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Sustaining the flow of external ideas: Community management practices and social identity in firm-hosted online communities

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Abstract

Firm-hosted online communities are increasingly a part of innovation efforts which seek to increase the flow of external ideas into the organization. As a community grows financial or intrinsic incentives might not be enough to sustain engagement, and while some firm-hosted communities have been very successful, many languish. One possible but under-researched driver of sustained engagement in successful communities is the generation of positive social identity that makes community members feel part of the firm. We sought to empirically derive the practices firms can use to encourage positive social identity and thereby increase the flow of external ideas to the firm. We completed extensive field work and over ninety interviews regarding two firms that have sustained engagement with firm-hosted online communities over many years: T-shirt firm Threadless and automotive firm Local Motors. We identified eight practices that fostered positive joint firm-community identity. Our research contributes to innovation theory by empirically deriving specific firm-level practices that support community engagement. We describe how firm-hosted online communities can serve as one component of a firm?s portfolio of innovation approaches, in which social identity practices can help to increase the flow of external ideas.

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Firm-hosted online communities are increasingly a part of innovation efforts which seek to increase the flow of external ideas into the organization. As a community grows financial or intrinsic incentives might not be enough to sustain engagement, and while some firm-hosted communities have been very successful, many languish. One possible but under-researched driver of sustained engagement in successful communities is the generation of positive social identity that makes community members feel part of the firm. We sought to empirically derive the practices firms can use to encourage positive social identity and thereby increase the flow of external ideas to the firm. We completed extensive field work and over ninety interviews regarding two firms that have sustained engagement with firm-hosted online communities over many years: T-shirt firm Threadless and automotive firm Local Motors. We identified eight practices that fostered positive joint firm-community identity. Our research contributes to innovation theory by empirically deriving specific firm-level practices that support community engagement. We describe how firm-hosted online communities can serve as one component of a firm's portfolio of innovation approaches, in which social identity practices can help to increase the flow of external ideas.

Introduction

Firms have increasingly relied on distributed innovation models to help them in generating new ideas, often involving members from the wider public through online communities (Dahan and Hauser, 2002). Research has shown that such members can outperform the ideas generated by internal R&D (Kristensson et al., 2004, Poetz and Schreier, 2012). Firms have used different approaches for involving the public. Some firms use third-party online idea platforms through which individuals can submit their ideas and compete as part of an innovation contest that serves as a form of broadcast search (Jeppesen and Lakhani, 2010, Nambisan, 2002, Verona et al., 2006) Other firms have created firm-hosted online communities in which contributors interact, learn from each other, collaborate (Jeppesen and Frederiksen, 2006), and possibly also compete for prizes (Bullinger et al., 2010). Firms can then draw on these online communities for their innovation process as part of their flow of both internal and external ideas.

One of the central challenges that firms face is to ensure a consistent inflow of contributions from the community (Bayus, 2012). Indeed, many online communities do not gain traction and are unable to be sustained (Iriberri and Leroy, 2009). Over the years of studying online communities in various forms, there has emerged an understanding of a range of motivations why individuals might participate as a member of an online community (Jeppesen and Frederiksen, 2006, Lakhani and von Hippel, 2003, Shah, 2006, Wiertz and de Ruyter, 2007). At the most basic level, there may be extrinsic monetary rewards, as in the case of community-based innovation contests (Boudreau and Lakhani, 2009, Bullinger, Neyer, Rass and Moeslein, 2010). However, it is unlikely that monetary rewards are sufficient to sustain long-term involvement in communities devoted to innovation, especially as the chances for monetary rewards per participant decline as the community grows (Terwiesch and Xu, 2008).

In the absence of strong monetary incentives, one factor that has been theorized to be particularly helpful in engaging members of online communities over time is member identification with the firm (Nambisan and Baron, 2009). Using the lens of social identity, initial studies have suggested that individuals that feel a higher level of identification with the firm are more likely to sustain engagement with the firm. While the role of identification has been explored initially from either a firm or community standpoint (Nambisan and Baron, 2010), prior work in this area is limited, and we know little about the specific practices firms may carry out to build positive social identity between the community and firm.

We were given unusually open access to two firms who have managed to sustain engagement with online communities successfully over several years. At the time of our study, the Chicago-based T-shirt firm Threadless had sustained an online community for their designs for over twelve years. The Phoenix-based automotive firm Local Motors had developed several car models with an online community over the course of five years. We used social identity theory to understand the role of creating positive joint firm-community identity. Evidence indicated that community members felt part of the firm and held very positive views of the firm, leading to sustained engagement. Based on interviews with firm and community members, observations, and archival data, we were able to identify the practices that lead to creating positive joint firm-community identity and how this fits with the three main elements of social identity.

Engagement of firm-hosted online communities for innovation

Previous research on firm-hosted online communities has often investigated why community members contribute. Jeppesen and Frederiksen (2006) looked at Swedish computer-controlled music instrument company Propellerhead and found that members were mainly motivated to innovate not by peer recognition but rather by firm recognition. Further

research established that it is not the individuals' loyalty to a specific brand but their interest in the creative process that motivates community members to participate (Füller et al., 2008). and their willingness to interact online (Wiertz and de Ruyter, 2007). Overall, community members have been found to value learning, fun and interaction when contributing to firm-hosted communities (Nambisan and Baron, 2009); if they feel an "innovation partnership", fostered in part through social identity, they are more willing to contribute to the firm (Nambisan and Baron, 2010).

While we have substantial evidence on what motivates community members in broad terms, we know empirically little about what firms can do to engage a community. There is growing support that firms that host online communities can have very different effects based on their specific activities. One particularly well-designed study looked in some detail at the different ways in which participants in online communities may be encouraged to participate in firm-sponsored efforts at innovation. Porter and Donthu (2008) conducted a survey of over 600 members of online communities and their perception of how they were treated by the hosting firm. In this large sample, the perceived effort by the firm to provide quality content and to provide opportunities for members to feel embedded in the firms' efforts were directly related to measures of shared values, respect, and trust, ultimately supporting a willingness to cooperate in innovation efforts. This study is one of a few (Dahlander and Piezunka, 2012, Nambisan and Baron, 2010) that has highlighted that perceptions of a firm by community members can matter to foster engagement. The design of this type of study, however, has focused on clusters of measures rather than the specific practices of firms. In summary, there is much research that demonstrates that a range of motivations are helpful for fostering engagement in online communities.

Social identity theory

If individuals have a social identity aligned with an organization, they are more likely to follow the organization's norms (Terry and Hogg, 1996) and will increase effort on behalf of the group (Hogg, 2006). Research shows that if individuals identify strongly with the organization, they work harder than on their own (Fielding and Hogg, 2000). Individuals that identify with a particular organisation are less likely to leave that organisation (Abrams and Hogg, 1998).

For firms to create social identity and engagement they must address the three components of social identity: self-categorization, status judgement of the organization and emotional involvement (Ellemers, Kortekaas and Ouwerkerk, 1999). To address self-characterization, managers may aim to communicate and create a sense of shared identity to engage individuals to carry out particular activities (Ellemers et al., 2004). "Insights from social identity theory to issues of leadership emphasises the point that the secret of successful leadership lies in the capacity of the leader to induce followers to perceive him or her as the embodiment of a positive social identity that they have in common and that distinguishes them from others" (Ellemers, Gilder and Haslam, 2004, p.469). Taken into the realm of firms engaging with communities, a firm can better engage a hosted community if it is able to convince the community that they have a shared social identity with the same objectives and view of the world (Hogg, 2006).

Self-esteem also contributes to social identity, as membership can be a factor in reinforcing self-esteem (Hogg and Turner, 1985). In order to create social identity, individuals need to perceive the organisation as being high-status or high reputation organisation. For instance, organisational status is related to organisational identification among US college students (Ashforth and Mael, 1989). Individuals will engage more highly with an organisation if they feel that through their membership their self-worth is increased (Tyler, 2001).

Whilst we have shown that firms may create social-identity for individual employees and thereby induce engagement toward shared goals, little research has examined how a firm can deal with the challenge of creating positive social identity for individuals beyond its boundaries in a firm-hosted online community. Though some studies have considered the social identity of the firm and the community separately (Nambisan and Baron, 2010) we believe social identity theory can provide a perspective that is appropriate for exploring a joint firm-community identity. Our study was designed to specifically understand what firms practices help to build positive social identity among members of firm-hosted online communities. We deliberately wanted to look at both firm and member perspectives in understanding what practices were used by firms.

Research method

We secured access to two firms that sustained experience in engaging firm-hosted online communities for a flow of new product ideas. Chicago-based T-shirt firm Threadless had over the past twelve years created thousands of T-shirt designs. Phoenix-based automotive firm Local Motors had developed several different car models with its online community over the course of five years. Securing and conducting field research with these firms enabled us to observe community engagement in as pure as possible form. Nevertheless the underlying practices identified have relevance for firms that have a firm-hosted community as just one element of their innovation strategy.

Research setting

Threadless was founded in 2000 by Jake Nickel, a college student who at the time was a member of an online artist community. Having seen how much fun it was to create T-shirt designs and compete to get designs printed, he set up Threadless in order to sponsor contests

on a regular basis. Threadless ran an on-going contest to which anybody can submit designs that they believe would look good on a shirt. In addition, there were topical contests "Threadless loves challenges" that ask for designs on a specific topic and are often used for collaborations with partners like Disney. The designs are submitted on a mock-up shirt as well as in a format that minimizes the effort needed to subsequently print the design on a shirt. At the time of our study, Threadless community members could vote on more than 1000 designs every week that were submitted by community members, with five new T-shirt designs printed each week. Furthermore, Threadless had continuously received more than a five hundred submissions every week for more than five years. Several hundred members would vote on each design and community members typically received 10 to 20 comments by other community members on their design.

Local Motors was founded in 2007 by business school graduate John B. ("Jay") Rogers. He started the firm to develop and build the first "open source vehicle", and by 2009 the firm in partnership with its community had created the first prototype car, the Rallyfighter. The community was created as a place where designers and engineers could showcase and get feedback for their ideas. At the time of the study the firm had also developed car concepts for the US Department of Defence, Shell, the US truck manufacturer Peterbilt, BMW as well as US pizza delivery company Domino's. Over 15,000 members were registered in the Local Motors online community, called Local Forge. They had the ability not only to compete in the contests run by Local Motors, but also to start and develop their own projects. The contests mainly focused on car design and ideas for car concepts, such as how to create the 'ultimate pizza delivery vehicle'. In 2011 Local Motors aimed to broaden its community to also include engineers and car enthusiasts that like to work on their own cars. In line with that engineering focused contests were added. Local Motors is known to car

designers and has become more widely known through its involvement with major firms like Domino's and BMW.

Data collection and analysis

We were given unusually open access to these firms. Multiple sources of data were collected, as outlined in Table 1. Interviews were conducted at both firms with employees that were directly or indirectly involved with the community and with members from top management teams.

- INSERT TABLE 1 HERE -

Community members to interview were selected based on their activity level in the community. They were either identified via their profile that showed level of activity or through suggestions by the company. As we show in Table 2, active members made most of the contributions to the firms' innovation process, both in quality and number. In this table, we provide a snapshot of all members that joined Threadless in 2009 and subsequently contributed designs. As is evident, there is clear difference between core members (those with above-average postings on blogs) and peripheral members (those with average or below average posting activity). Core members, those that were more active on the blogs, as a group made seven times more design submissions per person, and 88% of the participants that successfully contributed to Threadless came from this group. In contrast, in interviews with peripheral members of the community it was clear they had little experience with the firm and as such little to say about practices related to the community.

-- INSERT TABLE 2 HERE –

All of the interviews were transcribed, resulting in 1400 pages of verbatim transcription. For triangulation this data was complemented by internal documents as well as forum and blog data (Maylor and Blackmon, 2005). All data was analysed using NVivo 9 (Bazeley, 2007). Initially both cases were analysed individually by the first author through established practices (Eisenhardt, 1989). Elements of how the firms worked with the community and their effects were open coded (Saldaña, 2009). During this phase, the concept that community members felt part of the firm emerged from the data and led to the adoption of a social identity theory perspective. In a second phase, the first author identified themes of firm activities and combined these into meaningful higher-order practices such that those activities that were regularly undertaken by the firms were kept (Miles and Huberman, 1994). Practices reflect a recurrent activity that is carried out by one or several employees of the firm. This analysis was followed by a cross case comparison of practices and their effects on the community (Eisenhardt, 1989). The second author checked the identified themes and derived practices. Overall, we identified eight practices that were common across the two cases and had a direct impact on building positive joint firm-community identity. Table 3 provides examples of the data as well as the first-level themes that were used for identifying the eight practices.

-- INSERT TABLE 3 HERE --

Results: Creating positive social identity

In the following sections we demonstrate how firms were able to create and maintain a positive joint firm-community social identity that essentially made community members feel part of the firm. We first present evidence of positive joint firm-community identity as

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well as evidence of increased engagement. We then focus on the empirically derived eight

practices firms employed to create joint social identity. Figure 1 summarizes the overall

model resulting from our research, which we will motivate in the following sections.

- Insert figure 1 about here -

Positive joint firm-community identity

For both cases, we saw evidence that community members developed a positive social

identity making them identify as members of the firms. Both firms were successful in

creating a social identity that spans the firm and community, as is outlined in Table 2. We

see evidence of this in several ways. Firstly, many of the community members refer to

themselves as firm members. For instance, an active community member on the Local

Motors online community described his experience of developing vehicles with the firm-

hosted community. He felt proud of being 'part of the company' even as a community

member and he related his involvement as such:

> "And I am going to be a part of the company, where we are kind-of design and
> physically make these [cars]…Some of us just started to do it as a hobby, it is not like
> you get to do that all the time. So it is extra special" (Local Motors community
> member).

- Insert table 4 about here –

Similarly, community members emphasized how they felt valued and respected by the

firms. They described the closeness with the firms and how they felt the companies cared

about them and felt like the same kind of people, even like friends. As one community

member at Threadless related, "It's almost like, I don't know what it's there, but you get the

feeling everybody is just the same as you, and you are just one of them-you know what I

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mean? Kind of almost feel like they were your friends, although that's their job. It's

strange!"

All this evidence suggests that community members have a positive social identity

that makes them feel part of the firm and emotionally involved with it.   Such a positive

social identity will lead to engagement of community members for the firm (Tyler, 2001).

Indeed the interviews with community members provide evidence of this effect:

> "If Local Motors called me up today and said, we can't pay you for this. But could
> you go to the next county over, there is a manufacturers' meeting, there is a car show
> there. Could you go over there and represent us for the whole day. We not going to
> give you a cent for it, but if you could go over there we would appreciate it! I would
> do it because I feel so much a part of the company" (Local Motors community
> member).

Table 4 provides evidence for both cases on the positive joint firm community

identity.

As community members felt part of the firm, they could become active in promoting

new innovation directions. For example, in 2011 at Local Motors a community member

posted the idea for the tandem project, a vehicle where the single passenger sits directly

behind the driver. Community members became excited, seeing it as a chance to develop a

Local Motors community vehicle they might own; for most members the first Local Motors

car, the Rallyfighter, was unaffordable. This resulted in the idea to create a kit that any

community member could use to build the Tandem vehicle for about $10,000. Due to their

close relation with the firm, community members were able to express this proposed

innovation to community managers and top management. Top management at Local Motors

indeed decided to take on this project and provide resources to create a development project

in which the community and the firm would develop this concept car. Over the next nine

months Local Motors and the community worked on the project. In autumn 2012 the first

Tandem vehicle was presented by Local Motors at the SEMA Automotive show in Las Vegas.

Practices for creating positive joint firm-community identity

Social identity is an individual state. Each individual decides what groups he is part of and how he feels about these groups (Hogg, 2006). Consequently, social identity can only be influenced on an individual level (Ellemers, Gilder and Haslam, 2004). The firm practices we present affect the individuals' perception of and feelings towards the firm. Figure 2 summarizes the way the firm-community identity is created. New community members join the community already with a social identity. With their original social identity [level 1 in the illustration] they might feel part of their university or company, for example. If the new member is active in the community, such as through participation in blogs, he starts feeling as part of the community [level 2]. Being active in the community, the new member notices and experiences the eight firm practices we describe below, which will establish that the firm is open to the community, supports the community, and values its members. As a result, the member no longer only feels part of the community, but the member may start to hold a positive view of the firm and feel part of it, creating a joint firm-community identity [level 3]. As previous research has shown, positive social identity leads to increased willingness to contribute to an organization (Fielding and Hogg, 2000) . Similarly, community members feeling joint identity with the firm are more likely to contribute to the firm.

Insert figure 2 about here –

Two sets of firm practices create the joint firm-community identity. The first set of practices are what we call 'porous boundary' practices: those that make community members

feel part of the firm. The second set of 'community support' practices emphasise how much the firm values community members and their contributions. The eight practices across these two sets are summarized in Table 5 and will be discussed in turn.

-   Insert table 5 about here –

Porous boundary practices. The minimum condition for creating a joint firm-community identity is self-categorization: community members must feel there is a porous or blurred boundary between community and the firm, and that they can identify as being part of the firm. The following four practices support the feeling of porous boundaries.

First, in both cases there was an 'open house' policy. For instance, when Local Motors built the first prototype of the Rallyfighter, they broadcast the process via webcam to their community. Another example of the 'open house' policy was the use of staff blogs in which they shared fun things that went on inside the firm. As a typical example, one of the Threadless staff members who was also a very talented artist created a blog post in which he drew caricatures of key employees of the company with an explanation of what these different people are doing. He explained: "I did it just because before I started working here, I would always be like, 'I wonder what he does here?, like: 'Who is that person?' I feel a lot of the community felt always like this, so I was, like, maybe I will draw them and then explain what they do, real quick."

A second important 'porous boundary' practice was that both firms actively hired from the community. Many of the employees who either had community management positions or positions related to design came from the community. As a result, community members recognized that there were many of the same type of people inside the firm as they were, which is an important step in developing a joint identity (Ellemers, Gilder and Haslam,

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2004). One of the most successful designers, now a Threadless employee, related that the

community members' view was that "They love that we are working [inside the firm, and

that] this is legit'!"

Indeed many community members aspired to work for the firms:

"They have a company that would be extremely fun to work for, very laid back
people, and they're young, you know. They're our age. […] You know if they were
just bringing in ringers all the time who had never gone through the community at all,
then I think that the authenticity or the experience would be diminished…".

As a third important practice, we found that in both companies a large share of the

employees were active in the community. We noted employees from across departments—

not only those on a community management team—were regularly contributing to blogs and

forums. Both firms actively encouraged employees to spend time in the community during

their working hours.   A summary of some evidence is given in Table 3.

The maintenance of friendships was the final practice that helped to promote the

feeling of porous boundaries, as we also highlight in Table 3. Both firms regularly held

meet-ups, where community members mixed with employees. Observing these meetings it

was hard for the researchers at times to tell who was an employee and who was a community

member. They knew each other by name; they played games together and then later went out

to clubs and party together.   We heard accounts of employees going on vacation together

with community members and staying at community members' houses when they go abroad.

All of the above practices that lead to multiple interactions, relations and exchange of

information between employees and community members contributed to the self-

categorization of community members as part of the firm, making the boundary between firm

and community porous. In figure 1 we illustrate the main effects of these first four practices.

Community support practices. Community support practices were those that we found helped turn what could be a neutral social identity into a positive social identity. The first practice of this type was in promoting community members externally, as we illustrate in Table 3 and with examples that follow. At Threadless, our interviews pointed to how the firm would try to promote the most successful designers, those they referred to internally as 'artistes'. For example, a top manger related that, "…the fundamental way Threadless works [is] how it's just about promoting individuals' artwork". Promotion took place in different forms. For example, each Local Motors vehicle was being delivered with the badge that carries the name of its designer. T-shirts produced by Threadless had the small Threadless label paired with a larger label featuring the name of the designer.

A second practice that was common across the two cases was that the firms invested in community members' projects that had no direct impact on the main business. We highlight some examples in Table 3. For instance, at Threadless community members could run their own challenges. Typically one community member came up with the theme, such as "make a design using only three colours." The purpose of such a challenge was the opportunity for community members to improve their design skills. In many cases, the company then became involved, such as supporting a prize for the best designs.

A third important practice was being responsive to the community. Both companies had built up a community department focused on working with the community, and we observed that if they sensed new wishes or dissatisfaction in the communities, they typically reacted quickly. A community manager at Threadless said that the role was that, "I mean we have whole department dedicated just for this; it is not just marketing, it's interacting with the community really. We are the lifeline." This effort appeared appreciated by community members who sometimes expressed surprise at the response. In both firms the founders were still active community members, even after many years. They blogged on a regular basis,

communicated with community members, and commented on submitted designs and ideas. As Jake Nickell, the founder of Threadless mentioned, "I go to the forums myself and comment a lot, and even though there is not an issue I'll get involved sometimes".

Overall, all the practices we have described above help the firm to convey a sense that they support the well-being of the community and its members. Community members reported feeling valued and respected and held a positive view of the firms. As a result, members developed positive joint firm-community identity, leading to continuous contributions to the firm.

Sustaining joint firm-community identity

The joint firm community identity is based on the fact that community members feel valued by the firm and believe that their interests and values are aligned with the firm. The practices shown above work well in creating and sustaining the joint firm community identity of members if the firm and the community are stable. For instance, if the firm does not change its business model these practices will ensure that community members feel part of the firm. Nevertheless, if the firm changes its strategy these practices become even more critical. In these situations, it is important to maintain the openness of porous boundaries to the community to make them feel part of the change and show through the community support practices that after the change community members will still be valued by the firm. Otherwise there is the risk that community members do not understand the change or even interpret it as going against the community. As a result, they might no longer feel part of the firm.

To avoid this and maintain the joint-firm community identity, the firms employ the practices to maintain the identity. During our research both companies made changes to their strategy in order to further grow their business. Local Motors whilst originally being focused

on car design, started to increasingly work with engineers. As a result, it launched a new web platform and support tools such as a CAD software tool geared towards the needs of engineers. Threadless started to develop lines of T-shirts that would be exclusively sold through Gap stores across the United States. This was a major change to their business model, as for the first time community members were no longer designing for Threadless, but for another retailer, that to a lot of community members stood for old established unresponsive corporations that they did not like. Nevertheless, the two companies handled the change differently. Whilst Threadless employed the practices consistently, Local Motors struggled for some time affecting the community's engagement.

Threadless involved the community in the decision process from the start in line with the 'open house policy'. Before Threadless started to talk to retailers Jake the chief community officer and founder of Threadless involved the community on the forum. He wrote a blog post and asked the community what they would think if Threadless' products would be sold through other retailers. Furthermore, he asked them what retailers the community members were happy to see their products in. Community members suggested that they would not like to see their products in Target (a lower market US retailer of household goods, clothes, and groceries), but were happy to see them in other clothing retailer like Gap. In line with the 'responding to community wishes' Threadless took their opinion on board. At the same time, the fact that not just 'some' employee wants to hear their opinion, but 'top management involvement' is used for this, makes members feel valued and they appreciated their role in decision making:

> "Jack will often like post a blog in the community. And he'll ask for help. He'll ask for opinions, right? Um, he's done that really recently wear it, where, he'll just, like with his partnership, his partnership with the Gap. Like he posts about that. And he explains why he's doing it and why he thought it was a good thing. And you know what? They take the feedback seriously" (Threadless community member).

In contrast, Local Motors needed a lot of its resources for the redesign of their community platform. As a result of this demanding project, the community engagement practices particularly with regards to openness and responding to the community were not carried out as before. Local Motors made its decision about the redesign of the community platform and about including more functionality for engineers mainly internally without involving the current design community in the process or communicating the benefits widely to the community. "They should have told us more!" community members complained about this lack of 'open house policy'. Design community members felt alienated. They were unsure whether given all the changes for engineers designers were still wanted by the firm. "I tried to explain to some of these other members: It's not that it's an engineering based site, it's just geared towards engineers being able to have a say" (Local Motors community members).

Whilst the perception of the lack of openness and responding to community wishes, challenged the community members' joint-firm identity, other practices helped the company to recover the community eventually. The 'community involvement across the firm', 'hiring from the community' and 'friendships with community members' had previously established a strong bond with employees such as the community managers and the community members. Using these relations, Local Motors was subsequently able to explain the changes to the design community and also incorporate more of their wishes. Local Motors signalled through big design contests that the community still was very much about automotive design and designer community members a valued part of the firm. Many designers came back to the community.

Discussion and conclusion

Our first contribution is to use social identity theory to better understand the relations between firms and innovation communities; in doing so, we answer a recent call for further research in understanding the interactions at the boundary between firms and communities (O'Mahony and Lakhani, 2011). While prior research has established that shared social identity is important in driving an individual's engagement with organizations in which they are formal members (Ellemers, Gilder and Haslam, 2004, Tyler, 2001, Tyler and Blader, 2000), we inductively extend such research to show how social identity can be formed between firms and communities. While a prior focus has been on how social identity might act on either communities or firms (Nambisan and Baron, 2010), we demonstrated how a joint social identity can be formed.

Secondly, we extend past efforts that looked at broad motivations for participation in communities (Porter and Donthu, 2008) to develop eight specific firm-level practices that can create and sustain positive social identity between firms and communities. Firms can ensure that they are best positioned to sustain a flow of ideas from members of communities when they attend to the practices we inductively derived, breaking down perceived barriers between the firm and the community. This work addresses the specific practices of an "innovation partnership" that Nambisan and Baron (2010) have described as important for fostering links between firms and communities.

Thirdly, in contrast to previous research on user communities (Jeppesen and Frederiksen, 2006, Nambisan and Baron, 2009, Nambisan and Baron, 2010), we have examined how firms can engage firm-hosted innovation communities that are specifically established for generating and sharing ideas. Innovation in user communities is often a by-product of lead users trying to satisfy their needs through product modifications or extensions (Franke and Shah, 2003, Hienerth and Lettl, 2011, Schreier and Prügl, 2008). The communities we looked at were not user communities, but communities dedicated to the

creation of innovation for Threadless and Local Motors. The community members we interviewed were not lead-users: They did not innovate because they had a need for the product, such as being dissatisfied with current T-Shirts designs or with their current car. They innovated because they were creative people that loved to create designs or cars (Füller, Matzler and Hoppe, 2008). Our research suggests that for these innovation community members, feeling part of the firm is an important motivator as it also makes them more integral with the innovation activity for which they joined the community in the first place.

Our fourth main contribution is that we help differentiate what may be expected between different types of external sources of ideas. We looked at firms that rely wholly on a flow of external ideas, but most firms will use user-hosted online communities as just one approach within a portfolio of internal and external innovation options, such as Dell's use of a firm-hosted community for sourcing external ideas while maintaining an active internal R&D organization (Bayus, 2013). As a further example, a consumer goods company might adopt a portfolio of three internal and external innovation methods. First, internal R&D might focus on the development of formulations for new washing powder. Second, the firm might use broadcast search, using a site like Innocentive (Jeppesen and Lakhani, 2010), to seek out new technical solutions to low-temperature washing that had been challenging to solve. And third, the firm might use a firm-hosted on-line community to ideate in the area of new packaging ideas for laundry products.

While joint firm-community identity could provide a constraint to firms, we described empirically how there were some new strategic initiatives that arose from the community and were catalysts for change, such as the Local Motors experience with the tandem car concept. Even though we expect on balance firm-hosted communities to provide more incremental innovations than broadcast search, there could be times during which communities advance change. Future research could look at how firms that are successful at creating positive joint

firm-community identity deal with major changes in strategic direction whether initiated by firms or communities.

In supporting the flow of external ideas into an organization, firm-hosted online communities can be one important component of a firm's portfolio of innovation efforts. While prior research has looked at the role of implicit and explicit incentives in fostering engagement by community members, it can be a struggle to reward communities appropriately over time and as they scale. Our investigation of two long-standing firm-hosted online communities allowed us to explore the under-researched role of social identity in promoting engagement. We were able to provide details on the firm-level practices that help to break down barriers between firm and community and which contributed to shaping members' self-identification, shared sense of mutual success, and emotional involvement. Positive joint social identity can help to engage members to contribute, allowing organizations to have increased and sustained access to what can be an important source of an external flow of ideas.

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Table 1: Data sources

	Threadless	Local Motors
Interviews	28 with employees 33 with community members	19 with employees 12 with community members
Example observational data	Employee town hall meeting Community team meetings Annual Threadless "family reunion"	Weekly stand up meeting Team leader & strategy meeting 4M community events
Example documents/ online data	Community dashboard International community analyses Internal voting website Staff blogs Threadless community forums	Community status presentation Strategy review presentation New community concept Staff blogs Local Motors community forums

Table 2: Comparing core and peripheral members: Threadless community members that started in 2009

	Average number of submissions to Threadless	Members of whom at least one design got printed by Threadless	Number of such members
"Core members" Above average community activity (more than 6 blogs initiated)	11.2	106	1677
"Peripheral members" Average or below-average community activity (less than 6 blogs initiated)	1.6	15	6642

Note: Only members that made at least one submission to the firm included; average was 5.2 blogs initiated

Table 3: Data analysis to derive community management practices

Observations/reported activities examples (max. 3 per case)	Identified theme	Practice
TL: Company tours for community members (obs.) TL: Providing work space to visiting community member (int.) TL: Family reunion (community) meeting organized and hosted at HQ (int./obs.) LM: Company/factory tours for community members (obs.) LM: Community members sitting in on a weekly staff meeting (obs.) LM: Monthly open house event at the factory	No secrets - community members welcome inside the firm	Open house policy
TL: Broadcasting visiting music band to community (obs.) TL: Sharing pranks in the company with community (obs.) TL: Video about employees' dogs playing at the office (blog.) LM: Webcasting built of first car (int.) LM: Sharing development progress of 2012 Rallyfighter (obs./blo.) LM: Drive video of first tandem car on test track (blo.)	Sharing 'daily life' inside the firm online	
TL: Discuss retailer involvement on the blogs (int./blo.) TL: Sharing Gap decision with community first (int./blo.) TL: Explaining change in cotton and shirt prices (int./blo.)	Discussing business decisions & explaining to community	
TL: Post jobs on the community blog (int.) LM: Email specific community members to invite applications (int.)	Searching inside community	Hiring from the community
TL: Signalling to look for a job in the firm to interested community members (int.) LM: Community manager discussing potential to employ member with CEO (obs.)	Efforts of placing members	
TL: Hiring programmer from the community (obs.) TL: Career from member to shop assistant to community manager (int.) TL: 'Superstar' designer hired from community (int.) LM: Intern program for community members that are students (obs.) LM: Community manager hired from the community (int.)	Hiring community members	
TL: Community feed constantly open on employees desktops (obs.) TL: Employees using lunch break to comment on designs (obs.) TL: Employee setting goals for himself how many designs to score (int.) LM: Production engineer creating blog post about own car project (obs./int./blo.) LM: Engineering intern posting his vehicle project on the community (obs.) LM: Inhouse designer redesigning sketch for community member (obs./int.)	Participation by employees in community	Community involvement across the firm
TL: Special staff label to mark comments by employees (obs./int.) LM: Badge on profile to show as employee (obs.)	Signalling employee activity to community	
TL: Special prize to recognize firm employees most active in the blogs (obs.) TL: Trial of dedicated time for employees to spend on the blogs (int.) TL: Internal update of what happened in the community (obs./int.) LM: CEO encouraged employees to participate during weekly staff meeting (obs.) LM: Prize for best employee community participation announced in meeting (obs.) LM: Introduction to community session for new employees (obs.)	Providing incentives & motivation for participation	
TL: Employee going on vacation with community members to Las Vegas (int.) TL: Employee staying at community members houses whilst travelling (int.) TL: Employees organising football match with community members (obs.) LM: Employees going to dinner with visiting members (obs.)	Spending time with community members outside work	Maintaining friendships with community members
TL: Employee hosting member visiting Chicago at his house (obs./int.) LM: Employee providing in-depth advice on life planning to member (obs.)	Going beyond employee duties to help members	

Cases: TL – Threadless; LM – Local Motors

Sources: Obs. – observation; int. – interview; blo. – blog

Observations/reported activities examples (max. 3 per case)	Identified theme	Practice
TL: Present only one new design per day to maximise attention (int./obs.) TL: Feature one successful member per month with a whole collection (int./obs.) LM: Introduce feature banner on website to show outstanding project (int./obs.)	Promote through own website	Promoting community members externally
TL: Name of community member on each shirt (obs./int.) LM: Badge with name of the designer on each vehicle (obs.)	Acknowledge community member on product	
TL: Make promotion of artists pre-condition of collaboration with partners (int.) TL: Profile displays of Threadless designers in Gap stores (obs.) LM: Give credit to designers in television interviews (obs.)	Promotion through external partners	
TL: Annual family reunion community meeting intiated by community, now financed and organized by Threadless team (int./obs.) TL: Sponsoring community initiated design challenges (int./obs./blo.) TL: Supporting members that visit celebrities with free products LM: Providing factory space, money and engineering resources to develop the concept of a tandem car (int./obs./blo.)	Providing resources for community members project ideas	Supporting community members projects
TL: Monitor community members' requests to identify trends and respond (int.) LM: Split day in shifts for community managers to watch community (int./obs.)	Following community trends	Responding to community wishes
TL: Enable collaboration of designers on the website after increased use (int./obs.) TL: Publish voting statistics only one day after community request (int.) TL: Create critique section as blogs were used for design critique (int.) LM: Introduce CAD tool to support work of engineering community (int.)	Fullfilling communitiy's wishes	
TL: Founder's role to ensure community perspective is reflected in decisions (int.) LM: CEO's 1st priority is supporting and developing community (int./obs.)	Community as management priority	Top management active in community
TL: Founder votes and comments on new designs (int./obs./blo.) TL: Founder conciliates conflicts between community members (int.) LM: CEO comments on community members submissions (int./obs.)	Community participation	
TL: Founder invites community members for BBQ to his house (int.) LM: CEO welcomes new members to the site (int./blo.) LM: CIO calls member to him with a problem with the site (obs.)	Showing appreciation for community	

Cases: TL – Threadless; LM – Local Motors

Sources: Obs. – observation; int. – interview; blo. – blog

Table 4: Evidence of positive joint firm-community identity & engagement by community members
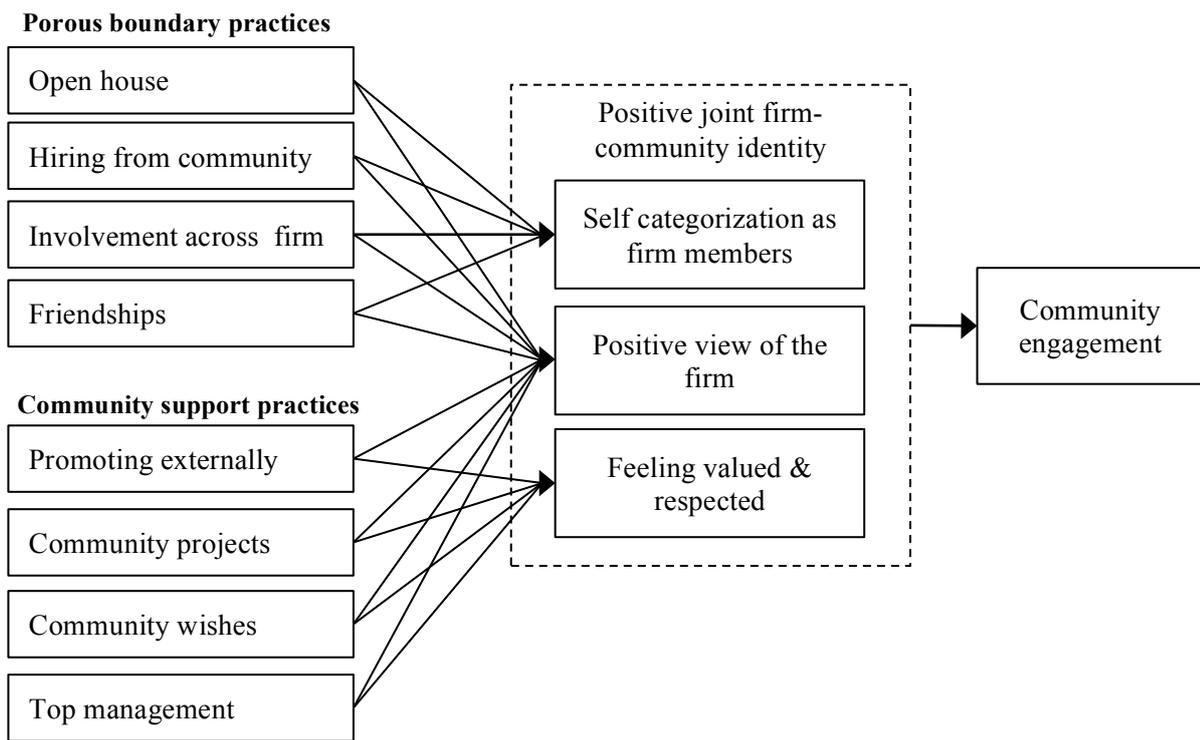
	Threadless		Local Motors	
	Firm employees	Community members	Firm employees	Community members
Self-categorization of community members as firm members	"The company is not just run by the employees, but really it is run by the whole community which includes the employees, but also includes all these people outside" (Top management)	"Before I was listed as an ambassador, I was a kind a goodwill ambassador with Threadless because I love the company and I love being a part of it"	"When I was just a community member, before I joined the firm as an employee, I felt a strong human connection to the firm because of the comments of the CEO and the personal emails I received from the manager"	"And I am going to be a part of the company where we are kind of design and physically make [cars] […]. Some of us just started to do it as a hobby, it is not like you get to do that all the time. So it is extra special"
Community members' positive view of the firm	"I worked with a lot of other companies and I never felt like I am working with someone that is an artist or a friend. Threadless always felt like these are my friends…" (Experience before hired)	"And they try to make it fun for people, and they're very ethical. They're a business and, successful. But at the same time, I trust, I trust them which is a big thing. 'Cause, a lot of places are kind of shady "	"You have to give more than you take in a certain way. If you are only running things that make people [community] feel that you are making money on their back, they will just go away"	"One of the big difference is that here is an online forum and interactive community that is not just hosted by a company but the company invest their time and their people…".
Community members being valued and respected by the firm	"We take serious input from the community about business decisions and strategic decisions that we make." (Top management)	"It was an incredible experience. And it just gave me this feeling, that I was really appreciated, you know."	"In January I stopped designing and disappeared from LM. I was gone for 2 months and [YYY] reached out: "Hey, what happened? Where are you?" That reach out from her was really: "Oh, I count for something? That is nice" (Experience before hired)	"I guess with all the competitions that I participated in, they pulled out all the stuff to make sure I got the recognition that I deserved even though I was under 18.
Engagement effects of social identity	"Like a few months where we were trying to get complete involvement [of Threadless employees], get them to score designs, get on blogs. It helps our business…"	"They're very interested in the artistes, they're very fun, they're young. They're our age. So I really love those people"	"So when I came on [joined as an employee], essentially I was getting paid to do what I would do on Saturday mornings and in the evenings and stuff."	"I mean they're always there 8 hours or always help me like through sketches and stuff. If I need any feedback they will help me. […]"

Table 5: Evidence of practices supporting positive joint firm-community identity

	Threadless case data	Local Motors case data
Porous boundary practices		
Open house policy	*Source:* Firm interview, community interview, observation & blog data *Example:* Every day community members dropped into the firm and got tours by employees. It was common for them to spend part of their day there and have lunch with staff. (Observation, September-October 2011)	*Source:* Firm interview, community interview, observation & blog data *Example:* During a weekly employee meeting the CEO encouraged all engineers to share the work that they were currently doing in updating the Rallyfighter for 2012 with the members of the community e.g. the new dashboard. (Observation, "Stand-up" employee meeting 24th November 2011)
Hiring from the community	*Source:* Firm interview, community interview, observation, internal documents *Example:* "Alex works there now, he is a very famous designer there, he still chats with everybody and he tries to strip away much of the bureaucracy of it and it is very much about the people to get awesome products and be a creative community". (Community member)	*Source:* Firm interview, community interview, observation *Example:* "Jay [CEO] or YYY contacted me and said: 'We are considering hiring a designer within our team'. They contacted specific designers from the community..". (Employee)
Community involvement across the firm	*Source:* Firm interview, community interview, observation & blog data *Example:* ""I really like how the staff there, they're very hands on. You know. You got a chance to speak to Jake. But it's like, it's really cool. I've never had an experience before where, you know, the staff that communicate with their members"". (Community member)	*Source:* Firm interview, community interview, observation & blog data *Example:* "I have got my own personal projects up there [the community] like my gear box up there, I have got stuff that I work on, some suspension type stuff that I designed. It is different engineering, design, fabrication kind of projects that I have put up there". (Employee)
Maintaining friendships with community members	*Source:* Firm interview, community interview, observation *Example:* "I don't know, we just become really good friends with a lot of people [community members]. I think I might be taking a trip out to LA with a group of them to spend a weekend at Disney Land.". (Employee)	*Source:* Firm interview, community interview, observation *Example:* A community member turns to a for community manager for advice on personal problems and career development. The manager takes a lot of time to help him in very personal emails. (Observation at LM headquarter, 15th March 2012)

Table 5: (Continued)

	Threadless case data	Local Motors case data
Community support practices		
Promoting community members externally	*Source: Firm interview, community interview, observation* *Example:* "When we first started there would always be like people asking like why don't you just focus on one artist like highlight someone and I mean finally it became true and I think there is so much more opportunity especially if you get featured. I think it's a huge deal for any artist". (Employee)	*Source: Firm interview, observation* *Example:* The CEO emphasized that taking on new projects with Shell, Peterbilt and Domino's would be great for the community to develop and showcase their skills to people beyond the community as well as receive recognition. (Observation, informal talk, 29th March 2012)
Supporting community members projects	*Source:* Firm interview, community interview & blog data *Example:* "More and more when people make use or make challenges and a lot of people participate, Threadless sees this and actually incorporates it into their newsletters and makes it more official". (Community member)	*Source:* Firm interview, observation *Example:* The CEO describes how the community got excited about the Tandem project, so he decided to go ahead and fund the project by sponsoring a donor car as well as having one of his engineers coordinate the effort. (Observation, informal talk, 13th October 2011)
Responding to community wishes	*Source:* Firm interview, community interview, observation *Example:* "I myself have experienced how they're kind, they're really are—they'll bend over backwards for people and they definitely…the do care about their community I think like any company.". (Community member)	*Source:* Firm interview, community interview, observation *Example:* "The guys at Local Motors are really willing to work with the community to improve the evolving systems so.". (Community member)
Top management active in community	*Source:* Firm interview, community interview, observation & blog data *Example:* "Well, the guys and even Jake [founder], I mean Jake is still at the top and he's - you see him making comments from time to time in the communities and even on the individual designs…". (Community member)	*Source:* Firm interview, community interview, observation & blog data *Example:* "I have a project called Bamboo so a car made of bamboo. So I made it, I published it there [Local Motors], I don't expect for good or bad comments. Comments came only from Jay [CEO], from [XXX] so from people who understand a bit about chassis". (Community member)

Porous boundary practices

Open house

Hiring from community

Involvement across firm

Friendships

Community support practices

Promoting externally

Community projects

Community wishes

Top management

Positive joint firm-community identity

Self categorization as firm members

Positive view of the firm

Feeling valued & respected

Community engagement

**Figure 1: Community management practices creating engagement
through positive joint firm-community identity**

1 Original social identity

2 Community identity

3 Firm-community identity

Firm

8 practices

Engagement
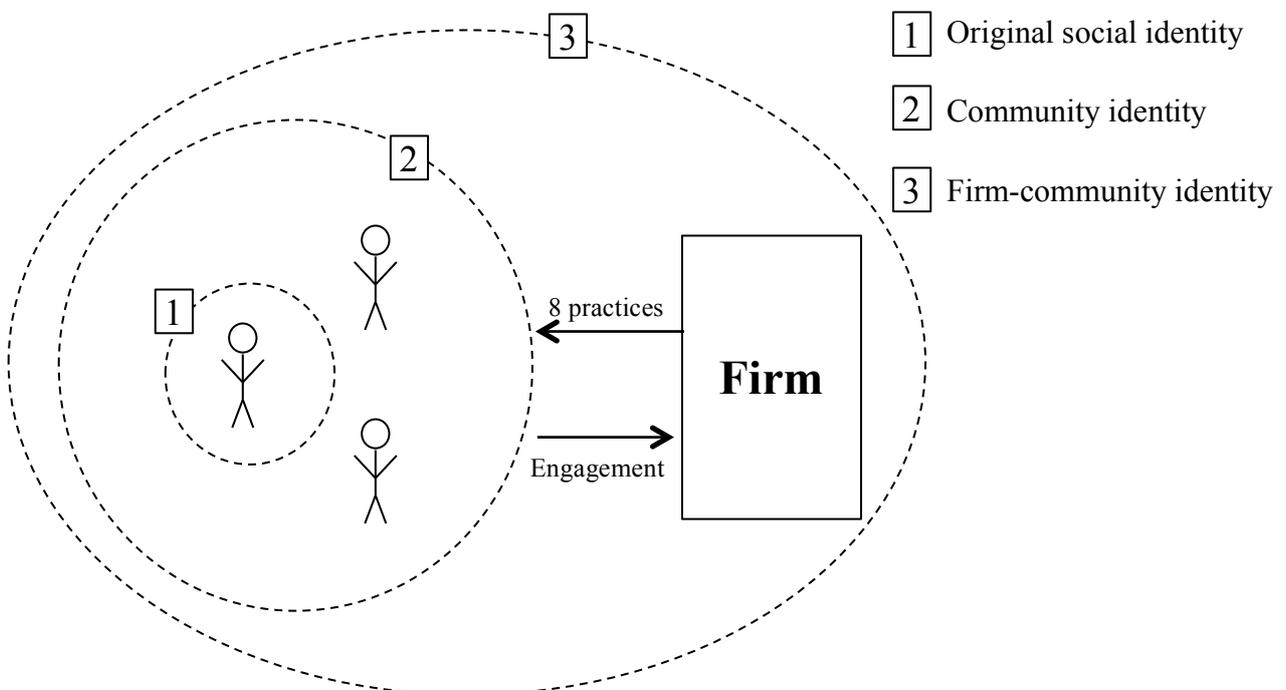
Figure 2: Levels of an individual's identity in firm-hosted communities