence local decision making: A systematic review of the evidence' (Department of Communities and Local Government, London 2009) 7 and 11.

[90] Pratchett (n 89) 7.

[91] Di Gennaro and Dutton (n 26) 306.

[92] Vedel (n 10) 232; Julia Paley, 'Toward an Anthropology of Democracy' (2002) 31 Annu. Rev. Anthropol. 469, 477; see Santos 'Introduction' (n 3) lxii; see Clifford Geertz, 'Local Knowledge: Fact and Law in Comparative Perspective' in *Local Knowledge: Further Essays in Interpretative Anthropology* (Basic Books, Inc., New York 1983) 173 and 232.

[93] See Appadurai (n 3) 45.

[94] See Santos 'Introduction' (n 3) xxxvii.

[95] Santos 'Introduction' (n 3) lxiii; see Paley (n 92) 471.

[96] Vedel (n 10) 230 and 234; Michael Goldhaber, *Reinventing Technology: Policies for Democratic Values* (Institute for Policy Studies, London 1986) 124.

[97] Santos 'Introduction' (n 3) lxiii; see Perez (n 25) 283; see C. Edwin Baker, 'Different Democracies and Their Media' in *Media, Markets, and Democracy* (Cambridge University Press, Cambridge 2002) (see the concept of complex democracy).

[98] Paley (n 92) 473.

[99] Paley (n 92) 471; Santos 'Introduction' (n 3) lxii and lxiii.

[100] Paley (n 92) 479.

[101] Santos 'Introduction' (n 3) xxxvii and lxii.

[102] Santos 'Introduction' (n 3) lxiii.

[103] Paley (n 92) 476; Mitcham (n 16) 41.

[104] Paley (n 92) 471.

[105] See Paley (n 92) 471; Santos 'Introduction' (n 3) l; see Balkin (n 81) 40.

[106] Nikolas Rose, Pat O'Malley and Mariana Valverde, 'Governmentality' (2006) 2 Annu. Rev. Law Soc. Sci 83; Appardurai (n 3) 24 and 35; but see Aretxaga (n 16) 393-394 (the state has not entirely withered away).

[107] Morison (n 45) 159-160.

[108] Morison (n 45) 162-163.

[109] Aretxaga (n 16) 395 and 399.

[110] Morison (n 45) 157.

[111] Morison (n 45) 160-161.

[112] Ward and Vedel (n 3) 224.

[113] Agre (n 7) 320.

[114] Ward and Vedel (n 3) 214.

[115] Ward and Vedel (n 3) 224; see Agre (n 7) 320.

[116] Santos 'Reinventing' (n 3) xx-xxi; Goldhaber (n 96) 125.

[117] Balkin (n 81).

[118] Longford (n 16) 85.

[119] Longford (n 16) 85; Gregory N. Mandel, 'Technology Wars: The Failure of Democratic Discourse' (2005) 11 Michigan Telecommunications and Technology Law Review 117, 20.

[120] Balkin (n 81)

[121] Balkin (n 81) 3.

[122] Balkin (n 81) 33.

[123] Balkin (n 81) 34.

[124] Balkin (n 81) 37.

[125] Santos 'Introduction' (n 3) lxii; Feenberg (n 43) 4.

[126] Santos 'Introduction' (n 3) l.

[127] Santos 'Introduction' (n 3) li.

[128] Balkin (n 81) 5.

[129] Balkin (n 81) 32.

[130] Santos 'Introduction' (n 3) l - li.

[131] Santos 'Introduction' (n 3) lxvii; see Mandel (n 119) 177.

[132] J Griffiths (n 22) 2 and 38. see Sally Engle Merry, 'Legal Pluralism' (1988) 22 Law & Society Review 869; see Anne Griffiths, 'Legal Pluralism' in R Banakar and M Travers (eds), *An Introduction to Law and Social Theory* (Hart, Oxford 2002) 289; see Geertz (n 10) 220.

[133] See Merry (n 132); see Franz von Benda-Beckmann, 'Who's Afraid of Legal Pluralism' (2002) 47 Journal of Legal Pluralism 37, 37; see A Griffiths (n 132) 289; see Brian Z. Tamanaha, 'Understanding Legal Pluralism: Past to Present, Local to Global' (2008) 30 Sydney L. Rev. 375, 390.

[134] Von Benda-Beckmann (n 133) 39-40.

[135] Merry (n 132) 869 and 879; Tamanaha (n 133) 389.

[136] J Griffiths (n 22) 2; Von Benda-Beckmann (n 133) 69.

[137] J Griffiths (n 22) 3; Moore (n 22) 744.

[138] J Griffiths (n 22) 3 and 4.

[139] Brian Leiter, 'Legal Formalism and Legal Realism: What is the Issue?' (2010) 16 Legal Theory 113 <http://ssrn.com/abstract=1646110> accessed on 6 October 2010.

[140] Leiter (n 134).

[141] Morison (n 45) 157; Nina Glick Schiller, 'Transborder Citizenship: An Outcome of Legal Pluralism within Transnational Social Fields' in Von Benda-Beckmann and others (eds), *Mobile People, Mobile Law: Expanding Legal Relations in a Contracting World* (Ashgate, Aldershot 2005) 43; Franz von Benda-Beckmann, Keebet von Benda-Beckmann and Anne Griffiths, 'Mobile People, Mobile Law: An Introduction' in Von Benda-Beckmann and others (eds), *Mobile People, Mobile Law: Expanding Legal Relations in a Contracting World* (Ashgate, Aldershot 2005) 4 and 6; Boaventura de Sousa Santos, 'Beyond Neoliberal Governance: The World Social Forum as Subaltern Cosmopolitan Politics and Legality' in B Santos and C Rodriguez-Garavito (eds), *Law and Globalization from Below: Towards a Cosmopolitan Legality* (Cambridge University Press, Cambridge 2005) 58.

[142] J Griffiths (n 22) 3, 4 and 39; see Merry (n 132) 874; Santos (n 141) 60-61.

[143] Geertz (n 92) 184; Feenberg (n 43) 7; see Tamanaha (n 133) 377-381; see Agre (n 7) 320; see Boaventura de Sousa Santos and Cesar A. Rodriguez-Garavito, 'Law, Politics, and the Subaltern in Counter-Hegemonic Globalization' in B Santos and C Rodriguez-Garavito (eds), *Law and Globalization from Below: Towards a Cosmopolitan Legality* (Cambridge University Press, Cambridge 2005) 2.

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[146] Barlow (n 2); Johnson and Post (n 2).

[147] Lessig (n 34) 5; see Wu (n 34) 681; see Longford (n 16) 68 and 71; see Koops (n 6) 158.

[148] Lessig (n 34) 298-299 and 301; see Murray (n 24) 42; see Reidenberg (n 145) 582 and 587; see Longford (n 16) 74; see Koops (n 6) 157; see Sclove (n 30) 11 and 22.

[149] Lessig (n 34) 121, 123-124 and 340.

[150] Von Benda-Beckmann (n 133) 39-40; Franz von Benda-Beckmann, 'Comment on Merry' (1988) 22 Law & Society Review 899, 900.

[151] Lessig (n 34) 130; see Murray (n 24) 52-54; see Reidenberg (n 145) 570-571 and 583; see Moore (n 22).

[152] Boaventura de Sousa Santos, 'Law: A Map of Misreading. Toward a Postmodern Conception of Law' (1987) 14 Journal of Law and Society 279, 298.

[153] Santos (n 152) 297-298.

[154] Sclove (n 43) 19; Vedel (n 10) 233; Mitcham (n 16) 49.

[155] See Cockfield (n 22).

[156] See Santos (n 143) 4.

[157] John Morison, 'Gov 2.0: Towards a User Generated State?" (2010) 73 Modern Law Review 551, 559.

[158] Morison (n 157) 575.

[159] Morison (n 157) 575.

[160] Longford (n 16) 68.

[161] Di Gennaro and Dutton (n 26) 302; see Gunther Teubner, *Juridification of social spheres: a comparative analysis in the areas of labor, corporate, antitrust, and social welfare law* (De Gruyter, Berlin 1987).

[162] Longford (n 16) 68.

[163] Noveck (n 16) 20-21; Santos (n 152) 299.

[164] Balkin (n 81) 5; Andrew Murray and Colin Scott, 'Controlling the New Media: Hybrid Responses to New Forms of Power' (2002) 65 Modern Law Review 491; Feenberg (n 43) 6.

[165] Warf and Grimes (n 2) 270; Santos (n 143) 16; see Moore (n 22) 743

[166] Ward and Vedel (n 3) 219.

[167] Ward and Vedel (n 3) 219; DiMaggio (n 23) 322.

[168] Agre (n 7) 320.

[169] Andrew Chadwick, *Internet Politics: States, Citizens, and New Communications Technologies* (Oxford University Press, Oxford 2006) 136.

[170] Longford (n 16) 83; Sclove (n 43) 21.

[171] Santos 'Reinventing' (n 3) xvii; Warf and Grimes (n 2) 267-268.

[172] Longford and Patten (n 5) 9, 12 and 14.

[173] Longford and Patten (n 5) 9, 12 and 14; Santos (n 141) 39; Paley (n 92) 48.

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[175] Ian Brown, 'The Evolution of Anti-Circumvention Law' (2006) 20 International Review of Law, Computers & Technology 239, 240.

[176] Longford (n 16) 76.

[177] Brown (n 175) 240.

[178] McCullagh and Homsi (n 174) 319; Longford (n 16) 76.

[179] Chadwick (n 169) 116.

[180] Electronic Frontier Foundation, 'Unintended Consequences: 10 Years under the DMCA' 1 <http://www.eff.org/wp/unintended-consequences-ten-years-under-dmca> accessed on 1 July 2009.

[181] Patricia Akester and R Akester, 'Digital rights management in the 21st century' (2006) 28 E.I.P.R. 159, 162; Longford (n 16) 80; Patricia Akester, 'Technological accommodation of conflicts between freedom of expression and DRM: the first empirical assessment', Centre for Intellectual Property and Information Law, University of Cambridge, 5 May 2009, 10.

[182] Longford (n 16) 80.

[183] Brown (n 175) 250 and 252.

[184] Christophe Geiger, 'The answer to the machine should not be the machine: safeguarding the private copy exception in the digital environment' (2008) 30 E.I.P.R. 121, 122 and 129; Sky Croeser, 'Contested Technologies: the global justice movement and emerging constraints on activists' use of information and communications technologies', paper delivered at the Australian Political Studies Association Conference, 6-9 July 2008, 11; Akester and Akester (n 181) 165; Litman (n 170) 170, 176 and 177,

[185] Geiger (n 184) 123; Marcella Favale, 'Fine-tuning European copyright law to strike a balance between the rights of owners and users' (2008) 33 E.L. Rev. 687, 688; Eschenfelder and Desai (n 174) 102.

[186] Brown (n 175) 251.

[187] Longford (n 16) 70.

[188] Akester and Akester (n 181) 162.

[189] Brown (n 175) 254.

[190] PAkester and Akester (n 181) 159; Geiger (n 184) 124; Akester (n 181) 13.

[191] WIPO Copyright Treaty ('WCT'), adopted on 20 December 1996; similar anti-circumvention provisions are found in the World Performance and Phonograms Treaty ('WPPT'); together the WCT and the WPPT are referred as the WIPO Internet Treaties.

[192] WCT, article 11; WPPT, article 18; see Urs Gasser, 'Legal Frameworks and Technological Protection of Digital Content: Moving Forward towards a Best Practice Model' (2006-2007) 17 Fordham Intell. Prop. Media & Ent. L.J. 39.

[193] WCT, article 12.

[194] Brown (n 175), 240 and 246; McCullagh and Homsi (n 174) 318; Electronic Frontier Foundation (n 180); Wu (n 33) 741.

[195] McCullagh and Homsi (n 174) 319; Akester 'Technological' (n 181) 11; Lawrence Lessig, *Code and Other Laws of* Cyberspace (Basic Books, New York 1999) 49.

[196] Brown (n 175) 245; Akester 'Technological' (n 181) 15; Jessica Litman, *Digital Copyright* (Prometheus Books, New York 2001) 136.

[197] Wu (n 34) 705 and 740.

[198] Elliot and Scacchi (n 19) 6-13 and 19-22; Amy Kapczynski, 'The Access to Knowledge Mobilization and the New Politics of Intellectual Property' (2008) 117 Yale Law Journal 804; Longford (n 16) 90.

[199] See Longford (n 16) 68 and 74; see Wu (n 34) 688.

[200] Brown (n 175) 240-242.

[201] Eschenfelder and Desai (n 174) 102.

[202] Litman (n 170) 27.

[203] Longford (n 16) 81-82.

[204] Litman (n 170) 27.

[205] Longford (n 16) 81.

[206] Longford (n 16) 84.

[207] See Wu (n 34) 683 and 685 (in relation to P2P file-sharing); Christopher Soghoian, 'Caveat Venditor: Technologically Protected Subsidized Goods and the Customers Who Hack Them' (2007-2008) 6 Nw. J. Tech. & Intell. Prop. 46, 69.

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[209] Brown (n 175) 251 and 253; Mark A. Fox, 'Another nail in the coffin for copy-protection technologies? Sony BMG's XCP and MediaMax debacle' (2006) 17 Ent. L.R. 214.

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[211] Wu (n 34) 689-691.

[212] Tom R. Tyler, *Why People Obey the Law* (Yale University Press, New Haven and

London 1990) 57, 66 and 68.

[213] Wu (n 34) 690.

[214] Longford (n 16) 83.

[215] McCullagh and Homsi (n 174) 318; Akester and Akester (n 181) 165; Longford (n 16) 83; Soghoian (n 222) 72.

[216] Eschenfelder and Desai (n 174) 104; Akester and Akester (n 181) 164.

[217] Longford (n 16) 83; Electronic Frontier Foundation (n 180) 2-3;

[218] See Soghoian (n 222) (for a list of different DRM circumvention cases).

[219] Wu (n 34) 682 and 684.

[220] Feenberg (n 43) 7.

[221] See Wu (n 34) 684.

[222] Feenberg (n 43) 2.

[223] Longford (n 16) 69.

[224] Wu (n 34) 682.

[225] Longford (n 16) 73.

[226] Eschenfelder and Desai (n 174) 112.

[227] See DefectiveByDesign website <http://www.defectivebydesign.org/> accessed on 1 July 2009.

[228] John S. Dryzek, 'Liberal Democracy and the Critical Alternative' in *Deliberative Democracy and Beyond* (Oxford University Press, UK 2007); John S. Dryzek, 'Discursive Democracy' in *Deliberative Democracy and Beyond* (Oxford University Press, UK 2007); A. Michael Froomkin, 'Habermas@Discourse.Net: Toward a Critical Theory of Cyberspace' (2003) 116 Harvard Law Review 749; Morison (n 45) 165; Russel J. Dalton, Susan E. Scarrow and Bruce E. Cain, 'New Forms of Democracy? Reform and Transformation of Democratic Institutions' *Democracy Transformed?: Expanding Political Opportunity in Advanced Industrial Democracies* (Oxford University Press, Oxford 2003) 14; Perez (n 25) 278.

[229] Longford (n 16) 75 and 89; Balkin (n 81) 9; Sclove (n 43) 22; see Koops (n 6) 163, 166 and 168; see Christopher Kelty, 'Geeks, Social Imaginaries, and Recursive Publics' (2005) 20 Cultural Anthropology 185, 185; see Josh Lerner and Jean Tirole, 'The Economics of Technology Sharing: Open Source and Beyond' (2005) 19 Journal of Economic Perspectives 99, 101; see Charles Vincent and Jean Camp, 'Looking to the Internet for models of governance' (2004) 6 Ethics and Information Technology 161, 161 and 171.

[230] McCullagh and Homsi (n 174) 322-324.

[231] See Brown (n 175) 253-254; McCullagh and Homsi (n 174) 319-322 and 327; see Akester 'Technological' (n 181).

[232] Electronic Frontier Foundation (n 180) 6; Brown (n 175) 247.

[233] Electronic Frontier Foundation (n 180) 2.

[234] Electronic Frontier Foundation (n 180) 7; see Akester 'Technological' (n 181) 64.

[235] Soghoian (n 222) 59; Electronic Frontier Foundation (n 180) 9.

[236] Akester 'Technological' (n 181) 63; Brown (n 175) 247.

[237] Electronic Frontier Foundation, 'EFF Wins New Legal Protections for Video Artists, Cell Phone Jailbreakers, and Unlockers' < http://www.eff.org/press/archives/2010/07/26> accessed on 19 August 2010.

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[239] Croeser (n 184) 3; Seth F. Kreimer, 'Technologies of Protest: Insurgent Social Movements and the First Amendment in the Era of the Internet' (2001) 150 University of Pennsylvania Law Review 119, 139.

[240] Croeser (n 184) 1; Chadwick (n 169) 124.

[241] Croeser (n 184) 1.

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[245] Brown (n 175) 255.

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[252] McCullagh and Homsi (n 174) 326.

[253] Apple 'Apple Unveils Higher Quality DRM-Free Music on the iTunes Store' <http://www.apple.com/pr/library/2007/04/02itunes.html> accessed on 30 June 2009.

[254] See Santos 'Reinventing' (n 3) xxx; Koops (n 6) 157; Perez (n 25) 275-276.

[255] Koops (n 6) 171-172.

[256] Brown (n 175) 256.

[257] Moore (n 22) 729 and 742.

[258] 273 F.3d 429m (2d Cir. 2001); see Eschenfelder and Desai (n 174) 103-104 (for the details of the case)

[259] See Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* (Vintage Books, New York 2002) 187-190.

[260] Eschenfelder and Desai (n 174) 101-102 and 110.

[261] Eschenfelder and Desai (n 174) 112.

[262] Eschenfelder and Desai (n 174) 101.

[263] Eschenfelder and Desai (n 174) 102-103.

[264] Eschenfelder and Desai (n 174) 111.

[265] Brad Stone, 'In Web Uproar, Antipiracy Code Spreads Wildly' <http://www.nytimes.com/2007/05/03/technology/03code.html?_r=1> accessed on 25 June 2009; Kevin Rose, 'Digg This: 09-f9-11-02-9d-74-e3-5b-d8-41-56-c5-63-56-88-c0' <http://blog.digg.com/?p=74> accessed on 25 June 2009; Grant Robertson, 'HD-DVD key fiasco is an example of 21st century digital revolt' <http://www.downloadsquad.com/2007/05/01/hd-dvd-key-fiasco-is-an-example-of-21st-century-digital-revolt/> accessed on 25 June 2009.

[266] Eschenfelder and Desai (n 174) 109 and 110; see Chadwick (n 169) (on hacktivisim); see Kreimer (n 254) 156;

[267] Eschenfelder and Desai (n 174) 111; Chadwick (n 169) 132; Kreimer (n 254) 128-129.

[268] Warf and Grimes (n 2) 269; See Santos 'Reinventing' (n 3) xxix-xxx; see Santos (n 143) 15; see Daniel Markovits, 'Democratic Disobedience' (2005) 114 The Yale Law Journal 1897,1933.

[269] Balkin (n 81) 44.

[270] See Appadurai (n 3) 34 (concept of countergovernmentality); see Santos 'Introduction' (n 3) l; see Santos (n 141) 43.

[271] Feenberg (n 43) 6; Santos (n 143) 16.

[272] Wu (n 34) 698; Appadurai (n 3) 34; Feenberg (n 43) 7 and 9; Santos 'Reinventing' (n 3) xxvi.

[273] Kreimer (n 254) 139; Indhu Rajagopal and Nis Bojin, 'Cons in the panopticon: Anti-globalization and cyber-piracy' <http://firstmonday.org/issues/issue9_9/rajagopal/index.html> accessed on 28 May 2009; Wu (n 34) 683 and 686; Longford (n 16) 82, 84, 85, 89 and 92.

[274] Longford (n 16) 82; see Felix Oberholzer-Gee and Koleman Strumpf, 'File-Sharing and Copyright' Harvard Business School Working Paper 09-132, 15 May 2009.

[275] Ward and Vedel (n 3) 218; see Ben Kuchera, 'Ars Technica Reports: How Strong

Copy Protection on Videogames Promotes Piracy' <http://www.wired.com/techbiz/media/news/2009/05/game_ars> accessed on 1 July 2009.

[276] Feenberg (n 43) 7-8; see Croeser (n 184) 6.

[277] Feenberg (n 43) 8-9; Santos (n 143) 18.

[278] Mitcham (n 16) 39; Mandel (n 119) 188.

[279] Feenberg (n 43) 14.

[280] See Santos 'Reinventing' (n 3) xxiv.

[281] Von Benda-Beckmann (n 133) 71.