Wiring the Party: Everyday Infrastructure Building in Democratic Politics, 2004-2008*

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*This paper is adapted from the forthcoming book *Taking Our Country Back: The Crafting of Networked Politics from Howard Dean to Barack Obama (Oxford University Press, 2012)*

Abstract

Susan Leigh Star (1999, 377) memorably described infrastructure as "frequently mundane to the point of boredom, involving things such as plugs, standards, and bureaucratic forms." This paper proceeds from Star's attention to infrastructure to argue that a scholarly bias towards elections has led many to wrongly focus on the failing costs of collective action as the key to understanding digital politics. To analyze the role of infrastructure in contemporary mediated politics, this paper chronicles the large scale, sociotechnical projects that the Democratic Party and its allied organizations engaged in after John Kerry's defeat to build the capacity to contest elections. Following Star, I adopt a broad view of 'infrastructure' that encompasses technical artifacts, social practices, and organizational forms. Through interviews and participant observation, I analyze three cases of infrastructure building and the resulting tools, practices, and organizations that supported Democratic victories in 2006 and 2008. The first is the creation of the Democratic Party's national voter file and interface system "VoteBuilder." The second is an organizational infrastructure, what I call a 'circuit of political intermediaries,' that produced practices and tools for networked politics. The third is the online campaign platform "PartyBuilder," developed by the firm Blue State Digital for the Democratic Party but subsequently carried through a commons licensing model to a host of other sites, including Barack Obama's campaign. In the process, I argue that infrastructure makes much of the extraordinary social and symbolic action of the networked politics era possible. Even more, building, maintaining, repairing, and crafting new infrastructure constitutes much of the work of political professionals during the years between elections. As such, much of the collective action scholars celebrate is premised upon extraordinary investments of fiscal and human resources.

As Barack Obama spoke to the nation for the first time as president-elect, he attributed his historic victory to "the millions of Americans who volunteered, and organized, and proved that more than two centuries later, a government of the people, by the people and for the people has not perished from this Earth." Many have rightly pointed to the role of an extraordinary array of online campaign tools and social media platforms such as Facebook in providing citizens with an unprecedented number of opportunities to get involved in the campaign (Anstead and Straw, 2009; Harris, Moffitt, and Squires, 2010; Lipton, 2008; Love and Musikawong, 2009). Others note how these technologies offered the campaign new means to target particular groups of voters, and even individuals, with messages that spoke to their concerns and spurred them to action (Carty, 2010; Kreiss and Howard, 2010). Less well understood, however, are the sources of the Obama campaign's new media and data practices. Similar to other works on high profile campaigns such as Howard Dean's (Wiese and Gronbeck, 2005; Hindman, 2007; Kreiss, 2009), many analyses of the Obama campaign are bound by the election cycle, beginning with the candidate's announcement and ending with his general election victory (Burch, 2009; Cogburn, Espinoza-Vasquez, 2011; Johnson, 2010; Levenshus, 2010; Seidman, 2010; Smith and Smith, 2010).

This paper takes a historical approach to discover the sources of the Obama campaign's media practice. It details the infrastructural work that staffers of the Democratic Party and its ideologically affiliated organizations engaged in between the presidential elections of 2004 and 2008. As Susan Leigh Star (1999) argues, infrastructure encompasses the technical artifacts, organizational forms, and social practices that provide background contexts for action. In expressly political contexts and without always using the term, scholars have pointed to the role of technical and organizational infrastructures (Howard, 2006; Medvic, 2011) in shaping the

conduct of campaigns. This paper argues that as a result of infrastructure building projects, nearly all the Democratic presidential campaigns in 2008 had access to powerful political databases, professionalized practices of networked campaigning, and sophisticated online campaign platforms. It was the Obama campaign that most successfully used these digital tools and practices to translate the extraordinary mobilization around the candidate into staple electoral resources: money, message, and votes (Kreiss, forthcoming).

To understand why the Obama campaign took the form that it did, from the pursuit of its ground campaign to its uptake of social media, requires analysis of this time period between elections. Three infrastructural projects pursued by the Democratic Party and its allies soon after John Kerry's defeat in 2004, in particular, played a considerable role in creating the conditions for Obama's victory. During Howard Dean's tenure as chair, a position he achieved in February of 2005, the Party played the leading role in one of these projects: the construction of a national voter file and interface system.[1] This voter file project provided Dean with an occasion for completely overhauling the way the Party conducted its elections and the relationship between the national and state parties. Dean made rebuilding the Party's voter file a priority given the high profile failures in Democratic field efforts during the 2004 elections and his promise to contest all fifty states and reinvigorate their local party organizations. This proved an extraordinarily challenging and complex infrastructural project. To build this voter file, the Party's staffers pursued the backend technical work necessary to support a national database and commissioned Voter Activation Network (VAN), a private firm, to develop this system. As importantly, these staffers engaged in the backstage organizational and negotiation work necessary for integrating and standardizing fifty separate voter files maintained by territorial and distrustful state parties. The result was a national voter database and interface system called

VoteBuilder which subsequently became the core of the Party's data infrastructure and central to all of the major Democratic candidates' field campaigns in 2008.[2]

As the Party pursued this project, a new generation of political firms and advocacy organizations that took shape after the 2004 primaries worked to formalize many of the practices and tools used in online campaigning. The internet staffers of many failed presidential primary campaigns, particularly those of Howard Dean and Wesley Clark, founded and joined an extraordinary range of political consultancies, training organizations, practitioner forums, and conferences oriented around the theory and practice of online politics. Taken together, these entities formed what I call a 'circuit of political intermediaries' that tied together much extant knowledge, practice, and tools and extended them to address the concrete problems of control and capacity campaigns encountered during the 2004 cycle. For example, through an extensive series of trainings and forums for practitioners the New Organizing Institute (NOI), a nonprofit organization founded by three former Kerry internet staffers shortly after the general election, helped create a stable group of professionals specializing in digital campaigning that staffed many subsequent electoral and advocacy campaigns.

Meanwhile, one of the consultancies in this circuit, Blue State Digital (BSD), created a powerful online platform for Democratic electoral campaigning. Founded by four former members of the Dean campaign, BSD uses an innovative licensing contract that functions as what I call a proprietary 'commons model'.[3] The firm shares any custom improvements and modifications to its core platform paid for by one client with all its clients while maintaining the exclusive rights in the system. In other words, BSD provides a core platform to multiple clients, whose contributions to the system in turn benefit everyone else. Through its work with many progressive clients such as Democracy for America, MoveOn Student Action, and ProgressNow,

the firm refashioned many of the tools used on the Dean campaign into a sophisticated campaign platform. The Democratic Party hired BSD for the 2006 midterm elections and built the capacity of its platform. The result was PartyBuilder, the most sophisticated package of event-planning and personalized fundraising tools and data backend then available in politics. Without the mobilizing energy of a presidential campaign few people used PartyBuilder in 2006. However, PartyBuilder proved to be a large, indirect Party investment in the online organizing capacity of many 2008 Democratic campaigns, including those of former New Mexico Governor Bill Richardson and former Iowa Governor Tom Vilsack. More importantly, PartyBuilder provided the basic technical infrastructure for what became MyBarackObama.com in early 2007.

The histories of VoteBuilder, PartyBuilder, and the emergence of new intermediaries reveal the central role of infrastructure in political campaigning, and the years spent investing extraordinary amounts of human, technical, and organizational resources developing it. Building, maintaining, repairing, and crafting new infrastructure is much of what political professionals do inside of party bureaucracies and organizations in the years between elections. The form of online politics, what campaigns and citizens have the capacity to do during elections, is the outcome of this work of infrastructure building. As such, these projects suggest that the paradigmatic accounts of new media and politics that attribute changes in political organization and participation to the lower cost of organizing collective action (Benkler, 2006; Bimber, 2003; Chadwick, 2009; Shirky, 2008) leave much out of their frames of reference. As this paper demonstrates, the most taken-for-granted forms of online collective action, such as donating money and contacting voters, are often premised upon years of technical development, organization building, and staff training.

This paper is adapted from my forthcoming book, *Taking Our Country Back: The Crafting of Networked Politics from Howard Dean to Barack Obama* (Oxford University Press, 2012), that presents the history of new media and politics over the past decade. I draw the evidence presented here from open-ended interviews with over fifty political staffers active across the 2000, 2004, and 2008 election cycles and field work conducted during the 2007 primaries as a precinct campaign for Obama in San Francisco and "virtual precinct captain" for the campaign in Laredo, Texas. During the general election I also conducted fieldwork as a volunteer canvasser in Reno, Nevada. Finally, research for this paper includes analysis of extensive collections of Federal Election Commission filings and public documents.

I proceed by providing the history of these three infrastructural projects. I start with VoteBuilder, the Party's national voter file and interface system. I then detail the emergence of new political intermediaries after the 2004 primaries that trained a new generation of staffers and formalized many of the practices and standardized many of the tools of online campaigning. Finally, I detail the evolution of Blue State Digital's campaign platform up through the firm's work for the Party in advance of the 2008 elections.

VoteBuilder: Infrastructure for Field Campaigning

Howard Dean's voter file project has received the attention of a number of scholars who have analyzed its importance in creating the basic infrastructure for Democratic political campaigning (Galvin, 2008, 2009; Kleis Nielsen, forthcoming; Kreiss and Howard, 2010). Less well understood, however, is how the Party managed the creation of its voter file as a sociotechnical project that included building and implementing hardware such as databases and servers, creating organizational structures and work practices, hiring staffers with technical knowledge, and navigating complicated institutional relationships. Focusing on the role of the

Democratic Party as the architect of this infrastructure reveals its complex organizational work in-between elections.

The Democratic Party's Organizational Dynamics

After his election as chairman in February 2005, Dean asked Ben Self and Joe Rospars, two former staffers on his campaign and co-founders of the political consultancy Blue State Digital, to take thirty days to assess the Party's technical and organizational infrastructure. Their report found that the Party lacked the means to coordinate a national campaign. For one, the national Party's voter file and database were in complete disarray. The data was of extremely low quality and, despite the considerable investment of former chairman Terry McAuliffe in a national voter database, the Party's basic technology was lacking. The state parties' voter files were not much better. State parties often relied on a host of questionable outside vendors for their data, the voter files they did maintain were outdated, and many state databases crashed during the 2004 elections. Meanwhile, staffers at the national and state parties had antagonistic relationships, and there was little buy-in among the states for many of McAuliffe's initiatives. In lieu of any centralized system, which the Republicans had developed in the mid-1990s, data was incompatible across state lines and presidential campaigns had to rely on many separate systems for their field operations.[4]

Self and Rospars also found that the Party lacked an effective organizational infrastructure for leveraging technology in its operations. A sprawling, thirty staffer Technology Department worked out of the basement at Party headquarters. There was little in the way of role specialization for this department, with staffers in charge of everything from the Party's servers, software, and making sure everyone had a computer to managing email fundraising, blogging, and content on the Website. There were, for instance, some staffers serving on

multiple teams responsible for information technology, Demzilla (the Party's Federal Elections Commission donations reporting tool), Datamart (the original Party voter file), technical systems, and generating content for the website. In addition, a separate small internet team existed in the finance department that also engaged in email fundraising. Meanwhile, across all of its departments the Party relied on systems that rarely worked well and lacked much of the functionality that Self and Rospars anticipated needing for an effective electoral effort during the next presidential cycle.

To remedy this, their report outlined a four-year strategic plan to rebuild the Party's voter file and implement new online outreach efforts. It also proposed a new organizational structure to facilitate these technical projects. Dean and Tom McMahon, the Party's new Executive Director and veteran political staffer who served as the Deputy Director of the Dean campaign and head of Democracy for America, embraced this plan. Self and Rospars took a leave from their fledgling firm to head up these efforts. Self became the Technology Director for the Party, flying to Washington D.C. on Mondays and returning home to Kentucky on Friday nights for four years. As Technology Director, Self was initially responsible for the sprawling Technology Department. Self quickly got a Website and online system up and running so the Party could engage in online fundraising and organizing as well as have the basic tools in place to email supporters. Rospars, meanwhile, immediately took on the task of building the Party's email list and signed up over 400,000 supporters in 2005, all without having access to Kerry's email list.

As they sought to meet these immediate needs, Self and Rospars worked to restructure the Party's technical operations. They created a stand alone Internet Department responsible for all online organizing, communications, and fundraising staffed by a number of individuals from the Technology Department. Reorganization meant that staffers could develop and utilize

distinct skill sets whether that entailed fixing hardware, maintaining a financial database, or fundraising using email. The newly reconstituted Internet Department, meanwhile, took on increased prominence within the Party. The Party made the head of the Internet Department a member of the senior staff, and moved staffers' offices to the third floor of headquarters, right outside the chairman's office. Rospars became the first head of this department, assuming leadership over the online organizing efforts, a position he held for nearly fifteen months.

This new organizational structure proved crucial in facilitating the enormously complex task of rebuilding the Party's data infrastructure and coordinating the work of the national and state parties.

The Roots of Voter Activation Network

After this reorganization, Self turned to building a truly national voter file and interface system to support the Party's field efforts. This was a priority for the Party, part of a general revaluation of ground-level political organizing that occurred over much of the last decade and made more urgent by the failures of Democratic turnout operations in 2004 (*for a discussion*, *see* Kleis Neilsen, forthcoming).

As the former Chief Data Architect for the Dean campaign, Self knew well the patchwork nature and varying quality of the national and state voter files and the challenges this posed for candidates. Candidates often repeat the aphorism that all politics is local. Up until the Democratic Party built its national voter file, the saying was true for voter data. Unlike the Republican Party, which had a strong centralized party organization and corresponding national voter file that grew out of pioneering direct mail efforts, the Democratic Party had a more decentralized structure, with strong state party organizations. The voter files of the state parties reflected this. Each state maintained its own record of its electorate, chose the information it

collected and the systems it used to house data, set its own rules of access, and determined the data's format. Across states, there was little in the way of standard categories of information collected or practices for updating voter records. The Iowa Democratic Party, for instance, kept detailed caucus records dating back over a decade while other states lacked anything more than a list of registered voters.

Meanwhile, many of these state party voter files were of lower quality than those provided by commercial vendors, which meant that candidates often had to rely on third parties for their field operations. For example, the most reliable way for presidential candidates in a state such as New Hampshire to access voter data was to hire one of the commercial vendors that dominated the market for political data up through the 2004 election cycle. Before these files were available online after 2004, candidates would pay a firm such as Aristotle for particular types of data that would then be sent to campaigns on index cards six weeks before the election. Campaigns then organized these cards into "walk lists" which volunteers took with them into the field. As they made in-person contact with voters, volunteers scribbled notes about their conversations all over the walk lists. Volunteers then returned their lists with the information on voter contact to the campaign offices. All too frequently, these notecards with voter information would just sit in big boxes and never get entered back into any sort of filing system or database.

In other words, for most of the first half of the decade the value of voter contact for Democratic campaigns lay in the moment of interaction. Without developed practices and attendant technologies for gathering and storing data, as well as transferring and sharing it across campaigns and election cycles, candidates lacked the capacity to know much about their potential supporters. Data often just disappeared between election cycles or was otherwise on a proprietary platform that rendered it unusable.

The same structure that resulted in a highly fragmented voter file system ironically also fostered the local innovation and competition that enabled the Democratic Party's data efforts and field operations to surpass those of the Republicans by the 2008 presidential campaign. A mounting frustration with the lack of quality data for field campaigns led to a number of state-level party, candidate, and commercial efforts to improve the situation. As they matured over the years, Self was in a position to consider the best of these initiatives during the process of planning the national voter database.

Voter Activation Network (VAN) began as one of these state-level efforts. The firm had modest origins in the electorally important state of Iowa. In 2002, Iowa Governor Tom Vilsack and Senator Tom Harkin were both facing reelection campaigns. The two campaigns were collaborating with each other on building a shared campaign finance database platform, an effort that was led by Mark Sullivan. Sullivan had been working in Iowa politics for over a decade, having got his start as a delegate tracker for Harkin's presidential campaign in 1992. As the data consultant to both Vilsack and Harkin's campaigns, Sullivan was asked to solicit and vet proposals from companies to build an Internet-based voter file that the two campaigns could share so they were not replicating their canvass efforts. The idea was ultimately to make this voter file accessible online to all other Democratic campaigns in Iowa so they could upload and share the results of their field operations, making the voter file more comprehensive, accurate, and powerful.

While the Harkin and Vilsack campaigns began soliciting bids for this online voter file in 2002, they ultimately tasked Sullivan to build a cheaper system in-house. Steve Adler, a programmer and consultant to the Massachusetts AFL-CIO also working on voter databases, joined Sullivan. When working out the details of an arrangement with the Harkin and Vilsack

campaigns, Sullivan and Adler broke with the contractual norm of the industry. As noted above, historically a host of commercial firms controlled most of the quality voter data and sold their services to individual campaigns. This created a situation where state parties and candidates not only were beholden to firms such as Aristotle for their basic field operations, there was no way to share data across Democratic campaigns and electoral cycles. To remedy this problem, Sullivan (personal communication, July 8, 2010) explicitly set out to "break the vendor hold on data" in the hopes that the system they built would not just benefit Harkin and Vilsack but also the Iowa and perhaps, in the long run, the national Democratic Party. To this end, Sullivan and Adler intentionally wrote their contract so that the Iowa Democratic Party owned the data after the election and had the ability to control access to it.

This decision about the ownership of data, meanwhile, influenced Sullivan and Adler's design for the voter file interface. Since their company would not own any data, its database and interface system would be entirely data and vendor neutral. In other words, it would not matter where the data originated, it would become formatted for the VAN interface as it flowed through the system. One consequence of this design decision is that the interface could easily incorporate other state voter files even though the data varied in terms of the types of information stored and its format. It also meant that commercial data could easily be added to these state voter files. As Mike Sager (personal communication, July 1, 2010), a current VAN staffer, describes: "Think of it [VAN] as Excel. Excel doesn't care whether you are working on an accounting spreadsheet or a whatever you got your columns you got your graphs."

Sullivan and Adler completed their prototype in 2002. Calling their firm "Voter Activation Network" followed soon after when a designer needed a quick decision on a name. The prototype developed for the 2002 electoral cycle in Iowa was, by all accounts, a

considerable improvement over what was available in voter file interface and database technology at the time. The Iowa state party provided campaigns across the state with online access to the VAN, which enabled them to generate walk lists and upload the results of their canvasses. The VAN also featured a Palm Pilot application which facilitated the ability of campaigns to collect and store data at voters' doorsteps.

Soon after VAN debuted the Missouri Democratic Party sought to have the firm build a similar system for their voter file. A number of states followed suit soon after and heading into the 2004 elections VAN was active in 11 states. In addition, America Coming Together (ACT), a privately funded mobilization and turnout venture founded by Party financiers such as George Soros, Democratic advocacy organizations, and unions, hired VAN to provide voter file services in eleven swing states. The firm's work in Iowa provided the basic template for the VAN model. First, VAN helps clean the voter files of its state party clients so they can enter the firm's system. The core of these voter files is the basic list of all registered voters, their addresses, gender, party affiliations and congressional districts, and a host of other information that varies by state (such as phone numbers), all of which the state government periodically updates. VAN then combines this public voter roll with the data files maintained by the state parties. These Party voter files contain supplementary information, such as the information gleaned during canvasses when volunteers go door-to-door to find out whether individuals are registered to vote, what candidate they support and the degree to which they support them, and what issues matter to them.

Second, VAN's state party clients set access policies for their voter files. States decide whether to sell or provide their voter files for free, and determine which candidates can access the database. The standard model is for state parties to sell all primary candidates on the ballot access to the voter file. The advantage of this system is that it facilitates data sharing across

electoral cycles and campaigns. VAN's approach helps keep the addresses and contact information of voters who change residences over the years up to date, and creates an evolving record of voter contact. Meanwhile, during an election cycle, all the Democratic candidates in a particular state, from senator to state representative, simultaneously upload their canvas data into the same voter file. This practice amplifies the reach of all Democratic ground efforts, enabling candidates to benefit from each others' field programs.

The 2004 Election Cycle and its Aftermath

Kerry's defeat found much of the Party and its allied groups wandering in a political wilderness. It was in this context that Self decided to commission an audit of the entire voter file, focusing on what what went right and wrong in 2004 and what the party would need to accomplish to run an effective field operation in 2008. To do so, he hired Zack Exley, a Kerry campaign staffer who consulted for the Dean campaign while working for MoveOn, and Josh Hendler, the Manager of Software Development for the Kerry campaign who got his start in politics as a programmer for Clark for President. Hendler subsequently became the Party's Director of Political Data and Analytics. This report became the blueprint for the Party's effort to rebuild its entire data infrastructure from the ground up.

First, Self and his team set out to completely rebuild the data infrastructure of the Party for the 2006 midterm elections. To do so, the national Party had to forge a new relationship with the state parties. This was a significant challenge. There were years of distrust between the national Party and the states. Many of the state parties complained that the only time they heard from the national Party was during important federal races when it demanded that the states run their electoral operations in particular ways. As chairman, Dean started to change this dynamic. To implement the fifty state strategy, the national Party started asking states what their priorities

were in terms of resources. Self, for example, remembers that he was tasked early on with reaching out to these state parties. Self (personal communication, July 20, 2010) attended his first meeting with the states two weeks after he started and his "instructions were just get in front of the room and let them yell at you for an hour or so and hopefully that will end the yelling and then you will be able to start repairing."

Repairing this relationship was crucial given Self's need to negotiate data "swap agreements" between the national and state parties. This was an integral part of Dean's fifty state strategy, as it would build the infrastructure of the state parties even as it would help the Party's presidential candidate in 2008. As such, the national Party offered to clean and supplement the data of the state parties, as well as provide the databases to house and fund an online interface to access this data. This came to be an approximately six million dollar undertaking requiring both technological development and hiring staff and outside vendors. The national Party proposed funding all of this in exchange for the state parties sharing their data. While state parties would still retain formal ownership, they had to provide their data to the national Party. The state parties, meanwhile, would set their own rules determining which candidates could use the voter files and what functionality and types of data they would have access to. States would also be able charge campaigns for access to their voter files, provided that it was a fixed price. These voter files, meanwhile, would be continually updated through canvassing conducted by campaigns during election cycles.

Negotiations between the Association of State Democratic Chairs, state party heads, and Self's team took over six months. In the end, the national party signed up 45 states within six months. Currently, 48 of 50 states use the national Party's database.[5] This agreement between the national and state parties created the basic institutional arrangement and contractual

obligations that underpinned the construction of the Party's first truly national voter database. With the swap agreements in place, Self and his team rebuilt the data infrastructure from the ground up. This included buying new servers and creating a new database for these voter files, which was designed by the Boston firm Intelligent Integration Systems. The database created voter file 'silos' for each state that kept their data separate. At the same time, the national Party's staffers and presidential candidates could access all these silos and query across them. The Party also came up with guidelines for data quality, type, and format, creating a set of standards for how the state parties needed to maintain their data.

Meanwhile, right after the 2006 midterm elections Self and his team issued a request for proposals (RFP) to build an interface for the new national voter file. As detailed above, state parties had existing relationships with their own vendors, so there was a wide range of providers and very large variation in quality in the field when Self issued this RFP. The databases of the state parties in Ohio and Pennsylvania, for instance, both crashed in the months leading up to the elections. VAN, however, was one of the few vendors to have their reputation enhanced through its work during the 2004 presidential and 2006 midterm elections. In 2006, for instance, VAN worked with 25 state parties, making it the largest vendor to the states. In addition, the firm was active in two dozen states through the field offices of America Votes, the coordinating organization behind the independent field efforts in races for governor, house, and senate.

After reviewing proposals, the Party hired VAN in February 2007 to build the interface for the new national voter file. The choice was fraught given that most states had existing relationships with different data vendors. In addition to its reliability, VAN had the advantage of having already worked in a number of states. This meant that many of the state level organizers and political operatives would be familiar with the new system. There was, as Jascha Franklin-

Hodge, a co-founder of Blue State Digital who coordinated his firm's efforts for the Obama campaign, explains: "a sub generation of field organizers who had used the data...They had already used it for a cycle, many on state-level races....So, suddenly you can drop the field organizer into a brand new state and not have to train them on a completely new tools set with totally different capabilities"

This system became 'VoteBuilder,' the branded name that refers to the Democratic Party's data (the state voter files as well as commercial data) and the VAN interface system around it. For states already using VAN, the national party took over their extant contracts. VoteBuilder offered field organizers and campaign staffers a range of tools. Just as the original VAN interface built for the 2002 elections, campaign staffers could run queries on the electorate, target particular voters, and then easily plot them on a map to create a walk lists for volunteers. These organizers and staffers could upload data, ensuring that canvassing information was routinely captured. Like its earlier incarnations, the VAN tool offered campaigns a well designed, user friendly interface. The VAN interface also included some new features developed during the 2006 election cycle. VAN's staffers noticed that its state party and organizational clients were creating spreadsheets and files outside of the VAN to track and manage the work of volunteers. At the time, there was nothing in the VAN that helped campaigns manage their volunteers. In response to this need, VAN built 'MyCampaign,' a volunteer management database that enabled field staffers to input the names of supporters, track their activities, interests, and history, and schedule people for events.

VoteBuilder proved extraordinarily useful to Democratic campaigns at all levels during 2008. At the state level, the Party's candidates had access to clean voter files with all the improvements in data that the national Party made. The Party's presidential candidates,

meanwhile, had much better knowledge of the electorate through the accumulated voter information gathered since 2004 and the voter identifications made during these state races. The staffers of these campaigns also had the ease of needing to know only one system, instead of fifty individual ones. Meanwhile, after a long, contested primary campaign season that generated hundreds of thousands of voter contacts, the Obama campaign had an significant advantage over John McCain during the general election.

For VoteBuilder to play this role, however, also required much in the way of an organizational infrastructure that trained thousands of staffers and volunteers on how to use the system. To this end, the Party hired a National VoteBuilder Administrator to assist the state parties with their implementation of VoteBuilder and develop a training manual for its system. The Party used this manual and deployed its own staffers and alongside those of progressive organizations such as the New Organizing Institute (NOI) to conduct training sessions for state database administrators, field organizers, and campaign staffers.

The Circuit of Political Intermediaries

Organizations such as the New Organizing Institute (NOI) play a key infrastructural role in Democratic politics. In addition to training organizers to use VoteBuilder, NOI has developed the online campaigning and technical skills of a new generation of political staffers. At the same time, NOI is only one organization in what I call a 'circuit of political intermediaries' that took shape after the 2004 election cycle. This circuit consists of training organizations such as NOI, political consultancies, conferences, think tanks, and media forms. Together, these intermediary organizations helped produce and formalize many online campaign practices, standardize a set of digital tools, and create a stable group of professionals specializing in online campaigning. In naming this a 'circuit,' I am drawing on Nigel Thrift's (2001) work on a "cultural circuit of

capital." Thrift offers an analytical lens through which to detail the multi-sited work that produced new regularities in online campaigning. Many of Dean's and Wesley Clark's former internet staffers founded sites in and moved through this circuit of intermediaries given their extraordinary professional validation after the 2004 elections. Given space constraints, I focus on the work of only two here: the New Organizing Institute and political consultancy Blue State Digital.

New Organizing Institute

Zack Exley, Judith Freeman, and Amanda Michel founded the New Organizing Institute after the 2004 general election. All three were colleagues in Kerry's internet operation and motivated by their experiences to explore a "whole new way of doing the work" of political organizing using new media technologies (Freeman, personal communication, July 1, 2010). Their goals for NOI were threefold. First, they wanted to build the "infrastructure" (ibid.) to train a new generation of campaign staffers to work with the technologies that had emerged during the election cycle on campaigns such as Dean's. Second, they wanted to "break down the barriers between the internet and organizing" (Exley, personal communication, January 6, 2009). All three witnessed a significant disconnect on the Dean and Kerry campaigns between internet staffers and field organizers and believed that through trainings and mediated forums they could bring together these disparate professional staffers and integrate online organizing and field operations. Finally, Michel (personal communication, January 27, 2009) cites the founders' desire to counter the extensive network of conservative organizations that trains advocates and organizers, which they learned firsthand after signing up for conservative email lists and attended these organizations' events in 2004.

Within the circuit of intermediaries, NOI functions as what Fred Turner (2006, 72-73) describes as a "network forum." NOI offers physical and mediated sites for individuals from diverse locations within politics to gather, build new networks, and establish the shared understanding and collective identity necessary for collaboration. For example, in the summer of 2005, the three founders organized a retreat for online campaigners to talk about their experiences during the 2004 election cycle and ponder the big 'where do we go from here' question hanging over nearly every Democrat's head. The retreat drew individuals working in new media from a number of different sites in politics, including staffers from the Dean and Kerry campaigns and online advocacy organizations such as MoveOn. Some attendees had backgrounds in offline organizing and were looking to apply these lessons more systematically to the online space. Others came with more technical skills, campaigns such as Dean's being their first foray into politics.

Given that attendees came from a number of different campaigns and organizations, and had varying professional backgrounds, one outcome of this retreat was to begin to provide these individuals with a sense of themselves as forming a distinct practitioner community. As an emerging set of practitioners, their goals at this retreat, and in subsequent work, revolved around figuring out best practices for online organizing. First, these individuals worked to cobble together the lessons learned from the ad-hoc and largely reactive work on campaigns such as Dean and Kerry's. These practitioners also began to think proactively about what campaigns needed, how online organizing could serve progress towards field goals, and how to create collaborations between field and internet staffers. After the retreat, for instance, Exley, Freeman, and Michel talked to a host of political staffers, campaigns, consultancies, and Democratic Party personnel about these questions and shared what they learned with this community.

One of the important venues for the extension of this work are RootsCamps. Organized under the auspices of NOI, RootsCamps are "open and decentralized gathering[s]" for progressive campaigners." Exley, also a former Organizing Director of MoveOn who advised the Dean campaign, came up with the concept of 'RootsCamps' in 2006. Exley sought to create the political analogue of 'Foo Camps' – invitation-only, open source-related events planned entirely by participants that technology guru Tim O'Reilly founded. Attending a Foo Camp after the 2004 election, the quality of the discussions and the fact that Jeff Besos of *Amazon.com* and a 16-year old hacker shared the same stage impressed Exley. Seeking to create a similar style of gathering for political progressives, Exley convened a number of individuals – everyone from candidates to local volunteers – that he thought distinguished themselves during the 2006 election cycle. While organizers closed the Washington D.C. event to the public, which Exley argued facilitated best practice sharing, he intended to create a leveled forum for knowledge that went beyond the "top couple layers of leadership":

> At RootsCamp, Tom McMahon, the executive director of the DNC, will be sitting alongside Democratic Party star precinct captains. Eli Pariser, the director of MoveOn, will be sitting along side star phone captains from MoveOn's Call for Change Program. The people working on Dean's DNC Voter File project and on the private voter file effort will be in the same room!...The point is to get all the pieces of the puzzle into one place. We all experience these campaigns from totally different perspectives. RootsCamp is the place to get ourselves together and figure out how to do it better for '08 (Exley, 2006).

RootsCamps afford sites for campaigners, activists, advocates, and consultants to share knowledge and resources across campaigns and electoral cycles. They also offer mediated sites where on Wikis participants organize sessions, post notes, resources, and professional opportunities. Since this first event, RootsCamps have grown into a nationwide network of physical and mediated forums.

Through convening RootsCamps and offering trainings, NOI became a key site in the circuit for generating best practices for online organizing and training a new generation of staffers for campaigns and advocacy organizations. NOI continued to convene this professional community to offer trainings and develop manuals for young staffers. Representatives from firms and organizations such as Blue State Digital, Voter Activation Network, and the Democratic Party conducted much of this work. In the process, NOI fashioned itself into a place for practitioners to gather, share ideas and develop new ones, and be recognized, through awards such as 'Most Valuable Organizer,' for their work. As a result, online campaigning became much more goal-driven, organized, and closely tied to field operations on Democratic campaigns during the 2006 and 2008 elections.

Blue State Digital

Despite the fact that Dean only won a single election in his home state of Vermont, a number of staffers described how during the waning days of the primaries their phones were ringing off the hook. As Dean's National MeetUp Coordinator describes, "everyone in the political world wanted the Dean 'magic'" (Michael Silberman, personal communication, July 28, 2008). With a number of potential clients at hand, Dean's internet staffers launched an extraordinary array of firms and ventures shortly after the candidate dropped out of the race.

During the waning days of the primaries, four members of Dean's Internet Division, Jascha Franklin-Hodge, Clay Johnson, Joe Rospars, and Ben Self, started a political consulting firm that blended their commitment to progressive politics, entrepreneurial acumen, and technical expertise. As the name 'Blue State Digital' suggests, the firm would only work with Democratic (or some commercial) clients, in contrast to the bi-partisan "e-politics" firms that dominated the online political consulting market through the 2004 elections (Howard, 2006).

Meanwhile, Johnson, Self, and Franklin-Hodge had all crossed professional fields, leaving "high tech business environments" (Franklin-Hodge, personal communication, December 22, 2008) to enter politics during Dean's run. This was an important driver of technical innovation on the Dean campaign (Kreiss, 2009). Even more, with their professional backgrounds and firsthand experience with many vendors of low-quality digital campaign services during the primaries, they quickly grasped the market opportunity. Meanwhile, having worked with the patchwork of applications and databases cobbled together through much effort on the Dean campaign, they were well aware of the need for a more integrated and stable platform expressly designed to meet the scale challenges of political campaigns.[6]

The firm's first client was Democracy for America (DFA), a non-profit organization originally founded by Dean after his failed primary bid to serve as a mobilization vehicle for his supporters should he decide to run for president again in 2007-2008. DFA transferred the intellectual property in the tools created for the campaign, such as the event planning, fundraising, and social networking applications, to the fledgling firm in exchange for their ongoing maintenance and custom extension. BSD subsequently rebuilt these tools into a more sophisticated platform that offered campaigns and advocacy organizations customer relations management software, email services, customizable fundraising pages for supporters, and social networking, blogging, and event planning applications. Importantly, BSD integrated all of these applications, providing one backend for all the data. This was a huge need on the Dean campaign, which given ad hoc and reactive development had a series of applications that were completely disconnected or, in the best case scenario, only loosely tied together. For example, staffers and volunteers needed multiple passwords to access the numerous data 'silos' on the campaign.

This relationship with DFA formed the basis for BSD's innovative licensing model that enabled the firm's digital platform to serve as infrastructure for a number of Democratic advocacy organizations and political campaigns. BSD provides a core platform to clients, which it owns. The firm then makes any custom improvements or modifications to its core platform paid for by one client available to all the others. Essentially, clients invest in a common set of resources that directly benefit other allied groups. BSD's commons model works because of its orientation as both a business and a political enterprise. As a political entity, the ideological consistency of the firm in taking on only Democratic causes and clients helps ensure that their buy-in to the model. Meanwhile, given that the firm's platform was "still based on some of the technology that we built on the Dean campaign" (Johnson, personal communication, June 3, 2010), the arrangement with DFA offered "legal protection" and "intellectual property clearance" for the founders (ibid).

In the years after this early work for DFA, BSD produced knowledge and tools for online campaigning and carried them across organizations and election cycles. BSD subsequently worked with organizations such as MoveOn Student Action, ThinkProgress, and ProgressNow. In working with these clients, the firm continually made modifications to its core platform. For example, ProgressNow, a multi-state progressive advocacy organization founded by Dean's Web Strategist Bobby Clark, was a major client of BSD throughout much of 2005. Drawing on his experiences on the Dean campaign, Clark worked with BSD to revamp the platform's group tools. YahooGroups played a critical role during the Dean campaign. Supporters set up hundreds of YahooGroups to coordinate volunteer activities in their communities. However, as Clark knew, YahooGroups had a number of limitations from the campaign's perspective. Groups cannot be connected to one another, which meant there was little opportunity for collaboration

between them. Even more, the Dean campaign could not capture data on group activities or even their existence, which meant staffers could do little to coordinate the efforts of supporters. Given these limitations, BSD built a custom application for ProgressNow that enabled supporters to start their own local organizing groups on the platform and see the activities of other groups. Meanwhile, all the information generated by these groups, such as the email addresses and activities of supporters, was accessible to staffers at the backend of the platform. Staffers also could communicate directly with groups.

By 2006, BSD had developed the most sophisticated dedicated online platform in politics through this work that translated detailed knowledge of online campaigning into technical design. This enabled BSD to play a large role during the midterm elections, when it had twenty-two candidate clients and twenty won their elections. In what would become highly consequential for 2008, meanwhile, BSD brought its platform to the Party during this time.

Infrastructure for 2008: PartyBuilder

As Self coordinated the national voter file efforts, his colleague Joe Rospars headed up the Party's newly formed Internet Department. One of Rospars's first projects was hiring a designer to rebrand the website from the 'Democratic National Committee' to the 'Democratic Party.' Rospars intended this change to send a message that the Party was now inviting the participation of its supporters. Meanwhile, the Party's new package of online fundraising and events tools, built by Self, offered supporters concrete ways to get involved. A special election in November 2005 became the roll out event for the new web team. To demonstrate the fifty state strategy, online staffers encouraged supporters to plan events using the web tools. Supporters who did so received literature from the Party and calls from their nationally-funded state organizers that Dean deployed to all fifty states.

The Party extended this work during the run-up to the midterm elections in 2006. In May, the internet team organized a national canvas to demonstrate the Party's capacity to run a multi-state field effort. The national canvas featured standardized materials that staffers intended to be a symbol of the Party's new unity, such as a newly designed door hanger with clear messaging. Behind the scenes, Rospars and his team used the national canvas as an opportunity to better integrate online organizing with the Party's field efforts. Learning from the Dean campaign, where there was a pervasive disconnect between the campaign's online organizing and on-the-ground field efforts, Rospars sought closer coordination. This paid dividends for the 2006 midterms, when Rospars's team worked closely with the Party's field staffers and state party representatives to leverage the online tools to help meet field goals. This work later became the template for the integration of new media and field efforts on the Obama campaign, where Rospars served as the New Media Director. For example, staffers targeted emails by state and district to recruit volunteers to come out to local campaign offices. The internet staffers passed the names and contact information of people creating volunteer events online to field offices so campaigns could proactively coordinate these efforts. Internet staffers also made all the materials that field staffers and volunteers used as they went door-to-door, such as door hangers and literature, available online for supporters to print out and take with them as they canvassed their own neighborhoods.

During the midterms, a customized version of BSD's platform, called PartyBuilder, supported these online organizing practices. Early in the year, Rospars and BSD implemented the first prototype of the PartyBuilder system for the national Party (the state parties used their own web vendors). Hosted on a stand alone 'My.Democrats.org' page off the Party's main website, PartyBuilder featured significant investments in the BSD platform. PartyBuilder

featured personal contribution pages where supporters could fundraise for the Party, an application that enabled users to set up their own groups around issues, candidates, or their location, blog hosting for every user, and social networking functionality that enabled users to set up profiles and affiliate with each other. In addition, an application enabled users to set up and circulate their own petitions and a tool simplified the process of sending letters to the editor by providing talking points for writers and the email addresses of editors. This interface, in turn, had a sophisticated backend that provided Party administrators with comprehensive data on the site's use. This enabled administrators to track individual efforts much more closely and reach out to highly active users to encourage them to increase their involvement. This data also enabled the Party's internet staffers to tailor messages to supporters in a much more sophisticated fashion. Staffers could segment out particular demographic, affiliate, or geographic groups, for instance, and mobilize them around particular issues and for specific electoral purposes. In addition, the Party funded new projects, such as BSD's "grassroots match" application, which paired first time donors with long-time supporters in order to inspire the pair to up their commitment and contributions to the Party.

Even though PartyBuilder was a significant technical achievement, it was not an effective tool for the Party during the 2006 midterm elections. Without the energy and enthusiasm of a presidential cycle it was extraordinarily difficult to mobilize supporters to use these tools. As Zach Exley (personal communication, January 6, 2009) relates:

> People kind of teased them [BSD] all along, we were like 'nobody is going to use it' and...nobody used it. We kind of, we were all friends so we kind of harassed, we kind of teased them...because their clients were excited about social networking as a buzzword so they needed to give them the platform even though it wasn't a good idea.

Despite this, the Party's commissioned modifications to the platform proved to be a huge

investment in the technical infrastructure available to many of its candidates and allied organizations. For example, the PartyBuilder platform provided the basic architecture for MyBarackObama.com once the campaign hired BSD in 2007, which helped make the extraordinary mobilization around Obama's candidacy so productive in terms of fundraising and volunteers.

Conclusion

Why are infrastructural projects absent from many scholarly accounts of new media and politics? For one, as Star (1999) notes, infrastructure recedes into the background, shaping much of the invisible sociotechnical contexts of action that are rarely opened to scrutiny. It does not help that infrastructure building projects, from developing new technical systems to training new online campaigners, occur in the years between elections when there is little public attention to politics. Meanwhile, infrastructure is the mundane work object of the database managers, systems administrators, new media trainers, and consultants that often operate in the bowels of parties and other organizational bureaucracies.

Indeed, for many scholars of new media and politics, particularly those who reduce much of their analysis to changes in the cost of collective action, technologies are just somehow 'out there' for campaigns, organizations, and individuals to use. These scholars focus much less attention on how technologies 'get there' and the technical and social governance decisions (DeNardis, 2009) that make them work in particular ways and for particular ends. Meanwhile, few scholars focus on political fields or the organizational intermediaries that shape the development of tools and coordinate collective action (for an exception, see Karpf, forthcoming). Just the same, there are too few accounts of the technical practices that actors develop around technologies and the organizations that give rise to and support them.

Moreover, there seems to be a deeply-rooted structure of feeling against organization that elides much attention to infrastructure. This is particularly clear in many prominent narratives about new media that portray a world where online collective political action is leaderless, decentralized, and authentically 'grassroots,' pursued by citizens themselves taking action into their own hands - at least when that action occurs by the ideological left. As Polletta (2006) shows in the context of the Civil Rights Movement, one explanation for these particular stories of media and social change is their moral authority. Characterizing online collective action as spontaneous expressions of political commitment or moral outrage makes mobilization somehow more legitimate. These public narratives are firmly rooted on the front-stage in what Alexander (2010) calls the "performance of politics."[7] This is the discursive space for the articulation of pure civic ideals.

And yet, it is the myth-defying backstage that consumes much of the working lives of those active in politics. Building infrastructure requires extensive planning and organization, often with an eye to returns that are years away from being realized. Even more, the infrastructural backstage shapes much of the form that politics takes. As this paper has demonstrated, the sociotechnical project of creating a national voter file affects which voters get contacted by political campaigns and the appeals they hear. It affects the information that campaigns gather and store about the electorate, the federated structure of the Democratic Party, and the day-to-day working lives of many of its staffers. Intermediary organizations such as the New Organizing Institute shape how electoral and advocacy campaigns use networked information technologies and much of what citizens are called upon to do in their civic lives. Firms such as Blue State Digital provide much of the tools for contemporary online campaigning and the knowledge and practice that enables staffers to use them effectively in the course of

contesting elections. Meanwhile, all of these projects that create the knowledge of how to organize people online and develop the technical systems that make coordinated electoral action possible require enormous investments of fiscal and human resources, without which they would not be possible.

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[1] For a discussion of the changes in the Democratic Party during Dean's tenure and out-party incentives to innovate see Schwartz (2009).

[2] For the impact of Obama's field campaign on the general election see Masket (2009) and Panagopoulos and Francia (2009).

[3] In describing BSD's ideological and business approach as a "commons model," I am expressly referring to the fact that in a "commons" information (code, in this case) is privately owned but accessible under certain conditions. This contrasts with the more extensive notion of the "public domain," where information is free from any claim of property rights For a discussion of the difference between these two concepts, see Boyle (2008, pp. 38-39). I thank Dave Karpf for his insight in conversations around BSD's business model.

[4] For more details on the history of VoterVault, see Kreiss and Howard (2010).

[5] The two state parties that do not use the national party system are Texas and California. These state parties do not contribute to the Party's voter file or distribute it to local campaigns, although campaigns routinely use the VAN system in these states.

[6] Most of the systems used during the 2004 campaigns were designed for nonprofits, and they lacked the capacity to meet the demands of contemporary political campaigns.

[7] For work on the cultural performances of the Obama campaign see Brown (2010), Ivie and Glner (2009), Knorr-Cetina (2010), and Stuckey (2010).