



Douglas Fairbanks Sr. in *Robin Hood* (1922)

ANATOMY OF A CONTROVERSY

A research journey into the woods

September 2011

Oxford University School of Geography & Environment

MSc Nature, Society & Environmental Policy

Supervisor: Dr Paul Jepson | Candidate Number: 47188 | Word Count: 14,441

ABSTRACT

This dissertation looks at the public controversy that erupted in late 2010 when the British government proposed changes to the ownership and management of the Public Forest Estate. Particular attention is paid to an issue network analysis of the actors and strategies involved in a successful campaign to halt the proposals and to the question of why the issue provoked such a strong public reaction. In looking at the prominent use of the internet in the public mobilisation against the plans, reference is made to the topical 'clicktivist' critique of online campaigning, and the case of the forest controversy is shown to support the role of the internet in facilitating an active and meaningful civil society. In the final section a novel methodology for probing the public psyche is explored, using digital tools to carry out text analysis of large volumes of user-generated comment data left on newspaper web sites.

+++++

ACKNOWLEDGEMENTS

Thanks to my supervisor Paul Jepson for his enthusiasm about technology, which is at least part of the reason why this project has taken the path it has, to Gill Petrokovsky for a useful preliminary discussion on forestry and to Tim Webmoor for suggestions about web methods. Thanks to everyone who participated in interviews for your time and encouragement. I hope you find something of value in this paper! Thanks to my friends and colleagues on the NSEP course for all of the new ideas and experiences this year that have fed into the doing and writing of this dissertation. Finally, special thanks to Tom Curtis for his great generosity with time and contacts.

CONTENTS

1. INTRODUCTION	1
2. THE ISSUE	
2.1 Context: a short history of forests and people in England	5
2.2 “Compelling reasons for change”: policy rationale.....	8
2.3 Pathways and perceptions.....	10
2.4 “The great forest sell-off”: public perceptions	12
2.5 “We got this one wrong”	14
3. METHODOLOGY	
3.1 A multi-method approach.....	16
3.2 Primary source materials	17
3.3 Key informant interviews.....	18
4. THEORY: SITUATIONS, NETWORKS	
4.1 Feeding off controversy	20
4.2 Issue networks.....	23
5. METHODOLOGY: CRAWLING IN ISSUE SPACE	24
6. ANALYSIS: ISSUE NETWORK	
6.1 Effectiveness	29
6.2 Empowerment.....	31
6.3 Legitimacy.....	32
7. ANALYSIS: CLICKTIVISM	
7.1 Scale and success.....	34
7.2 Clicktivism: the revolution will not be tweeted?.....	34
8. METHODOLOGY & ANALYSIS: USER-GENERATED DATA	
8.1 The roots of the forest controversy	38
8.2 Background to text analysis.....	41
8.3 Doing text analysis.....	42
9. CONCLUSIONS	50
REFERENCES.....	53

paulw

10/24/2010 12:41 AM

The bailiffs are in - what's left of the deliberately bankrupted UK will now be sold of piece by piece. Soon enough, the Chinese will be selling us matchsticks made from Sherwood forest trees.

Reader comment, telegraph.co.uk

1. INTRODUCTION

'Ministers plan huge sell-off of Britain's forests.' *The Sunday Telegraph's* article on 23 October 2010 gave word of leaked government proposals to change the ownership and management of England's 258,000 hectares of publicly-owned woodland: "The controversial decision will pave the way for a huge expansion in the number of Center Parcs-style holiday villages, golf courses, adventure sites and commercial logging operations throughout Britain as land is sold to private companies" (Hennessy & Lefort 2010). Within hours, the story was buzzing through technological and social networks. The news rippled across Twitter and online discussion boards. "We are not a political cause. We are just trying to protect our forests," read the profile section of the newly-established 'Save Britain's Forests' Facebook page.¹ The version of the article at telegraph.co.uk had already attracted over 700 reader comments, overwhelmingly critical, as other newspapers began to follow with their own reports. "Forests sell-off plan by government is 'asset-stripping our natural heritage'" wrote *The Guardian* (Vidal et al 2010), whilst *The Independent* reported that, "Laws dating back to Magna Carta are likely to be rewritten to allow the woodland sale" (Chorley 2010).

¹ <http://www.facebook.com/pages/Save-Britains-Forests/157828020924281>

It was clear that the government's plans for the Public Forest Estate were not going to get an easy ride. The public reaction was immediate and forceful; "The news has been met with near-universal disgust and shock," summed up one journalist a few days after the leak (Hickman 2010). But the full extent of the resistance did not become visible until early 2011. Although coverage of the story in the news media eased off after the initial furore, behind the scenes, people living near woodland sites run by the Forestry Commission, the government's forestry body, were busy forming groups and organising protest activities. By January there were at least 30 such local groups across the country.² At the national level, a network of opposition was developing around a number of web sites including the citizen activism site *38 Degrees*, which by the middle of February had gathered half a million signatories to an online petition. A YouGov poll funded by 38 Degrees members found that a huge majority, 84%, of respondents believed that the Public Forest Estate should be kept public, whilst only 6% were in favour of the government's proposals (Anderson 2011).

Newspaper coverage of the issue grew into a daily flurry of disparaging articles and commentary, public figures were increasingly outspoken in their criticism of the government, a phone, email and letter-writing campaign flooded MPs and peers with correspondence, and local groups were organising on-the-ground meetings and protests all over England. Beleaguered by opponents in the House of Commons, on 17 February the Secretary of State for Environment Caroline Spelman backed down, announcing what became satirically identified as a government 'yew-turn.' After only three weeks of an expected three-month period, the public consultation on the proposals then underway was curtailed and all policy processes relating to forestry in England were halted pending the establishment of an independent review panel as part of a "more measured and rational debate about the future of forestry policy" (DEFRA 2011a).

² <http://38degrees.org.uk/pages/find-a-local-group>

My interest in researching the issue began to crystallise in the early months of 2011. I wanted to find out what lay behind the depth of feeling that the proposals had provoked in people, including myself. What had led them to oppose the plans quite so fervently? Whatever the merits or demerits of the government's proposals, public opposition was driven by a gut feeling that was prior to any rational consideration of the issues involved. However much ministers rushed to give assurances that public access and biodiversity would be protected under any new arrangements, there was no swaying the public mood: this pernicious 'sell-off' should not, *and would not*, go ahead under any circumstances.

So I took the opportunity of an MSc research project to look deeper into this controversy. It was exciting to study something so 'live,' an ongoing political situation that changed day by day. The yew-turn marked a shift towards a different, quieter phase, but it also gave me a space from which to look back on the last four months. As I did, new questions began to arise. Who was involved in the impressive mobilisation of actors around the forest issue that had transformed raw public feeling into a successful political campaign; and how had they done it? It was particularly apparent that the internet had played a key role in bringing together national and local networks of opposition in a very short space of time, a factor that would become central to the path my research took. It was out of these early thoughts that two research questions came about:

- 1) What lay behind the powerful feelings provoked by the government's proposals?
- 2) What actors were involved in the public campaign and how did the internet facilitate their success?

MATT



“I knew the government was in real trouble on Tuesday, when the *Daily Telegraph's* revered "Matt" drew a front page pocket cartoon of Winnie the Pooh and Piglet locked out of a privatised Hundred Acre Woods. As a rule of thumb, when the country's most loyally Conservative newspaper accuses a Conservative government of hurting Winnie the Pooh, things are going badly wrong.”

The Economist's Bagehot column, 3 February 2011

2. THE ISSUE

2.1 Context: A short history of forests and people in England

It is commonly supposed that the forest occupies a singular place in the collective imagination of the British, or more precisely, the English. One need not dig far into newspaper commentary on the government's proposals to find references to Shakespeare's *Midsummer Night's Dream*, *Wind in the Willows*, A.A. Milne's Hundred Acre Wood, Robin Hood and his band of noble outlaws and the importance of the oak tree in Britain's proud naval history (see Hensher 2011 for a comprehensive example). Native broadleaved trees have an extraordinary power to evoke in us feelings of belonging and identity, an observation that is not without political connotations. Our trees carry with them "a sense of continuity and cultural unity that Conservatives might do well not to ignore," noted a 1985 pamphlet, *Greening the Tories*; a suggestion that the Conservative party took to heart albeit 20 years later, when they changed their official logo from a flaming torch to an English oak (Sullivan 1985).

Today, 'ancient' and 'heritage' forests harbour 'veteran trees,' revered and protected; not to be "trenched around, tarmacked, parked under or urinated on... threatened by matches or assaulted by tree climbers" (White 1997: 222). In these precious behemoths rests some underexamined symbolic connection to our cultural identity, tracing a thread that runs from the pre-Enlightenment worship of forest spirits through the Age of Man, in which oaks came to represent military power and aristocratic tradition, to our own peculiarly modern form of environmentalist tree worship (Tsouvalis 2000: 197). Trees connect us to something older, more primeval than the hectic modernity of the Twittercene: "Ice ages have come and gone, come again and gone again; and each time the glaciers pulled back... the forests cropped up again as if they had merely weathered the season in hibernation: a spontaneous generation of arboreal, floral, and cryptogamal life" (Harrison 1993: ix). "Save Our Forests" became the urgent refrain of the campaign against the government's proposals, as if selling forest was like putting the Crown Jewels on eBay, or like selling a part of ourselves, one of the last parts of ourselves, perhaps, that

keeps us grounded in this age of alienation from natural cycles, seasons, processes.

Yet the history of forests in England reveals a more prosaic side. By the first century AD, forest cover is already likely to have been reduced to 25% of total land area through thousands of years of clearance and timber extraction (Rackham 2010). With the Norman Conquest, the mythical ‘wildwood’ – “lying outside of civilisation ... haunted by spirits... where pagan tree worshippers met, outlaws hid, and chaos reigned” (Harrison 1993) – competes in the historical imagination with a tamer patchwork of fields and woodlands maintained for recreational and economic purposes. The Royal Forests instituted by King William and his heirs were no dark wilderness stalked by dangerous beasts, but “a territory of woody grounds and fruitful pastures,” stocked with ‘game’ for the “princely delight and pleasure” of the monarch and his court (Manwood 1717). The harvesting of timber increased precariously, (Tsouvalis 2000: 13) leaving England today with just 9% forest coverage, one of the very lowest in Europe (Simmons 2001).³ And for almost all of this period, ‘public ownership’ has been a very unfamiliar concept. There were some customary rights of use to be sure; but in terms of *ownership*, the closest the public got was Royal Forest, declining in area since 1066 to a low of 5% of the total by the early 20th century (Foot 2010: 121), and in any case governed by strict rules of access with heavy, even mortal, punishments for transgression. For the last 1000 years, the vast majority of English forest has been the property of large private landowners in the semi-feudal system of land tenure that still characterises the country today (Cahill 2002).⁴

The Public Forest Estate came into being in 1919 as a result of the First World War. Prior to this, Britain had been dependent on timber supplies from abroad for 90% of its needs, but the combination of naval blockades and increased timber consumption for pit props used in mining led the country dangerously close to running out. By the end of the war, Britain’s ability to carry on fighting had been put in serious jeopardy. A hastily-convened

³ The EU average forest cover is 38%.

⁴ 0.6% of the population owns over 50% of rural land in Britain (Cahill 2002)

committee led by Sir Francis Acland recommended the creation of a “strategic reserve of timber” that would allow the country to be self-sufficient for up to three years during any future emergency period (Tsouvalis 2000: 38). The reserve that was created was the Public Forest Estate and the new body instituted to govern it was the Forestry Commission. By 1980 the Commission, governed by principles of scientific plantation forestry, had increased the forested land area of the UK from 1.1 million hectares to 2.05 million hectares, over half of which was in public ownership (Foot 2010: 121).

Today, the amount of public forest has shrunk as a result of policy changes and disposals. Under the 1981 Forestry Act, Margaret Thatcher’s Conservative government took powers to sell off Forestry Commission land across the UK, eventually getting rid of 208,000 hectares in 2,700 separate transactions (Woodland Trust 2011). Sales were officially halted by John Major in 1994 as a result of lack of interest from commercial buyers and sustained public controversy regarding loss of access (Foot 2010: 121-123), but not before the state’s share of woodland ownership had shrunk from 50% to 37% (Foot 2010: 128). Although in 1997 the Labour government placed a moratorium on further large-scale sales, there has been a net loss of Public Forest Estate area every subsequent year to the present due to sales of isolated woods or small forests with development potential. In 2010, the Forestry Commission owned some 800,000 hectares of woodland, of which around 200,000 was in England. The Forestry Commission owned or managed 28% of the total woodland area of the UK, and 18% of the total woodland area in England (Forestry Commission 2010a).

The purpose of the Public Forest Estate too has changed. There is no longer a strategic need for wood to support a similar wartime effort to that of WWI and WWII. “We reduced plantation after plantation to a flattened mass of timber [working our way] through the Chiltern Hills, Ibstone, Turville, Fingest, Skirmett, down into the Thames Valley... [exhausting] the supply of softwood in Buckinghamshire... constantly on the move, swathing through one plantation and onto the next almost before the trees had hit the ground,” wrote one of the 73,000 workers conscripted into forestry efforts during the Second

World War (Porter 1994: 171). But today's economic and geopolitical realities are different, and with time the focus of the Forestry Commission has changed from the purely economic and strategic to a wider portfolio of woodland management, sustainable harvest, biodiversity conservation, carbon sequestration, education, research and public access and enjoyment, a shift formally recognised in the Forestry Act of 1967. The broad mission of the Forestry Commission today, working under the rubric of 'multi-use forestry,' is, "to protect and expand Britain's forests and woodlands and increase their value to society and the environment" (Forestry Commission 2011a).

2.2 "Compelling reasons for change": policy rationale

Margaret Thatcher's government considered the Public Forest Estate a relic of the past, her woodland disposal programme resonating with an overriding free market philosophy. The proposals by David Cameron's coalition government, too, come at a time when the original 1919 rationale for the public ownership of forest has long-since receded. Through studying government documentation and statements I have identified three predominant justifications for the 2010 proposals:

1) Conflict of Interest

There should be a clear separation between regulatory bodies and market participants:

"The Forestry Commission is both the regulator and the largest seller of timber in the market that it regulates. In this day and age, that kind of conflict of interest cannot continue."

Caroline Spelman MP, Secretary of State for the Environment, House of Commons 3 February (Hansard 2011: column 1024)

"For forestry, there are compelling reasons for changing the status quo by reducing the level of Government ownership or management of

woodland. It is... an anomaly that the Forestry Commission is currently the largest operator in the sector that it also regulates.”

Consultation Document on the Future of the Public Forest Estate (Defra 2011b: 6)

2) Big Society

Shifting control away from government bureaucracies empowers communities and voluntary organisations:

“We are committed to shifting the balance of power from ‘Big Government’ to ‘Big Society’ by giving individuals, businesses, civil society organisations and local authorities a much bigger role in protecting and enhancing the natural environment and a much bigger say about our priorities for it.”

Letter to MPs from Caroline Spelman, 29 October (Defra 2010)

“We genuinely feel... that it is nonsense... that huge public benefits can only somehow be achieved under state ownership. We have some first class woodland charities... who own large tracts of English woodland and manage it in a way that is just as good, and I would argue probably better, than the Forestry Commission.”

Jim Paice MP, Minister of State for Agriculture and Food, House of Lords Inquiry into Forestry 24 November (House of Lords, 2010)

3) Flourishing private sector

Reducing regulation and state interference creates a flourishing private sector, which is good for society:

“This will be a new approach to ownership and management of woodlands and forests, with a reducing role for the State and a growing role for the private sector and civil society.”

Letter to MPs from Caroline Spelman 29 October (Defra 2010)

“The Government believes that there are other sectors of society which may be better placed to own or manage the public forest estate... the private sector will be given the opportunity to maximise the commercial potential of forests and woodlands”

Consultation Document (Defra 2011b: 22)

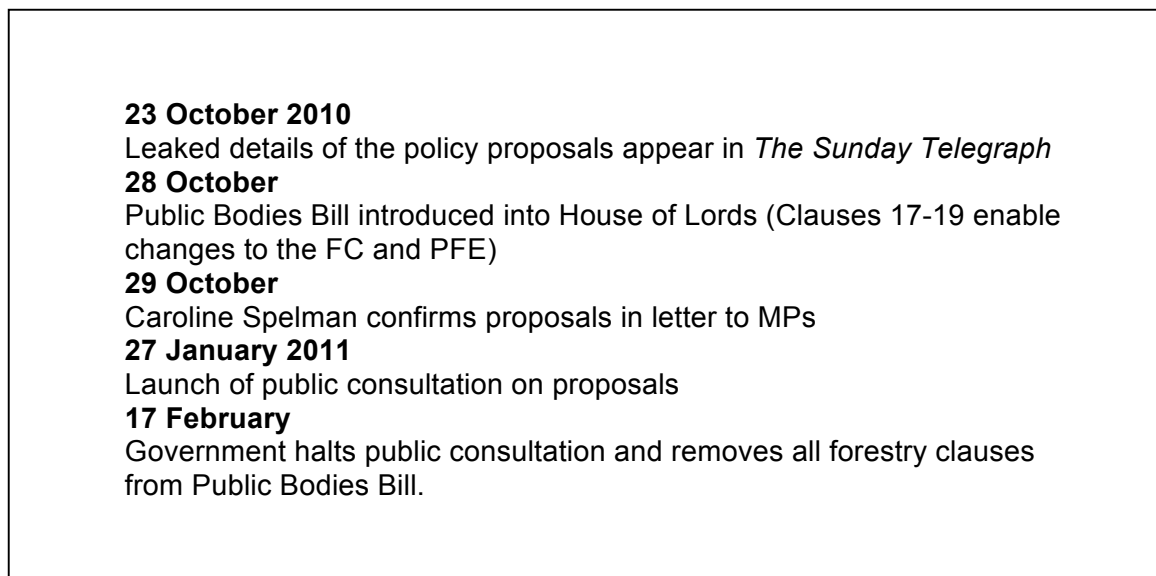


Figure 1. Policy development timeline

2.3 Pathways and Protections

If enacted, the government’s proposals would have made provision for substantial changes to ownership and management across the Public Forest Estate, though specific pathways were envisaged for different kinds of forest:

1. Heritage Forests

“Inviting new or existing charitable organisations, to take on ownership or management of the heritage forests to secure their public benefits for the long-term future.”

[‘Heritage forests’ are those with high public benefits associated with landscape, biodiversity or cultural and historical value, some 25-30% of the Estate.]

2. Community forests

“Creating opportunities for community and civil society groups to buy or lease forests that they wish to own or manage.”

[Such groups would be given first refusal on mixed-use and small commercial forests, adding to the 6,000 ha (2%) of the Public Forest Estate already classified as community forest.]

3. Large commercially valuable forests

“Finding commercial operators to take on long-term leases for the large-scale commercially valuable forests. By leasing rather than selling, it will be possible to make sure that these forests continue to deliver public benefits through lease conditions.”

[Such sites make up around 25% of the Estate.]

Consultation Document on the Future of the Public Forest Estate (Defra 2011b: 7)

The consultation document lacks detail on the 50% of the Estate not coming under these approaches and for which new community owners could not be found, which would presumably be sold or leased on the open market. Under all possible scenarios, however, including any such sales, trees would be protected from unauthorised felling under the Forestry Act 1967; forest land would be protected from development or change of use under existing Town and Country Planning legislation; and existing protected areas under statutory designations such as Site of Special Scientific Interest (SSSI), Area of Outstanding Natural Beauty (AONB) or National Park, would continue to

receive legal protection as such (Defra 2011b: 16). Commercial operators leasing forest under the third option could be obliged under the conditions of the 150-year lease to maintain current levels of public access (Defra 2011b: 37).

2.4 “The great forest sell-off:” public perceptions

According to a straightforward reading of official documents and public utterances, then, the government’s policy proposals emerge from the desire (1) to address the Forestry Commission’s conflict of interest; (2) to increase community and civil society ownership and management; and (3) to reduce state intervention to allow a flourishing private sector. These aims would be achieved by (1) transferring heritage forests at no cost to the ownership or management of civil society organisations; (2) preferential community or civil society right to buy or lease forest for management in the public interest; (3) 150-year lease of large commercially valuable forests to private sector and sale or lease of remainder.

By the time these proposals were available for scrutiny at the end of January, however, three months after the initial policy leak, there was already an established perception of the government’s intentions circulating in the public sphere which differed from this official version in two major respects:

Aims: that a major aim of the policy proposals was the generation of revenue.

Outcomes: that all or the majority of the forest estate would be sold off on the open market to the private sector with limited or no protections.

The idea that the government was proposing an open market ‘fire sale’ of public assets became entrenched in the public and media discourse from very early on and persisted as the controversy played out in the following months. In understanding where this perception of events comes from, it is important to note the timing and political context of the proposals in a general atmosphere of government austerity and large-scale cuts to public funding. The forest policy leak came at the same time as widespread anti-government

sentiment (in particular, student opposition to higher education funding cuts) and only days after the publication of the government's 2010 Spending Review announcing a programme of significant budget reductions across all sectors (HM Treasury 2010). Because of this political backdrop there was a natural feeling that the forest proposals were part and parcel of a wider programme of cuts. And indeed, although never made absolutely explicit in official materials relating to the policy, interpretations of the proposals as financially motivated were not completely without foundation in governmental utterances. The Minister of State for Agriculture and Food, Jim Paice MP, for instance, had stated at the House of Lords 'Inquiry into Forestry' in November:

"I am not going to avoid the issue – *there is a need for capital receipts*. It is a very substantial sum of public investment."

(House of Lords 2010)

The consultation document also makes passing reference to the economics of ownership:

"By encouraging others to take over the ownership and management of the public forest estate, we believe there is the potential to achieve public benefits at reduced cost *alongside generating some capital receipts* that can be reinvested elsewhere."

(Defra 2011b: 19)

Despite later assurances to the contrary, another early and oft-quoted reference to the proposals by Jim Paice in the House of Lords also helped to raise concerns that the government planned for substantial sales of forest on the open market with little discrimination as to whom the buyers might be:

"Part of our policy is clearly established: we wish to proceed with, to correctly use your word, very substantial disposal of public forest estate, which could go to the extent of all of it... I have worries about

two or three potential aspects of disposal, which we are looking at very carefully. Foreign purchases are one, although I do not think that they are automatically necessarily bad. Indeed, we could not prevent them under EU law. I am much more concerned about the possibility of established forest being bought by energy companies who would proceed to chip it all for energy recovery.”

Inquiry into Forestry (House of Lords, 2010)

2.5 “We got this one wrong”

There was, therefore, a dissonance between official and publicly accepted versions of the government’s proposals as well as a lack of clarity and consistency in their articulation by ministers that is likely to have played a significant role in the emergence of controversy. Public opposition sprouted almost immediately after the publication of the *Telegraph* article on 23 October, and came to a peak in late January and early February with a flurry of newspaper articles and protest actions across the country coinciding with increased activity across online networks opposing the plans, including the success of the 38 Degrees web site in attracting 500,000 signatories to their ‘Save Our Forests’ petition (see Fig. 2). The media greeted the yew-turn as “a victory for people power”:

“Environment Secretary Caroline Spelman announced to MPs in the Commons that “we got this one wrong”, as she said she was halting the public consultation into the proposals ... The Prime Minister has been shocked by the hostility to the sell-off of state-owned forestry and has admitted defeat.”

The Telegraph, 17 February (Porter 2011)

“Who would have thought it? In just a few months Britain has united behind timber and our woods have been elevated to the cultural level of cathedrals, castles and other national treasures. They are ours, cry

people of all political persuasions, seeing their public space disappear, their libraries closed and the poor penalised. Geroff our land!”

The Guardian, 18 February (Vidal 2011)

The screenshot shows the top navigation bar with links for HOME, CAMPAIGNS, ABOUT, NEWS, and DONATE. A prominent orange banner in the top right corner reads "38 DEGREES" with the tagline "people. power. change." below it.

SAVE OUR FORESTS: SIGN THE PETITION NOW

ADD YOUR NAME BELOW TO SUPPORT THE CAMPAIGN

UPDATE:
We Won! More than half a million of us got involved in the campaign to Save Our Forests, and the government agreed to drop the planned sell-off.
[Click here to find out more.](#)

Email Address: *

First Name: *

Surname: *

Postcode: *

Add your comment here (optional)

SUBMIT

* denotes required field
Your personal information will be kept private and treated in accordance with our [privacy policy](#).

The government is planning a massive sell off of our national forests. They could be auctioned and fenced off, run down, logged or turned into golf courses and holiday villages.

We can't let that happen. We need to stop these plans. National treasures like the The Forest of Dean, Alice Holt, Kielder, Thefford, Grizedale, Bedgebury, Sherwood Forest and The New Forest could be sold off. **Once they are gone, they will be lost forever.**


A huge petition will force the government to rethink its plans. If we can prove how strongly the public are against this, they will have to back down. **Please sign the petition now.**

Do more:
Find out how you can do more at the [Save Our Forests Action Centre](#)

537465 OF US HAVE SIGNED SO FAR!
Can you help us reach 700000 today? Please add your name then help spread the word by telling your friends.

0 350000 700000

THE PETITION TEXT:
"Save our forests - don't sell them off to the highest bidder"
Don't let private companies chop down our woodland.
Protect trees for the conservation of wildlife and the enjoyment of the public.



YOUR COMMENTS ON THIS CAMPAIGN

All forest should be government backed and supported Paula Bayat 6 RussettWay Alderley Edge
25 Aug 2011, 00:36AM

WE NEED FORESTS AS A COMMUNITY, A STATE, A NATION A PLANET. NOT GREEDY SUMBAGS TEARING THEM DOWN FOR PRIVATE PROFITEERING. GOVERNMENT SELL OFF OF NATIONAL PROPERTY IS A CRIME AND SHOULD BE TREATED AS SUCH. VOTE & GET RID OF IDIOTS & CORRUPT POLITICIANS OUT OF GOVERNMENT !
24 Aug 2011, 02:15AM

Figure 2. Screenshot of the 38 Degrees petition site

3. METHODOLOGY

3.1 A multi-method approach

In the previous section I have sketched an outline of the events and ‘facts’ of the forest controversy. But far more is at stake here than the merely factual. The further we delve, the more we find a tangled web of contentious issues, each “spewing out ... a different set of passions, indignations, opinions ... a different pattern of emotions and disruptions, of disagreements and agreements” (Latour 2005: 5). In the sections to come I propose to unpack some of these issues and the inseparable cast of actors engaged in debate and action around them.

My methodological approach to this task is pluralistic. It is built on the premise that an issue is a rather complex and many-sided three-dimensional beast: employing a variety of methods allows us to view it from a number of different angles to build up a more complete (but ultimately always partial) cubist portrait, unlocking new ideas and insights each time. Our varied angles may be congruent, replicating and backing up the findings of other approaches; they may be complementary, one method revealing that which others cannot; or they may be dissonant, leading us to question what we thought we knew (McKendrick 2009). A multimethod approach is consistent with my aim of providing here a broad exploration of a political situation rather than an in-depth analysis of any one particular element of it, throwing questions up into the air rather than seeking to provide any neat answers.

I have tried to let myself be guided in the design of methodology by a common-sense inquisitiveness, rather than an a priori commitment to any particular approaches. Heeding the calls of John Law’s *After Method* (2004), my aim is to side step the potential for methodological hegemony by approaching method as heterogeneous and contingent, a way of producing some momentary clarity in our understanding of these complex events and processes. Complex, that is, “not simply in the sense that they are technically difficult to grasp... [but also] because they *necessarily exceed our capacity to*

know them” (original emphasis). Whilst such methodological experimentalism risks sacrificing the rigour of well-established research routines, the reflexivity necessitated in the act of *creating* methodologies does provide some counterweight. And as we will see, the demands of the research material itself lead me into territory in which few established methodologies exist. Whilst two of the four approaches I have taken – key informant interviews and the use of primary source materials – are relatively conventional social science techniques, the remaining two attempt to tap into the vast social world of the online, where research is necessarily experimental and ever-changing to reflect technology and the novel uses to which it is put. In Section 5 I locate and analyse a web-based issue network around the forest controversy using the Issuecrawler device, and in Section 8 I pull together a number of digital tools to develop a methodology for carrying out semi-automated text analysis of comment data from newspaper web sites. I detail each of these four methodologies at appropriate junctures throughout this paper. Whilst the ordering of the methods as I explicate them here is to some degree logically chronological, I developed and experimented with all four methodologies in staccato iterations simultaneously throughout the research process.

3.2 Primary source materials

In Section 1 I have made significant use of primary data from three main sources. Firstly, I have used official government documents such as letters, press releases, news items and parliamentary transcripts in order to outline key policy details and to support assertions about the rationale and aims of the forest policy proposals. Secondly, I have used articles published in the media in order to build a picture of public opinion. And finally, I have explored the plethora of textual materials available online, including campaign web sites, Facebook pages and Twitter feeds, of which more will be said later.

None of these uses of primary materials are methodologically without risk. All rely on my awareness of and selection of appropriate materials, respectively subject to the limitations of my knowledge and my own biases and preconceptions. Despite my efforts to adopt a stance of neutrality, my

positionality with regard to how such materials speak to me and demand of my attention cannot be eliminated. My use of media articles is particularly prone to the effects of such bias. Whilst the number of official government materials is relatively limited, the range of media articles available to me is potentially far larger, involving much greater scope for selection bias, especially given that my capacity to read and utilise such articles is time constrained. In order to approach this problem systematically, I used a number of tools to identify and narrow down the media sources that I would use. I first limited myself to the top 10 print newspapers published in England, measured by 2011 circulation figures, then used both Google News and Factiva to estimate how much coverage they had devoted to the forest controversy. Four newspapers (The Times, The Guardian, The Telegraph and The Independent) contained far higher levels of coverage than any others, and I chose to limit my research to these publications. I subsequently excluded the Times from this set of sources for the reason that its content is protected behind a paywall rather than open-access, although in retrospect there are many ways in which I could have got access (not limited to paying for it!), and this must be seen as a potential bias in my sampling frame.

3.3 Key informant interviews

My second methodology is a staple of qualitative social science research. My initial guide to selecting interview participants was to seek some degree of expertise in the issues relating to the forest controversy. Expertise for my purposes consisted in people who either had direct involvement with the unfolding of the situation or those particularly well-placed to comment upon it (See Collins & Evans 2002). Following my knowledge of the issues and actors involved (based on my reading of media articles, preliminary investigations of the internet campaigning landscape and discussions with colleagues), I drew up a list of 8 categories of interview participants that I thought should be represented in my sample. My aim was to consult with people from across a spectrum of personal views and organisational affiliations:

1. National campaign groups
2. Local campaign groups
3. Journalists
4. Public figures
5. Forest industry
6. Voluntary organisations
7. Government and statutory bodies
8. Forestry experts

From a shortlist of 30 potential participants, I contacted 18, initially by email, and eventually interviewed 10, a number sufficient given my mix of methodologies, but which could have been helpfully doubled for a wider spread of voices had time been available. My final interview sample included representatives of 6 of the 8 categories I had identified, the missing elements being journalists and forest industry. Under ideal circumstances I would have followed up and pursued these remaining interview categories but again the time constraints of MSc research have prevented me from doing so. In particular, it would have been useful to hear voices from the forest industry, as this was one of very few groups who showed any support for the government's proposals. Several of the prominent forest industry representatives that I contacted told me that they could not participate due to a conflict of interest as they already sat on the government-organised Independent Panel on Forestry, but others simply did not reply to initial contact. It is possible that the forest industry felt under attack after the whole affair, leaving representatives less willing to take part.

I took a semi-structured approach to interviewing, working from a set of broad question areas but keeping my style conversational throughout in an attempt to encourage participants to follow their own train of thought. I adapted my questioning based on the interviewee's specific area of expertise, but generally I was wary of predetermining responses by over-questioning. By listening back to my recorded interviews during the 3 week interview period I quickly learned the art of shutting up – it was easy to be afraid of silence whilst interviewing, but leaving breathing spaces often allowed participants'

most interesting thoughts to surface. I was also aware of my own positionality whilst interviewing and the danger of asking leading questions, especially since I myself did not feel that I fitted the bill of the 'neutral academic.' My choice of this research matter for my MSc dissertation was originally motivated by my own strong emotional reaction to the government's proposals, and although my outright hostility to the proposals had been significantly tempered during the research process as the nuances of the situation became clearer to me, I still felt strongly that the proposals had been ill-conceived and badly managed. In practice, exposing some of my own thoughts during interviews worked well and encouraged rather than discouraged participants to share their views, whether convergent or divergent from mine. Awareness of one's own views does not necessitate retrenchment to a research style that is anodyne and clinical.

I transcribed sections of the interviews that I considered to be useful and used quotes from this material. I did not carry out any formal coding, a step I felt unnecessary given the relatively small and manageable amount of textual data generated.

4. THEORY: SITUATIONS & NETWORKS

"In American crime films, a situation is something the police have to attend to: *"we have a situation here"*, as the cop says in stumbling on a crime scene – we have to deal with this, we know something is happening, but we're not sure what it is."

(Barry 2011: 5)

4.1 Feeding off controversy

As with methodology, I wanted to approach theory in a way that reflected and interrogated my research materials rather than predetermining them. My questions arise first and foremost from turning towards the issues I wish to

explore, rather than from a desire to create or test grand theory about the way the world works. For my purposes in this paper, theory is first a provider of “concepts as tools to disrupt texts, images, and experience, to throw into relief historical, cultural, or literary practices... turning empirical material through different perspectives [to] crack open new questions” (Galison 2004). Second, theory provides a link between the specificities of the issue and the events and observed regularities of the wider world, allowing insights to circulate between the ‘local’ and the ‘global’ to provide new framings and understandings.

The kind of theory on which I choose to draw, therefore, is not a moot question. It is part of the sense-making apparatus that we use to categorise and cajole messy reality into something that can be understood. Just consider the different kinds of questions that we might ask of the events of the forest controversy if we came at it from the angle of political theory, of forestry science, or of cultural anthropology, each bringing their own baggage of assumptions and interests. Yet the ‘choice’ of theory is ultimately a matter of serendipity. Each potential researcher comes to an issue with his or her own peculiar and path-dependent intellectual and disciplinary background. The features of my own back-story that particularly informed my approach to this research material are a latent interest in the internet and a master’s degree in Nature, Society and Environmental Policy that introduced me to the academic field broadly known as Science & Technology Studies (STS). In the rest of this paper, many of the avenues that I follow lead directly or indirectly from this encounter with STS.

The initial thread onto which I grasped was the notable interest that STS theorists hold in the concept of ‘public controversies.’ Their fascination centres in particular on those controversies sparked by uncertainties around science and technology in an age of innovation; questions about genetically modified organisms, the disposal of nuclear waste, or the placement of high voltage electrical lines near centres of population (Callon et al 2009). Unlike these cases, the forest controversy does not rest on fundamental scientific uncertainties. It is not, in Callon’s sense, a scientific knowledge controversy.

Neither is it, precisely speaking, a *knowledge* controversy at all - we cannot pin down a disputed fact or set of facts that lies at the bottom of heated arguments between government and publics. Yet some nub of commonality between these writings and my research still resonated, even if perhaps it was simply the idea that it might be useful and interesting to study the controversy as a unit of analysis, to pay attention to these events in which policy claims and proposals “become subject to public interrogation and dispute... when rationales and reassurances ... fail to convince those affected by what is at issue ... or to allay their concerns” (Whatmore 2009).

I felt an identification, too, with the ‘project’ of these approaches to rescue the damaged public image of the controversy as an unproductive locking of horns. Through the STS lens, the controversy becomes instead a creative social phenomenon, an airing of issues and arguments in which established assumptions are challenged and new understandings emerge. If we learn to ‘feed off controversy,’ as Latour (2005b) entreats, it is an opportunity - an ontological disturbance in which time is slowed down and space is opened up, generative of new ways of thinking, and potentially, new ways of doing (Whatmore 2009; Stengers 2005). The academic has a role here too, to contribute to this opening up by creating space for materials and people to speak and by drawing together threads in provisional lines of reasoning. The controversy recasts my endeavour from abstract exercise to action-research.

Yet despite these helpful framings, ‘knowledge controversy’ didn’t quite seem to fit the spatially and temporally situated tangle of issues and actors around the government’s forest proposals. A solution came, with serendipity again, in the form of an email. Attached was a piece by Andrew Barry that began, “Actually, I find the term knowledge controversies... slightly unsatisfactory. It suggests the existence of a dispute that is focused on a particular claim to knowledge, a specific object or a particular issue” (Barry 2011). He goes on to suggest a “different and broader term,” the *political situation*, which I will adopt here to characterise the object of my study. Barry’s *political situation* mirrors to an extent Latour’s ‘matters of concern’ (e.g. Latour 2005), denoting that we are dealing not so much with facts but something more amorphous

altogether: “a nexus of different movements, material processes, ideas and practices, brought together in novel and shifting conjunctures or configurations, leading to unanticipated effects” (Barry 2011). Specific questions are part of larger, ongoing and protracted public debates for which resolution is lacking.

4.2 Issue networks

If this concept of the political situation and the wider corpus of material relating to controversies is one pillar on which I choose to rest my investigations, a second is that of the *issue network*, developed by Noortje Marres and Richard Rogers. To appropriate the concept of issue networks here is to begin to pay attention to the particular composition and structuring of the heterogeneous assembly of actors gathered around the forest issue. Specifically, issue network analysis is a rather modern form of research that directs us towards the array of hyperlinked web pages that congregate around an issue - ‘issue spaces’ consisting variously of informational pages, news items, social networks, official reports, graphics and so on. To look to this space is to see “issues being done on networks” (Marres & Rogers 2005). Here we see issues in the very act of being defined, framed, presented; what is ‘at issue,’ what should be done about it.

The internet offers, to be sure, a rich seam of publicly accessible materials about this controversy. As one of my informants told me:

“The internet was critical [to the campaign]. It’s impossible to imagine the same level of combustibility... without that new range of social media, access points for people in the debate, convening power ... bringing people together, and then mobilising to take it back out to politicians, the media and so on. It’s completely impossible to think that a campaign without all of that would have had anything like the same effect.”

Interview 8, national campaigner

But we can make a greater case for studying the internet. In the early days of 'cyberspace' research, the internet was seen as if it were an ontologically distinct realm, to be studied by wizards of the virtual in the language of technology. 1999 marked a turning point, with the publication of the edited volume *Doing Internet Research* (Jones 1999), which argued that internet is as deeply cultural as any other human artefact (see also Miller & Slater 2000). The key insight of subsequent work has been to define the internet as intrinsically part of the social realm, a product of but also *productive of* other kinds of social relations both online and offline. Studying the web network around the forest controversy can show us how the issue is being framed and shaped, but increasingly, also allows an insight into how wider publics are formed. In the 'network society' – in which the network has replaced the bounded group as the dominant form of social organisation (Wellman 2001; Castells 2010) – the issue network can be seen as a rhizomatic, decentralised space of civil society, of network governance, from which politics is enacted (Marres 2006). Analysis of issue networks becomes an opportunity to understand how people self-organise and become active; how political situations erupt, are played out and (at least partially) resolved.

5. METHODOLOGY: CRAWLING IN ISSUE SPACE

The Issuecrawler⁵ is a device developed at the University of Amsterdam for the location and visualisation of issue networks on the web. Starting from a group of seed URLs (web addresses), the Issuecrawler performs iterative co-link analysis: spreading out from the initial URLs, it identifies web sites that cross-link to each other. The data pertaining to how the sites are linked together can then be fed into a visualisation module to produce a diagrammatic representation in which sites receiving a greater number of links from the network receive a more central position (Rogers 2010a; Marres & Rogers 2008). The Issuecrawler does not tell us anything about the

⁵ <https://www.issuecrawler.net/>

qualitative character of the links; whether, for instance, sites make “cordial” or “critical” references to each other. Indeed, actors or organisations in the issue network may not be acquainted with one another; they may even be “antagonistic, oppositional, adversarial, unfriendly, estranged” (Rogers 2010a: 6). Quite what form the associations take must be the subject of more in-depth research at later stages.

I have used the Issuecrawler to explore the issue network surrounding the forest controversy. I include here two of my experiments with the device as an aid to remembering, first, that research is a messy business and researchers should never for a moment imagine that they know what they are doing; and second, that all methods produce partial visions of the world according to their own logics and as such we must avoid the ever-present trap of mistaking these visions for reality. This is especially true of digital methods and devices, where techniques are masked by a degree of opacity not found in traditional research methods (Brügger 2005). The Issuecrawler is a black box, programmed by someone else to transform a set of inputs and parameters in a particular way according to its own algorithms. Even without having the access or expertise to observe the machinery at work, we must take particular care to try to understand the logics of this tool if its products are to be useful rather than misleading.

My initial set of results from the Issuecrawler were perplexing. I had input nine prominent campaign web sites as seed URLs for the crawl:

<http://fctu.org.uk/saveourforests> (FC Trade Unions), <http://savebritforests.blogspot.com> (Save Britain's Forests) <http://saveourwoods.co.uk> (Save Our Woods) <http://saveourforests.co.uk> (Save Our Forests) <http://saveourforests.fotfp.org.uk> (Thetford Forest) <http://handsoffourforest.org> (Forest of Dean) <http://savecannockchase.org.uk> (Cannock Chase) <http://savelakelandsforests.org.uk> (Lakeland Forests) <http://savesuffolkforests.blogspot.com> (Suffolk Forests)

Yet the visualisation of the results was dominated by generic government web sites, rather than the polemical landscape of campaigning I had expected. Prominent nodes were direct.gov.uk, data.gov.uk and even wales.gov.uk, which seemed to me to have no connection at all to forestry in England.

experiments I had been letting the device explore too far, allowing irrelevant but numerous and highly interlinked government web sites to crowd out my results (cf. Rogers 2010b: 245). It may seem obvious that we should understand the tools that we use in research, but given the ubiquity of actually highly complex digital methods that we tend to take for granted, it is a point worth labouring. Google search, for example, is an unquestioned part of the contemporary research toolkit, yet we rarely if ever stop to consider that the results that it gives out are the product of algorithms we can never hope to understand and highly contingent on personal search history and geographical and political context (Rogers 2009).

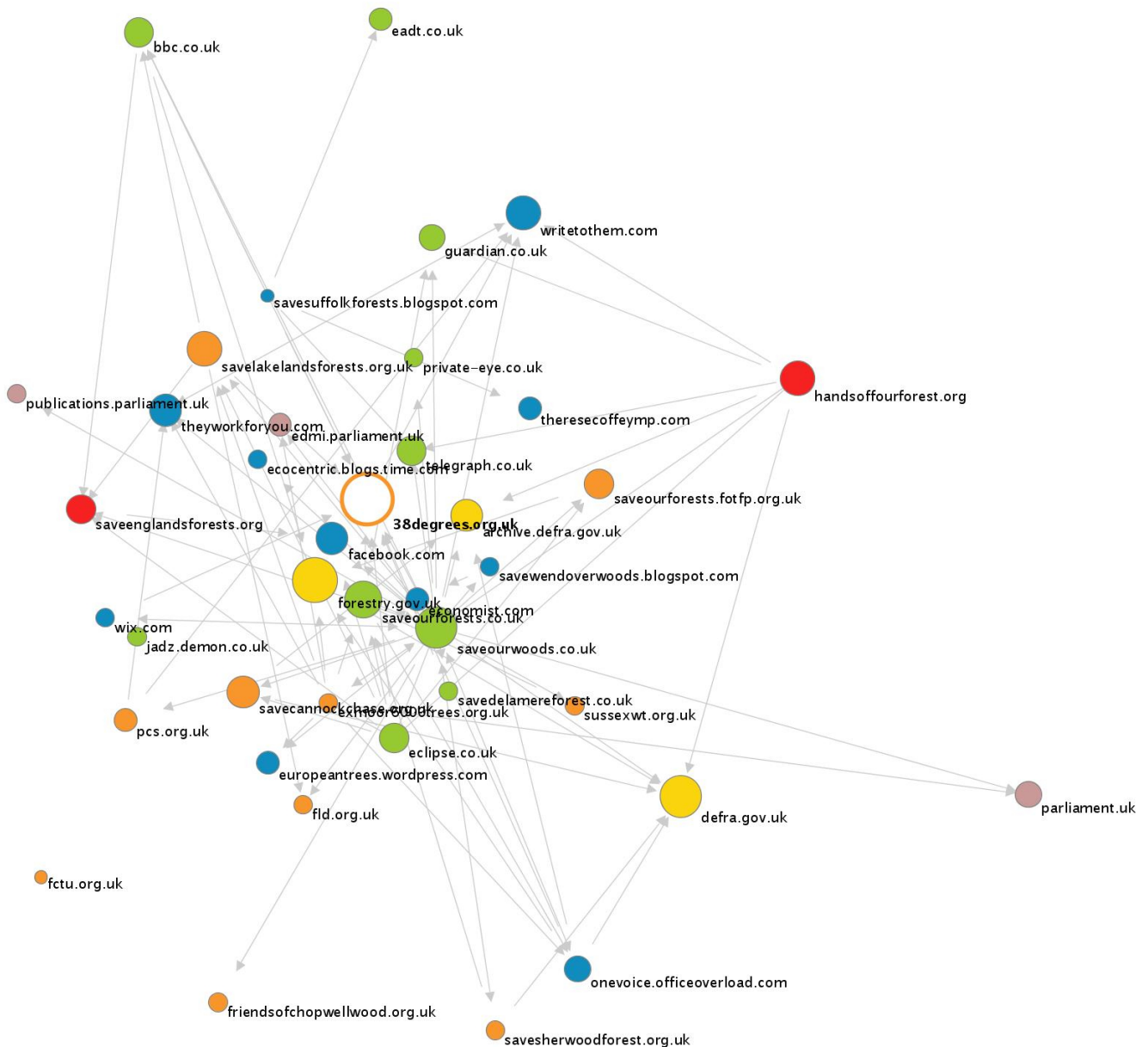


Figure 4. Second Issuecrawler visualisation of the forests issue network (1 iteration)

I used a single iteration crawl to create a visualisation with fewer links and nodes but of greater analytical utility (Fig. 4). Studying the results shows that:

- There was a network of independent but highly cross-linked local and national campaign web sites. A number of these sites were more central to the issue network, especially www.saveourwoods.co.uk and www.saveourforests.co.uk, indicating a large number of inlinks. Actor profiling (Fig. 5) shows that these sites were important nodes also providing outlinks to a variety of other sites.
- The 38 Degrees petition had great centrality in the issue network, receiving a large number of inlinks from other sites.
- The media outlets most commonly linked to were The Telegraph, The Guardian, The Economist, The BBC and Private Eye.
- Government web sites were commonly referenced, including defra.gov.uk, forestry.gov.uk and parliament.uk, but as is standard protocol did not provide any outlinks to the wider issue network (Fig. 5).
- Civil society e-democracy tools allowing direct contact between citizens and decisions makers (writetothem.com and theyworkforyou.com) were linked from throughout the issue network.

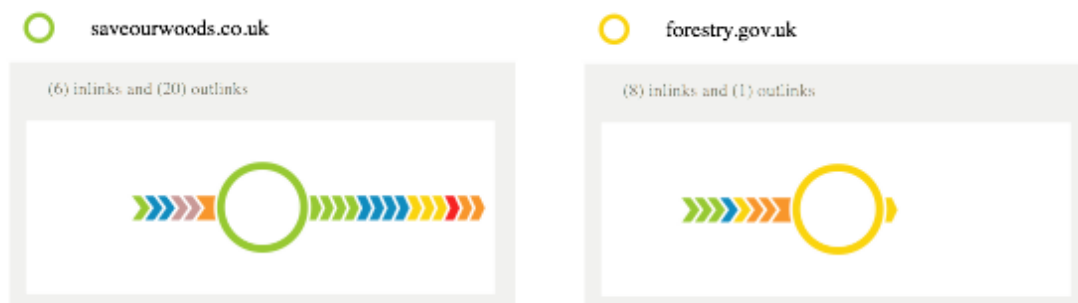


Figure 5. Actor profiles for saveourwoods.co.uk and forestry.gov.uk showing inlinks and outlinks to different classes of site (e.g. green=.co.uk; yellow=.gov.uk; orange=.org.uk; blue=.com)

6. ANALYSIS: ISSUE NETWORK

What the Issuecrawler results demonstrate, through revealing the connections between an ensemble of actors involved in the controversy, is that the issue network is indeed an active site of civil society politics. Understood as such, a new set of questions comes to the fore. I have identified three of particular interest:

6.1 Effectiveness

What kinds of techniques were employed by civil society activists around the forest controversy and which were most critical to the success of the campaign? Contrary to the view that “the internet changes everything,” (Johnson 1998) both the Issuecrawler and interviewees suggest that the online deployment of some actually rather traditional campaign tools were crucial aspects of effectiveness. I discuss the role of the petition in Section 6.3 and here discuss the use of direct email contact with MPs, a modern version of popular letter-writing campaigns. Surman & Reilly (2003) are sceptical about potential for the real political impact of mass email contact with decision-makers, citing as a case in point an article in the *New York Times*, “Flooded with comments, officials plug their ears,” (Seelye 2002) which details how the US Department of the Interior ignored 360,000 email messages campaigning against snowmobiles in Yellowstone Park, on the grounds that they were not original comments but rather cut-and-paste versions of a pre-scripted template. Shulman (2009) provides a more sustained critique of mass email campaigning, using data from 1,000 emails sent to the US Environmental Protection Agency via the web site MoveOn.org to argue for “overwhelming evidence of low-quality, redundant, and generally insubstantial commenting by the public,” that will, as such techniques become more common, be ignored by policy makers as “a nuisance rarely worthy of careful consideration.” Others propose, however, that the function of mass emailing is less to provide new information and detailed commentary but

rather to be a form of “fire alarm” to alert politicians to issues of raw public concern (West 2005; Karpf 2010). In this sense email campaigns around the forest issue can certainly be said to have been as effective as the pen and paper campaigns of the past:

“I remember talking to a member of parliament who’s in the cabinet and he spoke to me and said he couldn’t believe it; he was being flooded with emails. He was taken aback. They weren’t prepared for it... This is a seasoned MP and it just really hit him hard.”

Interview 5, Forester

“In some ways it’s similar to ... the anti-fox hunting campaign [when] Labour MPs were being bombarded with postcards, I mean hundreds and hundreds of postcards. I think that helped ensure that the issue very quickly become one of those that Labour MPs were most concerned to take action on, because that was what they were getting in their postbag, they knew that was what they needed to do to keep their constituents happy.”

Interview 2, national conservation NGO

Effectiveness of such campaigns is also dependent on political context. Shulman’s argument is based on emails submitted by individuals across the USA to a single government department, the EPA. In the UK, by contrast, mass email, letter and fax campaigns are more often directed towards Members of Parliament, each responsible for representing distinct geographical regions. Simple e-democracy tools (e.g. facility to look up your MP by post code and contact online)⁶ allow members of the public to contact their own constituency MP, who has a customary (not legal) duty to read and respond to communications from constituents and is publicly accountable through elections every 4 years.

⁶ See www.mysociety.org

6.2 Empowerment

To what extent did the internet empower people to form and enact an active civil society? In addition to various forms of activism (see above and Section 7), the internet also became a forum for people to debate issues and voice opinions, an important aspect of 'engaged citizenship' (Rish 2009). One aspect of this was the ability to take part in debates within established forums, for example by commenting on newspaper web sites or taking part in a government consultation. However, central to the democratic power of the internet is the way in which it facilitates users with only a modicum of technological ability to self-publish and form networks using commonly available tools. Twitter, for example, allowed individuals to comment on the forest proposals and connect to others with an interest through the use of the user-generated hashtag #saveourforests. Facebook allowed users to set up a basic but free social network opposing the plans within a day of the policy leak. Those with a more substantive interest in the issue were enabled by tools like wordpress and blogger to start simple blog sites providing news and commentary. All of these sites were extensively interlinked, as the Issuecrawler analysis shows, as well as linked to more permanent multi-issue web sites like 38 Degrees and the news media. Together, these various *spheres*, as Rogers dubs them (Rogers 2010a: 254), the *blogosphere*, the *newssphere*, the *twittersphere* (perhaps?), represent a much larger online civil society landscape than the Issuecrawler gives us direct access to (for example it only locates web pages rather than microblogs like Twitter), a landscape that enables new kinds of empowerment. One informant told me:

"I've never campaigned on anything in my life before. I've never been an activist, I've never been a campaigner, I've never had an interest in politics, nothing. Since January - since starting this [web site] - my mind has been blown open by what goes on."

Interview 4, grassroots activist

“As a student, you know, you get involved in issues, and I went on CND marches and that kind of thing. You get involved idealistically. And then somehow that gets buried in your everyday life. And this for me has revived it all, and you suddenly feel, there is something worth fighting for, and it’s really worth doing. And it’s our right, in a way... Why should it be the privileged few who have their own very special areas, and the rest of us are excluded, because that would have been what it came down to.”

Interview 9, local campaigner

The wider issue network can thus be seen as a space in which a vibrant and evolving political ecosystem is enacted that feeds into traditional political formats such as parliamentary representation. Considered as such, one further question is important.

6.3 Legitimacy

If the online issue network is understood as a form of governance, how legitimate is its intervention into political matters? This comes back to the classic critique of the issue network made by Hugh Heclo in the 1970s (Heclo 1978), when he argued that it subverts democracy by allowing a small subset of interested “issue people” to define political affairs. Similar critiques apply to network governance in general, which undermines traditional views of “the people” and representation in the liberal democratic context (Sorensen 2002). Marres & Rogers (2005) summarise three main challenges: “issue-based groupings fail to represent the public, they are unaccountable to the public, and perhaps most seriously, they undermine established arrangements for public participation in politics.” What, then, in the case of the forest controversy, made the challenge from civil society a legitimate one that was listened to by government and considered to be representative of wider public opinion? It may be interesting to consider the use of a variety of legitimating structures and devices within the issue network, in particular, (1) the centrality to the network of the 38 Degrees web site with its 500,000+ signatures, which

could be referred back to as an expression of widespread public support; (2) the deployment of a traditional public survey funded by 38 Degrees members and carried out by the respected polling organization YouGov, which found that only 6% of the surveyed public were in favour of the government's proposals; and (3) the structure of the issue network as an array of interlinked local and national actors; in which the grassroots nature of the local campaigns legitimated the national campaigns, and the mobilisation of public support at national level legitimated and encouraged local activity.

Interviews support this analysis:

“The 38 Degrees petition was hugely important because the sheer number of signatures they got and the speed at which they got them was pretty overwhelming for the government ... It ensured that those concerns that groups expressed were backed up by this overwhelming sense of public anger and hostility.”

Interview 2, national conservation NGO

“The great thing was that [the internet] did give an opportunity to get all of the 15 or 20 local forest groups together and to harness forces with this upwelling of public opinion, which was very powerful in the end.”

Interview 8, national campaigner

“Without the local groups doing their work I don't think the national campaign would have taken off and been as successful... because it was locally that we were getting support and bringing people in, who then went to the petition and signed the 38 Degrees and so on. But it was that local affection for local forests and woods that was the starting point.”

Interview 9, local campaigner

7. ANALYSIS: CLICKTIVISM

7.1 Scale and success

A point that stood out from many of the interviews that I carried out was the clear sense of this being a highly successful civil society intervention into parliamentary politics that resulted in a change in government policy. There was an awareness that politicians were being made to listen as a result of the campaign tactics that were being used, and amazement at the sheer scale of public mobilisation:

“There were panicking back-bench MPs going haranguing Caroline Spelman, haranguing David Cameron at the 1922 Committee and saying how concerned they were with all this, and I suspect that also helped the political decision to be made – do we really need all this flack on this?”

Interview 2, national conservation NGO

“Very quickly it became apparent that this was something a lot of people cared about, that there was a lot of concern... Talking about it to people in the office, it was just something different. It was a big campaign. Already [by Christmas] it was our biggest petition... We had to increase capacity on the campaign. Our members donated so that we could do it. We had to get people in. We had a freelancer in, we had more volunteers... And we reached that tipping point where the campaign has a life of its own. As a campaigner it’s exhilarating because you’ve lost control...”

Interview 7, 38 Degrees

7.2 Clicktivism: the revolution will not be tweeted?

Yet at the same time as noting the success of the campaign, many of the

interviewees answered critically and in detail when I asked them whether they felt that the controversy had actually contributed towards a reasoned public debate on forest policy in England. In Section 4.1 I introduced the concept of the controversy as an opportunity for deliberation and collective learning that strengthens civil society. There is, however, a certain optimism in many of these accounts, notable for their lack of discussion of degenerate political situations in which issue positions become entrenched and there is no opportunity for collective knowledge to expand or new policy possibilities to be opened up. Whether rapid response campaigning via online issue networks may in fact weaken the potential for civil society to engage in forms of deliberative democracy is a question of much interest. One representative of a 'traditional' NGO that I interviewed said:

“What was of concern to us was that the public debate, the petitions, the 38 Degrees campaign, it all became extremely black and white and to a degree it was not very well informed... You know, public ownership is good, private... is bad ... And that was partly stimulated by some of the campaigns that were making the consequences sound very dramatic.”

Interview 6, national conservation NGO

And the following quote from a tweeting forest researcher:

“[the public discourse] was really quite ridiculous. I lost complete patience with the people who were trying to... ‘Save Our Forests.’ Even the name of it... I was tweeting stuff about it using the hashtag #saveourforests and I wanted to be ill, because each time I wrote it I thought, I’m just perpetuating a myth that somebody is actually proposing to destroy our forests, which was the implication... A lot of it was emotional rhetoric. Who bothers with evidence and the truth when there’s a good story.”

Interview 1, forestry researcher

Seen in one light, the internet helped to create a situation in which the public was swept along in a reactionary campaign against an unpopular government, with little real engagement with the actual proposals. As soon as the campaign was apparently 'won,' public interest waned, leaving us with the status quo, but none the better off from the point of view of progressive politics. Such concerns fit into a wider attack on internet campaigning that has developed into an emergent critique of so-called 'clicktivism,' or 'slacktivism.' UK-based 38 Degrees, founded in 2009, is one of a number of internet campaigning organisations internationally that use similar tools like email databases and petitions to create rapid-reaction political mobilisations. The origins of this particular brand of 21st century activism are often traced back to the foundation of [MoveOn.org](#) in 1997, now a major political force in the US with 5 million members. Another big player, [Avaaz.org](#), is an international online campaigning organisation with almost 10 million members across 193 countries. But critics claim, quite apart from the ostensible effectiveness of such increasingly popular tools, that the ease of participating in 'actions' through these kinds of web sites is damaging rather than contributing to civil society's political capacity (Morozov 2009). By appropriating marketing tactics, the objectives of successful activism are reduced to click-through rates and signup percentages, an emphasis on metrics that results in a "race to the bottom of political engagement." Activism comes to mean nothing more than the 30 seconds it takes to skim-read an email and click a button:

"Gone is faith in the power of ideas, or the poetry of deeds, to enact social change. Instead, subject lines are A/B tested and messages vetted for widest appeal. Most tragically of all, to inflate participation rates, these organisations increasingly ask less and less of their members. The end result is the degradation of activism into a series of petition drives that capitalise on current events. Political engagement becomes a matter of clicking a few links. In promoting the illusion that surfing the web can change the world, clicktivism is to activism as

McDonalds is to a slow-cooked meal. It may look like food, but the life-giving nutrients are long gone.”

Micah White, Adbusters magazine (White 2010)

Are claims of civil society empowerment in this forest controversy nothing more than a fast-food slacktivist quick fix to a few minutes of feeling like an engaged citizen? My analysis suggests that it is the clicktivist critique that is overcooked. Clearly, button-clicking alone is a poor substitute for civil society. But the key question is how such actions fit in with the wider landscape of political engagement. In particular, do online petitions and email campaigns make it more or less likely that people will go on beyond this to engage in discussion and more significant forms of activism? With regard to the latter question at least, it is demonstrable that 38 Degrees, in the context of its link to a much wider issue network, facilitated a whole range of political activities. The petition functioned not only as a demonstration of mass public opposition, but was also the ‘first rung on the ladder’ to greater involvement. Users who were mobilised through the viral spread of links to the petition via social and more traditional online media were then encouraged via further links on the 38 Degrees web site to contact their local campaign groups, attend meetings and organise protests. A page on the web site provided templates for posters and flyers that could be printed out and distributed. The database of email contacts collected by 38 Degrees was used to organise letter-writing and email campaigns as well as to fundraise for full-page advertisements that were placed in national newspapers. As Karpf (2010) articulates, petitions and other such approaches do not stand alone, but are *tactics*, “an individual element of a broader campaign to convert organizational resources into political power in an effort to affect elite decision makers.”

And in the longer term, crude as the discourse may have been during the months of January and February 2011, these kinds of tactics did in fact open up the possibility for a more deliberative process involving significant numbers of people. The unsophisticated black and white framing during the heat of the campaign served the purpose of providing a powerful rhetoric that resulted in

legislative processes being put on hold, creating a space for a more reasoned debate that was not previously possible. The intensity of the controversy likewise gathered together a new public that in the months following February 17 has been engaged in the policy ruminations being undertaken by the Independent Forestry Panel. As a further riposte to at least part of the clicktivist critique, 38 Degrees has also continued to work on the issue, mobilising 30,000 of its members to reply to the Panel's consultation on the future of forestry. As one of the activists that I interviewed put it to me:

“[During the campaign] there wasn't time to do what we're doing now; to discuss sustainable forestry, for example... and how forests fit into the natural landscape as a whole... That can all be discussed now, there's space for it. Back then, the public bodies bill was the problem... Because in the public bodies bill was the right for the government to sell off up to 100% of the public forest estate. That's what that campaign was about.”

Interview 3, grassroots activist

8. METHODOLOGY & ANALYSIS: USER-GENERATED DATA

8.1 The roots of the forest controversy

I hope to have exposed thus far, via interviews and issue network analysis, something of the actors and political dynamic at play in the forest controversy. Yet not much has been said about the first of my two research questions, and the one that provided my original spark of interest in this issue. That is, not much has been revealed about why exactly this issue was able to galvanise the public attention to such a degree. The key informants that I interviewed, so effusive when it came to telling me about campaigning, were notably almost universally at a loss to put their finger on quite why the issue had been so big in the first place, hinting that behind the hurly-burly of politics in the internet age, there was something rather deeper at work.

“I’m amazed that [the campaign] took off like this. I don’t think it’s because it was well-organised. I think it just hit a chord, didn’t it.”

Interview 1, forestry researcher

“As to why it was such an enormous thing and why people responded much more emotionally than they have for example over the loss of Social Security and the loss of the National Health Service, that’s astonishing, I can’t answer it.”

Interview 10, Forestry Commission official

“To be honest there was no expectation that [the campaign] was going to take off in the way that it did, and I think everyone was fairly astonished by that.”

Interview 8, national campaigner

“[the public reaction] was quite remarkable. It’s almost inexplicable...”

Interview 6, national conservation NGO

“There’s something deeply, deeply, deeply... [pauses]... I hate to say... spiritual, it’s not the right word... but, there’s just a really deep connection to woodland... a really inbuilt, deep connection, intangible almost... You can’t argue with that because there’s no scientific measurement of it. There’s no logical explanation for it. So trying to grasp actually what it is, is something philosophical... it basically comes down to where you fit in the world.”

Interview 3, grassroots activist

The limitations of the key informant methodology here are clear. No amount of 40 minutes interviews would suffice to explain why people felt as they did

about this issue. All my informants could do was to speculate, just as I had done about my own feelings. Mishandling of the policy by government, general anti-government sentiment and anti-privatisation sentiment were all posited as possibilities, but the ultimate explanation always seemed to come back to some sense of woodlands and forest as intrinsically 'a good thing.'

One methodological approach to this problem is to attempt to go straight to the source; rather than asking third parties to speculate on the public psyche, to tap into data that reveals directly how people are thinking. The internet, I argue here, has the potential to be a very powerful tool for doing this. Twitter's 140-character microblogs are frequently criticised as banal. But their very banality makes them revealing – they are not premeditated, thought-through; they are expressions of immediacy. Individual tweets may not be that interesting, but large numbers of tweets analysed in aggregate can be used to indicate what people are thinking about ('trending topics') and perhaps even how they are feeling. Mishne & de Rijke (2006) have used aggregate analysis of large numbers of blog posts as an indicator of global mood levels, for instance. Building on this kind of work, the ideal source of data for this particular research question would be the corpus of potentially thousands of short comments left by people who signed up to the 38 Degrees petition. They are no more than several lines each in length, providing a brief expression of sentiments at the very moment when someone actively performs their political views by 'signing-up,' the very moment at which to ask (as if we could): 'what is on your mind?' Sadly, I was unable to get access to the 38 Degrees due to restrictions on use, so instead I here carry out an exploratory investigation into comments left by readers on three newspaper articles published during the first days of the public controversy over the government's forest policy proposals: *The Telegraph* of 23 October (Hennessey & Lefort 2010), with 846 user comments, *The Guardian* of 24 October (Vidal et al 2010) with 160 comments and *The Independent* of 24 October (Chorley 2010) with 95 comments.

This data is inferior to that which would have been available to me through 38 Degrees in terms of both comment volume and the kind of immediacy with

which the comments were made, i.e. comments left on online newspaper articles tend to be more thought-out and are influenced by being part of an ongoing discussion rather than being isolable individual expressions. Nonetheless, analysis may reveal something of the discourse that took place around these issues, which in itself also may provide an interesting insight into the role and positionality of newspapers in this controversy.

8.2 Background to text analysis

The appropriate term for the technologies and techniques used to do this kind of work with large amounts of data is 'data mining,' or 'text mining,' with its allusions to tapping into a vast seam of material to extract that which is of value. Tan (1999) defines it as "the process of extracting interesting and non-trivial patterns or knowledge from unstructured text documents," a process for which there are now increasing numbers of experimental web-based tools available. Amongst them are tools produced and collected by the Digital Methods Initiative (DMI) in Amsterdam - cited earlier in my discussion of the Issuecrawler device - but others sources include Hermeneuti.ca's Voyeur tools⁷, the Text Analysis Developers' Alliance (TADA)⁸ and IBM's Many Eyes.⁹ Computer-assisted text analysis in general is likely to be of increasing importance as the sheer quantities of text data in existence grows, but the more specific applications in the context of this research may be in analysis of large amounts of consultation or petition data, for instance. Shulman (2009) predicts that US government agencies will soon come to rely on automated information retrieval and natural language processing tools to deal with the huge volume of electronically-generated comment flow during consultation processes. A civil servant involved in the forest consultation process also remarked to me that the task of reading and analysing such a huge volume of material was almost past their capabilities (it will be of interest to observe how the Independent Forestry Panel deals with the 30,000+ comments from 38 Degrees members).

⁷ <http://voyeurtools.org/>

⁸ <http://tada.mcmaster.ca>

⁹ <http://www-958.ibm.com>

Digital tools use a variety of well-established text analysis techniques as their basic building blocks, such as word frequency, concordance (a gathering of passages that agree) and collocation (the occurrence of words adjacently more often than would be expected by chance) (Rockwell 2008). These techniques are not a replacement for human interpretation, but a way of turning around a text to find interesting angles on it. Rockwell & Sinclair (2008) for example used concordance and frequency tools to pick apart the use of the words 'black' and 'white' in speeches given by Barack Obama and Pastor Jeremiah Wright during the 2008 electoral campaign. Very few studies have put these tools to use with high-volume, low-quality data such as user comment postings, however (Mishne & Glance 2006 have done some work on weblog comments). In relation to my particular focus of study here, a small body of work has begun to look generally at the comments left by readers on newspaper web sites, but this has mostly been concerned with issues of the overall volume and dynamic of commenting rather than content (e.g. Schuth et al 2007; Tsagkias et al 2010). Here I can do no more than sketch an outline of the possibilities of this kind of analysis, since to study user comments in the forest controversy properly would be the work of a paper in itself.

8.3 Doing text analysis

All comments were harvested from the three articles selected and converted into plain text format. This corpus of material was then prepared by stripping it of extraneous data such as time and date information and other structural text, in order to leave just the user-generated commentary itself. In order to generate simple word frequency information, the text was then fed into the *Raw Text to Tag Cloud Engine* at the DMI.¹⁰ 'Stop words' (common words such as the, and, at, etc) were removed, as were words of fewer than three characters. I manually edited the tag cloud to remove any further superfluous words not already targeted as stop words, for example, user names and other words that did not seem to be of particular analytical value here, for example

¹⁰ <https://tools.issuecrawler.net/beta/tagcloud/>

“thought,” “didn’t” and so on.

I then took the most common tags from the three web pages and carried out a simple coding according to various categories that seemed to present themselves (see Figure 6). For example:

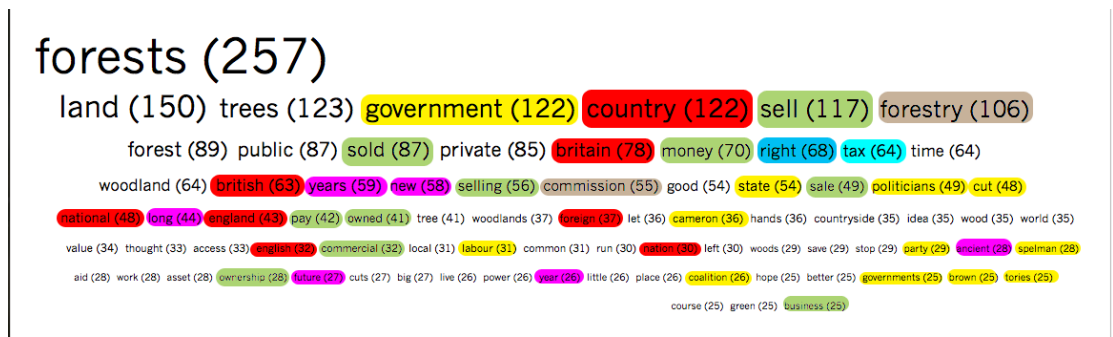
- Words relating to financial transactions: **sell, selling, sale, sold, money, owned, ownership, commercial, cost** ■■
- Words relating to politics: **government, state, coalition, vote, voters, labour, tories, cameron, spelman** ■■
- Words relating to nationality: **british, britain, england, english, country, nation, national, foreign** ■■
- Words related to the natural environment: **nature, wildlife, biodiversity, environmental, conservation, protection** ■■

This simple analytic already throws up many points of interest - for example the prominence of the ‘sell-off’ framing - and a variety of other tools can be used to explore these concepts further. Here I use the frequency data to provide prompts for two further devices, the Word Tree at IBM Many Eyes, and TAPoR’s Concordance tool, both of which provide ways of looking at the context of individual words generated through frequency analysis.¹¹

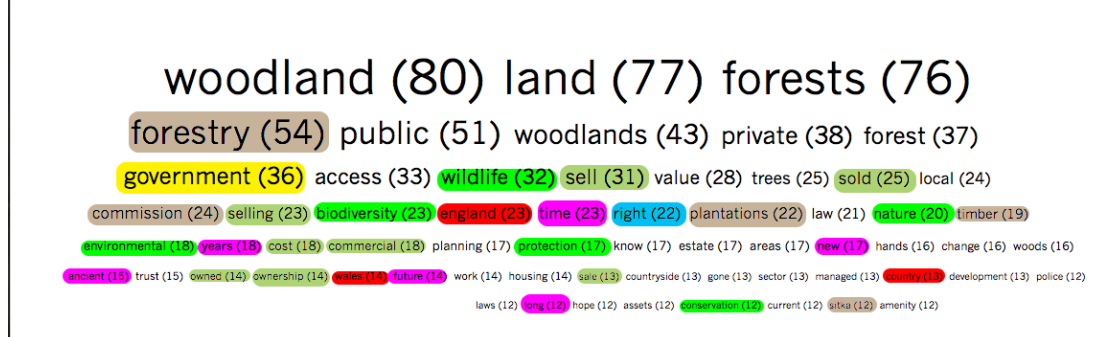
For instance, comments on the *Telegraph* article show far higher use of terms relating to nationality than either the *Guardian* or *Independent* (Fig. 6a). In order to explore how these words are being used, I plugged the word ‘country’ into IBM Many Eyes’ Word Tree, reading from the *Telegraph* data set. This reveals initially that ‘this country,’ ‘the country,’ and ‘our country’ are the outstanding primary contexts in which the word country appears (see Fig. 7b). Zooming into a further level of detail to look at individual extracts from the comment text reveals a discourse of decline, a sense that the country is under threat, is not as great as it used to be, e.g.:

¹¹ My Telegraph dataset is open access at IBM Many Eyes so you can explore it and create alternate visualisations <http://www-958.ibm.com/software/data/cognos/manyeyes/datasets/telegraph-23-oct/versions/1>

The screenshot shows a social media thread with three comments. The first comment is from 'sarahhtumps' (10/26/2010 08:25 PM) with 2 recommendations. The second is from 'brianthesnail' (10/26/2010 07:55 PM) with 4 recommendations. The third is from 'Derek Coventry' (10/26/2010 08:14 AM) with 15 recommendations. To the right, a vertical list of tags is visible, including 'INDEPI', 'My Me', 'tag clc', 'TAPOR', 'TELEG', 'word t', and 'Macintosh'. A red box highlights the text 'Light:ex:blighty' at the bottom of the tag list.



6a. Colour-coded tagcloud, Telegraph



6b. Colour-coded tagcloud, Guardian

Figure 6. Methodological steps in text analysis

“...the political classes rape of our country...”
“...complacent about what is happening to our country...”
“...giving away our country...”
“...when they sell our country...”
“...intent on damaging this country...”
“...need to be stopped before they ruin this country...”
“...the coalition try to destroy this country...”

The TAPoR concordance tool (Fig. 7a) is another means of identifying context of key words in texts. By feeding in the top words relating to nationality in the telegraph comments (country | Britain | british | England | English | national | foreign) a listing is produced of how these words are used throughout the text, revealing concerns that the country will be sold to foreign interests:

“...what does it mean to be British any more?...”
“... All parties seem hell-bent on wiping Britain out completely...”
“... We MUST get our country back...”

“...whole swathes of England are gradually being transformed into another Mexico...”
“...forests will most likely go to foreign investors...”
“... oil oligarchs, Asian billionaire businessmen, foreign investment banks...”
“...who will the buyers be and from which country?...”
“...these forests will go to foreign buyers, mainly those with oil money...”

By contrast, in the *Guardian* user comments words relating to nationality receive far less prominence. ‘Country’ is the 5th most important term in the *Telegraph* comments and the 53rd most important in the *Guardian* (Fig. 6b). But an entirely different set of concerns arise in the *Guardian* comments that are absent in the *Telegraph* – words relating to the natural environment. TAPoR concordance tool reveals an ongoing discussion about environmental protection:

“...let’s not forget that nature always comes out worst in any cost-benefit analysis...”

“...seem to have no concern about environmental and social implications...”

“...can absolutely guarantee you there is more biodiversity in privately owned woodland...”

“...different priorities than protecting and enforcing environmental law...”

“...about the threat to and value of biodiversity and some of the solutions...”

“...historically, a far better record on wildlife conservation legislation than labour...”

“...native species are favoured and encouraged, the environmental value of conifers is recognised where appropriate...”

So this type of analysis can be revealing of differences in the kinds of issues discussed within different forums and segments of the population. These findings of the importance of nationality for *Telegraph* readers and environmental concerns for *Guardian* readers certainly fit with the stereotype of the two publications' readerships (*Telegraph*: conservative; *Guardian*: liberal), but a more systematic study would be required to see whether these characterisations persisted across comments on multiple articles rather than being anomalous.

Careless use of word frequency data without cross-referencing to context can be perilous. The word 'tax' for example appears heavily in the *Telegraph* results, but TAPoR concordance analysis shows that 26 out of the 64 mentions of tax are in the context of an interesting but largely irrelevant discussion on the Ottoman tree tax of the 19th century. I also investigated the prominence of the word 'right,' which appears in the frequency results for all three publications. Whilst I had imagined that it referred to the public right to access and enjoy forest land, or 'right to roam' legislation, I found that 40 out of the 90 uses were incidental:

“...it played right into the hands of the opposition...”

“...you've hit the nail right on the head there...”

“...I stand right alongside you in wanting a recall vote option...”

This line of thinking did, however, put me on the trail of researching a related concept that I had noticed from the very beginning of my work on this subject,

the idea of the public forest estate as ‘our forest’. This has been a common motif in discourse around the issue, reflected across the issue network in names like saveourwoods.co.uk, the ‘Our Forests’ group and #saveourforests hashtag on twitter. One of my interviewees summed it up:

“It comes down to the fact that they’re *our* woods. That’s all I hear. You can’t take our woods away from us.”

Interview 4, grassroots activist

I felt that this got to something at the heart of why the issue was so politically potent. Yet as if to underscore the importance of attending to detail in the use of digital tools, I realised that the reason this ‘our forests’ framing was not appearing prominently in my text analysis was because relevant words had been removed by the way in which I had prepared the raw data. The automated removal of stop words in the creation of the initial tag cloud had removed the vital possessive term ‘our.’ Analysing the original unprepared text for mentions of ‘our’ using the IBM Word Tree reveals a large number of mentions:

“our forests”

“our country”

“our heritage”

“our land”

“our countryside”

I had also stripped out the word ‘people’ because of its frequent occurrence in the structural material of the comment posts, e.g. “21 people liked this comment.” Yet when I used TAPoR concordance on the unprepared text, ‘people’ came up frequently in a similar context to ‘our’ (i.e. we are the people!):

“...the forests should be open to the people, not private, money-grabbing profit-makers...”

“...this is OUR birthright as the British people. THE TREES ARE NOT FOR

SALE...”

“...the forests belong to the people. They are not for the government to sell...”

“...please note the forest belongs to us the people not House of Commons or House of Lords...”

“...is nothing of Britain to be reserved for the British people? Beware, something wicked this way comes!...”

“Something wicked this way comes...”¹² Even though I have barely scratched the surface of the huge potential for unpicking this topic using these kinds of tools, I am restricted by words and time; and Shakespeare is perhaps an apposite way of closing this section. Just as Shakespeare is considered a national treasure and a source of pride and identity, there is no doubt that one of the primary reasons for the way in which the forest controversy galvanised a public so passionately around it was the way in which it tapped into the sense of public ownership around a piece of heritage that has been assimilated into our national identity. There has only been a Public Forest Estate for the last 92 years, but forests have long been wrapped up in national myth, so much so that ‘something wicked’ is indeed how any perceived attack on their integrity is considered, however potentially beneficial to the ‘Big Society.’ The overview that I have managed to give here of this controversy and its contents can only ever be a very partial story, but if I were to risk drawing an equally partial moral from it, it is that in a technological age, culture still matters. In a technocracy, decisions would be made by rational actors based on the efficient fulfilment of criteria. That is, if the land currently within the Public Forest Estate in England would be better managed, if there would be cost savings to the public purse, if access and other public benefits would be safeguarded, if biodiversity would be maintained and improved under the new governance arrangements, then such arrangements should and would be enacted. But such a view would be to misunderstand and to deny politics, for every decision is political and in every political decision, meaning too is at stake. More than ever now, when people feel national identity threatened under the clinical discourse of modernity, rationality and

¹² Macbeth, Act VI Scene 1

technocracy, they resort to the cultural symbols that mean most to them. The forest is one of these powerful symbols, and their commoditisation, their 'tescoisation,' as one of my interviewees so aptly put it in the parlance of our day and age, is the ultimate threat.

9. CONCLUSIONS

This was not the kind of research project that started with a hypothesis and set out to test it. It was a more naïve project driven by an issue that captured my attention and demanded to be explored. The way in which the forest controversy unfolded seemed to pose questions that could not easily be answered. When I first started doing this research I thought it was going to be about forestry. It turns out to have been about activism, the internet and the English psyche. One thing that is clear to me is that research is not so much directed by the researcher as jointly created in a space somewhere in between the researcher and the researched. The materials and informants that I encountered had a voice of their own that defined where the project was and where it was heading. What I have tried to create through this process is an 'anatomy' of the controversy, pulling apart this dense attractor in certain ways to create a more spread out portrait like an exploded diagram, to which we *can* now ask questions, because we know what kinds of questions can be asked. The second thing I hope I have achieved is to put forward some methodological ideas for *how* these questions might be asked, and to demonstrate the value of using multiple methodologies simultaneously. Individually, each of my methods is lacking: dry government materials do not reflect the public discourse; interviews in the end are simply a matter of opinion from a limited sample and are lacking in empirical robustness as a basis for assertions; and issue network and comment analysis threaten to float off into cyberspace, forgetting that a lot of this public controversy was enacted offline in debating chambers, in pubs, in meeting rooms and yes,

even in forests.¹³ Yet taken together, we do start to sketch, as I had hoped, a partial portrait of this public controversy and various promising routes for future exploration of this and similar issues.

What provisional conclusions can be reached? First, that there was little serendipity at play here. The public's strong opposition to the government's forestry proposals was almost guaranteed as soon as the predominant framing became that of the 'sell-off.' The perceived commoditisation, the apparent disregard of something so deeply linked to national identity and belonging goes at least part of the way to explaining why emotions as strong as "disgust and shock" were common reactions. The traditional news media and their online versions played a key role in the initial issue framing that was then replicated across a much wider network. Secondly, the network, both online and offline, can be seen as the predominant form of social organisation underpinning civil society activism here. The campaign against the government was rapid and successful because it utilised technology to bring together diverse actors around a common goal. There were critical nodes – the organisational capacity of 38 Degrees and the hub-like quality of saveourwoods.co.uk amongst them – but the 'campaign' itself was an emergent feature of the network. In particular, the cross-legitimising relationships between the higher-level national campaigns and the grassroots local campaigns is likely to have been of great importance. Third, contra the clicktivist critique, online petitions and mass email campaigns can be a genuine site for civil society engagement in politics. Whilst button-clicking may be the extent of activism for some, it does at least bring the issue into the public arena and raise the likelihood of it forming part of a wider discourse at a later stage. For many others, however, signing a petition can be the first rung on the ladder towards greater levels of engagement and other forms of activism. Finally, this study displays the potential for the analysis of high-volume user generated content to be an insightful research tool for issues of public importance. Used correctly, this kind of analysis offers the ability to dive into the heart of public controversies. It can take us to a pre-narrative,

¹³ This can be extended to a general critique of my whole paper, which does concentrate disproportionately on the online.

almost pre-rationalised level at which we can get an idea of the kinds of issues people are really thinking about but are perhaps not articulating through other researchable media. A more in-depth study of the forest controversy using a far larger corpus of newspaper comments would allow this potential to be fully demonstrated.

1 September 2011

REFERENCES

- Anderson, K.** (2011) 'Keep our forests public,' YouGov poll, 27 January 2011. Available from <http://today.yougov.co.uk/life/keep-our-forests-public> [accessed 8 August 2011]
- Barry, A.** (2011) *Innovation in governance and knowledge controversies*, Presentation at the Second Berlin Forum on Innovation in Governance, 19th May 2011
- Brügger, N.** (2005) *Archiving websites: General considerations and strategies*, Centre for Internet Research, Aarhus, Denmark. Available from http://cfi.au.dk/fileadmin/www.cfi.au.dk/publikationer/archiving_underside/archiving.pdf [accessed 17 August 2011]
- Cahill, K.** (2002) *Who Owns Britain?* Canongate Books
- Callon, M., Lascoumes, P., Barthe Y.** (2009) *Acting in an uncertain world: An essay in technical democracy* (trans. Burchell, G.), MIT Press
- Castells, M.** (2010) *The Rise of the Network Society*, 2nd Ed. Blackwell
- Chorley, M.** (2010) 'Huge areas of woodland to be sold by government,' *The Independent*, 24 October 2010. Available from <http://www.independent.co.uk/news/uk/politics/huge-areas-of-woodland-to-be-sold-by-government-2115153.html> [accessed 8 August 2011]
- Collins, H.M. & Evans, R.** (2002) 'The Third Wave of Science Studies: Studies of Expertise and Experience.' *Social Studies of Science* 32: 235
- Defra** (2011a) 'The future of forestry in England.' Defra News, 17 February 2011. Available from <http://www.defra.gov.uk/news/2011/02/17/futureforestry> [accessed 23 May 2011]
- Defra, Forestry Commission** (2011b) 'The Future of the Public Forest Estate in England: A Public Consultation,' 27 January 2011. Available from <http://archive.defra.gov.uk/corporate/consult/forests/> [accessed 9 August 2011]
- Defra** (2010) 'Forestry in England: A new strategic approach,' Defra News, 29 October 2010 Available from <http://www.defra.gov.uk/news/2010/10/29/forestry/> [accessed 9 August 2010]
- Foot, D.** (2010) *Woods and People: Putting Forests on the Map*. History Press Limited
- Forestry Commission** (2010) *Forestry Statistics 2010*, National Statistics Available from www.forestry.gov.uk/statistics [accessed 8 August 2011]
- Forestry Commission** (2011) *Our Mission & Values*, Forestry Commission web site. Available from <http://www.forestry.gov.uk/website/forestry.nsf/byunique/infd-6val65> [accessed 8 August 2011]
- Galison, P.** (2004) 'Specific Theory,' *Critical Inquiry* 30(2): pp379-383 Available from <http://www.jstor.org/stable/1344372>
- Hansard** (2011) Oral Answers to Questions: Environment, Food & Rural Affairs, 3 February 2011. Available from <http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm110203/debtext/110203-0001.htm> [accessed 9 August 2011]
- Harrison, R.P.** (1993) *Forests: The Shadow of Civilization*, University Of Chicago Press.

- Hennessy, P & Lefort, R.** (2010) 'Ministers plan huge sell-off of Britain's forests.' *The Sunday Telegraph*, 23 October 2010. Available from <http://www.telegraph.co.uk/earth/countryside/8082756/Ministers-plan-huge-sell-off-of-Britains-forests.html> [accessed 8 August 2011]
- Hensher, P.** (2011) 'Deep in the enchanted forest, a very English sensibility has stirred.' *The Independent*, 19 February 2011 Available from <http://www.independent.co.uk/opinion/commentators/philip-hensher/philip-hensher-deep-in-the-enchanted-forest-a-very-english-sensibility-has-stirred-2219306.html> [accessed 8 August 2011]
- Hickman, L.** (2010) 'The great forest sell-off.' *The Guardian*, 29 October 2010. Available from <http://www.guardian.co.uk/environment/2010/oct/29/forest-sell-off-government> [accessed 8 August 2011]
- HM Treasury** (2010) 'Chancellor Rt Hon George Osborne MP's Spending Review Statement,' 20 October 2010. Available from http://www.hm-treasury.gov.uk/spend_sr2010_speech.htm [accessed 10 August 2011]
- House of Lords** (2010) Select Committee on the European Union, Agriculture Fisheries and Environment Sub-Committee: Inquiry on Forestry, Evidence Session Number 1, 24 November 2010
- Johnson, S. M.** (1998) 'The Internet Changes Everything: Revolutionizing Public Participation and Access to Government Information through the Internet.' *Administrative Law Review* 50(2), pp277-37.
- Karpf, D.** (2010) 'Online Political Mobilization from the Advocacy Group's Perspective: Looking Beyond Clicktivism.' *Policy & Internet* 2(4): Article 2. Available from <http://www.psocommons.org/policyandinternet/vol2/iss4/art2>
- Latour, B.** (2005) 'From realpolitik to dingpolitik or how to make things public.' In: Latour, B. & Weibel, P. (Eds.) *Making things public*. Cambridge MA: MIT Press
- Law, J.** (2004) *After Method: Mess in social science research*. Abingdon; New York: Routledge
- Lean, G.** (2011) 'Green groups lost in the woods.' *The Telegraph* 4 February 2011. Available from <http://www.telegraph.co.uk/earth/earthcomment/geoffrey-lean/8304192/Green-groups-lost-in-the-woods.html> [Accessed 19 August 2011]
- Manwood, J.** (1717) *Treatise of the Forest Laws*. In the Savoy, printed by E.Nutt for B. Lintott. Available from <http://books.google.com/ebooks?id=2rY1AAAAMAAJ>
- Marres, N.** (2006) 'Net-Work Is Format Work: Issue Networks and the Sites of Civil Society Politics,' In: Dean, J., Asherson, J. & Lovink, G. (eds.) *Reformatting Politics: Networked Communications and Global Civil Society*, Routledge. Available from http://www.govcom.org/publications/full_list/Marres_06_format_work.pdf [accessed 11 August 2011]
- Marres, N. & Rogers, R.** (2008) 'Subsuming the ground: how local realities of the Fergana Valley, the Narmada Dams and the BTC pipeline are put to use on the web.' *Economy & Society* 37(2): pp251-281
- Marres, N. & Rogers, R.** (2005) 'Recipe for Tracing the Fate of Issues and their Publics on the Web,' In: Latour, B. & Weibel, P. (eds.) *Making Things Public*. Cambridge MA: MIT Press
- Miller, D. & Slater, D.** (2000) *The Internet: An ethnographic approach*. Oxford, England: Berg.

- Mishne, G. & Glance, N.** (2006) 'Leave a reply: An analysis of weblog comments.' Third Annual Workshop on the Weblogging Ecosystem, WWW 2006. Available from http://acawiki.org/Leave_a_reply:_An_analysis_of_weblog_comments [accessed 26 August 2011]
- Mishne, G. & de Rijke, M.** (2006) 'Capturing global mood levels using blog posts.' American Association for Artificial Intelligence Spring Symposium on Computational Approaches to Analysing Weblogs (AAAI-CAAW 2006). Available from <http://staff.science.uva.nl/~gilad/publications.html> [accessed 25 August 2011]
- Morozov, E.** (2009) 'The brave new world of slacktivism.' Net.Effect blog at foreignpolicy.com, 19 May 2009. Available from http://neteffect.foreignpolicy.com/posts/2009/05/19/the_brave_new_world_of_slacktivism [Accessed 18 August 2011]
- Porter, A.** (2011) Government abandons forest sell-off. The Guardian, 17 February 2011. Available at <http://www.telegraph.co.uk/earth/environment/forests/8330702/Government-abandons-forest-sell-off.html> [Accessed 17 August 2011]
- Porter, V.** (1994) *Tales of Old Woodlanders*. Newton Abbot: David and Charles
- Rackham, O.** (2010) *Woodlands*, New ed. London: Collins.
- Rish, R.M.** (2009) 'User-generated content of an online newspaper: a contested form of civic engagement.' Paper presented at the MIT6 International Conference. Massachusetts Institute of Technology, Cambridge MA, April 26 2009
- Rockwell, G. & Sinclair, S.** (2008) 'Now, analyze that: Obama and Wright on race in America, an experiment in extreme text analysis.' Text Analysis Developers Alliance. Available from <http://tada.mcmaster.ca/Main/NowAnalyzeThat> [Accessed 22 August 2011]
- Rockwell, G.** (2008) Glossary @ Text Analysis Developers Alliance web site. Available from <http://tada.mcmaster.ca/Main/Glossary> [Accessed 22 August 2011]
- Rogers, R.** (2010a) 'Mapping public web space with the Issuecrawler.' In: Brossard, C. & Reber, B. (eds.) *Digital Cognitive Technologies: Epistemology and knowledge society*. London: Wiley, pp115-126
- Rogers, R.** (2010b) 'Internet Research: The Question of Method – A keynote address from the YouTube and the 2008 Election Cycle in the United States Conference.' *Journal of Information Technology & Politics* 7: pp241-260
- Rogers, R.** (2009) 'The Googlization Question, and the Inculpable Engine.' In: Becker, K. & Stalder, F. (eds.) *Deep Search: The Politics of Search Engines beyond Google*. Edison, NJ: Transaction, pp173-184. Available from http://www.govcom.org/publications/full_list/rogers_inculpable_engine_2009.pdf
- Schuth, A., Marx, M. & de Rijke, M.** (2007) 'Extracing the discussion structure in comments on news articles.' Proceedings of the 9th annual ACM international workshop on Web information and data management. ACM: New York. Available at <http://dx.doi.org/10.1145/1316902.1316919>
- Seelye, K.** (2002) 'Ideas & Trends; Flooded With Comments Officials Plug Their Ears.' *New York Times*, 17 November 2002
- Shulman, S.W.** (2009) 'The Case Against Mass E-mails: Perverse Incentives and Low Quality Public Participation in U.S. Federal Rulemaking.' *Policy & Internet* 1(1): Article 2. Available from <http://www.psocommons.org/policyandinternet/vol1/iss1/art2>

- Simmons, I.G.** (2001) *An Environmental History of Great Britain: From 10,000 Years*, Edinburgh: Edinburgh University Press
- Stengers, I.** (2005) 'The cosmopolitical proposal' In: Latour, B. & Weibel, P. (eds) *Making things public*. Cambridge, MA: MIT Press, pp994–1003
- Sullivan, A.** (1985) *Greening the Tories: New policies on the environment*. Policy Study 72. Centre for Policy Studies
- Surman, M. & Reilly, K.** (2003) 'Appropriating the Internet for Social Change: Towards the Strategic Use of Networked Technologies by Transitional Civil Society Organizations,' Information Technology and International Cooperation Program, Social Science Research Council, November 2003.
- Tan, A.** (1999) 'Text mining: The state of the art and the challenges.' Proceedings of the PAKDD 1999 Workshop on Knowledge Discovery from Advanced Databases, The Third Pacific-Asia Conference on Knowledge Discovery and Data Mining. April 26-28 1999, Beijing, China
- Tsagkias, M., Weerkamp, W. & de Rijke, M.** (2010) 'News comments: exploring, modelling and online prediction.' *Lecture Notes in Computer Science* 5993: pp191-203
- Tsouvalis, J.** (2000) *A Critical Geography of Britain's State Forests*, Oxford: Oxford University Press.
- Vidal, J., Hill, A. Curtis, P.** (2010) 'Forests sell-off plan by government is 'asset-stripping our natural heritage'' *The Guardian*, 24 October 2010. Available from <http://www.guardian.co.uk/environment/2010/oct/24/forests-government-heritage-private-developers> [accessed 8 August 2011]
- Vidal, J.** (2011) 'England's forests are not quite out of the woods yet.' *The Guardian*. Available from <http://www.guardian.co.uk/commentisfree/2011/feb/18/englands-forests-woods-u-turn-victory> [Accessed 17 August 2011]
- Wellman, B.** (2001) 'Physical Place and Cyber Place: The Rise of Networked Individualism.' *International Journal of Urban and Regional Research* 25(2): pp227-52.
- West, W.** (2005) 'Administrative Rulemaking: An Old and Emerging Literature,' *Public Administration Review* 65(6): pp655-668.
- Whatmore, S.** (2009) 'Mapping knowledge controversies: science, democracy and the redistribution of expertise,' *Progress in Human Geography* 33(5): pp587-598
- White, M.** (2010) 'Clicktivism is ruining leftist activism.' *The Guardian*, August 12 2010. Available from <http://www.guardian.co.uk/commentisfree/2010/aug/12/clicktivism-ruining-leftist-activism> [Accessed 18 August 2011]
- White, J.** (1997) 'What is a veteran tree and where are they all,' *Quarterly Journal of Forestry*, 91(3): pp222-226
- Woodland Trust** (2011) 'A Brief History of the Forestry Commission' <http://www.woodlandtrust.org.uk/en/campaigning/save-ancient-forests/Documents/a-brief-history-of-the-fc.pdf> [accessed 8 August 2011]