

DIFFERENTIATING ORGANIZATIONAL BOUNDARIES*

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ABSTRACT

While extant theory has illuminated conditions under which organizations mimic each other in form and practice, little research examines *how* organizations seek to differentiate themselves from conventional forms. Our comparative ethnographic studies examine how the Burning Man and Open Source communities developed organizations to help coordinate the production of an annual temporary arts event and non-proprietary, freely distributed software. Both communities sought to differentiate their organizations from reference groups, but this was not a sufficient condition for sustaining organizational novelty. We found that the ability to pursue a differentiated strategy was moderated by environmental conditions. By exploring the organizing decisions that each community made at two critical boundaries: one defining individuals' relationship with the organization; the second defining the organization's relationship with the market, we show how organizing practices were recombined from the for-profit and nonprofit sectors in unexpected, novel ways. This comparative research contributes a grounded theoretical explanation of organizational innovation that adjudicates between differentiation and environmental conditions.

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INTRODUCTION

While organizational theorists have recognized community forms as a viable alternative to market and hierarchical forms of organization and production (Ouichi 1980; van Maanen and Barley 1984; Bradach and Eccles 1989; Powell 1990; Adler 2001; Adler and Heckscher 2006), little is known about how community forms create organizations. Because community forms are often inspired by mission-driven, localized collective action, community forms, like social movements, can be a significant catalyst for the recombination and repurposing of organizing practices and forms (Clemens 1993, 1997; Rao 1998; Rao, Morrill, and Zald 2000). Thus, community forms offer a potential source of organizational novelty.

While not all communities create organizations (McCarthy, Britt, and Wolfson 1991; Cress 1997), some reach a stage where they need to create an organization to coordinate efforts or engage with external parties (Chen *forthcoming*; O'Mahony and Chen 2008; O'Mahony and Bechky *forthcoming*). In doing so, members may seek to differentiate their organization from traditional forms to maintain their distinct goals and identity (Rao et al. 2000). Community forms thus offer the opportunity to understand how organizations differentiate themselves and how organizational novelty emerges.

However, new organizations are not produced in a vacuum (Holm 1995). New forms face constant pressures to adopt conventional organizing practices; conforming to convention enhances the acquisition of resources and legitimacy (Pfeffer and Salancik 1978; DiMaggio 1988; DiMaggio and Powell 1991). With such pressures, how can communities develop and sustain organizations that deliberately differentiate them from convention? Despite calls for more research on how new organizations emerge (Romanelli 1991; Daft and Lewin 1993;

Aldrich 1999) and how organizers select organizing practices and forms (DiMaggio and Anheier 1990; Jasper 2004; Minkoff and McCarthy 2005), how organizations *diverge* from organizing conventions is less well understood than how they converge. While recent research has identified how organizational divergence occurs at the population level (e.g., Carroll and Swaminathan 2000; Swaminathan and Wade 2001; Soule and King 2008), additional research at the organizational level affords deeper insight as to how organizations can maintain a differentiated organizing approach despite pressures to conform.

To contribute to this agenda, we undertook a comparative study of how two communities differentiated their developing organizations from conventional reference groups. The Burning Man community established an organization to help coordinate the production of Burning Man, an annual, week-long participatory arts event. The Open Source community formed organizations to facilitate the production of non-proprietary, freely distributed software. In initiating these endeavors, neither community could draw upon well-established institutions. Furthermore, both communities faced environmental conditions that affected their ability to differentiate their organizations. We found that each community recombined organizing practices and forms from the for-profit and nonprofit sectors in novel ways. By exploring how a strategy of differentiation interacted with each community's environmental conditions, we contribute a grounded theoretical explanation of how organizational novelty is introduced, with a focus on how organizations adjudicate between environmental constraints and opportunities.

CREATING ORGANIZATIONS

Some scholars have theorized that community forms support collective action toward a

shared purpose without the fetters of traditional organizational boundaries. For example, individuals often collaborate, solve problems, and disseminate knowledge in communities (van Maanen and Barley 1984; Brown and Duguid 1991, 2001; Adler 2001; Bechky 2003; Hargadon and Bechky 2006). Other scholars view community forms as localized or regionalized forms of voluntary collective action that directly or indirectly challenge existing bases of authority (Kanter 1968, 1972; Whyte and Whyte 1988; Stevens 2001; Armstrong 2002; Lune 2007). The unstated assumptions underlying both conceptions are that communities work on a more decentralized scale than existing formal organizations and may operate adjacent to formal market or state channels.

As communities mature and engage with external parties, they often reach a point where they need to create an organization. They must then decide how to manage relations with (1) external entities in their environment and (2) their members (Jasper 2004). External entities such as the state and its regulatory agencies, resource providers, and competitors often pose demands that organizations conform with existing organizing conventions and templates in order to acquire needed resources (Meyer and Rowan 1977; Pfeffer and Salancik 1978; DiMaggio and Powell 1983). In response, organizations can acquiesce, compromise, avoid, defy, or manipulate those exerting pressure (Oliver 1991: 152). However, organizations that attempt to defy or avoid adopting conventional forms are often short-lived (Stinchcombe 1965; Mintz and Schwartz 1985; Simons and Ingram 1997). In Simons and Ingram's (1997) study of Israeli kibbutzim, kibbutzim that were more dependent on bank loans (and by extension, the capitalist system) were more likely to abandon their work practices for more conventional practices such as hired labor.

Thus, an organization's desire to differentiate itself from common organizing templates is

not enough to generate and sustain novelty. As Rao and colleagues (2000) acknowledge, organizational fields can both constrain and enable novel forms. When organizations attempt a differentiated approach that “pushes back” against environmental (or institutional) conditions, something novel could be created (Holm 1995). However, organizational theory has few frameworks for understanding the conditions that trigger a differentiated response or how differentiation unfolds.

When forming organizations, communities must also manage relations with their members. Because creating an organization involves transferring authority from individuals to the organization (Etzioni 1959; Simon 1976; Coleman 1974), this can be a particularly difficult transition for organizations that depend upon volunteer participation (Harrison 1960). When allocating authority to the organization, the decision rights of individual members and leaders are also determined (Simon 1976). If members cannot settle these issues, they may not be able to produce or fulfill their mission (Freeman 1973; Polletta 2002). Moreover, without defined decision-making processes, organizations can succumb to Michels’ ([1911] 1962) ‘iron law of oligarchy.’

The ‘iron law’ predicts that the appointment of professional leaders fosters goal displacement. As leaders become invested in retaining their power and ‘organization building,’ they direct organizing efforts away from goals that reflect members’ interests (Piven and Cloward [1977] 1999). However, much research disputes the inevitability of oligarchy (Lipset, Trow, and Coleman 1956; Zald and Ash 1966; Jenkins 1977; Sirianni 1984; Clemens 1993; Minkoff 1999; Voss and Sherman 2000; Ganz 2000; Clemens and Minkoff 2004). The effect of professional leaders depends upon such factors as leaders’ prior experience (Staggenborg 1988; Voss and Sherman 2000; Ganz 2000). Nonetheless, such research suggests that establishing the

boundary between individuals and their organizations can trigger contention. These tensions are exacerbated when organizations seek to differentiate themselves from conventional forms.

DIFFERENTIATING ORGANIZATIONS

Research shows that under some conditions, innovative organizational forms or practices can arise despite environmental pressures to conform (Rao 1998; Rao et al. 2000; Minkoff 2002; Aldrich and Ruef 2006; Greenwood and Suddaby 2006; Johnson 2007). For example, marginalized women's groups used accepted organizational forms for new purposes (Clemens 1993). A study of consumer advocacy organizations showed how institutional entrepreneurs recombined cultural materials from existing repertoires to create new organizations, framing these organizations as appropriate with established institutions (Rao 1998). When supported by social movements, novel forms are more likely to survive despite economic pressures and counter-mobilization efforts by competitors (Schneiberg, King, and Smith 2008).

Competition can even promote innovation among organizational forms. Inter-organizational competition among social movement organizations can lead to increased specialization in tactics and goals (Soule and King 2008). Similarly, when competing with rivals for resources, nonprofit organizations strive to differentiate themselves from their competition (Barman 2002). If for-profit organizations create goods and services with a unique claim to authenticity or a cultural sentiment against mass production, they can establish a specific niche for their specialized organizational form in industries or fields that are dominated by large firms (Carroll and Swaminathan 2000; Carroll, Dobrev, and Swaminathan 2002). For example, craft brewers produced beer in "small batches;" they claimed an identity and authenticity based on craftsmanship that mass producers and contract brewers had difficulty replicating (Carroll and

Swaminathan 2000; Swaminathan and Wade 2001). Such actions are deliberate acts of differentiation that relied upon establishing a distinct “oppositional” identity (Swaminathan and Wade 2001).¹ What is not well understood is how specialist producers created their distinct forms and managed to retain this approach as they matured.

Scholars have tended to separate the study of nonprofit and for-profit organizations, as these forms differ in their goals and legal requirements² (Powell and Clemens 1988; DiMaggio and Anheier 1990). The special tax exemptions granted to nonprofit organizations are based upon the assumption that nonprofits behave differently from firms (Galaskiewicz and Bielefeld 1998; Powell and Clemens 1998). However, both researchers and observers have noted a growing overlap between the practices of nonprofit and for-profit forms (Tuckman and Chang 2006; Lohr 2008). While nonprofit forms are often viewed as vehicles for expressing values rather than amassing profit, some nonprofit organizations now engage in a wide range of commercial activities once thought to be the sole purview of for-profit firms (Galaskiewicz and Colman 2006). Such convergence has led researchers to propose a new emphasis on how practices serve similar aims, rather than focusing on legal forms (Dees and Anderson 2004).

COMPARATIVE METHODS

Three aspects make the Burning Man and Open Source settings ideal for examining how communities differentiate their organizations and, in doing so, select and recombine forms and

¹ See also Ritzer’s (2004) discussion of organizations such as Ben & Jerry’s ice cream company which countered mass production techniques and conventional organizing practices.

² For example, the nonprofit form 501 (c)(3) provides exemption from federal and local taxes on income and allows for tax-deductible contributions from donors (Galaskiewicz and Bielefeld 1998).

practices from the nonprofit and for-profit sectors. First, in more conventional organizations, organizing decisions often assume a taken-for-granted quality as members draw from culturally available tool kits (Swidler 1986; Lounsbury 1997) to select organizing practices without much discussion or debate. In organizations that pursue a differentiated strategy, members are more likely to engage in discursive and deliberative organizing decisions, generating data that are readily observable for theorizing (Weick 1974). Second, both communities have adopted a mode of production that is not widely accepted at the field level, suggesting the potential for organizational innovation. Third, both communities have faced rapid growth and increasing external scrutiny from the media, governments, and corporations. Such entities can exert pressure upon organizations to conform to conventional organizing standards; how organizations respond to these pressures is more likely to be visible among organizations that challenge conventions than those that conform.

A comparison of detailed ethnographies of two settings selected for their differences and similarities “along dimensions that seem fruitful for explaining variation” enhances a stronger theoretical understanding of organizing decisions (Barley and Kunda 2001: 85) and promotes the generation of theory that is more robust to other settings. A cross-case comparison also highlights otherwise under-examined differences and commonalities in decision making and organizing, allowing us to “pay close attention to processes that unfold at the peripheries, interstices, and overlaps of institutional fields...In these social locations, authority structures may be attenuated, roles and boundaries are often blurred or ambiguous, and participants are exposed to multiple models or logics, creating opportunities and resources for actors to experiment with new, multiple or hybrid forms” (Schneiberg and Clemens 2006: 218-9).

At first glance, the Burning Man and Open Source communities may not appear comparable, given their different outputs. However, members who participate in both communities have noted growing similarities among organizations and production processes (DiBona, Cooper, and Stone 2006). As one informant reported to the press, “Burning Man is all about artwork built by a collective, and open source is all about software built by a collective. They're both activities built by groups of people, where the results are always better than the sum of the parts” (Duffy Marsan 2005). The top half of **table 1** shows commonalities between both communities identified in our research.

---Insert Table 1 here---

Both communities are dedicated to widening rather than excluding participation and offering alternatives to dominant modes of mass production. The Burning Man mission is to support a participatory community in which amateurs and professionals can produce and display artwork, thus expanding the production and distribution of art beyond museums, galleries, and commercial fairs. The mission of most Open Source projects is to develop open source software that will enhance, if not supplement, commercial software offerings in a market dominated by a federally declared monopoly.³ In carrying out these missions, both communities advocate intensive member participation in organizing and production efforts.

The Burning Man Community

The Burning Man community coordinates an arts festival in the Nevada Black Rock

³ 97 F. Supp. 2d 59 (Lexis Citation: 2000 U.S. Dist. LEXIS 7582). The Court entered Findings of Fact on November 5, 1999 and Conclusions on Law on April 3, 2000. The official order (to which the citation corresponds) was issued on June 7, 2000.

Desert. Every year, this community builds the evanescent “Black Rock City,” which closes with its eponymous bonfire of a wooden figure. During the 2008 event, more than 47,000 attendees reveled in the event’s distinctive art, activities, and norms that emphasize community, participation, and a gift economy.⁴ At the time of this study, about 2,000 volunteers helped construct the city’s lay-out and shelters for infrastructural services, place artists’ installations, interface with media who cover the event, welcome arriving event attendees, staff an information booth, patrol the event for medical, fire, and other emergencies, teach environmentally-conscious practices, and maintain IT and web services for the organization and event. Some members work year-round to plan and coordinate the Burning Man event by collaborating through email lists, meetings, trainings, workshops, and mixers. The term *members* includes leaders, staff, and volunteers, but excludes those who attend the Burning Man event but do not volunteer. When referring to Burning Man informants, we report their actual names.

When the event first started as a small bonfire on a San Francisco beach in 1986, it required minimal organizing. However, coordination challenges intensified with the event’s relocation to the remote Black Rock Desert in Nevada, its expansion from 20 to over 47,000 participants, and its transformation from an evening bonfire to a week-long participative arts community. To address these challenges, members experimented with various organizational practices and forms. For guidance, they examined the practices of other voluntary organizations and events but concluded that they had to develop their own model of organizing. The Black Rock City Limited Liability Company, hereafter referred to as the Burning Man organization, constitutes their most

⁴ More information and population figures are available at http://www.burningman.com/whatisburningman/about_burningman/bm_timeline.html#2007

recent legal form.⁵

The Open Source Software Community

The Open Source software community arose from a faction within the free software community founded by Richard Stallman (Stallman 1999). With the help of Linus Torvalds (Stallman 1999; Torvalds 1999; Moody 2001; Moon and Sproull 2002; Lee and Cole 2003), this community created a free operating system known as the Linux or GNU/Linux system. This system's public license (GNU GPL) allows users to modify, copy, or distribute software source code if they agree to distribute any derivations under the same terms. While new legal terms enabled participation by providing public access to source code, of equal importance was the creation of a new approach to developing software: the community development model.

Under this model, technical requirements and release dates are publicly and collectively negotiated through volunteers' contributions to online project forums. Anyone can participate in online forums to seek guidance, provide help, or acquire updates on the project; some interact face-to-face via user group meetings, working groups, and technical conferences. Some test the code, report problems, submit ideas for fixes, or submit new code features code for review. More experienced individuals are entrusted with commit access, which allows them to change the source code in the code repository without awaiting approval from others (von Krogh, Spaeth, and Lakhani 2003; O'Mahony and Ferraro 2007). Firms can profit from the community's work by selling related products and services; these firms often sponsor contributors and donate in-kind resources. We use the term *members* to refer to individuals, both volunteer and sponsored,

⁵ For additional research on the Burning Man event and organization, see Chen (2004, *forthcoming*) and Gilmore and Van Proyen (2005).

who were involved in project decisions and who typically, but not always, had commit access. This term excludes those who use the software produced without contributing to its development. Because all Open Source informants were promised anonymity, we use pseudonyms for quoted respondents.

With the launch of Linux, the community development model inspired thousands of community software projects and new commercial entrants (Weber 2004; von Hippel 2005), introducing new challenges. First, projects struggled to acculturate newcomers who were unfamiliar with the open source model's unconventional norms and practices. Second, projects grappled with how to manage commercial participation in open source development and distribution – a change, although welcomed, could also introduce practices that violated community norms and values (O'Mahony and Bechky *forthcoming*). Community organizers realized that they needed more formal structures to manage not only more contributors, but also increasing pressures from commercial adopters of their work.

Data Collection

To collect data on the Burning Man community, the first author recorded field notes on observed organizing activities, meetings, volunteer trainings and mixers, email lists, and other activities. These intensive observations covered regular three to eight month periods from July 1998 to January 2001, with subsequent follow-up visits. The first author also volunteered for three departments and participated in nine Burning Man events between 1998 and 2008. These observations and participant observations covered a critical shift from ad hoc organizing to a year-round, formal organization with a San Francisco-based headquarters. In addition, the first

author interviewed 81 organizers and members, including active and retired volunteers and staff from different departments, about their organizing activities, motivations, and perspectives. Archival research of print and film materials supplemented interviews and observations.

----Insert Table 2 here----

Theoretical sampling guided the selection of four community managed software projects (see **table 2**) within the Open Source community. These projects were in different stages of formalization, which allowed for a more thorough examination of organizing practices. The second author spent over 90 hours observing and meeting informants at 27 different events, including project meetings, user group meetings and conferences, between April 2000 and April 2001. The second author also conducted 70 interviews about the membership, sponsorship, decision making, and the governance of projects during 2000 through 2001 and 12 follow-up interviews in 2003 through 2004. Interviewees included both volunteer and sponsored contributors in the open source and free software communities. In addition, the second author collected project data from online archives, including documents such as mission statements, charters, bylaws, meeting minutes, mailing list archives, and databases of developers and members.

Analytic Approach

As we independently collected our field data, we had several discussions during which we realized that our field settings not only had overlapping members, but also faced similar

developmental challenges.⁶ After we each completed data collection, we collaborated in developing a theoretical explanation applicable to both settings. In the first phase of analysis, we coded our data independently. To achieve construct validity and greater depth and accuracy, we triangulated multiple sources of evidence (Yin 1994), which helped validate theoretical constructs (Glaser and Strauss [1967] 1999). In the second phase, we compared how each community organized, which helped develop theoretical categories. With this analytic approach, we discovered that both communities went through similar deliberative processes (O'Mahony and Chen 2008). Given the two communities' similar aims for production and organizing, we were struck by the puzzling disparities in the legal forms and practices selected. In examining each community's rationales for how they recombined different organizing practices and forms, we realized that variance in environmental conditions affected how differentiation efforts unfolded and fostered dissimilar organizing outcomes.

In the third phase of analysis, we compared each community's environmental conditions and the organizational practices and forms adopted. We traced how each community's organizing decisions affected the development of two critical organizational boundaries: one between the organization and its members and one between the organization and the market. In doing so, we identified areas where organizing practices and forms were recombined in novel ways. By comparing and contrasting the conditions that led each community to make particular organizing choices, we identified four environmental conditions that affected how a strategy of differentiation unfolded: the degree of 1) competition, 2) opposition, 3) resource dependence, and 4) control over outputs.

⁶ Field notes on the Social Science Research Council Program and Sloan Foundation-sponsored "Corporation as a Social Institution" conference, Katherine Chen, July 17, 2000.

FINDINGS

Crafting a Differentiated Organization: The Role of Reference Groups

While differentiation is often associated with the presence of competition (Barman 2002), neither the Burning Man nor the Open Source community had direct competitors that produced equivalent outputs. Rather, the two communities focused on distinguishing their mission and form from those of mass market, mainstream producers. In this respect, their differentiation strategy was closer to those of the craft brewers studied by Carroll and colleagues (Carroll and Swaminathan, 2000; Swaminathan and Wade 2001; Carroll et al. 2002) than Barman's nonprofit charities. However, while craft brewers focused on distinguishing their production method and goods from mass market competitors, our two communities focused on distinguishing their form from reference groups that were perceived as upholding incompatible values.⁷ As Clemens argues, "models of organizations are part of the cultural tool kit of any society and serve expressive or communicative as well as instrumental functions" (1993: 771). In this sense, the use of reference groups or models helped our two communities articulate the type of organizing practices to avoid.

Members did not want their organizations to adopt practices that limited their abilities to creatively organize and produce. They often referred to negative experiences in large bureaucratic organizations to emphasize the dangers of reproducing conventional practices. Members feared that if their organizations drew solely upon conventional organizing practices, the resulting organizations would cease to represent their interests and fail to realize their

⁷ According to Elsbach and Bhattacharya (2001), individuals engage in "organizational disidentification," in which they highlight incongruent personal and organizational values.

respective missions. This desire to differentiate from reference groups affected how each community selected organizing practices, but different reference groups forged divergences in how organizational form and practices were eventually recombined by the two communities.

Burning Man. Burning Man members sought to differentiate their developing organization from two kinds of reference groups. One reference group consisted of the selective institutions that guarded entry into the art world, or the network of persons and groups involved in the production and dissemination of art (e.g., Becker 1982). These included museums, art galleries, and foundations that reinforced a strict division of labor about who could create art, as well as appropriate ways of experiencing art. Burning Man organizer Larry Harvey characterized the art world's organizational underpinnings as highly stratified and entrenched: "The dead hand of bureaucracy is everywhere apparent, represented by a system of production which links art schools to an art industry — a complex of corporations, museums, and private dealers — that, in turn, controls the marketing apparatus that selects and distributes these privileged goods."⁸ In a speech, Harvey criticized how a competitive "star system" rewarded a few by commodifying their art: "they'll put your work in the gift shop."⁹ Burning Man art curator Christine Kristen, a formally trained artist, depicted the art world as divorcing the art work and the audience from the production process: "The people in studio art ...hire...the people that make their work for them, and they do it all very privately in the studio, and it [the art] is presented to the public in this... churchlike environment, and you [as the consumer] don't actually see the work that goes into

⁸ "The Art of Burning Man" http://www.burningman.com/art_of_burningman/art_of_bm.html

⁹ Larry Harvey. February 24, 2000. "La Vie Boheme: Bohemian Values, Populist Politics, and the New Avant-Garde." Transcribed talk. Walker Art Center, Minneapolis, Minnesota. http://www.burningman.com/whatisburningman/lectures/la_vie.html.

it.”¹⁰ Burning Man members viewed such separations among art, its creators, and audience as contrary to their mission (Chen 2007).

Burning Man members also sought to differentiate their developing organization from a second reference group: firms that produced commercial destinations or events, including music concerts or festivals like Woodstock, amusement parks such as Disneyland, and resorts and other travel destinations. Volunteer Eric Pouyoul contrasted Burning Man’s efforts from such reference groups: “Burning Man is about spontaneous things; it’s not a museum, it’s not like organized events, it’s not like [a] rock show.”¹¹ Burning Man members worried that adopting conventional event planning routines would generate undesired outcomes, such as paid performers and a passive audience.

In differentiating their organization from these reference groups, Burning Man members selected practices that promoted wider participation in organizing and production efforts. Burning Man viewed practices that enhanced participation as integral to distinguishing themselves from the art world’s constraints and the hyper-rationalization of commercial venues. In describing Burning Man as ‘a Disneyland in reverse,’¹² Harvey emphasized how event attendees produced and shared unique experiences. Such comparisons reinforced distinctions between the endeavors of Burning Man and undesired reference groups.

Open Source. While most contributors to the four Open Source projects studied had hands-

¹⁰ Interview with Christine Kristen, Nov. 7, 2000, San Francisco.

¹¹ Interview with Eric Pouyoul, December 3, 2000, San Francisco.

¹² See Kevin Kelly, “Bonfire of the Techies”, *Time*, Aug. 25, 1997. <http://www.kk.org/writings/bonfire.php>.

on experience with firms developing proprietary software, they did not want to replicate these forms and practices in their community projects. Attracted by the opportunity to collaborate and create code (Hars and Ou 2001; Hertel, Niedner, and Hermann 2003; Lakhani and Wolf 2005), contributing volunteers strove to maintain a collegial work environment where they could select tasks, rather than be assigned tasks, and have fun programming, rather than become preoccupied with organizing. As Ben Johnson, a Webserver project organizer, explained, “We try to keep it simple because none of us really wants to be in the mode of being a bureaucratic organization. We don’t want to run an organization. We don’t consider that to be fun.” Open Source programmers worried that if they followed proprietary firms’ market-driven practices on the timing and content of a software release, these standards would make their hobby of open source software programming “less fun.” Thus, all four Open Source projects opposed organizing practices that could confuse their efforts with those of a proprietary firm, even when pressured by outsiders to conform to standard practices. As Toby Smith, a leader on the Debian Linux operating system project, stated, “We are a project and not a firm. And still we have people emailing us asking, ‘who is the CEO? Who can I call?’” To differentiate themselves from proprietary firms, Open Source organizers eschewed common organizing practices such as deadlines, formal requirements, and other features associated with proprietary software development.

Environmental Conditions

While the Open Source and Burning Man communities both extolled the need to differentiate their organizations from reference groups, the characteristics of their respective outputs subjected them to different environmental conditions regarding: 1) competition, 2)

opposition, 3) dependence on resources, and 4) control over outputs, as shown in the bottom half of table 1. The Burning Man community produced a diffuse and temporary art experience that was not only unique, but also difficult to replicate and redistribute given its scale, location, and ephemeral nature. In contrast, the Open Source community produced software that was digital, modular, modifiable, and easy to redistribute. Relations with resource providers, collaborators, and competitors all affected the way in which the two communities recombined organizing practices and forms that would help fulfill a distinct mission and yet defy convention.

1) Competition. A few other communities produced countercultural events such as the Oregon Country Fair or Rainbow Gatherings, but the Burning Man community faced little direct competition for producing its large-scale, site-specific art and camping experience. Its output was distinctive enough that the media and governmental agencies initially struggled to make analogous comparisons with well-known commercial events such as the Woodstock music festival.

Unlike the Burning Man's experiential output, open source software could easily and freely be redistributed, potentially undercutting similar commercial offerings and thus positioning projects as competitors to proprietary firms. When firms viewed open source software as a potential complement to proprietary software, open source projects were courted to become supportive partners. When firms viewed open source software as a competitive threat, open source projects faced concentrated opposition.

2) Opposition. Competition between commercial firms that sold comparable software products and Open Source projects generated concentrated opposition that was concentrated, but

not broadly distributed. For example, Microsoft, the owner of the dominant operating system in the proprietary software market, viewed open source software as a competitive threat to their business model. In testimony to Congress and in interviews with the media, Microsoft portrayed the open source software development model (and by extension its community) as “un-American”, “a cancer”, and “a threat to the American innovation model” (Greene 2001; Leonard 2001). According to Microsoft’s Chief Operating Officer at the time: "Open source is an intellectual-property destroyer ... I can't imagine something that could be worse than this for the software business and the intellectual-property business....I'm an American; I believe in the American way, I worry if the government encourages open source, and I don't think we've done enough education of policymakers to understand the threat" (Leonard 2001). Microsoft also introduced what informants called “FUD” [fear, uncertainty and doubt] to their customers and the media by suggesting that open source software was unreliable and that its use could lead to legal problems.

However, companies that produced complementary software and services expressed interest in working with the Open Source community. They viewed Open Source projects not as competitors to be shut down, but as opportunities for constructing relations that could reduce their dependence on commercial licenses and improve profit margins (Baldwin, O’Mahony, and Quinn 2003; O’Mahony and Bechky 2008). IBM, Sun, and Hewlett-Packard actively collaborated with the four projects studied. Each firm made in-kind donations of hardware, manpower, and legal support; their primary support was allowing their employees to contribute time to Open Source projects at company expense. Donated resources, while not crucial to the survival of Open Source projects, helped projects grow.

Unlike the four Open Source projects, the Burning Man community did not have competition, but they did confront opposition from a wide spectrum of entities, including those that provided goods and services needed to produce the event. Law enforcement, regulatory agencies, and voluntary associations such as environmental groups, local organizations, and religious groups periodically opposed Burning Man's efforts. The Burning Man community worried that such groups were provoked by sensationalist media coverage of nudity, drug use, and public sex. Given such portrayals, some religious and local organizations objected to Burning Man for moral and environmental conservation reasons and disseminated their opposition in the media.¹³ On several occasions, environmental groups and local organizations tried to block the Burning Man event from using the Black Rock Desert site, which the Burning Man organization successfully fended off through lobbying and mobilizing supporters. However, such groups were not well organized enough to sustain roadblocks to the event (Chen 2004, *forthcoming*).

3) *Dependence on External Resources.* While Open Source software communities encountered some intense opposition, unlike the Burning Man community, production of their output did not require obtaining substantial resources from external parties. Open Source projects only depended on volunteer input and easily procured equipment, such as a server that could be maintained in an individual's home. Contributors could work from their homes or workplaces, minimizing overhead costs. With such minimal needs, Open Source projects could be relatively self-sufficient without the hassles of dealing with resource providers.

¹³ For example, Christian televangelist Pat Robertson and the 700 Club condemned the Burning Man event as an example of growing paganism and decline in American morality.

In contrast, the Burning Man event was highly dependent upon several entities for resources, such as governmental permits for the desert site, portable toilets, and fire, medical, and law enforcement services. At times, these entities demanded that the Burning Man organization adopt particular practices in exchange for these resources (Chen *forthcoming*). At first, entities such as the local law enforcement withheld their cooperation and urged the event to move out of their jurisdictions. Agencies also charged fees that Burning Man organizers considered exorbitant and confiscated funds, forcing founder Larry Harvey to beg for donations to alleviate debts. Without these resources, the Burning Man organization could not run its event. While Burning Man organizers researched other sites to evade these constraints, they identified few viable alternative locations. Thus, maintaining relations with external resource providers was crucial to the event's survival.

To reinforce such relations, the Burning Man organization cooperated in ventures designed to uphold mutual interests and mobilized supporters to encourage greater accountability from governmental agencies that balked at cooperating. For instance, local environment groups as well as internal critics questioned whether the event's bonfires and large-scale camping damaged the desert site. In response, with help from a governmental official, several Burning Man volunteers formed the Earth Guardians, a department devoted to promoting the conservation of the Black Rock Desert. When governmental agencies were slow to cooperate, Burning Man organizers encouraged supporters to contact governmental representatives and attend meetings to represent Burning Man's interests (Chen *forthcoming*).

4) *Control Over Outputs*. Although the Open Source community's software products were freely and easily distributable over the Internet, the community maintained control over

their output, with an emphasis on maintaining the integrity of their work. First, the Open Source community at large determined which software licenses could be ‘open source’ with a certification mark. Second, each project chose a particular open source license. Three out of the four projects used the General Public License (GPL) that requires commercially distributed derivations of code to be licensed under the same terms: if a firm makes proprietary extensions of code developed by the community, the firm must share those modifications with the community (O’Mahony 2003). The fourth project used a variant of this license that permitted such extensions if the community received appropriate attribution for the code they produced.

In contrast, the Burning Man community had difficulties controlling their outputs, as they did not have a special license. Third parties violated the community’s ethos by using Burning Man’s name and imagery to sell unrelated products and services. For instance, individuals and businesses advertised artwork and supplies under the term “Burning Man,” sold photos or footage of unwitting event attendees as pornography, and falsely claimed Burning Man’s support for unrelated events or services. Members worried that such associations co-opted the event, obscured the community’s emphasis on participation, and attracted “spectators” who were unprepared for the hardships of desert camping. Members expressed fears that other entities’ activities would compromise the integrity of their outputs (Chen *forthcoming*).

Each community’s production process and outputs subjected them to different types of external relations. The nature of the Burning Man event triggered diffuse, uncoordinated opposition from a variety of sources, including those that provided needed resources. In addition, the Burning Man community had greater difficulties staving off expropriation. These two conditions placed the Burning Man community on the defensive, as members had to mediate

the demands of resource providers while fending off encroachment upon their outputs. In contrast, the Open Source community was relatively self-sufficient, but their outputs attracted both fierce opposition and cooperation from other firms. Because the Open Source community could exert more control over their outputs, they were less concerned with dilution of their mission, and they were better positioned to engage in collaborative commercial relations.

Establishing Organizational Boundaries

These different environmental conditions shaped how the Burning Man and Open Source communities selected and recombined organizing practices and forms when establishing two types of boundaries: 1) the boundary between individuals and the organization and 2) the boundary between the organization and the market, as shown in **table 3**.

----Insert Table 3 Here----

While the first type of boundary established the degree of control that individuals were willing to divest to the organization, the second type of boundary established the organization's relationship with the market.

Individual-Organization Boundary. When forming organizations, individuals must allocate some decisions to formal leaders of the organization (Simon 1976). Making this transfer of authority was particularly challenging for the Burning Man and Open Source communities, as both depended upon volunteers and viewed member participation as integral to production and organizing efforts. Neither wanted to reproduce the practices of their respective reference groups; yet each needed to create organizational forms that could withstand the demands

imposed by competitors, resource providers, and partners without compromising their missions. We found that each community recombined different organizing forms and practices to solidify the relationship between individuals and their organizations.

Burning Man. Almost a decade after the Burning Man event's start, organizers formed a legal partnership to facilitate tasks such as equipment rentals; a small cadre of volunteers coordinated the event. However, after a 1996 event attendee who was severely injured by an under-the-influence driver filed a lawsuit, organizers realized that this legal partnership still exposed them to individual liability,¹⁴ and other problems such as accidents indicated that the growing event outstripped their limited, ad hoc organizing efforts. After the legal partnership dissolved over an internal disagreement about whether to continue the event, the remaining organizers decided to reincorporate as a Limited Liability Company (LLC) in 1997. This for-profit form provided more protection of individual assets than offered by the previous partnership and facilitated exchanges with resource providers. However, members recombined this for-profit form with practices that were more typical of nonprofit organizations, as they felt that these practices better reflected their community's aims.

Although their main motive for organizing aligned with those of other nonprofit organizations in the art world (e.g., DiMaggio 1991), organizers rejected the nonprofit form because this required establishing a separate board of "disinterested parties." They feared losing control of the community's direction with such oversight.¹⁵ However, in choosing the for-profit form, organizers and members explicitly rejected any emphasis on maximizing profits and

¹⁴ At the time, organizers did not have many assets to lose but had to expend time and money in responding to the lawsuit. Interview with John Law, September 26, 2000, Oakland, California.

¹⁵ Interview with Larry Harvey, October 25, 2000, San Francisco. Interview with Michel Mikel, November 7, 2000, San Francisco.

shareholder value. Organizer Larry Harvey quipped that the LLC operated as a “no-profit,” as the organization’s primary purpose was to facilitate the event, rather than to amass profit.¹⁶ Despite having a for-profit legal form, the Burning Man organization did not become a typical firm.

Instead, they operated as a voluntary association with a low threshold for entry. Anyone, even those who lacked experience and expertise, could volunteer and choose which tasks to undertake. Individuals could also spearhead projects, rather than waiting for top-down directives (Chen *forthcoming*). However, members did not have the power to appoint or recall LLC board members. The LLC board held formal authority over who could be a board member, setting the event’s direction, and making major financial decisions. The latter two areas required particularly intensive efforts given the demands of the various resource providers involved in producing the Burning Man event. At the same time, the Burning Man organization relied upon decision making by consensus among organizers and within departments.¹⁷

Nevertheless, critics felt that this representation was insufficient and voiced concerns about the for-profit form’s governance structure and lack of financial transparency. As ticket prices increased, volunteers demanded explanations for organizational revenues and expenditures.¹⁸ To address members’ concerns and quell suspicions about misappropriated resources, organizers modified their LLC agreement so that board members could not transfer their stake in the organization to other parties and redistribute collective assets for personal gain. As Harvey

¹⁶ Harvey, Larry. “AfterBurn 2003 Report: Financial Structure.” http://afterburn.burningman.com/03/financial_structure.html

¹⁷ Interview with Harley Dubois, December 21, 2001, San Francisco. Interview with Larry Harvey, October 25, 2000, San Francisco.

¹⁸ Marian Goodell, “Where Does the Money Go?” *Jack Rabbit Speaks* email newsletter, January 14, 2000, 4: 9.

explained, this modification “divested [the Burning Man organization] of property interest” to assure members that organizers were not “building masses of equity” for personal gain.¹⁹ In 2001, organizers added a nonprofit 501(c)(3) subsidiary organization, the Black Rock Arts Foundation, to fund art projects through tax-deductible donations. By 2002, organizers agreed to publish their financial expenses and a detailed record of organizing activities, disclosures that were not required by the LLC form but were requested by members.

These recombined practices from the for-profit and nonprofit sectors helped ease members’ concerns. Although individual members did not have formal representation in the organization, they continued to participate in informal listserv discussions and meetings. While the LLC board organizers were only legally accountable to each other, they were cognizant that their credibility in managing the organization, particularly one powered by volunteers, depended upon their responsiveness to members’ concerns. The recombination of conventional forms and practices helped reinforce a relationship between the organization and individuals that incorporated members’ interests while providing some protection against liability risks.

Open Source. Like Burning Man organizers, Open Source project organizers also worried about protecting contributors from liability; these concerns helped prompt their interest in incorporation. As Jason Bass, a contributor to the Linux Standard project charter, explained, “There’s liability protection that comes from being a corporation.” Volunteer contributors did not want to be accountable for any legal or technical failings that their software could cause. Furthermore, members on all four projects worried about how a project could live beyond its founder’s departure, or what they called ‘the Linus (Torvalds) question’: ‘what happens if Linus

¹⁹ Interview with Larry Harvey, October 25, 2000, San Francisco.

gets hit by a bus?’ Without an institution to support the individuals involved, people feared that rule by sheer force of personality would be unsustainable (O’Mahony and Ferraro 2007; O’Mahony 2007). For Webserver project volunteer Evan Reilly, the need for formal governance went beyond leadership by the few: “What is the on-going governance going to be for this group? And, how do we make it so it lasts longer than just a few strong personalities?... We wanted something much more like a republic where people didn't have to be there forever.”

However, unlike the Burning Man community, all four projects formed nonprofit foundations. Choosing a for-profit firm was not considered a viable option given members’ strong desire to differentiate open source programming work from proprietary corporate work and firms’ interest in having communities form nonprofits to foster collaboration. As Reilly recounted, “[Fortune 500 firm X] acted as a catalyst, [they] forced us to make the decision to go and do it. [They] also assisted on the legal side.” Firms were eager to help projects create a legally recognizable entity, but not a direct competitor. By formalizing a foundation, each project established an institutional rather than a personal basis for leadership, which helped resolve the dilemma of leadership succession. But, members were leery of creating an organization that would require excessive administration and detract from more fulfilling activities such as programming. Thus, they limited the foundations’ authority over individuals who contributed to the project.

All four nonprofit foundations formalized structures by which volunteers could apply to become full-fledged members of the organization and elect board of directors to represent them in the project’s governance (e.g., O’Mahony and Ferraro 2007). These mechanisms were designed to ensure that the organization would serve at the behest of individual contributors. As

Linux Distribution Project volunteer Harry Morris stated, “[The foundation] is just there to just do what the projects themselves can’t do, which is to be a legal entity and handle the kinds of things [that] a legal entity can handle that the [Linux Distribution Project], since it doesn’t exist [legally], can’t handle.”

Comparison. At first, it may seem incongruous that an *arts community selected a for-profit form*, while a *software community selected a nonprofit form*. However, we can understand these decision-making outcomes given each community’s respective reference groups and environmental conditions. The Burning Man organizers’ primary concern was not about making a profit, but about maintaining control, protecting assets against liability, and facilitating relations with resource providers. However, they believed that the nonprofit form was insufficient for protecting their efforts, so they chose a for-profit form, which they then modified to address members’ criticisms about financial transparency. Burning Man members explained that these modifications helped distinguished their efforts from those of conventional organizations in the art world. In contrast, Open Source projects wanted to maintain cooperative relations with those commercial firms that supported them, but they also wanted to protect their autonomy from encroachment by conventional business practices: a nonprofit form helped addressed both concerns. In a context dominated by for-profits, a nonprofit status helped Open Source members to distinguish ‘fun’ from ‘work’ and differentiate their unique mission.

Furthermore, the two communities diverged in how their members were represented in their organizations. The four Open Source projects specified ways that volunteers could become members and exercise a voice in their organizations. In contrast, the Burning Man community allowed anyone to join but did not introduce formal representation mechanisms, relying on ad

hoc representation. These differences in member representation may be because Open Source projects depended upon skilled programmers and developed more selective membership criteria (von Krogh, Spaeth, and Lakhani 2003; O'Mahony and Ferraro 2007). In contrast, the Burning Man organization supported greater inclusivity, leading to a more diverse membership body involved in a wide variety of tasks. At the same time, organizers had to maintain some top-down control to manage external relations (Chen *forthcoming*).

Organization-Market Boundary. Regardless of whether a community selects a nonprofit or a for-profit form, its members must also make organizing decisions about how to establish the organization's boundary with the market. When maintaining the integrity of outputs is important, such boundary formation can be critical to distinguishing craft or small batch production from mass market efforts (Carroll and Swaminathan 2002; Carroll et al. 2002). In a similar vein, scientists engage in boundary work to differentiate the integrity of 'authentic' science from politics (Gieryn 1983; Moore 1996; Guston 1999) or between science and industry (Colyvas and Powell 2006).

The Burning Man and Open Source communities were both concerned about preserving the integrity of their community and outputs. As these two communities expanded in size and reputation, external parties began to view them as attractive opportunities for market growth. Individuals, firms, and the media attempted to commercialize aspects of the Burning Man experience for their own benefit. Software firms and individuals wanted to profit from selling open source software. Members in both communities expressed concern that these efforts to commoditize their work could compromise the integrity of the community. To differentiate their communities from conventional market activities, both communities made two critical organizing decisions that reinforced the boundary between the organization and the market:

whether to collect revenues and whether to allow the community's output to be commoditized.

Burning Man. While the earliest Burning Man events did not charge admission fees, escalating costs for the event site permit, equipment rentals, and law enforcement, fire protection, and medical services convinced organizers to collect revenues from event ticket sales. Advance ticket sales allowed organizers to plan and pay for goods and services on a year-round basis. By 2006, the organization managed a \$10 million budget derived from ticket sales and donations.²⁰ Although ticket costs (now over \$200) raised members' concerns about how the revenue was being spent, these funds allowed organizers to cover event expenses and enabled them to remain independent from commercial sponsors.

As the Burning Man event grew in popularity, the community had to cope with attempts by others to use Burning Man's name, symbols, and imagery to advertise unrelated products and services. Like other firms that protect their reputation and outputs from dilution, Burning Man members monitored websites for the unauthorized use of images and names. Members responded to market incursions with measures intended to preserve the integrity of Burning Man's output. They made moral appeals about preserving the event's ethos and name and threatened to file lawsuits over the unauthorized use of imagery and name on the grounds of trademark infringement and violation of event attendees' privacy.

The Burning Man community also prohibited corporate sponsorship and advertising at their event even though these practices could have subsidized production costs and lowered ticket prices. During the event, attendees were expected to engage in a gift economy, which

²⁰ http://afterburn.burningman.com/06/financial_chart.html

emphasized giving tangible and intangible items, such as hugs, conversation, handcrafted mementos, and artwork, without expectation of immediate reciprocity.²¹ Organizers and members were observed repeatedly refusing attempts by corporations and individuals to sponsor the event and advertise, vend, or give away commercial goods and services. For example, volunteer Candace Locklear recounted a company representative's proposal for company owners to fly in and give away beverage samples in exchange for a press release that publicized their firm. In her response to the representative, she emphasized how individuals could participate in the event, but their products could not: "I...explained that any type of consumer items with corporate logos for distribution is what we DO NOT want on the desert, and that free juice was not welcome, but [company founders] Tom & Tom were."²² By taking such actions, members defended their event from being co-opted for other purposes (Chen *forthcoming*). These actions were important since the Burning Man community lacked other means of controlling their output.

Open Source. In contrast to the Burning Man community, all four Open Source communities explicitly rejected the idea that their organizations would collect revenue from the code they created. This decision was consistent with the traditional conception that nonprofits refrain from commercial activities, such as selling products or services (Tuckman and Chang 2006). When asked why they did not attempt to collect money for their work, Ryan Perriman elaborated, "That is what the '[Linux Distribution project]' is about, to create a distribution, and that is it. It is not to make money selling a distribution. It is not to exploit a market niche." In

²¹ See also Kozinets (2002).

²² "Nantucket Nectars-NOT!" senior staff and Media Mecca e-mail lists, August 13, 1998.

addition, revenue collection was a practice strongly associated with their reference group, and members did not want to operate like a proprietary firm.

But, unlike the Burning Man community, Open Source projects did allow third party firms to redistribute the works they created for profit. This furthered the community's goal of diffusing their code to the broadest possible market. Like the Burning Man community, the Open Source community was inundated with requests from firms to sponsor their projects; some wanted to become sponsors, others wanted to acquire representation on key governing bodies (O'Mahony and Bechky *forthcoming*). While Open Source contributors did not mind if firms profited from the code they created, they did not want their projects to become beholden to corporate sponsors and lose their independence.

To limit corporate influence, members emphasized that donations of labor, hardware, and bandwidth could not 'buy' a firm influence over the community. Brett Vaughn characterized corporate contributions as "wonderful" but added the caveat that "these companies are contributing because it's in their business interests, so they bring an agenda, and you need to be aware of that." To preserve a project's independence, members sought to diversify sources of corporate support. When the founder of one project started a firm that would profit from the community's work, several project members asked him to step down from his leadership position on the project. Howard Mickle, a project leader, argued, "There are major pressures and conflicts of interests. If you're going to be the founder of a project and the founder of a company that's betting its existence on the project, then you cannot be the sole leader of both at the same time." In this manner, community members attempted to insulate the community from market forces.

Comparison. At first glance, it seems counterintuitive that an arts community that produces a ‘*non*’-*commercial output* uses practices typically associated with *for-profit organizations*, while a software community that produces *commercial outputs* relies on practices conventionally associated with *nonprofit organizations*. Specifically, the Burning Man community adopted a form and practices that would seem to welcome commercialization: a for-profit LLC form collected revenues from event ticket sales and protected its “brand.” At the same time, the Burning Man community implemented practices that checked commercialization by instituting a gift economy, prohibiting vending and sponsorship at the event, and curtailing commercial ties. The Burning Man community adopted a structure that could have easily supported commercial endeavors, but instead enacted practices that reinforced a strict boundary between community and market activity. This recombination of practices from the for-profit and nonprofit sectors helped curb the Burning Man organization’s transformation into a conventional commercial firm while allowing members to preserve community-based production.

In contrast, the Open Source community adopted organizing practices that reinforced a seemingly non-commercial endeavor: a nonprofit form that rejected revenue collection. But at the same time, Open Source projects welcomed the commercial diffusion of their work by third parties and worked alongside firms that were willing to play by their rules (O’Mahony and Bechky *forthcoming*). Such a relationship with the market complemented the Open Source projects’ missions of offering freely available source code. This recombination of practices allowed Open Source project members to do what they loved most (i.e., programming) and left business matters for other firms, while still allowing their output to flourish in the market.

DISCUSSION

Both of the communities that we studied were able to defy standard organizing conventions and avoid emulating undesired reference groups. However, their abilities to differentiate their organizations were affected by the nature of their reference groups and environmental conditions. Competition, opposition, resource dependence, and control over outputs affected how these two communities established the boundaries for their new organizations. By recombining organizing practices from the for-profit and nonprofit sectors, both communities created forms that differentiated them from their reference groups, allowed them to work with external constituents, and still enabled them to carry out their respective missions. If the recombination of existing organizing elements in new ways defines innovation (Hargadon and Sutton 1997), then this suggests that both the Burning Man and Open Source communities engaged in organizational innovation.

These communities could have copied conventional forms and practices that would have helped secure legitimacy and resources but were counter to their efforts. Instead, these communities recombined forms and practices to suit their specific needs. The resulting combinations seem inexplicable: an arts community created an organization that can permit commercial activity but curtails it, while a software community created organizations that are not oriented towards commercial activity but embraces it. To explain how these seemingly incompatible practices arose, we examined exactly how competition, opposition, dependence upon resources, and control over outputs affected the organizing choices each community made.

Competition. Without a direct competitor for the production of its event, the Burning Man community could experiment with organizing models. Moreover, the lack of equivalent competitors also decreased the temptation to mindlessly copy conventional practices, allowing

members to develop practices specific to their needs. In contrast, Open Source projects studied had powerful potential competitors. However, Open Source projects were better positioned to protect their output and develop symbiotic relations with firms offering complementary products and services. Projects could thus maintain their distinctiveness from industry giants.

Opposition. Relative to the Open Source projects studied, the Burning Man organization's dependency upon several entities for resources vital to the event made it vulnerable to a diffuse but wide range of opposition and their associated demands. However, the organization could reinforce mutual interdependencies by paying fees and forming cooperative ventures, which helped temper the demands posed by resource providers (Chen *forthcoming*). While the Open Source projects in this study were not dependent upon other entities to produce, their community faced highly concentrated opposition from a powerful competitor. Had this opponent successfully mobilized legislation or rulings in its favor, the Open Source projects' efforts could have been marginalized. Other firms viewed the projects as opportunities for collaboration and offered significant support; these cooperative relations likely moderated a potential challenge to the Open Source community's endeavors.

Dependence on Resources. We found that the mere presence of opposition to a community's unique production method and form was not enough to pressure a community to abandon a differentiation strategy and conform with existing organizing standards. Rather, what mattered was the degree to which a community depended upon those that opposed their form of organization. This degree of dependency affected how organizing practices were recombined to diffuse opposition and cultivate allies. Burning Man organizers recognized that, among other issues, working with resource providers and governmental agencies required accountability and

timeliness. Thus, they could not extend decision-making rights over issues such as the budget and event's direction to everyone. Open Source projects were willing to create nonprofit foundations to make the most of their potential allies and diffuse potential threats, but they did so only on their terms, shunning undesired tasks and responsibilities that corporate partners tried to impose (e.g., O'Mahony and Bechky *forthcoming*).

Control Over Outputs. The ability of each community to control their outputs affected whether their organizing practices supported third party commercialization. Open Source projects had a legal advantage that the Burning Man community lacked. Without Open Source software licenses, firms could have sold open source software without properly attributing the community's work and worse yet, rendered further derivations of the community's code inaccessible. While the Open Source movement had created a certification mark to determine what types of software licenses could be considered 'open source', the Burning Man community did not have equivalent legal protection that prevented the misappropriation, misuse, or dilution of their output. Thus, members defended the Burning Man name and image from being used to sell products and services with claims that these actions subverted their community's mission. Given that commercial expropriation violated their output's distinctive features and principles, members constantly fended off efforts to commodify their event (Chen *forthcoming*). The ability to control their outputs allowed the Open Source community to welcome commercial diffusion of their work, while the Burning Man community, which had less control over their outputs, acted more defensively.

Contributions

When founding organizations, groups face intense pressures to adapt conventional forms and practices, which allow them to acquire legitimacy and resources (Meyer and Rowan 1977; DiMaggio and Powell 1983; Fligstein 1990; Scott 1995, 1998). The more dependent organizations are on others for needed resources, the more likely they are to comply with organizing conventions (Pfeffer and Salancik 1978; Mintz and Schwartz 1985). Even organizations with strong ideologies and beliefs can yield to environmental pressures by adopting practices that compromise their missions (Simons and Ingram 1997). Scholars have noted that organizations can undertake various strategic responses to such pressures (Oliver 1991), but few empirical micro-studies explore the conditions that allow organizations to create and sustain forms that deliberately vary from convention.

Our comparative field-based approach makes three contributions that further understanding of the conditions that lead to organizational differentiation and perhaps even innovation. First, we elaborate an alternative strategic response to institutional pressures first identified by Barman (2002) as an addition to Oliver's (1991) categories of acquiesce, compromise, avoid, defy, and manipulate. Building on Oliver and Barman's work, we define differentiation as a strategy whereby organizations adapt some elements of conventional forms to achieve acceptance or integration with conventional forms but do so in a manner that still signals their difference. Even though the Burning Man organization has a for-profit form, its primary purpose is not to pursue profits or engage in commercial activities. Even though Open Source projects adopted nonprofit forms, they welcome commercial collaboration and sale of their outputs.

Some have argued that the creation of a distinct form and identity is an attempt to create

competitive advantage over others (Swaminathan and Wade 2001; Barman 2002). Our research shows that differentiation can be critical even without the presence of direct competitors. We show that the use of reference groups is an important factor that helps members differentiate an organizational form. Rather than mindlessly replicating existing organizations, groups can use reference groups to craft a differentiated approach. Reference groups can affect how developing organizations make distinctions about what practices to *avoid* and thus are an important contributor to the creation of organizational novelty. However, we also show that even though groups may share the same values and organizing approach, they may not differentiate themselves in the same way. Different reference groups can lead groups to recombine organizing forms and practices in unexpected ways.

Second, our differentiation argument incorporates a contingent factor, as we show how specific environmental conditions moderate communities' ability to differentiate their organizations and create a novel form. In the Burning Man and Open Source communities, the need for resources required managing opposition and collaboration; these relations in turn affected the available organizing choices. Thus, the desire to differentiate one's organization is not likely *on its own* to create organizational innovation. What is of interest is how the aim to differentiate interacts with environmental conditions, fostering the recombination of organizing practices in unexpected ways. Further theory building and testing can assess whether the conditions that we identified: 1) competition, 2) opposition, 3) resource dependence, and 4) control over outputs, can prompt organizational innovation in other settings.

Third, we pinpointed two critical boundaries that communities must establish when creating an organization: the boundary between individuals and the organization and the

boundary between organization and the market. We elaborate the specific organizing practices associated with each boundary in our research contexts. These analyses help explain how community forms, which operate in the grey area between markets and hierarchies (Powell 1990; Adler 2001; Adler and Heckscher 2006), can create structures that can enhance their survival and ability to maintain their unique mode of production. Despite considerable pressures to conform, both communities have been able to resist market pressures and sustain their communal forms for over a decade. We suspect that the practices each community took to reinforce the boundary between their organizations and the market has played a role in their relative success.

The boundary between the organization and the market may be less important for groups, such as small voluntary associations, that can evade relations with the market. But, for groups that have heavy media coverage and commercial exposure, this boundary appears to be critical to preserving a community's distinctive mission and values. By articulating these constructs, we aim to further more comparative work on how other organizations with similar missions construct organizational boundaries (e.g., Lamont and Molnar 2002). For example, the need to establish the organization's boundary with the market appears to have relevance for both for-profits and nonprofits. Further research on how groups select and recombine organizing practices that were typically associated with either nonprofit or for-profit sectors may uncover the factors involved with organizational innovation.

Some might argue that our two communities shared unusual missions that are less prevalent across a broad spectrum of organizations. However, it is important to understand how communities at the "fringe" of society (e.g., Weick 1974; Schneiberg and Clemens 2006) organize, as such sources of organizational diversity enlarge the range of organizing models

applicable to social problems (DiMaggio and Anheier 1990; Rao 1998). Without comparative in-depth studies of this nature, it would be easy to overlook the types and sources of variation that are present when organizations form. A comparative approach allows for deeper examination of the conditions that can foster organizational innovation, generating diversity rather than conformity.

Table 1: Comparisons Between Two Field Settings

Founding Commonalities		
	Burning Man Community	Open Source Community
Mission: enable self expression	Develop and support an annual event that emphasizes the arts, expression, and participation	Develop software in a public and collective way and produce software that is freely available and modifiable
Membership: enhance participation	Anyone can participate, predominantly volunteer with a small salaried staff	Anyone can participate, volunteer and sponsored contributors
Approach to creating an organization: differentiation	Distinguish themselves from those dominant in the art world and experiences: Nonprofit art organizations, commercial producers of events, theme parks, and destinations	Distinguish themselves from those dominant in software production: For-profit, proprietary software firms
Differences in Environmental Conditions		
Degree of competition with organizations producing similar output	Low	High
Nature of Opposition	Wide variety of opposition, but not well organized	Narrow but intense opposition, highly organized
Dependence on outsiders for resources	High	Low
Ability to control outputs	Low	High

Table 2: Descriptions of Organizations Formed

	Burning Man Community	Open Source Community Projects			
		Linux Distribution	Webserver Project	Linux Standard Project	GUI Desktop Project
Mission/Goal	Develop and support a community's annual event that emphasizes the arts, expression, and participation	Develop a free non-commercial operating system	Create a commercial grade freely available webserver	Develop and promote standards to increase compatibility among Linux distributions	Build a free and easy to use desktop environment for Linux
Date Founded	Summer solstice, 1986	August, 1993	February, 1995	June, 1995	August, 1997
Date Incorporated	1997	June, 1997	June 1999	May, 2000	August, 2000
Type of Organizing Form	Limited Liability Company (LLC)	501(c)(3)	501(c)(3)	501(c)(6)	501(c)(3)
Companies as Members	No	No	No	Yes	No

Table 3: Variance in Organizational Forms and Practices Selected

Organizational Form or Practice Selected	Burning Man Community	Open Source Community
<i>Decisions Affecting the Individual-Organization Boundary</i>		
Legal form chosen	For-profit LLC with nonprofit arm	Nonprofit
Thresholds for member entry and advancement	Low	High
Member representation in decision making	Moderate	High
Member representation in formal governance	No	Yes
<i>Decisions Affecting the Organization-Market Boundary</i>		
Legal form chosen	For-profit LLC with nonprofit arm	Nonprofit
Collection of revenue	Yes	No
Commercialization of output by third parties	No	Yes

Note: Practices associated with for-profit forms/organizing templates are shaded.

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