Virtual Campaigns, Concrete Elections:

Why the Internet and Related Technologies are Reshaping Election Campaigns in Advanced Democracies

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1.   Introduction

The 2004 United States election cycle saw the continuing emergence of the internet and related technologies as highly influential instruments for political communication and organizing. Technologies that may seem 'alienating' and 'elite-oriented' facilitated vast grassroots voter mobilization drives that produced the highest voter turn-out in nearly two generations. This reversed the downward trend that dominated the forty year era of broadcast TV centred politics.

This paper explains the growing impact of the internet on elections in post-industrial societies. It discusses the underlying ideological tendencies embodied by the internet, and explores its history and operational characteristics. The paper also situates the internet's political implications within existing theories of social networks, social trust formation, and network effects. It explains how these technologies were integrated into strategies implemented by Democratic and Republican campaigns during the 2004 election. It situates these new technologies in the broader framework of emerging campaign methods, tactics, and strategies.

The paper argues that emerging internet technologies enhance socio-political ties among political influentials, resulting in the emergence of social networks capable of mediating information and resource flows independent of institutional elites. While this poses significant risks to unresponsive institutional elites, these same networks can enhance the operational capabilities of institutions whose elites are trusted. In effect, the internet is enabling the reemergence of structures of political relationships that were eclipsed during twentieth century by the dominance of mass circulation newspapers and broadcast technologies.

2.   Rise of the Internet

Computing technologies are not "value neutral" in their consequences. Depending on their specific characteristics and forms of implementation, they can enhance or diminish opportunities and capacities for centralized social control. They also interact within broader

social structural frameworks, and their more significant consequences are a product of these situated interactions.

Many of the most important technological innovations of the latter part of the twentieth century encode radically conflicting visions of possible futures. On one extreme is a vision that emphasizes democratic access to computing resources. This position opposes or seeks to limit the privatization of the social knowledge that creates computing capacity. On the other is a view that seeks to establish optimal privatization of this same knowledge via copyrights, patents, trademarks, and similar legal instruments. This conflict continues to influence the development of the internet and related technologies.

One vision is embodied by proprietary knowledge based technology corporations. These provide governments and corporations with computing capabilities that reinforce centralized and hierarchical structures of differential power relations, surveillance, and control. They transform socially constructed knowledge into private intellectual property. The capabilities they create enable centralized control and management of widely dispersed individuals and activities. They enhance the efficient and timely coordination of widely distributed functions. These enable highly complex simultaneous operations that would be either impossible or prohibitively costly in their absence. These capabilities are integral to both modern capitalist enterprises and the state.

The other is represented today by the "open source" movement. Its precursor, the 1960s "computing for the people" movement, fostered the development of the first personal computers. It helped create a broad and technically sophisticated community committed to developing and deploying technological tools that supported these values. It also became the basis for the "open source" (i.e.: non-proprietary) software movement, a voluntaristic grassroots approach to collaborative computing design and decision-making. Both view technology as a product of social collaboration, and prompt innovations and software that support its social and political goals.

These two approaches facilitate different types of social relations and structures. The computing capabilities created by proprietary technology corporations extent and intensify the already existing and well known characteristics of modern bureaucracies, but do not radically change them because these institutions were already "social computers". Conversely, the social forms facilitated by open source computing and the internet are radically democratic, voluntaristic, and collaborative social networks. Both are facilitated by the internet.

What gives the internet its almost revolutionary character is the fact that, for the first time in modern history, mass social networks are emerging that possess sufficient organizational capacity to challenge the traditionally dominant form of institutional bureaucracies. As will be discussed below, the conflict between these two approaches to social organization was played out in the 2004 presidential campaign.

The internet was originally created in order to provide distributed computational and communication resources capable of withstand a thermonuclear war. Its design and protocols provide interruption tolerance, multiply redundant lines of data transmission, and distributed (decentralized) information processing capabilities. The ideal pattern for such a system is a decentralized network that optimizes the number of connections between computers, and that

does not have any transmission bottlenecks or central controlling point. In theory, such a network is remarkably robust in the face of damage or disruption. But as will be discussed below, this type of structure, and its associated protocols, also fosters a variety of complex social network dynamics. Further, it produces a system that is challenging for those who seek to control the content and interactions that occur on it.

Technically, the terms "internet" and the "worldwide web" (WWW or "web") refer to distinct structures. The "internet" refers to a specific combination of infrastructure and associated software protocols that enable remote communication between connected computers. The "worldwide web" signifies a set of protocols that enable computers to communicate instructions for the remote construction of hypertext and hypermedia documents. In practice, the terms "internet" and "web" have been used interchangeably since 1994, when the first web browser for Windows and Macintosh personal computers was widely released.

From its inception in 1969, a central characteristic of the internet has been its capacity to facilitate peer-to peer and peer-to-group communication. Some of these, like e-mail, usenet newsgroups, and file sharing were instrumental in fostering the growth of the early internet. As well, the growth in popularity of bulletin board systems and local area networks during the 1980s and early 1990s, which were not parts of the internet, facilitated the adoption of the modern internet.

The explosive growth of the worldwide web, beginning in the mid-1990s, occurred because of the pre-existing infrastructure comprised of the university-based internet, corporate LANs, and commercial computer service providers. The additional investments needed to connect these disparate networks were trivial compared to their initial cost, while the additional capabilities created by the development of the worldwide web protocols substantially enhanced the value of these investments.

For the overwhelming majority of users, the modern internet first began to emerge in 1994 with the development of the worldwide web. Initially, it was an esoteric collection of technologies whose use was largely confined to universities. Since then, it has evolved into one of the most influential forces shaping ordinary life, as well as electoral and advocacy politics in advanced democracies.

3.   Understanding the Internet

Broadly speaking, there are three approaches to understanding the internet. The first is the communications framework favoured by many political scientists and communication specialists. The second is "social network theory", and derives from sociology and computing science. This approach is particularly popular among computing scientists, physicists, and bloggers who study the web and blogosphere. The third is networks effects theory from economics. This it provides a powerful explanation for the explosive growth characteristics of the internet and its different aspects. All three, particularly the latter two, are compatible. they provide different but complementary insights into the dynamics of internet-based social networks.

Most political scientists, marketing and communication specialists, journalists, and political operatives have tended to understand the internet and its related technologies as

analogous to existing ones. Much of the research published by political scientists and communication specialists on the impact of the internet has focused upon websites as channels for communication. A substantial literature on communication and media studies already exists that, at least superficially, seems readily applicable to explaining the communicative role of websites. From this perspective, the online revolution primarily consists of new methods for generating content, and new channels for communicating them to redefined target audiences.

This allows the internet to be understood in terms of established theories regarding social communication, the mass media, marketing, and advertising. With some modifications, the internet can be to studied using established methods. The relative importance of specific websites and the internet as a whole can be measured using modified forms of traditional advertising and other communication metrics. These measures imply that internet "audiences" are similar to those of existing media. This approach emphasizes the importance of large institutional and media websites as the creators and distributors of content, while relegating the "audience" to a more passive status. This view highlights the similarities between the internet and established media, and favours studies focused on institutional websites maintained by prominent entities like political parties and the mainstream media. This is an important area of continuing research, and the principal focus of political scientists and other social scientists studying the implications of the internet. To no small degree, the appeal of this approach among political scientists and traditional media specialists derives from its implicit affirmation of the value of knowledge and applicability of skills developed in the context of existing media to this new one.

Unfortunately, this focus fails to account for the dynamic and interactive characteristics of the internet as self-organizing communities of actively engaged and creative participants, as opposed to the more implicitly passive "consumer audiences" characteristic of traditional approaches to understanding mass media. Implicitly, it marginalizes content created and distributed via personal or small group websites. In particular, it underestimates the impact of blogs, internet message boards, and collaborative social community sites. It also underestimates their collective impact. It also does not account for the implications of the explosive growth characteristic of many features of the internet. Finally, the emerging methodologies that seem to best able to facilitate studying these tend to be fairly new and highly technical. At present, they are being developed in an array of disciplines, most notably, sociology, economics, computing science, and physics.

Understanding the more far-reaching implications of the internet also requires some familiarity with the technical dimensions of web and other technologies, and the opportunities for user interaction they create. These aspects continue to undergo rapid technological and social evolution, making it difficult to properly grasp their political consequences in a timely manner. This makes any discussion of the broader social implications of the internet necessarily speculative.

Alternatively, computer scientists, physicists, and some social scientists have focused upon precisely the spontaneously emergent, dynamically self-organizing, interactive, and creative characteristics of the internet. This approach emphasizes the "social network" and "communitarian" nature of the internet while placing relatively less emphasis on its strictly communicative dimensions. It has two major strengths.

First, it blends established social network theories with relatively recent economic theories of networks, and complexity theory, as developed in physics. When the structural characteristics of these internet-based social networks are understood at a sufficient level of abstraction, these theories form complementary explanations of different but related facets of the same overarching phenomenon. Both social and computer scientists who study the blogosphere understand it primarily in terms of social network theories[1]. Studies in quite different disciplines use equivalent concepts, address similar questions, and tend to arrive at similar findings. Much of this research is still formative. But they offer insights into the conditions that enhance, and limit, the influence of the internet generally, and the blogosphere in particular.

Second, these network theories are highly compatible with a variety of existing and emerging methodologies being developed in the context of computational theories of networks as structures for distributed information-processing. This is presently driving the development of quantitative software that facilitates "links analysis" of the structural characteristics of the social networks comprising the blogosphere. The rise of server distributed computing and the internet is also revolutionizing more traditionally understood qualitative "archival research" via the development of highly sophisticated text analytical / "free-form data mining" software that are ideally suited for indexing and analysing the contents of millions, and increasingly hundreds of millions of documents. These methodologies and associated technologies are rapidly evolving, and their use is still largely restricted to corporate settings. However, they offer growing possibilities to measure internet phenomenon, and consequently test theories about their more theoretically substantive characteristics.

Social network analysis focuses upon the structural characteristics of networks. The substantive character of a social network rests upon the nature of the participants comprising it, and of the interactions between them. But a social network can also be formally understood as an abstract structure of nodes connected by dyadic "ties". A "node" is simply an entity that is connected to another by a "tie". Ties capture patterns of "interactions" between the nodes. A series of ties connecting two or more nodes comprise a "network".

Two formal characteristics of ties structure social networks. The first reflects the intensity or strength of a node's ties with others as measured in terms of the frequency of dyadic interactions. The second captures the extent or breadth of a participant's ties with others in terms of the number of ties with different nodes. While this approach seemingly emphasizes the more abstract and "decontextualized" structural characteristics of social networks, it also helps identify key dynamic features that tend to become obscured in more concrete discussions.

Self-organizing social networks "evolve" critical structural properties that can produce "virtuous circles".[2] Networks reduce information and transactional costs among those participants who frequently interact with others. This identifies those who can be "trusted", and those who cannot. Networks also communication of this information, resulting in the formation of participant "reputations".

An emergent characteristic of social networks is the formation of "trust clusters" among those who repeatedly interact with others, and develop relatively positive reputations. Participants with positive reputations belonging to these clusters experience enhanced likelihood of positive interactions and reduced the likelihood of negative ones, even when interacting with relative strangers, if they are linked to each by mutually known and trusted participants with

established reputations. This substantially reduces information costs and the risk of adverse interactions for participants. This also results in participants with negative reputations being "shunned" or "ostracized", reducing both their degree of participation, and benefits derived from them. Those with relatively few interactions are implicitly relegated to relatively more "peripheral" locations within the broader network.

These differential outcomes deepen and strengthen ties among participants with positive reputations, while excluding those with negative ones from trust clusters. This increases the willingness of participants with relatively positive reputations to interact with similar relative strangers linked by these clusters. As a consequence, a critical characteristic of such clusters is that they implicitly regulate participant behaviour. They differentially "reward" and "punish" network participants for their perceived behaviours, on the basis of their collectively shaped "reputations". In effect, trust clusters act as self-organizing social regulatory mechanisms that impose collectively formed behavioural preferences upon participants. As a consequence, social networks organized by these types of clusters facilitate the formation of "social trust", and "social capital".

Such clusters form particularly beneficial structures for participants, creating implicit hierarchies of mutually tied "influentials" within social networks. If one imagines such networks forming multidimensional "constellations", these influentials and the trust clusters they constitute would comprise their centroid "cores". Network influentials are not necessarily "elites" in any conventional sense because their social networks may be substantively inconsequential within the context of established social relations, their scope of influence may be tightly restricted to their trust clusters, and such influence as they possess may not be associated with more conventional attributes of elite socio-institutional location and privilege.

Influence within a given social network does not necessarily translate into broader social influence. But sometimes it does, and in quite subtle ways. The emergence and explosive growth of the Web created conditions that drove the rapid development of software that simplified content creation, enhanced content sophistication, and facilitated its distribution. This combination resulted in an exponential growth in content, those creating it, and its potential audience. An ever-increasing proportion of this content was linked to other content in ways that resulted in remarkably creative and sophisticated synergies. Emergent social networks characterized by explosive growth fueled by accelerating techno-social innovation, and whose domains overlap with important social institutions, can radically unhinge established social patterns of authority.

Network effects theory explores the dynamic consequences of social networks, with a particular focus on factors that result in the explosive growth of some networks. Traditional economic theories that apply to networks emphasize the effects of "economies of scale" on declining information and transaction costs. Classically, this is typified by the "experience curve", a phenomenon where increasing familiarity with new technologies and processes translate into progressively declining costs. This is also sometimes called "disembodied technical efficiency". To the extent that the significance of network effects on costs has been studied within economics, it has been largely in the context of competitive market structures.

More recent theories focus on their effects on marginal rates of return. Emergent networks are governed by "rising rates of marginal return", a curious phenomenon that

economists have long recognized but only recently started to explore. Such networks produce "positive externalities". These positive externalities are a consequence of participation in networks and their specific structural characteristics. As such, they constitute "positive network effects". These indivisibly benefit all participants. In effect, they act as "public goods" for network participants. As these rise, they serve as incentives that motivate further participation which, in turn, increases the overall extent and intensity of network participation. This further raises the overall level of positive network effects and participant incentive, creating a self-reinforcing growth cycle.

The "rising rate of marginal return" phenomenon is distinct from a "declining rate of marginal cost" that result characteristically results in "economies of scale", a well understood phenomenon. However, they can co-occur over a range of a network's growth. Such a network exhibits multiply inflected curvilinear growth rates. Initially, the growth rate is relatively shallow until participation reaches an initial inflection point or threshold. Over portions of the middle range, where rising marginal return co-occurs with declining marginal cost, the growth rate can rise exponentially until it eventually reaches a final inflection point or threshold after which growth sharply abates. This marks the network's structural saturation point. Depending upon its technical characteristics, a network may exhibit multiple "waves" of shallow and accelerated growth. The location of the inflection points are difficult to predict, but tend to be retrospectively obvious.

Social network theory, and network effects theory account for related features of the same phenomenon. The former emphasizes structural properties of networks that result in efficiency gains. The latter explains how these, under specific conditions, translate into explosive growth. Both help account for the apparently sudden emergence of the internet generally, and the blogosphere specifically as socially influential phenomena.

4.   Understanding the 'Blogosphere"

A critical feature of the internet is the rate at which technology evolves and blends into each other. This makes any effort to strictly define any specific facet of web deeply problematic. This said, a basic understanding of the existing technology is essential to understanding their more substantive implications.

The term "blogosphere" refers to three related but subtly different phenomena. The oldest meaning refers to the entire "universe" of blogs on the internet, regardless of whether they are "linked" to each other. The more recent meaning refers to the sub-set of all blogs that are "linked" to at least one other blog. A "link" is simply a "universal resource locator" (url) embedded within a blog, or any other type of webpage, that connects it to content in another webpage authored by someone else. A "cross-link" is an instance of two different webpages reciprocating links. Links are unidirectional while crosslinks are bidirectional. This leads to a third, and somewhat different understanding of the blogosphere. This emphasizes linked content, but not the specific form of the website, which may be based on an array of distinct but related technologies, all of which are "anchored" by websites. These include blogs, message boards, and a variety of emerging technologies that facilitate social collaboration via the web. This emphasizes understanding the blogosphere in terms of topically similar and linked content across websites, regardless of the specific character of a website's underlying technology.

Strictly speaking, a "blog", or "web log", is relatively simple, text-oriented, and inexpensive website that often link content to other websites, and especially to other blogs. At their simplest, blogs, are nothing more than primitive webpages recording the personal observations of a single author. Each new entry appears at the top of the webpage. If the only role played by blogs was to publish previously private musings "online", then they would have limited social consequences. Blogs have become socially influential because they are "linked" with others to form the "blogosphere", and "tagged" in order to expedite keyword searches by web search engines.

The overwhelming majority of blogs have no or few readers or links. A tiny proportion are heavily linked, and receive more visits than the websites of many major news organizations. The latter have substantial readerships because of the appeal of their content, and relative significance within the broader blogosphere. The more sophisticated of these allow multiple authors to post entries, and readers to post comments on these entries. Many of these require some form registration or have online moderators as a means of preventing abuse. They tend to be professionally designed and maintained on websites exhibiting high levels of technical sophistication Many are supported by online advertising and other internet-based revenue programmes. These types of blogs are increasingly seen as an emerging rival and alternative to the opinion pages of "mainstream media" [3]

Related to these are e-mail, newsgroups, and instant messaging. Strictly speaking, while they are parts of the internet, they are not a part of the "blogosphere" because they are not based on websites. Though not always, these typically construct far more direct and intense interpersonal interactions than is characteristic of the blogosphere. What they do not foster to the same extent as the web and blogosphere is the breadth of social interaction. The latter point is critical to understanding why these technologies, have not - as of it - had the same political impact as the blogosphere.

Web message boards resemble a hybrid between group e-mail lists and newsgroups. Like e-mail lists, the central characteristic of web message boards is that they facilitate collaboration and "community-building" through direct and iterative interaction among a group of known participants. Entry into this group is determined by specified membership rules. Ability to view exchanges among participants is similarly governed by group rules. Message board entries are typically "threaded" by topic, and emphasize dynamic "conversations" involving relatively short responses between participants. Message boards can vary restrictions on who can post, and who can read entries, covering the range from closed and moderated group e-mail lists on one extreme to newsgroups on the other.

Relatively open web message boards combine key characteristics of sophisticated blogs with those of group e-mail lists and newsgroups. The most important of these is their ability to link message board entries with content in other websites. While technologically different from conventional blogs, they are similar to sophisticated blogs in terms of their more substantive role in the blogosphere.

The propensity of some bloggers to discuss and link entries in other blogs creates a "network" of links within which each linked blog is a "node". Bloggers also construct "blogrolls" that list linked blogs they regularly read and implicitly recommend their readers also read. A commonly practiced "netiquette" holds that bloggers should reciprocate entries in their

respective blogrolls, increasing the number of crosslinked blogs. Bloggers also "tag" their blog entries using keywords that can be readily identified and tracked by blog search engines such as those used by technorati.com and bloglines.com. These tags allow other bloggers to rapidly identify entries relevant to them, which they can then link to in their own entries. Collectively, these links transform sets of blogs into online "social networks". These online social networks comprise the "blogosphere".

Bloggers read and argue with each other. This makes the blogosphere like an immense number of simultaneous conversations on a myriad array of topics in which any number of people can participate or eavesdrop. The frequency of multiply crosslinked "cyber" conversations, and similarity of content define the degree of relationship between participants. Bloggers frequently link others' observations and arguments within their own texts, thus allowing readers to surf through discussions on the same or related themes across a chain of blogs. Those who frequently "talk among themselves" about the same or similar topics, and who are also disproportionately linked to other blogs, form the core linkages of online "discursive communities". This creates relatively stable and identifiable cyber-communities based upon shared affinities, perspectives, and overlapping "links". The blogosphere is increasingly influential because linked blogs constitute immense networks of individuals and groups with shared or overlapping interests. These networks form online discursive "virtual communities" [4].

The blogosphere is subject to a social phenomenon Vilfredo Pareto called the "principle of the vital few and trivial many", and the "technoscenti" label the "power law" or "Zipf Curve"[5]. As with any social group, some members listen and talk to many more than others. Multiply crosslinked bloggers are the primary participants in the blogosphere. These are the strategically "nodal" or core blogs like Instapundit and The Daily Kos. Core bloggers are the implicit organizers and most influential participants in these networks. By selecting and propagating specific viewpoints being advanced by others within their own web of direct links, they also act as the *de facto* "editors" in their little (and sometimes not so little) corners of the blogosphere.

These core blogs are also disproportionately read by "social influentials" who do not directly participate in the blogosphere, but do exert significant influence upon others in the "real world". The most visible of these are journalists and institutional decision-makers. The vast majority of blog readers are neither. But those who frequently read blogs tend to be individuals who are highly influential within their own social circles. By influencing their views, blogs affect the climate of opinion within specific "real world" communities.

More subtly, blogs also influence the information obtained from websites by those who "surf" the internet, but do not read them. A crucial feature of the internet has been the way in which it has fostered remarkable innovations with sometimes unpredictable consequences. By the late 1990s, the exponential growth in the number of websites had resulted in the internet beginning to resemble a huge and growing library without an index system for finding material. Logically enough, this led to the creation of "portal" sites that offered highly structured directories and search services. The most notable of these portals was Yahoo! What no one anticipated was the impact of a far smaller "start-up" whose principal service was a simple internet search engine.

Google's "page rank" algorithm changed the internet in two ways. At the obvious level it provides what seems like a comprehensive catalogue of publicly assessable websites, rank ordered by apparent relevance. This makes the web more user-friendly, particularly for those with limited knowledge of either the internet or their area of topical interest. Although Google's page rank system frequently gives relatively high ranks to the websites of prominent and influential institutions, it measures the relative influence of a website or blog within the trust clusters pertinent to that topic in the blogosphere.

Google's page rankings appears to reflect the collective judgment of those on the internet who link their sites to others. Google's search engine algorithm transforms the otherwise invisible and complex multi-dimensional structural characteristics of the internet's social networks into a simple hierarchical listing. It captures the relative influence accorded to a specific website by clusters of linked websites. Unlike Yahoo!'s web rankings, which were influenced by payments from the website owners, Google's algorithm ranked websites on the basis of the number of secondary sites that linked to it, and the number of tertiary sites that linked to those. A website's relative influence also derives from the relative influence of the sites linked to it, and the relative influence of the sites linked to those. In other words, Google's algorithm "polls" the relative influence of website clusters, as well as their core websites, in determining its ranking.

Google's page rank prioritizes the core websites of the most inter-linked clusters within a given topical area. Its algorithm constructs an unidimensional representation of the relative influence of trust clusters within topical social networks, and drives browser traffic to their core websites. Core websites and blogs tend to be frequently updated and contain a plethora of links, especially to other topical websites and blogs. Given the greater willingness of bloggers to link to other websites, google's page rank is more likely to capture the "votes" of bloggers in trust clusters than institutional websites. As a consequence, trust clusters that effectively dominate specific topical domains ensure their most influential websites are relatively highly ranked, and thus receive a disproportionate share of search traffic.

The underappreciated implication of this is that ordinary browsers using Google, especially its simple search page, will see results that are a heavily influenced by inter-locking ties of influence, and internet activism within specific interest domains[6]. Implicitly, this reflects the disguised impact of the internet's dominant trust clusters, even among those who never read blogs.

5.   The Political Impact of the Internet

Understanding the political impact of internet and blogosphere rests upon the question "impact on whom?" The most striking feature of the political blogosphere during the 2004 US presidential campaign was its apparent influence on political elites, and the absence of direct consequences at the level of the mass electorate. While the blogosphere accomplished political miracles, and changed opinions among influentials on specific points, their influence on the mass electorate was heavily mediated by professional elites. The central political implication of the 2004 campaign cycle is that if the latter are unresponsive to the positions being advanced by a particular trust clusters, then these views will have limited mass impact, no matter how much attention they get among bloggers or grassroots influentials. Understanding this disparity in

influence, and how it may change, is central to appreciating the current and impending political implications of the internet.

Two of the most important institutional structures governing politics in post-industrial democracies are the political parties and mainstream media. At least in the United States, the emergent political blogosphere does not necessarily threaten the fundamental characteristics or authority of either, in large part because of their institutional openness and adaptiveness.

As already mentioned, the internet enables new media channels similar to established ones like newspapers, magazines, radio, and television. What distinguishes the internet from established media is its explosive growth, and rapid technological innovation. These impose heightened uncertainty and turbulence, as well as opportunity and innovation, on traditional media. This has already led to the widespread adoption of emergent internet technologies and practices on mainstream media websites. These include online comment sections following news stories and columns, the proliferation of blogs authored by professional journalists on mainstream media websites, podcasting, streaming video, and multimedia presentations. It also includes increasing emphasis on internet advertising. The continuing growth of the internet poses significant long-term threats to the business models, and journalistic practices of traditional news media. But this is not dissimilar from the changes imposed upon newspapers and magazines by radio and television.

Despite the explosive growth of the blogosphere, the 2004 presidential campaign was dominated by mainstream media. In comparison, blogs had little direct impact on voter opinions. As the Pew Internet and American Life Project found, only eleven percent of internet users read blogs in the Spring of 2003, when online activist support for the Dean Campaign began to surge. Only nine percent of internet users read blogs over the course of the 2004 presidential election. Sixty-two percent of internet users did not have a good idea of what blogs were at the end of 2004 [7]. The disparity between the supposed political impact of blogs and the extent of their readership is striking. For the majority of voters in 2004 who rarely if ever used the internet, the political blogosphere may as well have been the cyber version of the "Illuminati". Throughout the 2004 election cycle, the primary source of political news and opinions for the overwhelming majority of voters remained the "mainstream media". For all the vehemence expressed in the blogosphere, their direct impact on the electorate was ultimately limited, and constrained by established media and political structures.

While major mainstream media outlets have been swift to adapt to the challenges posed by the internet, their impact on political institutions is more complex. Party websites are already a common feature of election campaigns throughout the world. But the degree to which parties outside the United States have embraced the broader array of technological and social changes being inaugurated by the internet is a function of specific institutional factors, and national levels of internet usage.

A key feature of American parties that facilitates the incorporation of the internet is the degree to which their organizational and structural characteristics resemble those of social networks, akin to those on the web. As a consequence, the context in which the internet consistently exhibits its greatest impact on political parties is the United States. As with so many other aspects of politics, the United States invents, refines, and exports new electoral practices to the rest of the world.

The US party system is strikingly different from those of most other enduring democracies. While this is sometimes interpreted as indicated that the US is characterized by "weak" parties, in contrast to those found in Western Europe and elsewhere, a better way of understanding this is that they are organized along substantially different principles. Beginning with the populist era, American parties have been constrained by a succession of legal requirements that limit the influence of formal institutional leaderships. Near the opposite extreme, Canadian federal parties are characterized by remarkably high levels of institutional control by their respective Leaders. But the relative "weaknesses" of institutional leaderships is not equivalent to the "weakness" of political parties, as mass social organizations. Given their ability of to mobilize resources and volunteers, one may conversely argue that the US Democrats and Republicans are among the most "powerful" democratic parties in the world.

At the apex of both the Democratic and Republican parties are national committees with broad representation from state committees, and institutional officeholders. Both have congressional and senatorial campaign committees responsible for providing central support for local or statewide campaigns. Beyond these formal party committees are a plethora of more specialized groups representing particular interests. These include such historically noteworthy groups like EMILY's List among the Democrats, and the Eagle Forum among the Republicans. In addition to well established organizations, many emerge as temporary electoral coalitions comprised of more established interests, or ones that are legally barred from direct political involvement. At the lowest level is the substantial industry of political consultants. While they typically work for the candidates of one party, the larger ones frequently carry out functions for a large number of candidates running for different offices in different jurisdictions. As with any industry, they have their own trade associations and publications. Along with these are seemingly vast numbers of professional lobbyists, trade associations, and special interest groups who seek to influence public policy via contacts among both parties. As well, the American system for selecting candidates emphasizes mass voter participation, formally open candidate entry, and public competition within each party's selection process.

In combination, they result in parties that are remarkably open to influence by organized groups outside of their formal institutional structures. Combined with its own extraordinary growth since 2000, these features enabled the American political blogosphere to exert significant influence upon the 2004 presidential campaign.

The John McCain Campaign in 2000 and the Dean Campaign in 2004 are rightly considered to have been the pioneering efforts in the effective use of the internet as a fundamental tool of political organizing. Less well recognized was the enormous success of the Bush 2004 Campaign in using the internet as a tool for mobilizing and coordinating a massive grassroots voter contact effort that ultimately helped Bush win reelection. Both of the Dean and Bush Campaigns began from where the McCain Campaign's internet efforts had ended, but then evolved quite different organizational models and campaign strategies. As a result, the 2004 presidential campaign witnessed the emergence of two distinctly different approaches to using the internet for political organizing. In many respects, a comparison of the two is a study in contrasts. Beyond their ideological differences, they embodied different understandings of how internet technologies can mobilize vast numbers of grassroots volunteers and donors. A the level of the internet, the 2004 election campaign was an indirect contest between two fundamentally different models of campaign organization.

The Howard Dean Campaign's phenomenal growth during the 2003 pre-primary period was driven by blogs [8]. The apparently sudden explosion of support for Dean in the Summer of 2003 taught politicians and journalists to take the blogosphere seriously. To the bemusement of many "mainstream" journalists, both the Democratic and Republican National Committees granted media credentials and privileged access to prominent bloggers for their respective presidential conventions [9]. Right-wing bloggers also dimmed the career of Dan Rather, one of America's most influential journalists by proving that documents used in a "60 Minutes" story about President Bush's period in the National Air Guard were forgeries. But while these events captured the emergence of the blogosphere as a significant political force, to some extent, they and similar indicators of influence were illusory.

Political blogs and the blogosphere fueled the growth of the Dean Campaign during the 2003 "pre-primary" season in five ways. First, they influenced the climate of opinion among social influentials, particularly liberal Democratic grassroots activists, but also journalists. Second, they possessed the capacity to organized and motivated online communities of activists to take "real world" action against the Iraq War by supporting Dean's candidacy. Third, they enhanced communication, collaboration, and decision-making among geographically dispersed and otherwise loosely organized trust clusters. Fourth, they undermined the ability of established authorities within the Democratic Party to control resource and information flows by creating alternate channels that were not susceptible to institutional control or influence. Finally, they enabled otherwise unconnected individuals will act in a cohesive and coordinated fashion outside of the ambit of established Democratic elites. These combined to transform a minor campaign for an unknown candidate into 2003's most surprising political phenomenon.

Despite its apparent dominance in early January 2004, the Dean Campaign ignominiously imploded once ordinary voters were asked to cast ballots in the Iowa caucuses and New Hampshire primary. One of the central failings of the Dean Campaign was its inability to organize effective traditional media and voter contact operations. This included the Dean Campaign's sustained inability to formulate and implement a coherent media communication strategy, or articulate broadly persuasive messages targeted at undecided or swing voters. It also reflected the absence of professionally organized voter contact operations, particularly phone banks and direct mail. This was not for want of money or volunteers. It reflected the Dean Campaign's failure to develop more traditional campaign functions of the sort typically staffed by professional consultants and experienced political operatives.

Instead, the Dean Campaign relied upon its internet campaign. It successfully recruited a vast number of volunteers, many of whom were as inexperienced as they were enthusiastic, to conduct voter contact and "get-out-the-vote" (GOTV) operations. Similarly, the Dean Campaign relied on volunteers to generate its TV ads, and conducted an online contest to select the ones that would be aired. These captured the grassroots, democratic, counter-establishment, and insurgent qualities of the Dean Campaign and those elements of the blogosphere that supported it. Paradoxically, it was precisely this unstinting emphasis on democratic grassroots voluntarism, largely unleavened by the experienced professionalism of political elites, that resulted in the Dean Campaign's profound inability to persuasively appeal to ordinary voters and mollify their concerns about Dean.

Ultimately, Iowa and New Hampshire were not even "defeats". They were heart-breaking political routs for a host of Americans who had become involved in the hope that their

democratic activism would "make a difference". These contests inescapably established the continuing primacy of elite professional skill over mass democratic unskilled enthusiasm. They also reaffirmed the centrality of traditional mainstream media, and electoral methods, despite the emergence and growing significance of internet-based political organizing and activism. In the absence of traditional political professionalism on the side of internet political insurgents, the Washington establishment ambushed the Dean Campaign's enthusiastic grassroots volunteers, and planted them by the legion in the political graveyards of the Midwest and New England. This was the central cautionary lesson of the Dean Campaign.

During the 2004 presidential election cycle, there were two equally important "stories" about the impact of the internet on electoral political. The story emphasized by the media and blogs was the covered the emergence of the blogosphere, and its impact on the internal politics of the Democratic Party. Rarely covered but as important was the development by the Republicans of a new approach to voter contact, persuasion, and mobilization that combined existing methods with new ones facilitated by the emergence of the internet. Ultimately, these enabled Bush to win reelection, and the Republicans to maintain control over both Houses of Congress.

The importance of the blogosphere to the Dean Campaign has substantially shaped perceptions of the role of the internet in politics. The Democratic blogosphere seemed to favour loosely organized networks of those seeking political change in the face of a non-responsive and hierarchically organized party establishment at odds with a substantial portion of its grassroots activist base. This motif of grassroots insurgents fighting entrenched elites for control over the Democratic Party dominated coverage of the pre-primary period in 2003. The problem with this story is that it rarely covered or addressed the implications of the largely complementary relationship between the Republican Party establishment and the Republican blogosphere, as well as the highly sophisticated way in which the Republican Party pioneered a variety of quite electorally significant uses for the internet.

In part, this reflected the media's characteristic tendency to focus on stories about political conflict over ones discussing the orchestration of harmony, even when the latter is ultimately more consequential. But it was also a result of a remarkably successful strategy pursued by the Republicans to construct, with little journalistic fanfare, a cohesive campaign that combined traditional campaign methods with new opportunities created by the internet. This is not a consequence of journalistic indifference. While not strictly "secretive", the Republicans avoided extensive public discussion of their new approaches, at least so long as it was avoidable.

Compared to the Democrats, the Republican effort was a study in contrasts. First, not only were Republican bloggers overwhelmingly supportive of Bush, they displayed remarkable message discipline in adhering to the Republican campaign's official "talking points". Second, while Republican activists set up a variety of "independent" campaign organizations, they acted in remarkable harmony with the official Republican campaigns. Third, while independent Republican campaign groups raised appreciable amounts, the overwhelming bulk of pro-Republican campaign resources were channeled into the official Republican campaigns. Finally, beginning in 2003, the Republican National Committee launched a massive internet and grassroots based drive to identify, recruit, and organize over a million Republican supporters.

Underlying the Republicans' innovative use of the internet was an unprecedented volunteer-based grassroots voter contact, persuasion, and mobilization effort. The Republicans benefited from a succession of strategic and tactical errors made by the DNC and Kerry Campaign. But their principal achievement lay in planning and building a centrally managed campaign organization that matched and defeated the largest mass mobilization against an incumbent president in modern American history. The paradox was that these kinds of activities dominated election campaigns prior to the rise of radio and television. For the Republicans, the internet acted like a political time machine that enabled them to revive an activity they had marginalized for decades.

The motivation for the Republican effort was George W. Bush's near defeat in during the 2000 presidential election, despite polling that showed him in the lead at the end of the campaign. Karl Rove attributed the last minute Democratic surge to the combined impact of pro-Democratic GOTV efforts, and the decision of many evangelical Christians to not vote in response to weekend news reports that Bush had been arrested years earlier for drunken driving. The combination focused Rove on the importance of ensuring voter turn-out among the Republican base in 2004. The consequence was a wide-ranging effort to systematically understand the dynamics of voter contact, persuasion, and mobilization at a level beyond campaign anecdotes.

The details of the Republican research programme remain shrouded. However, a number of news stories reported on key elements that strongly suggest it may have gone beyond quasi-experimental research analyses using aggregate and individual level data that are conventionally done by campaigns after elections. These snippets include a Washington Post story that revealed the RNC spent over a million dollars on over "fifty experiments" on voter turn-out[10]. In another article, the Washington Post also revealed that the RNC had exhaustively conducted repeated "field tests" studying the optimal relationships and sequences of different voter contact methods, including volunteer canvassing, phone banks, and direct mail[11]. These suggest the RNC may have conducted a research programme similar to that of Alan S. Gerber and Donald P. Green[12], except the RNC examined voter persuasion effects of specific types of voter contact in addition to their effects on turn-out.

An additional element of circumstantial evidence consistent with this suspicion is Karl Rove's own political background as someone whose political consulting operation centred on direct mail fundraising. A common practice in direct mail marketing are controlled experiments using large multi-group randomly drawn or matched samples that test specific elements of "mailers". Karl Rove had established a reputation as a Texas political consultant for conducting these kinds of studies in the context of direct mail fundraising[13], and careful analyses of variables affecting voter responses to candidates he worked for[14]. Given his background and predilections, controlled experiments testing voter contact and mobilization methods certainly would have been consistent. As one of President Bush's most important advisors, and as one of the influential figures in the Republican Party, he also would have been in a position to ensure such a research programme was conducted.

None of these elements establish that such a programme was conducted. But the pattern of news reports regarding the 2002 and 2004 Republican voter contact, persuasion, and mobilization strategies strongly support such an inference. What makes this surmising

significant are the implications it has for understanding the logic underlying the Bush 2004 Campaign's voter contact strategy, and its use of the internet.

Beginning shortly after their 2000 presidential victory, the Republicans initiated three projects that would be used to some extent during the 2002 campaigns, but come to fruition in 2004. These projects are "Voter Vault", "GOP Team Leader", and the "72 Hour Project" (sometimes called the "72 Hour Programme"). At the heart of each was the Republicans' successful exploitation of the internet as a mass communication and grassroots organizing tool that matched the capabilities of the blogosphere while maintaining central control.

"Voter Vault" is a massive password protected internet database of 165 million American voters[15] that can be accessed online or downloaded either via a web browser, or a variety of specialized database client software developed and marketed by Republican software firms[16]. While relatively few accounts of Voter Vault have been published, they provide sufficient detail for anyone familiar with internet deployed relational databases, and the voter contact operations of election campaigns, to surmise its general characteristics. Voter Vault was used in conjunction with the GOP Team Leader, and the 72 Hour Programmes. Campaign volunteers and organizers could access and update specific information regarding voter issue concerns, candidate preferences, and other characteristics. They could not alter data entered by other volunteers or organizers, some of which was hidden, depending on password determined database access level. Indirectly, Voter Vault acted as an indirect check on foot and volunteer telephone canvassing effectiveness because it was coupled with the efforts of other volunteers, campaign call centres, and direct mail operations.

A crucial feature of Voter Vault was that access to it was managed by the RNC, and state Republican committees. The RNC managed access for congressional and senatorial campaigns, while the state committees regulated access for state and local candidates. Gaining access obligated campaigns to contribute to the database via specified campaign activities, and by providing local organizational support for the 72 Hour Programme. Its inherent attributes as a central database supporting multiple overlapping local, state, and federal office campaigns provided the central Bush/RNC Campaign with the capacity to automatically monitor all participating campaigns, and take prompt remedial action when warranted.

"GOP Team Leader" was a programme designed to recruit and support activists participating in the 72 Hour Programme. It gave these and other Bush supporters access to a wide array of internet based communication tools. Team Leaders regularly received e-mailed "talking points" that periodically refreshed the Republican messages and rebuttals to Democratic claims. It also allowed Team Leaders to construct their own supporter contact lists, or "GOP Teams". Team Leaders could e-mail all or certain members of their team by selecting from a broad menu of customizable message texts that could send via Team Leader's e-mail facility. This also allowed the RNC to collect and store these e-mail addresses for their own periodic e-mailings. Although "Team Leader" was primarily intended as a facility for supporting internet-based campaigning by individual volunteers, it also provided basic task and volunteer management support for offline communication and activities as well.

Team Leaders could also participate in RNC blogs, or create their own blogs hosted by the RNC that were viewable only by other Team Leaders. This facilitated mutual motivation, and learning. Internal blogging ensured that the Bush campaign became rapidly aware of locally

significant issues and information, a key campaign role played by the Dean Campaign's "Blog for America". An additional benefit was that it limited the degree to which Democrats or journalists could gain meaningful insight into the internal operations of the Republican grassroots campaign. Inevitable campaign dissent remained safely "in house". It also brought a substantial portion of the Republican blogosphere within the formal structure (and implicit control) of the RNC and Bush Campaign.

In addition to blogging and e-mail campaigning, RNC Team Leader supported a very basic "social networking" facility. The Dean Campaign had pioneered this with their beta "Deanspace". However, neither developed their social networking facilities beyond providing an opportunity to post basic personal, political, and contact information. While political networking services were pioneered in the 2004 election, none were developed to the point where they were of any significant consequence.

The "72 Hour Programme" lay at the heart of the Bush Campaign and RNC voter contact efforts. It used a combination of professional organizers and the internet to manage volunteer communication, training, canvassing, monitoring, and motivation. It enabled them to identify, recruit, train, and manage over a million campaign volunteers, volunteer team leaders, and "marshals". Volunteers directly canvassed voters in the context of doorstep registration, and engaged them on behalf of Republican candidates. While team leaders also did this, they focused on new volunteer recruitment and maintaining supportive contact with existing ones. Marshals were typically more skilled and experienced volunteers who had local organizational duties, particularly in the context of election day "get out the vote" operations. All of them were managed by professional campaign organizers. A crucial feature of the 72 Hour Programme was the ability of volunteers to have either direct or mediated access to Voter Vault, thus ensuring their activities could be remotely tracked via the internet. This allowed the RNC to manage their volunteers far more efficiently, at substantially lower cost, and with greater volunteer effectiveness than the Democrats.

In his superb New York Times article on the 72 Hour Programme, "The Multilevel Marketing of the President"[17], Matt Bai described it as an application of "multi-level marketing" (MLM) to electoral politics, drawing on Amway as an example. He rightly emphasizes the cult-like quality of Amway and many other multi-level marketing operations. He notes that these are, in essence, legalized pyramid schemes. However, his emphasis on this comparison misstates crucial organizational features of the programme. Most MLM schemes are steep pyramids with numerous layers between the base and apex. A disproportionate share of sales are to others within the pyramid, and to friends and family. The reason why they foster "cult-like" qualities is because they are not particularly effective at selling to those who do not already have a personal relationship to those within the structure. The 72 Hour Programme had only three levels, and focused on contacting strangers. Republican Party volunteers, including evangelicals, are no more "cult-like" than the active partisans of other parties. Had the 72 Hour Programme been as similar to a typical multi-level marketing system as Bai suggested, the Democrats would have likely won.

An intended consequence of these projects, and the way they were implemented, was that they created a framework that motivated highly structured cooperation across Republican campaigns, regardless of office, and enabled the Bush Campaign/RNC to track grassroots activism, and voter contact being conducted at the local level.

The Democrats had equivalents to each of these. However, all the Democratic efforts began after media reports announced the Republican versions, and these were created in less time. There were crucial differences between the Republican and Democratic versions in their degree of interlocking integration, participation across Democratic campaigns, and emphasis placed on their successful implementation by the two parties. Most damaging, the Democrats were unable to ensure the participation of activists belonging to the myriad independent pro-Democratic campaign groups that did nearly all the voter contact for the official Democratic campaigns. Ultimately, these factors substantially limited the effectiveness of the Democratic efforts, despite considerable technical accomplishment.

The Democrats had two separate databases. "Demzilla" tracked everyone who had contacted the party, a Democrat officeholder, donated, or volunteered for a Democratic campaign. It suffered from partial and problematic integration of campaign lists kept by different Democratic Party officeholders. "Datamart" was a relational database of US voters, roughly comparable in size and sophistication as Voter Vault. Neither database provided the same level of controlled internet accessibility for Democratic Party volunteers as Voter Vault did for Republicans. They also did not support campaign integration in the same manner.

The Democrats' rough equivalent to "Team Leader" was "e-Captain". Instead of "Teams", "e-Captain" had "e-Polls". Both were highly similar, except that e-Captain had no social networking facility. The one notable advantage that e-Captain had over Team Leader was its ability to support remote telephone canvassing. e-Captain combined on-screen telephone calling lists with scripts somewhat customized for each person. It also allowed voter responses to be entered directly via a web browser. About the only thing it lacked was support for internet-based long-distance telephone canvassing. This said, the most important difference was that "Team Leader" provided communication support for activists engaged in coordinated "on the ground" grassroots voter contact as well as cyber-campaigning. "e-Captain" could only support internet campaigning because the Democrats had not created a fully integrated campaign system.

Ultimately, the central failing of the Democratic effort was its delegation of voter contact to a host of pro-Democratic groups that were legally precluded from coordinating their efforts with official Democratic campaigns. Nominally, the Republicans suffered from the same limitation. However, Republican voter contact was largely done via official campaigns. As well, one of the enduring achievements of the Republican Party had been to create a cohesive and disciplined network of pro-Republican organizations that understood the party's strategy and messages well enough to not need the kind of overt coordination that was legally banned. Their "real world" trust clusters minimized their need for formal institutional guidance.

The Bush Campaign's approach clearly prevailed. Dean's candidacy did not survive its first encounter with voters during the Iowa caucuses, whereas Bush won one of the most bitterly contested presidential elections in American history. Any well considered understanding of how to mount effective internet-based political campaigns must recognize the limitations of the Dean Campaign's approach, as well as the strengths of the Bush approach. But this does not mean that the Dean Campaign's positive experiences, which bordered upon the revolutionary, ought to be discounted simply because of the eventual campaign outcomes.

6.   Conclusion

Much of modern electoral politics is motivated by conflicting ideologies. The internet and its related technologies create opportunities for novel forms of political competition among electoral rivals. These technologies also embody their own sets of conflicting ideologies. These manifest themselves as opposing visions of the relationship between technology and society. Political and technological ideologies are not arrayed upon the same defining axes. But these dissimilar axes sometimes produce underlying commonalties between specific technologies and political practices. The 2004 presidential election campaign exemplified this.

The decision of the Dean Campaign to rely almost exclusively upon open source software and the internet is unsurprising. It is equally unsurprising that the Bush Campaign used a combination of Microsoft desktop and enterprise software, and Oracle's enterprise database product, with distributed access via the internet. Tellingly, access to the Bush Campaign's internet resources required elaborate registration and sign-in requirements, whereas barriers to accessing the Dean Campaign's resources were minimal. While the Bush Campaign was structurally closed at every level, including that of technology, the Dean Campaign was as open as was viably possible. For this reason, the Bush and Dean Campaigns were reflected ideologically opposing approaches to the organization and use of political power not just at the level of conventional ideology, but also the intellectual orientation that governed how they devised and used their computing capabilities.

Despite the eventual centrality of the Dean Campaign's internet effort, it was not - at the outset - a particularly well integrated component. The emergence and effectiveness of the Dean Campaign's internet presence was driven by the actions of pro-Dean activists, and a handful of early volunteers who pioneered the application of emerging internet technologies and applications to the Dean Campaign. But what eventually differentiated the Dean Campaign from all the others was that they not only accepted the overtly political implications of the internet and the "open source" movement, they set out to implement them at the level of campaign organization.

The Dean Campaign was not simply an effort to defeat Bush. Its emphasis on grassroots organizing and open participation was not simply a reflection of traditional left-liberal political values. It was also a reflection of the consonant political goals of the technological-based ideology that drove its technical decision-making.

For advocates and activists within the open source computing movement, the Dean Campaign was their first meaningful effort to directly challenge a corporate-oriented model of not only computing, but governance as well. Ultimately, the strengths and weaknesses of the Dean Campaign mirrored many of the operational strengths and weaknesses inherent in attempting to realize these goals in the context of a "real world" presidential primary campaign. In this context, the Dean Campaign's internet presence has to be seen as an effort to realize, via congruent software and strategies, the political goals of the "open source" movement.

^E**ndnotes**

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