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through the cultivation of institutional infrastructure**

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**Platforms for the people:**

**Enabling civic crowdfunding through the cultivation of institutional infrastructure**

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## **Platforms for the people:**

### **Enabling civic crowdfunding through the cultivation of institutional infrastructure**

**Research summary:** Digital platforms offer a promising contemporary means for encouraging social innovation through cross-sector collaboration. Yet although such “social-mission platforms” are equipped to facilitate a high number of arms-length transactions, they are conversely ill-equipped to provide the necessary consensus which typically characterizes successful examples of cross-sector collaboration. Employing an in-depth archival case study of a civic crowdfunding platform, we surface a process model of social-mission platform creation, which exposes the dilemmas such platforms encounter as they attempt to navigate user growth, and the importance of institutional infrastructure for overcoming these dilemmas. These findings and our emergent model thus contribute new theory regarding the creation of digital platforms for enabling cross-sector collaboration and social innovation, while bridging the emerging body of research on platforms with institutional theory.

**Managerial summary:** Developing a digital platform for social good requires operators to maintain control over their mission as they grow, while working with actors from across sectors. While the economics of the platform may be clear, the social infrastructure to ensure effective and mission-aligned interaction between different segments of the platform needs to be developed. In our case study of a civic crowdfunding platform, we demonstrate how this platform strategically generates and promotes understandings of its boundaries, creates bridges between diverse stakeholders necessary for participation, and provides blueprints to shape and standardize platform interactions. We also discuss the potential susceptibility of social-mission platforms to experience mission drift as they grow, the existential threat that such drift poses in this context, and the ways that organizations might overcome this threat.

**Keywords:** *digital platforms, social-mission platforms, civic crowdfunding, social innovation, institutional infrastructure, cross-sector collaboration.*

## INTRODUCTION

As a mechanism and now successful organizational model, digital platforms operate within firms, supply chains, and industry eco-systems, generating, connecting, and coordinating business to consumer (B2C) and business to business (B2B) relations (Gawer, 2014; Cusumano, Gawer and Yoiffe, 2019). Their advantage relative to traditional modes of organizing new markets stems from their ability to harness competition and economies of scope in order to facilitate loosely-coupled transactions, thereby often eliminating the need for traditional market intermediaries (Boudreau and Hagiu, 2009; Eisenmann, Parker, and Van Alstyne, 2011). What these digital platforms have in common is their role in generating “eco-systems” of value creation (Adner and Kapoor, 2010; Gawer, 2009; Gawer, 2014; Gulati, Puranam, and Tushman, 2012; Jacobides, Cennamo, and Gawer, 2018). While this role often involves developing technological architectures for connecting existing supply and demand in new and very profitable ways (Gawer, 2009; McIntyre and Srivivisan, 2017), increasingly digital platforms are also being used to facilitate the cross-sector interactions necessary to address social and environmental problems.

These social-mission platforms (SMPs) are unique in that they provide technological architectures and governance standards that guide the loosely-coupled interactions of network users toward the remediation of social problems and the creation of shared value. One notable emerging use case of SMPs is that of civic crowdfunding—a model for opening up the process of problem and solution identification for community development, offering the promise of more efficient collaboration between private, public, and community sector stakeholders. As “platforms for the people”, civic crowdfunding may include funding the development of public assets such as public parks, playgrounds, bike tracks, and walkways, and also temporary public infrastructure and activities such as artistic and sporting events, seasonal lighting, and decorations (Davies, 2014; Stiver *et al.*, 2015). Yet for all of their promise as a potential vehicle for increasing the efficiency and accessibility of social

innovation, SMPs are also characterized by a number of challenges and dilemmas related to user growth and governance. Some of these challenges, such as generating network effects, are common to all platforms (Adner and Kapoor, 2010; Afuah, 2013); however, unlike most platforms which emphasize the identification of network participants with clearly intersecting agendas, SMPs' user growth often necessitates the involvement of cross-sectoral participants with divergent interests and agendas. Although the potential for cross-sector collaboration has long been understood to offer a profound opportunity for shared value creation (Porter and Kramer, 2011), divergent objectives can often encourage significant conflict (Fan and Zietsma, 2017). For example, microfinance platform Kiva was accused by a number of its existing supporters and lenders as straying from its perceived original mission of empowering entrepreneurs from developing economies. Such accusations arose when the organization announced that it would begin allowing entrepreneurs from more economically-developed countries to apply for financing through its platform (Ly and Mason, 2012; Mittelman and Osland, 2014). Similarly, public-private partnerships have been foundational to the success of the mobile money-transfer platform, M-PESA. Yet, as this platform has rapidly grown its number of users as well as its social impact within developing economies, it has also been the target of increased concerns from governments over the lack of oversight given to systematic money laundering and the growing dependencies of particular national economies on the platform's services (Donovan, 2012; Buku and Meredith, 2013). As these examples illustrate, user growth introduces potential challenges for SMPs, as the organizations look to allow for the market-driven evolution of the platform while also sustaining the perceived integrity of their mission standards. And while allowing deviance away from those standards might prove a nuisance and governance concern for firms more generally (Grimes, Williams and Zhao, 2018), it can present as an existential threat to SMPs (i.e., the integrity of an SMP's mission is often a sole differentiator). Thus, in settings characterized by an emphasis on social mission, the strength of digital platforms (i.e., their open and participatory infrastructure)

simultaneously serves as the potential basis for their demise.

Given such challenges to realizing the full promise of digital platforms as a vehicle for social innovation, we have a surprising lack of theorizing on how cross-sector work and growth is organized and governed in early stages of platform development. In seeking to address this gap, we draw on recent literature on institutional infrastructure (Greenwood *et al.*, 2011; Hinings, Logue and Zietsma, 2017; Zietsma, Groenewegen, Logue and Hinings, 2017) to explore the “cultural, structural and relational elements that generate the normative, cognitive and regulative forces that reinforce field governance,” (Hinings *et al.*, 2017:163), and so better understand governance of diverse yet interdependent sets of organizations (Logue, 2019; Scott, 2014; Zietsma *et al.*, 2017). In this study, we focus specifically on the cultivation of institutional infrastructure to address the user growth-related challenges that characterize early platform development. Specifically, we ask: *How do social-mission platforms generate the institutional infrastructure necessary for user growth and the committed pursuit of a social mission?*

Our findings, which are derived from a case study of one of the world’s foremost civic crowdfunding platforms, highlight the set of user growth-related dilemmas which ultimately threaten SMPs’ capacity to involve participants with sometimes conflicting visions for those platforms, while simultaneously upholding their own original social missions. Our findings also surface a process model of SMP creation, wherein we detail how the operators of such platforms can develop the institutional infrastructure necessary to overcome those dilemmas and successfully govern cross-sectoral platform activity. Specifically, we show the importance of developing institutional boundaries (i.e., cultural, structural and relational elements that encourage coherence within new markets), institutional bridges (i.e., cultural, structural and relational elements that enable diverse stakeholder participation within new markets), and institutional blueprints (i.e., cultural, structural and relational elements that shape how multiple stakeholders interact within new markets).

Overall, these findings extend the growing research on digital platforms and platform eco-systems, most notably by specifying the particular dilemmas and governance concerns of SMPs. Our emergent and recursive model also demonstrates the value of examining the development of digital platforms more generally through an institutional lens to better understand the socio-cultural dynamics, foundations, and effects of platform user growth. In doing so we also expand scholarly attention beyond the network structures and network effects of platforms, responding to calls to consider less well-understood dynamics of platforms such as boundaries, processes of evolution, and non-price instruments for regulating multi-sided platforms (Gawer, 2014; Boudreau and Hagiu, 2009; Hinings, Gegenhuber and Greenwood, 2018). Finally, our work extends strategic management scholarship focused on multi-sector and multi-institutional settings by highlighting how shared value across sectors might be achieved within settings which are characterized by arms-length transactions.

## **THE CHALLENGE OF ORGANIZING SOCIAL-MISSION PLATFORMS FOR CROSS-SECTOR INTERACTIONS**

SMPs often operate at the intersection of different sectors of society, wherein success requires participation from highly diverse actors across government, private firms, and the community. Prior studies illustrate that, in general, developing new cross-sector interactions promises significant opportunities for shared value creation and yet is fraught with challenge. In public-private partnerships and contracts (Austin, 2010; Galaskiewicz and Colman, 2006; O'Regan and Oster, 2000; Selsky and Parker, 2005) transaction costs and responsibilities are negotiated and distributed; however these temporary partnerships are also shown to have mixed success, with private sector investors often securing large profits to the detriment of longer-term social outcomes for the public good (Austin, 2010). In other situations, international associations may try to coordinate an overarching set of standards or code of conduct for a diverse set of actors (Hardy and Maguire, 2010; Helms, Oliver and Webb,

2012). However, these often take many years to achieve consensus, and are often difficult or impossible to enforce. In other examples of cross-field activity, actors themselves may agree to establish “boundary organizations” such as stewardship councils, coalitions, and joint advocacy groups to tightly align interests through contractual and disciplinary means (Fan and Zietsma, 2017; Maguire, Hardy and Lawrence, 2004; Medvetz, 2012; O’Mahony and Bechky, 2008). Yet often these arrangements also require emotional and cognitive convergence for bonding diverse actors together over a longer duration, especially when pursuing a social mission (Fan and Zietsma, 2017). Despite these various challenges, though, these studies argue for the value of tightly-coupled systems that operate across sectors, ensuring consensus and facilitating informationally-rich and ongoing inter-personal exchanges between participants.

### **The rise of social-mission platforms as loosely-coupled systems for coordinating cross-field interactions**

More recently, however, such tightly-coupled systems for cross-sector collaboration have been eschewed in favor of more loosely-coupled systems (Furnari, 2014), specifically via digital platforms. In loosely coupled arrangements, formal consensus or contractual agreement may not be reached, as participants may not know each other deeply or interact regularly or formally (Orton and Weick, 1990). As an example of such loosely-coupled systems, digital platforms have recently emerged as a way of bringing non-profit, social enterprises, government, and for-profit organizations together to solve social and environmental problems. For many of these SMPs, participation is neither compulsory nor based on efforts to solve a jointly agreed-upon problem. Instead SMPs often allow and at times even encourage participants to surface new and manifold problems and solutions. As such, one would expect SMPs to face ongoing coordination challenges, especially when employed in areas of complex social problems.



Yet SMPs are interesting as a coordinating system for cross-sector interactions precisely because they try not to over-specify or qualify appropriate interactions, despite their strong basis in a social mission. This is both their strength and their liability, raising particular tensions not experienced by more traditional and tightly-coupled approaches for cross-sector collaboration and social innovation. And while digital platforms more generally have frequently wrestled with questions of how and under what conditions to erect qualifications for participation and interaction (Minter, 2017; Stewart and Stanford, 2017; Boudreau and Hagiu, 2009), such questions take on existential importance in the context of SMPs, precisely because of their commitments to particular social missions. In not comprehensively specifying or qualifying appropriate interactions, SMPs are susceptible to the possibility that the potentially synergistic yet divergent interests of cross-sector participants ultimately contribute to mission drift and thus threaten their *raison d'être* (Grimes, *et al.*, 2018).

Compared with other approaches to cross-sector collaboration, SMPs would seem to face several other important challenges. SMPs emphasize arms-length transactions, not requiring long-term relationships or even high-quality interactions between participants to function (but instead a high volume of transactions) (Andersson Schwarz, 2017; Aragon, Gomez, and Kaltenbrunner, 2017). This makes them different from other cross-sector coordinating systems that require long-term personal interactions such as United Nations meetings, or stewardship coalitions that rely on strong normative and emotional commitment (Fan and Zietsma, 2017). It is because of this lack of required long-term, informationally-rich interactions across sectors that SMPs are likely to face ongoing challenges trying to maintain the integrity of their social missions as they increase participation.

The “neutrality norm” perpetuated by platforms more broadly would also appear to present a challenge for SMPs. While all platforms have a goal or mission *per se* (e.g., to create a market, connect previously disconnected audiences, make a profit), a frequently

promoted advantage and point of difference of platform business models is their open architecture and non-interventionist approach to the activity occurring on the platform once it is established (Gillespie, 2010; Helberger, Pierson and Poell, 2018). One advantage to such openness is that the platform strategy does not have to be precisely specified *a priori* but rather can evolve organically by way of responding to user participation patterns.

Additionally, this *laissez-faire* approach to platform dynamics has allowed and encouraged many platform operators to express absolution from responsibility and accountability for interactions on the platform (Massanari, 2017; Nash *et al.*, 2017). Recent legal and legislative cases regarding several platforms (for example, cases examining passenger safety concerns on Uber and the distribution of violent terrorist content on Facebook and Youtube) reveal the limits of this *laissez-faire* position of neutrality and the increasing demands to better control and manage platform activity to avoid negative impacts (Andersson Schwarz, 2017; Carlisle and Patton, 2013; Edelman and Geradin, 2015). Nonetheless, accommodating this neutrality norm is experienced as a far greater challenge for SMPs, since maintaining and controlling the mission of the platform is essential for maintaining the distinctiveness of its value proposition. While neutrality is important to uphold as an advantage of organizing via the platform, a loss of control of platform activity away from the original platform mission is not just a liability but also an immediate and total threat to the platform's legitimacy.

In sum, the inherently loosely-coupled nature of digital platforms exacerbates the challenges faced by social-mission platforms in particular, as they try to generate cross-sector collaboration for the purposes of social innovation. Unlike digital platforms more generally, SMPs cannot allow the transactions taking place on the platform to negatively reshape the nature and mission of the platform. Such challenges require further scholarly attention to the practices and resulting social structures (i.e., institutional infrastructure) which might allow SMPs to increase their cross-sectoral user growth without jeopardizing their social missions.

**Toward a theory of institutional infrastructure as the basis for social-mission platform**

## **development**

Initially referenced by Greenwood *et al.* (2011) when theorizing the institutional complexity of fields, the concept of institutional infrastructure is more recently expanded by Hinings *et al.* (2017). They argue that institutional infrastructure includes the cultural, structural, and relational foundations that shape and guide exchange within and across fields. These foundations give rise to and maintain the stability of the social environment—the normative, cognitive, and regulative factors that specify, for instance, how organizations should interact and exchange. Such infrastructure varies in quality—specifically, in its degree of elaboration. For example, many studies show how the professional services fields such as law or accounting have a highly elaborated institutional infrastructure, providing a stable, tightly controlled, and highly normative space of interaction, with unitary and established logics (Greenwood, Suddaby, and Hinings, 2002; Smets, Morris, and Greenwood, 2012; Suddaby and Greenwood, 2005). This is generated by firms, professional associations, and educational providers interacting with formal regulators in this field to produce a coherent or well-understood governance structure. The field is underpinned by mandatory membership, licensing, training and professional development, monitoring and disciplining of behavior by associations, firms, and educators. Viewing organizational interactions through the lens of institutional infrastructure thus provides a way to understand how the “rules of the game” within and across fields are generated, maintained, reinforced, and also changed.

As a conceptual lens, institutional infrastructure has particular value in understanding ways of organizing cross-field interactions and intersections and how they may be structured and so governed. Several studies, for instance, point to the cross-field work that gave rise to the fields of nanotechnology (Granqvist and Laurila, 2011), biotechnology (Powell and Sandholtz, 2012), and more recently impact investing (Hinings *et al.*, 2017), B Corporations (Cao, Gehman, and Grimes, 2017), and the green building industry (York, Vedula, and Lenox, 2018). These studies implicitly direct attention to how these interactions become

structured by way of the elaboration of different types of institutional infrastructure, such as categories, organizational models and templates, status differentiators, regulation, interest groups, and events (Hinings *et al.*, 2017). This offers an opportunity to understand how SMPs go about the early-stage cultivation of institutional infrastructure in order to jumpstart network effects (Grimes, Gehman, and Cao, 2018) and resolve dilemmas in building participation from cross-sector actors, while maintaining the integrity of their social missions.

In summary, responding to complex social problems requires actors from different sectors to come together. SMPs, in particular, offer a means for enabling and accelerating such cross-sector interaction. However, while these digital SMPs provide much opportunity for social innovation, in order to bind actors together and ensure longer-term responses to social problems they also require the generation of institutional infrastructure to organize ongoing activity and commitment. At present, we have little theory regarding how SMPs generate institutional infrastructure to enable growth while sustaining their social missions. To develop such theory we now explore how the cultivation of institutional infrastructure occurs in the context of civic crowdfunding, where one platform, Spacehive, claims it is attempting to “rewire” the fabric of local communities.

## **METHOD**

### **Research setting: civic crowdfunding and the Spacehive platform**

In this paper we focus specifically on a case of civic crowdfunding where “the goods produced are expected to be goods that can be consumed equally by members of a community, regardless of their contribution to the production of the good (the crowdfunding campaign itself)” (Davies, 2015: 343). Civic crowdfunding refers to the resourcing of social projects by way of distributed private capital investment and/or grants (Stiver *et al.*, 2015). It serves as an ideal example of an SMP, in that it offers a technical architecture for involving actors from government, the community, and private investors and encouraging new relational configurations to identify, select, fund, and implement solutions to social problems.

Civic crowdfunding can also be viewed as a subset of platforms which have emphasized the online crowdsourcing of ideas and capital more generally. Such crowdsourcing platforms have transformed business tasks such as innovation and technical problem-solving and product design, and have also revolutionized start-up financing and scaled peer-to-peer lending (Colombo, Franzoni, and Rossi Mastra, 2015; Mollick, 2014; Piezunka and Dahlander, 2015; Stevenson, Kuratko, and Eutsler, 2019). What was once the responsibility of a few experts is now distributed to professional and amateur alike via tapping the power of the crowd (Allison *et al.*, 2015; Courtney, Dutta and Li, 2017).

This paper draws on a qualitative case study of the online civic crowdfunding platform *Spacehive*. Spacehive is a UK-based crowdfunding platform that was founded in 2011 and launched in 2012. According to its website, its mission is to “make it as easy as possible for as many people as possible to bring their civic environment to life.” Although only established in 2012, Spacehive has demonstrated rapid user growth, and thus serves as a particularly revelatory case for investigating how SMPs might navigate and overcome the early challenges associated with retaining their social missions while encouraging diverse cross-sector user growth. As of the end of 2018, the platform had raised over £10.5 million in funds for civic projects from 349 cities, towns, and villages across the UK. Of all projects initiated on the platform, 51 percent were labeled as “successfully supported,” noting that Spacehive claims to apply an all-or-nothing funding model (i.e., if a project does not raise all of the funds it has requested, the pledged funds are returned). Spacehive applies a 5 percent fee to the funds collected by successfully funded projects.

### **Data collection**

In attempting to understand how the early voluntary and cross-sectoral participation required of SMPs might be initiated and sustained without undermining those platforms’ social missions, we employed a longitudinal case study approach (Barley and Tolbert, 1997; Strauss and Corbin, 1990), following a tradition of exploratory studies about new phenomena that are

not fully understood (Marshall and Rossman, 1995). We acknowledge the challenge of conducting research on platforms, where often previously public activities move on to privately-owned platforms, with analysis occasionally requiring access to proprietary data (Margetts *et al.*, 2016; Nash *et al.*, 2017). Yet, because our study and research question are notably focused on understanding the public efforts of the platform to enable cross-sector user growth and interaction while sustaining its social mission, our data collection was focused on the public communications by Spacehive and its stakeholders. Such efforts thus resulted in publicly-available data at the extra-organizational, organizational, and project levels.

***Extra-organizational level data.*** We began with a search of media sources using Factiva. As we are interested in understanding cross-sector interactions, we then focused on newspaper articles as a rich source of information about key actors' views and understandings of the dynamics of this platform (Reay and Hinings, 2005). Using the search terms "civic crowdfunding Spacehive", without setting any restrictions concerning the date range, this search resulted in a list of 65 articles (after removal of duplicates). We traced the first media mention of online civic crowdfunding back to November 2012. This range of articles enabled us to trace the public discourse surrounding this novel platform as it created new ways of interacting, as well as the reactions and responses from stakeholders as they made sense of this new way of collaborating.

***Organizational level data.*** We gathered secondary organizational data via all documents made publicly available on the Spacehive website, including media releases, case studies, guides, job advertisements, and blog posts from 2011 to 2018. This provided a historical perspective from the platform itself, in terms of its evolving operations, efforts to control and manage interactions through the production of best-practice guides, templates and workshops, and also its self-constructed identity and espoused purpose. We also captured documents that were promoted by Spacehive on its website (yet authored by others) such as guidelines and suggestions for how local governments could engage with the platform.

***Project level data.*** Capturing project level data was useful in helping us triangulate the effects of user growth on Spacehive over time, as well as the platform’s responses to such growth-related effects. For instance, in trying to understand whether and how Spacehive was successful at encouraging user growth while also retaining its original mission to “make it as easy as possible for as many people as possible to bring their civic environment to life”, we needed to capture project-level data on the types of projects that were labeled by Spacehive as “successfully funded.” Despite the strict requirement of all-or-nothing funding adopted by many crowdfunding sites and promoted by Spacehive, the company at times labeled projects as successful without those projects having achieved their fundraising targets. This focus on projects that Spacehive labels as “successful” appropriately facilitates our examination of when and to what extent the platform allowed particular proposed projects to participate and “succeed” on the platform despite varying degrees of alignment between those projects and the organization’s mission and quality standards. Ultimately, such data provides an important basis for addressing our research question, determining the effects of growth on mission-related tensions and how those tensions prompt particular responses from SMPs like Spacehive.

Our sample is thus comprised of the total population of 537 projects listed on the platform across the observation period (2012-2018) as having succeeded. Using this dataset, we are able to examine project descriptions, amount sought, amount raised, and number of donors (backers). Table 1a provides a summary of our data across levels of analysis, while Table 1b provides a more detailed summary of our project level data. As illustrated in Table 1b, despite an explicit “all-or-nothing” funding requirement, several projects were deemed successful despite missing their fundraising targets, revealing significant deviation in quality standards at different points in time.

--- Insert Table 1a and 1b about here ---

## **Data analysis**

Our initial research question (i.e., *How do social-mission platforms generate the institutional infrastructure necessary for user growth and the committed pursuit of a social mission?*) guided our early analysis. We used an inductive theory-building approach, iterating between data, existing literature, and theory in order to theorize about the case at hand (Van Maanen, Sorensen, and Mitchell, 2007). An inductive analysis of qualitative data is well suited to the study of phenomena for which theory is lacking (Langley, 1999; Locke, 2001; Gehman, *et al.*, 2018).

First, we conducted open coding on the extra-organizational level data to gain a broad understanding of how this platform activity was being theorized by multiple actors over time and identify any dominant discourse regarding this form of cross-sector interaction. Both the first author and research assistant initially coded a consistent sample of 20 initial articles, looking for insights and comments from actors across community, public sector, or private sector organizations, or comments on the relations and interactions now enabled via the platform. The selecting and categorizing of statements resulted in a number of first-order codes, which the authors interrogated more systematically (Yin, 2003) across the entire range of articles to develop second-order concepts, based on the interplay between the data and the emerging conceptual patterns (Eisenhardt, 1989). This was an iterative procedure that required going back and forth between the news sources, the first-order codes, and emerging second order concepts, which allowed us to further refine the data analysis by discovering patterns (Langley, 1999; Strauss, 1987). What this quickly revealed were the key dilemmas in platform growth for Spacehive in this early stage, specifically in being understood as a legitimate form of community development, attracting and encouraging cross-sector participation, while maintaining the integrity of its social mission.

We then repeated the process using the organizational level data, again being attentive to elements of institutional infrastructure or how Spacehive purposefully created such



infrastructure (rules, procedures, recognizing and rewarding certain behaviors, norms around best-practice behavior for participants) and how this related to key dilemmas and challenges. We noticed, for instance, that the concept of “democratic participation” was being used consistently to encourage participation, thereby constituting a polysemous theme that manufactured the perception of shared values while still allowing for the persistence of unique values. Table 2 provides illustrative quotes regarding this and our other second-order concepts, which in essence serve as the theoretical mechanisms through which institutional infrastructure (i.e., boundaries, bridges, and blueprints) was cultivated.

-- Insert Table 2 about here --

At the project level, we analyzed project growth over time, how different participants were utilizing the platform, how such participation was either consistent with or diverged from the social mission of the platform, and how such project dynamics prompted organizational responses. We also conducted a qualitative coding of project descriptions as compared with the platform’s mission over time, as a means of assessing mission-related deviance. The two authors independently read and coded each of the 537 project statements as “clearly aligned with Spacehive’s mission” or “not clearly aligned with Spacehive’s mission,” with an inter-rater reliability of 81%. For each year, we then calculated the percentage of projects which were coded as not clearly aligned with Spacehive’s mission. We refer to this measure as Spacehive’s *allowable deviance*. We then compared this project growth and allowable deviance data with our organizational and extra-organizational level data, revealing the sequencing in which various dilemmas and the organizational responses were occurring and also reoccurring over time. Figure 1, for instance, visualizes the ways in which the platform dilemmas we identified corresponded with Spacehive’s attempts to garner legitimacy, increase participation, and govern exchange, and how they correspond temporally with changes in project/user growth and allowable deviance. As illustrated, we observed that while challenges of legitimacy were somewhat overcome in the early years, laying a

foundation for increased participation, legitimacy dilemmas reoccurred when the platform later proposed changes to its business model. In the next section, we further detail how these dilemmas evolved, and how Spacehive responded.

-- Insert Figure 1 about here --

## **FINDINGS: CULTIVATING INSTITUTIONAL INFRASTRUCTURE TO ENCOURAGE AND GOVERN PLATFORM USER GROWTH**

Prior to Spacehive's official launch in 2012, it described its fundamental purpose as mending a broken society by giving communities a powerful tool to turn their ideas for neighborhood improvements into a reality.

*“Spacehive arrives at a tough time. The economic downturn means it's harder than ever to find funding for capital projects, so we need smarter ways of doing things if we want to get stuff done.”* (Spacehive Blog, 7 December 2011)

It sought to empower the community and ensure they “are no longer the hapless victims of a maddening computer-says-no bureaucracy” (Spacehive Blog, 19 July 2011). The platform presented “a real opportunity for local communities, business leaders and others to work together to rebuild both the physical and social fabric of communities”, with Spacehive hoping it could “play a modest role in that process” (Spacehive Blog, 21 August, 2011).

Yet pulling together community members, business, and local government was not simple. We identify that over the next six years Spacehive addressed two main dilemmas in trying to drive the initial user growth of its civic crowdfunding platform: establishing legitimacy and generating participation across multiple and diverse stakeholders. Subsequent to these initial user-growth dilemmas, the organization was then faced with an unexpected and in some ways paradoxical third tension (what we label as an “exchange dilemma”), in which its user growth began to threaten its mission and impact. As illustrated in Figure 2, each of these three dilemmas is comprised of a tension, pulling the platform operator toward different and ostensibly competing demands, having to do with integration and adaptation. We define platform integration demands as those requirements which encourage the tight

coupling of platform activity and its stakeholders, whereas adaptation demands alternatively are those which encourage the loose coupling of such activity and its stakeholders. These growth-related dilemmas of legitimacy, participation, and exchange in turn elicit responses from Spacehive, which involve the cultivation of institutional boundaries, bridges, and blueprints. As illustrated by the boxes at the top and bottom of the process model, this varied institutional infrastructure comprises a set of symbolic guardrails (Smith and Besharov, 2019) which are used to help the organization navigate the different emerging dilemmas, thereby responding to both sides of the associated tensions. The purpose of such institutional infrastructure in this case is thus to ensure the platform and its participants do not veer too far toward exclusively placating either integration or adaptation demands. For example, creating blueprints accommodates the need to control platform activity yet in a way that attempts to uphold a position of neutrality, as we explain further below. Finally, our emergent model also implies that such responses were often incomplete, leading to our observations that the development of institutional infrastructure is a recursive process. In what follows, we describe Spacehive's growth in detail, providing evidence for each of these dilemmas and responses.

--- Insert Figure 2 about here ---

### **Legitimacy dilemmas and responses via multivocal identity claims that establish institutional boundaries**

Like any new ventures, platforms face a deficit of legitimacy in their earliest moments, which threatens not only their ability to grow but also their ability to survive. One of the ways that organizations overcome this early legitimacy deficit is by ensuring alignment between the organization's innovation and existing institutional arrangements and relations (Hargadon and Douglas, 2001). In other words, the proposed solution needs to simultaneously demonstrate how it might assimilate and "fit in" relative to existing solutions yet also

differentiate and so “stand out” from those existing solutions (Zhao, Fisher, Lounsbury and Miller, 2017). Establishing legitimacy and educating multiple audiences on how to make sense of Spacehive and its mission was a focus in early years:

*“Call it democracy a la carte: A new breed of civic-minded start-ups wants to let citizens decide directly what improvements they want in their neighborhoods, from new dog parks to park repairs, and allow them to donate toward the cost. Using the crowdfunding money-raising model popularized in the tech start-up world, these initiatives allow people to pool donations of time and money for civic projects of their choosing, rather than wait for the work to be done by public employees -- or not done at all.” (Newspaper, 12 November, 2012)*

Relative to platforms more generally, this challenge is compounded in the context of SMPs, wherein there is a need to simultaneously assimilate and differentiate across multiple stakeholder groups with divergent interests (e.g., private sector businesses, community organizations, local government). As such, much of the early work of Spacehive involved articulating the value proposition of the platform in a way that demonstrated assimilation and differentiation across divergent audiences, making interests that may initially seem contradictory appear as complementary. To do so the platform’s operators invoked multivocal identity claims—i.e., claims that represent the central and distinctive features of an actor in ways that allow for intersectional alignment. In other words, the same organizational identity claim was viewed as appropriate within different communities but for different reasons. In turn, such multivocal identity claims helped establish institutional boundaries—albeit, weakly—around platform involvement in order to maintain cohesiveness around its social mission. We illustrate these dynamics below.

Although the divergent interests reflected among their separate stakeholder groups furthered the challenge of clarifying potential value within those separate groups, Spacehive used these differences to its advantage as the platform began to articulate why its solution was important. For instance, by theorizing how the platform was similar to existing solutions currently embraced by one group, those same theorizations were simultaneously used to justify the distinctiveness of the platform relative to existing solutions embraced by other

groups and *vice versa*. For instance, Spacehive initially analogized its activities to those of an online retail store—albeit one that specialized in allowing community members to shop for neighborhood improvements:

*“Can we really have an online store that sells leafy parks, BMX tracks, communal BBQs, rooftop gardens, skate parks, playgrounds, and pedestrian piazzas designed for people to enjoy a pint? We think so.”* (Spacehive Blog, July 19, 2011)

Analogies such as this offered Spacehive a particularly adaptive and thus effective means for establishing intersectional alignment between its own organizational identity and the values and interests represented in these divergent communities. For the interested private firms and investors, the aforementioned analogy illustrated how Spacehive resembled other profitable ventures. Yet the “online store for social goods” analogy also established Spacehive’s novelty to these private business investors, as the associated “products” in this case promised both individual and collective benefit and success (that is, if one lived in the local area):

*“Crowdfunding enables everyone to get what everyone wants, Spacehive's founder and CEO, Chris Gourlay, told Information Week. He said Spacehive's early experience shows unpopular ideas, or projects not led with enough energy, will fail, while popular projects that hit their funding targets are guaranteed to succeed.”* (Newspaper, 22 March, 2013)

Conversely, this articulated social mission was precisely what conveyed Spacehive’s appropriate fit relative to the existing solutions provided by community organizations and local governments:

*“By working together, people are finding it possible to get things done that would otherwise be unaffordable. It’s a refreshing new way of doing things that is at the heart of our model”* (Spacehive Blog, 19 July, 2011).

At the same time, they highlighted how this “online store for social goods” allowed for a fundamentally novel and different way of ensuring that community organizations’ goals were ultimately realized:

*“The current merry-go-round of planning meetings, consultations, fundraising rallies and paperwork often means the best ideas choke on bureaucracy before any dirt is shifted. The trouble is there’s a gap between nice ideas and action – funding. Spacehive cuts to the chase. We let people put their money where their mouth is and contribute towards the costs of the improvements they want”* (Spacehive Blog, 7

December, 2011).

Taken together, by theorizing the platform's capacity to fit with existing solutions from each of the groups, and by doing so in a way that celebrated the intersectional nature of these separate stakeholder groups, Spacehive created the perception of optimal distinctiveness across different sectors, obtaining legitimacy within each. As evidence of such legitimacy, Spacehive received a number of different awards from across these sectors (e.g., the UK New Radicals 2014; Top 10 Government Innovator in 2016).

And, as is the case with identity claims more generally (Grodal, 2018), Spacehive's analogy of offering an online store for social goods also provided symbolic boundaries for different stakeholders, clarifying the purpose and role of its digital platform, as well as the types of activities that would fall outside those boundaries. On the one hand, they offered project originators cues as to whether or not their proposals would be embraced. And on the other hand, it offered project funders insight into the types of proposals they could fund on the Spacehive platform relative to other crowdfunding platforms. Yet while such boundaries are critical for garnering legitimacy, if they are too rigid and fixed they can prematurely exclude audiences that are necessary for driving platform growth. Thus, although Spacehive's multivocal identity claims include consistent emphasis on the mission of novel transformation of publicly accessible spaces, principles about the types of projects to be excluded were only softly conveyed if at all before attempting to list a project, and detailed more explicitly only recently in the Spacehive Ultimate Guidebook (12 June, 2017):

*"Spacehive projects must transform shared, civic, or publicly accessible space, either temporarily or permanently in order to be eligible. Funding can be sought for both revenue and capital costs, but the project must have a clear start and end. Fundraising for running costs or solely charitable causes would not be suitable."*

Spacehive also distances itself as the responsible party for deciding what activities are eligible, instead outsourcing this decision to Locality, a national network of community organizations. And while Locality may decide a project is not ready for listing, this decision

is presented as a basis not for excluding projects but rather for refining them toward eventual listing on the platform, as also described in the Guidebook:

*“Locality inspects the idea, land permissions, and project costs to make sure the project is viable and trustworthy... Verification is an impartial, objective procedure that ensures all projects are assessed according to equal terms...If Locality are not satisfied with your project proposal they may not verify it but will provide you with feedback and support so that you may rework your proposal to get it ready.”*

Thus, in coupling multivocal identity claims with such loose restrictions on suitable projects, the firm appeared widely inclusive, and avoided efforts to try to achieve consensus regarding the specific problem at stake, which often slows down and prohibits much cross-sector work (George *et al.*, 2016). And while this generated institutional boundaries to a degree, those boundaries remained fuzzy in lieu of attempts to emphasize inclusivity. As earlier illustrated in Figure 1, however, these fuzzy institutional boundaries allowed for increased degrees of perceived deviance between successfully funded projects and the platform’s mission, thereby setting the stage for future issues regarding accountability and control.

### **Participation dilemmas and responses via a polysemous theme that establishes institutional bridges**

As noted earlier, part of the challenge for digital multi-sided platforms more generally is their dependence on network effects; that is, increasing usage of the platform is contingent on the perceived value of the platform, just as the perceived value of the platform is contingent on increased usage. Thus, simultaneously securing multi-sided participation presents a challenge, even more so we argue in settings of SMPs, wherein cross-sector participants exhibit unique and at times conflicting motivations for and concerns in participating. It requires attempts to try to highlight shared values and complementary interests, which as illustrated in the following quote occasionally leads to lengthy and complex statements with ambiguous value propositions:

*“Individuals and groups use Spacehive to creatively pitch their idea and visually demonstrate the collection of community support for it. Which for a business is an amazing tool as they can see clearly which projects have the most support and where they can make the most impact...The combined energy of individuals and local businesses working together allows both groups to benefit from increased publicity and serves as a catalyst for more pledges from the wider community and increases the chance of success. Because each project follows the ‘all or nothing’ model, businesses know they will only be supporting projects that will actually be completed which diminishes their risk in getting involved.” (Blog, 25 January, 2016).*

In our case, we observed that appeals to ideas consistent with the theme of “democratic participation” were used consistently by Spacehive and other stakeholders to simplify the message of shared value and drive platform participation, with the founders calling on stakeholders to “play a part in transforming where you live”:

*“Local authorities are expected to announce further cuts to parks budgets...now is the time for local people to get together and demonstrate their love for their local park and find new ways to keep our green spaces vibrant” (Blog, 16 January, 2017).*

Notions of democracy and democratic participation served as a polysemous theme—a concept with a central origin yet which produces varied interpretations, thereby forming a network of meaning across different groups (Fillmore and Atkins, 2000). Engaging in cross-sector activity under the notion of democracy provided institutional bridges that connected stakeholders in a project yet enabled them to keep their own understanding of democracy. For example, for the government, it enabled local engagement and co-funding of local development:

*“Spacehive is a new form of grassroots regeneration that’s empowering communities to shape their local area.” (Prime Minister Theresa May, 12 April, 2017)*

Indeed, the government went as far as to frame democratic participation as empowerment in the face of their own government cuts:

*“I want to empower Londoners...this is your chance to pitch ideas ...to support and improve your local area.” (Mayor of London Boris Johnson, 3 August 2015)*

For members of the community, democratic participation meant a chance for non-experts to have a voice in urban planning, both identifying problems and creating solutions, having choice and input into the entire process:



*“The busy emergence of civic crowdfunding initiatives promises a new approach to public involvement in the planning process, a type of engagement-led urban policy-making. Non-experts not only participate in planning processes through the provision of funds, they actually initiate them by pinpointing community needs and then assisting in promoting possible solutions.” (Verhoven, 2013)*

For the business sector, democratic participation was interpreted as good for business, since it was believed to increase the privatization of local economic development, as the Chief Executive of one business sponsor (a property developer) describes:

*“...budgets for investment in much-needed local improvements are drying up – which is why tapping into new sources of financing is a win-win for locals, landlords and government. A vibrant public realm is an essential ingredient of any successful development and, fundamentally, an extremely cost-effective way of enhancing an area’s appeal.” (Newspaper, 11 January, 2013)*

The idea of “democratic participation” thus resonates with (yet is differently interpreted by) each of the stakeholder groups according to their divergent values, thereby serving as a polysemous theme, bridging participation across different domains and accommodating both shared and unique values.

As evidence of how polysemous themes contributed to participation growth, we observe a rapid increase in “successfully” funded projects from 2013 to 2015 (see Figure 1). Yet, there are unintended consequences of such rapid project growth. Precisely because this polysemous theme avoids the need for full convergence of meaning or commitment to Spacehive’s more narrowly-defined social mission, it once again encourages increases in allowable deviance. Specifically, we observe compromises in the quality standards of projects in terms of the “all or nothing” funding model being loosely applied (see Table 1b) and in terms of the perceived alignment between successfully funded projects and the platform’s mission (see Figure 1, particularly the uptick in allowable deviance from 2015 to 2016). For example, despite Spacehive’s insistence on avoiding use of the platform to “fundrais[e] for running costs,” pressures to increase user growth encouraged Spacehive to allow a number of longstanding organizations to use the platform to finance its operational and administrative costs (such as paying utility bills) rather than to introduce novel or

innovative ideas and services to transform local places. Such perceived increases in allowable deviance with regard to participation on the platform provides a shaky foundation for future cross-sector interaction on the platform—a dilemma we turn to in the next subsection.

### **Exchange dilemmas and responses via scripting that establishes institutional blueprints**

One of the key advantages that many digital platforms self-promulgate is their neutrality: that, as a piece of technology, these platforms coordinate exchange without imposing excessive or arbitrary restrictions on such exchange, even in cases where those exchanges invite controversy (Gillespie, 2010; Wood *et al.*, 2018). As we have argued, this is a much more difficult proposition for SMPs, such as Spacehive, which espouse a clearly articulated set of values and a core social mission. However, we were surprised that in the course of encouraging broad growth, such neutrality is precisely what Spacehive conveyed:

*“We offer a neutral platform where anyone can share an idea and through our work with funding partners, bring together big organisations with the crowd to get ideas funded”* (Blog, 7 February, 2017).

Yet, tensions inevitably arise as SMPs need to structure, organize, and ultimately govern and control exchanges on those platforms as they grow (Nash *et al.*, 2017). For Spacehive, as participation on the platform increased so did the number and variation of projects. On the one hand, such variation offered cause for celebration, yet on the other hand it posed alignment-related challenges, since these projects not only diverged from one another but also at times deviated from the core social mission of Spacehive regarding the promotion of democratic participation in civic life or regarding its expectations of quality. For instance, in our analysis of the individual projects, 13 projects had only one backer, 35 projects with three or less backers, wherein several projects were successful with almost no backers other than a large grant from a powerful and wealthy backer. This included a town’s “Working Together” project, which raised £20,020 in total from three backers. This consisted of a donation of £20,000 from the Municipality High Street Fund and two individual donations of £10. Such instances in these earlier years suggest how the Spacehive platform was being used at times

to fund projects with limited democratic support and funding from the wider crowd.

In attempts to balance these competing objectives of maintaining governance-related control over the platform and its social mission while also upholding its ambition for neutrality, Spacehive cultivated institutional blueprints by providing explicit scripts for action, relying upon educational efforts such as best practice examples, workshops on understanding “civic value”, case studies, and “how to guides” for success. Spacehive, for example, provides detailed templates on “how to pitch”, “how to create a punchy title for your project”, and “how to write press releases.” Spacehive also maintains publicly-available archives of successfully-funded projects, providing further blueprints for behavior and practice based on evidence of “best practice” and what “the crowd” considers as socially valuable. These scripts encourage projects that efficiently and transparently fund change and provide value for a wide range of community members rather than serving private or narrow interests. And to some extent these scripts then inform public response when projects are perceived as deviating from such blueprints. For example, through regularly checking “live” projects that were comparatively slow to raise funds, we observed examples of such deviance, including a project struggling to crowdfund the costs of installing CCTV cameras in certain public areas (being proposed by the same company that installs CCTV cameras).

Yet despite these efforts in providing blueprints, the neutrality-control dilemma has persisted, arguably in part due to Spacehive’s need for financial viability and thus continued growth. While it does take a five percent fee from all successful projects, it has also begun to create sponsored projects and partnerships with businesses and government, with over £3,300,000 processed through the platform from such partnerships to date. In this way, Spacehive serves not only as a platform for civic crowdfunding but also as an administrative and back-end grants processing service, providing cost-efficiencies and a public relations channel for large companies, governments, and established organizations. This latter service arose as a result of the platform observing user growth of large organizations, which then led

the organization to update its business model. Spacehive now explicitly states on its website that *“Our business model has two elements. We collect a 5% fee from all successful projects... We also offer a range of partner services including consultancy and community activation.”* In addition to partnerships between Spacehive and municipality funds such as the Mayor of London/High Street Fund, Spacehive built and promoted corporate partnerships, such as with British Telecom:

*“BT have teamed up with Spacehive to provide a streamlined way for communities to secure the funding they need to get fibre broadband in their area... Once communities know how much it will cost to install fibre they can use the platform to collect pledges of funding they need in one place...”* (Website, 7 July, 2017)

A media-based investigation into the campaigns run on Spacehive in partnership with the Lord Mayor’s Office in London revealed the scale of Spacehive’s challenge in ensuring the integrity of their social mission. The review found that many participants on the platform are white, wealthy, and highly educated, (i.e., a particular demographic with time and capacity to participate), resulting in less participation from members in lower socio-economic areas that more urgently require local development (Warbis, 2016). This concern that civic crowdfunding may contribute to the inequality it seeks to solve has led to calls for greater intervention and governance over such SMPs to prevent mission drift:

*“This role centres around facilitating and protecting equity and inclusion within a broader context of alternative finance and market-led approaches to development projects. Indeed, it appears that without government involvement in crowdfunding schemes – particularly those which deal with issues as contested as land use change – equity and involvement of deprived groups or those in deprived areas might be compromised.”* (Newspaper, 3 November, 2016)

### **The re-emergence of legitimacy dilemmas**

Such concerns illustrate not only the ongoing challenges Spacehive faced attempting to govern exchange on its platform but also the re-emergence of a much earlier concern—the need for Spacehive to (re)establish its legitimacy, as illustrated in Figure 1 by the drop in successfully funded projects in 2018. For example, in very recent years we again observe Spacehive having to respond to legitimacy concerns by re-establishing boundaries as its

business model evolves. As noted, in seeking other revenue streams (beyond the five percent success fee on projects), Spacehive now more actively promotes itself to governments and large companies. For resource-strapped municipal governments, the platform is now analogized as a quasi-governance, procurement, and service delivery model, offering a novel means for allowing those public authorities to fulfil their mandates for the provision of collective goods, yet without dependence on scarce government resources:

*“Local government is having to transform how it delivers, doing more with less. Civic crowdfunding offers an alternative [procurement and service-delivery] model, one which we believe can offer huge gains for cities and citizens alike.”* (Newspaper, 5 September, 2017).

*“Spacehive’s software products and activation services help councils, grant makers and companies deepen their impact, leverage their resources, raise their profile, reach customers, win business and much more”* (Website, 20 December, 2017).

In summary, this analysis of the early years of establishing an SMP provides insights into several growth-related dilemmas (legitimacy, participation, and exchange) and the responding cultivation of institutional infrastructure, which serves as a set of guardrails for navigating these tensions. Importantly, we show the relationship between platform user growth and the sequencing and recursive nature of these dilemmas. We next discuss these findings in terms of a wider contribution to understanding the creation and maintenance of SMPs.

## **DISCUSSION**

In Granovetter’s (1985: 504) seminal study of embeddedness, he suggests that in order to understand “the various complex intermediate forms between idealized atomized markets and completely integrated firms,” scholars must better attend to the social relationships and structures that guide interaction within those forms. One such “complex intermediate form” of increasing importance in society is that of platform-mediated markets and eco-systems (Helfat and Raubitschek, 2018; Jacobides *et al.*, 2018; Teece, 2018), with digital platforms now also being used as a means for exchanging not only commercial goods and services but also civic-related goods and services. These civic-oriented platforms or “social-mission

platforms” as we have labeled them more generally, espouse specific social or environmental missions and in executing on those missions attempt to improve the distribution of socially-valuable assets and capabilities, while increasing sustainability (Cohen, Almirall and Chesbrough, 2016; Davies, 2015; Gilman, 2017; Sen, 2005).

### **An emergent model of the socio-cultural foundations for navigating user-growth dilemmas in social-mission platforms**

In this study we examined the particular dilemmas that SMPs experience and the institutional infrastructure they cultivate as they attempt to encourage cross-sector user participation and growth while also sustaining their particular social missions. Our findings reveal that SMPs are subject to ongoing integration demands (i.e., assimilation with existing alternatives, upholding the shared values of different participants, and controlling the quality and mission standards of exchange) as well as adaptation demands (i.e., differentiation from existing alternatives, upholding the unique values of different participants, and upholding a position of neutrality in governing exchange). These competing demands became more or less salient over time depending on Spacehive’s growth-related objectives, thereby requiring the organization to cultivate institutional infrastructure to serve as guardrails—socio-cultural mechanisms for simultaneously addressing integration and adaptation demands.

First, in order to grow, SMPs must be viewed as legitimate, which often requires demonstrating a cohesive or tightly-bounded set of organizational values which align with important audiences and their values while excluding practices and participants which conflict with those values. Yet developing such institutional boundaries is particularly challenging in this setting, given divergent audiences with possibly synergistic yet often conflicting values. In our case, Spacehive addressed this dilemma by employing multivocal identity claims (often by way of analogies). This approach is consistent with, yet also further illuminates, earlier scholarship on the importance of identity claims in shaping field dynamics and constructing boundaries (Banghart, Etter and Stohl, 2018; Glaser, Fiss and Kennedy,

2016; Grodal, 2018; Logue, Clegg and Gray, 2016; Lounsbury and Glynn, 2001). However, while the development of institutional boundaries by way of multivocal identity claims was enough to warrant a number of awards and recognition by different stakeholders, those boundaries were also weak and “fuzzy” as they lacked precision and accountability (Pontikes and Barnett, 2015)

Second, SMPs must overcome participation-related dilemmas, wherein the challenge is not merely identifying multi-sided participants with intersecting interests as is typically the case with digital platforms and platform-mediated markets, but motivating usage from different stakeholder groups who are likely to view participants from other sectors with suspicion, given occasionally divergent values (Fan and Zietsma, 2017; O’Mahony and Bechky, 2008). Participation on an SMP requires the perception of intersecting values despite the potential for divergence. In our case, the company addressed this by employing the polysemous theme of democratic participation. As a sufficiently abstract yet still meaningful theme, it allowed participants to retain their unique values, while expressing shared concern for democracy. Thus, in our setting, polysemy generated the institutional bridges which are often necessary for ensuring a language of shared values and understanding, assisting the development of trust-based networks within a new organizational field (Uzzi, 1997; Vanneste, Puranam and Kretschmer, 2014). Yet, once again, although the use of polysemous themes encouraged a useful illusion of shared and complementary values, it simultaneously introduced the possibility that any remaining divergence in those values might eventually undermine the platform’s more narrowly-defined social mission.

Finally, our findings suggest that as SMPs grow in cross-sector user participation, they are likely to face a dilemma in governing exchange on the platform, which might ultimately challenge the viability of the SMP (Schilling, 2011). Specifically, in attempts to encourage growth the platform may feel pressured to allow exchanges which are perceived to compromise or deviate from the quality and mission-related standards expected by its various

stakeholders. SMPs must somehow maintain control over the mission of the organization, while also sustaining a non-interventionist position of neutrality that encourages growth. In our case, Spacehive attempted to placate both these demands by scripting such exchanges—specifically, issuing a series of templates to frame “best practices” and guide exchange. These scripted templates contributed to a broader set of institutional blueprints, which are often necessary for ensuring the perceived reliability of interactions within a new organizational field (Hannan and Freeman, 1984).

In our findings we note the recursiveness of these dilemmas, particularly as Spacehive has continued to struggle with resolving concerns over the boundaries of its platform activities—specifically, delineating where the role of state-sponsored civic infrastructure ends and the role of crowdfunded civic infrastructure begins. These findings illustrate the potentially challenging relationship that platforms must build with existing alternatives (Schilling, 2015). Future research, for instance, might look to explore how SMPs, and platforms more generally, seek to position their solutions relative to existing alternatives (e.g., substitute versus complement).

Taken together, these findings and model extend our understanding of platform development and user growth more broadly by drawing attention to the deep-seated yet precarious values (Kraatz, Ventresca, and Deng, 2010) on which many SMPs base their reason for existence. To date scholars have focused on platforms’ user-growth challenges posed by network effects, such that in the earliest phases of development the lack of participation on a platform undermines its potential value (McIntyre and Srinivasan, 2017; Shapiro and Varian, 1998). As much of this research draws from neoclassical economics and thus tends to limit this challenge to one of network size or pricing mechanisms, several scholars have suggested the need to expand empirical attention to the non-market mechanisms used to regulate platform activity and shape network value (Afuah, 2013; Boudreau and Hagiu, 2009). Our findings confirm the need to expand scholarly attention beyond network



size and even network structure as constraints on platform growth, to also consider the socio-cultural conditions that often exacerbate the user-growth dilemmas SMPs must overcome, as well as the strategic practices—specifically the cultivation of institutional infrastructure—that might be used to reshape those socio-cultural conditions over time. Because platform development often proposes to displace dominant hierarchies and disintermediate existing markets, this requires deconstructing latent cultural assumptions about appropriate and trustworthy exchange. And because SMP development, in particular, often encourages participation from divergent stakeholder groups with complementary yet potentially competing demands, it requires efforts to develop social foundations for encouraging such participation without sacrificing essential values.

### **Overcoming mission drift and the neutrality-control dilemma within social-mission platforms**

While much of the prior literature on platform creation has focused on how organizations can tap into the network effects of multi-sided platforms, our findings suggest that in the context of SMPs such exponential user growth can generate unanticipated dilemmas for those organizations, as the mission and vision for the platform begins to drift, and the integrity of the platform is compromised. In this study we find that such dilemmas stem from challenges that SMPs face as they try to avoid intervening too heavily in participants' interactions and use of the platform. Although digital platforms more generally encounter such neutrality-control dilemmas, in the case of SMPs the potential for mission drift is not only a nuisance but rather a threat to the very essence and foundation of those platforms. While other platforms may have greater leniency and flexibility in responding to any adverse activity or effects, SMPs require more active and immediate attention to both in-platform activity and its off-platform effects to ensure mission adherence or at least alignment.

Our findings illustrate that simply having upfront terms and conditions to absolve of any undue duress or harm are insufficient in securing the integrity of SMPs and their social

missions. Instead, greater control is required to ensure that user growth occurs in ways that do not undermine and threaten the presumed and intended social value. In our specific case, the struggle to enact such control has led to expressed concerns by third parties as to whether Spacehive and similar civic crowdfunding efforts are really “platforms for the people” that efficiently and fairly co-produce public goods and services. Given the loosely-coupled interactions and corresponding limitations of Spacehive to enforce project execution and the social impacts associated with those projects, our findings suggest that the platform may have to rely heavily on third parties to provide full accountability and mission integrity.

In addition to extending our understanding of SMPs, these findings also contribute to the growing body of research on mission drift (Ebrahim, Battilana, and Mair, 2014; Battilana and Lee, 2014; Ramus and Vaccaro, 2017; Grimes *et al.*, 2018). Research on social innovation, for instance, has frequently presumed a direct relationship between the success of social innovation and positive societal outcomes (Logue, 2019; Tracey and Stott, 2017). Yet our study challenges this presumption. The findings highlight the potential orthogonality of social innovation and social value creation. Although it is clearly possible for social innovations to grow and simultaneously create positive impacts, it is also possible for such growth to occur in ways that undermine the presumed and intended value. Our findings illustrate how this potential may increase in the context of SMPs, due to the aforementioned control-neutrality dilemma. These findings suggest that as social innovators allow for open innovation and embrace the efficiency of arms-length transactions that tends to characterize SMPs, they must recognize the potential for such platforms to evolve in unexpected ways, generating unintended consequences. To uphold the integrity of the founders’ original values and missions for their organizations, these founders must be willing to intervene in ways that might at times discourage user growth.

### **Extending perspectives on strategy in multi-sectoral and multi-institutional settings**

Prior strategic management scholarship on multi-sectoral and multi-institutional settings has depicted the challenges to successful shared value as having to do with overcoming perceptions of competing prerogatives (Porter and Kramer, 2011; Vasudeva, Spencer and Teegen, 2013; Vasudeva, Alexander and Jones, 2014). Several recent studies, however, have identified particularly effective strategies for overcoming such challenges (Delmas and Toffel, 2008; Evans and Kay, 2008; Hardy and Maguire, 2010; Helms, Oliver and Webb, 2012); and unsurprisingly these typically involve informationally-rich, emotionally-charged, and highly inter-personal communication (Fan and Zietsma, 2017; George *et al.*, 2016). These are tightly-coupled strategies, involving ongoing work and consensus-building efforts. Yet, as our findings show, there are particular settings, such as those characterized by digital SMPs, in which the mechanisms for trying to establish cross-sector collaboration function via arms-length transactions, with deep consensus being improbable.

As such, how might leaders and managers establish effective strategies for encouraging shared value across multi-sectoral or multi-institutional settings without resorting to personally-intensive collaboration? Given that many platforms are involved in the mediation of multi-sided markets in ways that rely on arms-length transactions, our study suggests that such platforms may serve as an ideal setting from which to address this question. Yet to date most research on platforms has overlooked such multi-sectoral settings and has thus focused on settings within which the complementary nature of the participants is more obvious. Indeed, in many of the most successful cases of platform creation, the multi-sided markets and exchanges already exist yet are mediated by third parties which centralize the assets related to production and distribution. For instance, prior to the rise of ride-sharing platforms, the taxi industry owned the vehicles, directly employed the labor, and centrally coordinated the dispatching of vehicles to riders. Ride-sharing platforms merely disintermediated this market by decentralizing asset ownership and leveraging the complementary nature of market participants to directly connect existing supply and demand.

Although in some cases platform operators must work to establish and convince the various platform participants of the complementary nature of their interests, in most cases such complementarity is either viewed as self-evident or a simple matter of establishing the favorable economics of platform usage (Boudreau and Jeppesen, 2015; Fuentelsaz, Garrido, and Maicas, 2015; Kapoor and Lee, 2013; Yoffie and Kwak, 2006).

Our findings thus extend our scholarly understanding of strategy within multi-sectoral settings by highlighting solutions that move beyond highly distal practices such as the use of pricing mechanisms and highly proximal practices such as the mobilization of emotions and trust. Our findings highlight that overcoming the potential challenges associated with developing loosely-coupled exchanges in a cross-sector environment involves ongoing efforts to develop institutional infrastructure (Hinings *et al.*, 2017). As Spacehive noted, “We’ve spent 5 years proving that the model works: mechanically, culturally, politically” (Spacehive Job Advertisement, 12 April, 2017). By developing these institutional boundaries, bridges, and blueprints, Spacehive was not merely providing foundations for interaction on its own platform; it was also providing the necessary groundwork to globally embed this type of platform as a model of cross-sector exchange for local development and positive social impact.

### **Limitations and boundary conditions**

A common challenge of conducting research on digital platforms is often the access to proprietary data or real-time monitoring of public activities that may provide more comprehensive understanding of the entire workings of the platform (Margetts *et al.*, 2016; Nash *et al.*, 2017). For example, in our case, we could have supplemented our analysis of the integrity of the platforms’ exclusionary practices, if we had been able to capture project proposals which Spacehive ultimately considered to have “failed.” While the omission of such projects did not in this case impede our ability to answer our specific research question, access to such projects would allow for important and interesting future comparative work,

examining for instance how the degree of overlap between projects and a crowdfunding platform's mission might affect project success.

Also, as is typical of process studies, our findings regarding the institutional infrastructure necessary for increasing platform user growth while sustaining the mission of the platform raise questions of generalizability. Although we focused on the setting of Spacehive as an early mover in the development of civic crowdfunding, SMPs are not exclusive to this particular type of activity or market. Indeed, SMPs include systems for connecting lenders with aspiring entrepreneurs from developing economies (e.g., Kiva.org), the public with filmmakers that document human rights abuses (e.g., Witness.org), and businesses with ethical suppliers (CommonObjective.co) among others. These platforms all offer technological architecture and governance standards that guide the loosely-coupled interactions of their network users toward the remediation of social or environmental problems and the creation of shared value. Also, in each of these cases, the basis for the platform's existence is its social mission, and thus the potential for mission drift following from user growth likely presents an ongoing concern. Given such common challenges, we expect that the insights derived from the Spacehive case would apply across other SMPs. That said, in the case of Spacehive, the platform operator placed a particularly strong emphasis on involving and connecting cross-sector participants—a choice that likely exacerbated the challenges associated with legitimacy, participation, and exchange which we documented in our findings and model. Such features made this case an “unusually revelatory” case (Eisenhardt and Graebner, 2007: 27), allowing us to more clearly observe and theorize the relationships that matter for maintaining a platform's social mission amidst user growth yet also point to a likely boundary condition that raises questions of comparability across different SMPs, warranting exploration in future research.

Yet, to what extent might the theoretical relationships we identify in this study apply more generally to digital platforms without strong social missions or even to the wider setting

of entrepreneurship? For instance, both of these settings—as with Spacehive—are defined by the need to develop synergies between multiple stakeholders. Yet conversely, unlike Spacehive, these settings often involve, allow for, and encourage significant efforts to first identify stakeholders with whom there is already natural convergence between their interests and missions (Boudreau and Jeppesen, 2015; Fuentelsaz, Garrido, and Maicas, 2015; Kapoor and Lee, 2013; Yoffie and Kwak, 2006). As such, these other platforms and entrepreneurs can often rely on pre-existing intersecting interests to avoid the dilemmas and associated responses we surface in this study. There is no need to engage in the arduous efforts to manufacture institutional bridges by way of polysemous themes, for instance, if those bridges are already in place. Similarly, there is less need to protect against the risk of mission drift amidst growth by way of institutional blueprints, if that growth is likely to involve participants with shared values already aligned to those of the platform.

On the other hand, it is worth noting important exceptions, wherein several large, contemporary platforms have allowed for participation growth that exposed divergent values and introduced the potential for conflict. In such cases, the dilemmas and solutions we surface likely hold greater relevance. Take, for instance, Twitter’s ongoing challenges in auditing and responding to hate speech. From 2009-2015, the platform emphasized a non-interventionist position of neutrality, stating that each user is responsible for their content and they “do not actively monitor content and will not censor content” (Twitter, 18/1/2009). By the end of 2015, the site revised its policies introducing newly prohibited words, Twitter Rules and a revised preamble to its content boundaries statement, which described the “limitations on the type of content and behavior that we allow” (Twitter, 29/12/2015). In this and many other similar contemporary examples (e.g., Facebook’s response to “fake news”; Uber’s response to bad drivers), it becomes clear that platforms and entrepreneurs more generally can, under particular conditions, struggle to maintain the quality of exchange amidst pressures for user growth and neutrality (Wessel, Thies, and Benlian, 2017), and thus

likely require greater investment in and attention to the development of institutional infrastructure.

## **CONCLUSION**

Social-mission platforms, as loosely coupled systems, offer a new means of organizing and coordinating activity across sectors to deliver social value. While prior research on platforms has examined challenges associated with user growth given digital platforms' dependence on network effects, our analysis suggests that such dilemmas are exacerbated in the context of social-mission platforms given their emphasis on cross-sector collaboration and their existential need to maintain their social mission. Our findings and emergent process model emphasize the value of attending to the social foundations of managing platform user growth, revealing the early-stage cultivation of specific types of institutional infrastructure in overcoming associated challenges. We expose how the threat of mission drift may be experienced by all platforms, but for social-mission platforms, it is a threat that challenges their very existence and thus requires ongoing vigilance to overcome.

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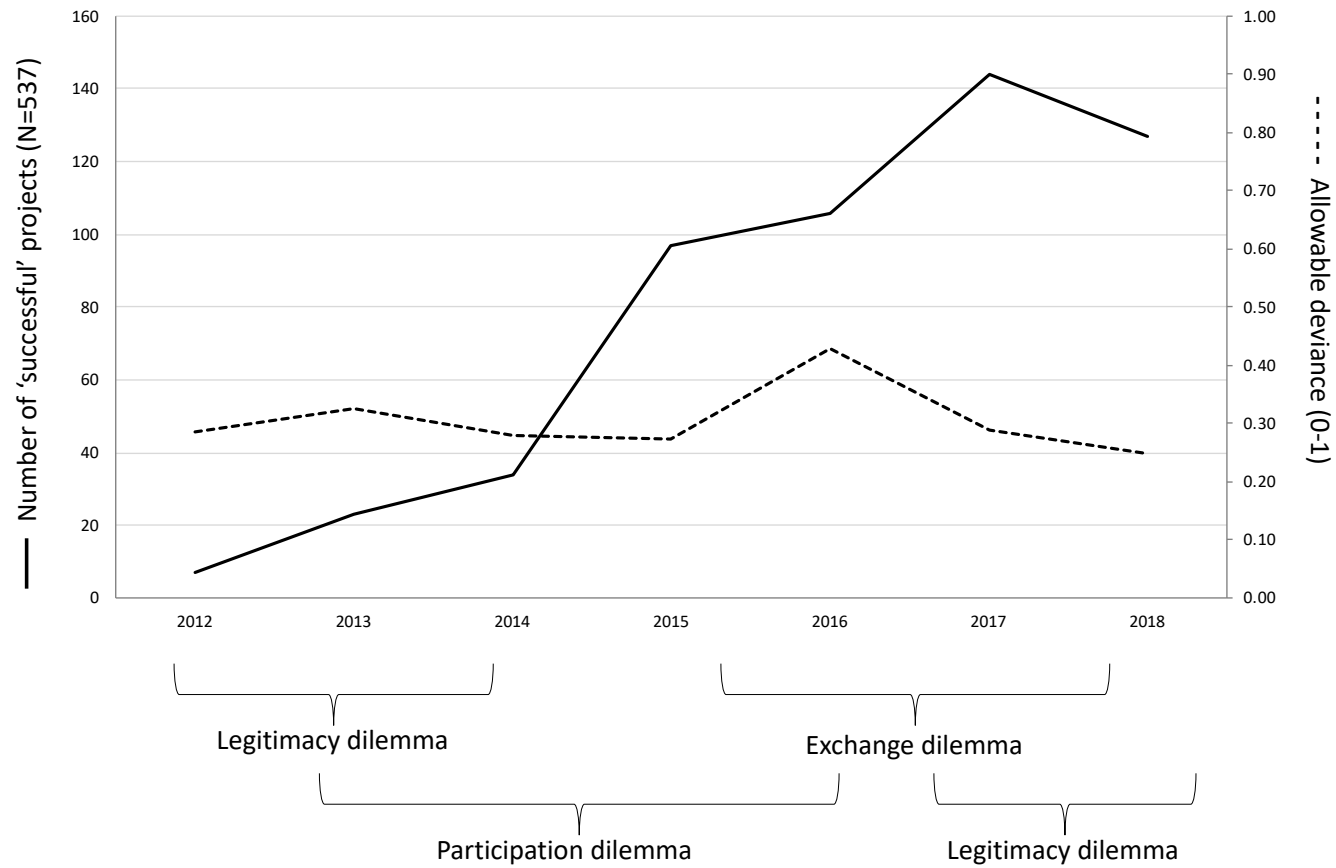
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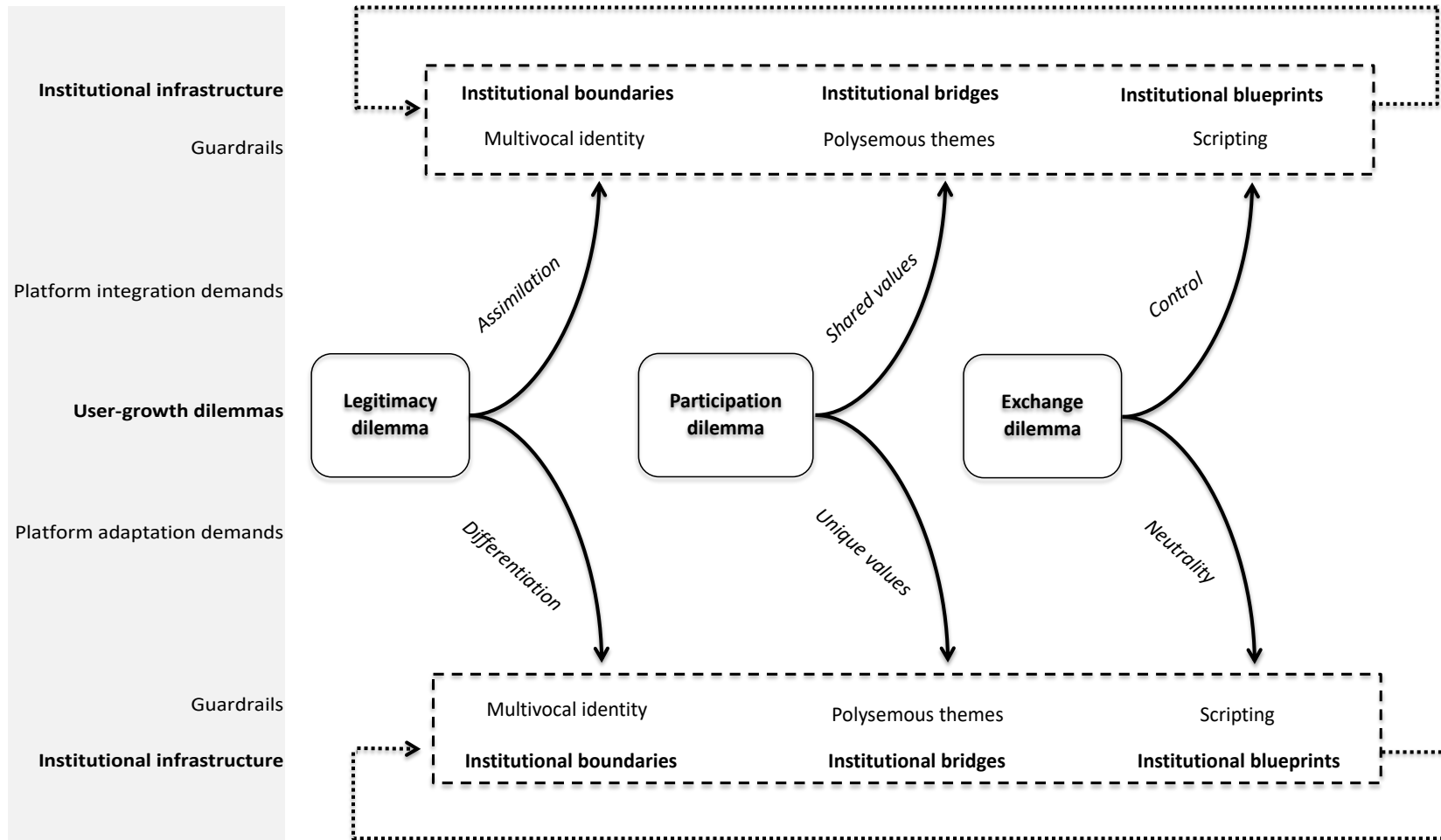
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**Figures and Tables.**



**Figure 1. Project growth 2011-2018, allowable deviance and associated user growth dilemmas**



**Figure 2. Emergent model of the cultivation of institutional infrastructure in response to SMP user growth dilemmas**

**Table 1a. Data sources and their use in analysis**

Source of data	Type of data	Use in analysis
Extra-organizational level	Nov 2012 – Dec 2018 65 Newspaper articles Guidebook for Local Authorities (31 pages)	Gain detailed contextual understanding of reactions of actors from each field Understand how actors perceive new space and innovation and their role
Organizational level	Aug 2011 – Dec 2018 142 Spacehive Blog Posts (287 pages) 28 Spacehive Media Release (42 pages) 11 Spacehive Best Practice Case Studies and Guidebook (52 pages)	Gather detailed information on operations of Spacehive and how it is constructing the space and guiding actors participation through rules and suggestions of best practice Understand how Spacehive is presenting its role in space over time
Project level	Dec 2012 – Dec 2018 537 Spacehive Projects - database of successfully funded listings, project descriptions, chronology of activity, promoters and donors	Observe the online practices of participants Compare actual practice to mission, discourse Gain understanding of convergence or standardization of micro-practices

**Table 1b. Summary of ‘successful’ projects**

	2012	2013	2014	2015	2016	2017	2018
Number of projects publicly listed as successful (i.e. deemed to have achieved funding target)	7	23	34	97	106	144	127
Number of projects resulting in permanent public asset (%)	85.7%	47.8%	64.7%	79.4%	53.8%	66.0%	55.1%
Average amount of funding raised (£)	127,838	13,401	16,914	27,642	17,731	19,829	13,662
Project size (range of funding sought) (£)	341 – 791,433	90-100,282	149- 239,014	215 – 368,283	60 – 180,062	97 – 420,847	223 – 130,759
Amount raised against target (range by %)	97 - 102	66 -102	70 - 142	56 -120	90 - 147	50 - 168	94 - 136
Average number of backers	44	44	62	50	86	77	69
Range of number of backers	9 - 107	5-114	1 - 532	2 - 928	1 - 1085	1 - 2095	2 - 1201



**Table 2. Illustrative quotes of processes cultivating institutional infrastructure**

Institutional infrastructure	Sample quotes
Institutional Boundaries	<ul style="list-style-type: none"> <li>- [Spacehive founder on how Spacehive’s model rejects traditional charitable fundraising approaches] “I think charities are probably the sector that has been the slowest to understand the benefits of crowdfunding...[With Spacehive] users are able to back very tangible projects. It is about creating a more engaging experience and reaching new audiences.” (Newspaper, 30/4/13)</li> <li>- [Spacehive employee on how Spacehive’s model rejects centralized, government coordination of civic infrastructure] "There is a mindset slowly shifting from: 'I pay my taxes so that local governments will do their work for me to the mindset of: 'Where can I fit in with regards to shaping and improving the place where I live?' – be that through ideas, supporting ideas, or donating money. It's a more rational way of looking at society." (Newspaper, 15/12/14)</li> <li>- [Spacehive blog on how their model excludes projects without a social mission] “Where we stand apart from other crowdfunding platforms is that we focus exclusively on transforming places, spaces and communities. Always have been. Which means we know all there is to know about getting them funded.” (Media Release, 19/1/17)</li> </ul>
Institutional Bridges	<ul style="list-style-type: none"> <li>- [Spacehive founder on how Spacehive’s model enables democracy through community empowerment] "Local communities across the country are best placed to decide how the money is spent. Whether you want to transform a playground, bring an old building back to life or create something completely new, by using civic crowdfunding platforms such as Spacehive, the supermarkets and the Government can make sure there is an easy, democratic and transparent way to give people their say." (Newspaper, 4/10/15).</li> <li>- [Spacehive blog on how Spacehive’s model enables democracy through citizen empowerment] “Civic crowdfunding can start as one person’s half -formed idea as they look around the area they’re living and imagine all of the little ways it could be made better. Through the cumulative power of crowdfunding, a single person’s idea can inspire huge improvements in public life when individuals, councils and businesses all see the benefits.” (Blog, 25/1/16)</li> </ul>
Institutional Blueprints	<ul style="list-style-type: none"> <li>- [Spacehive blog on how project sponsors should emphasize the social value and impact of their proposals] “Projects that are funded with public money, need to show that they will benefit the whole of their local community, not just a part of it.” (Blog, 29/6/17)</li> <li>- [Spacehive blog on how project sponsors should pitch their proposals on the site] “The three key aspects of any good video are to get yourself or a member of the project team in front of the camera, show people the project location, and have a strong call to action at the end. To do this, just go down to the project site, introduce yourself, talk about what you want to do with some energy and passion, and then ask people to pledge at the end, making sure to let them know it can’t happen without their support.” (Blog, 9/5/13)</li> <li>- [Spacehive blog on how project sponsors should “warm up” local businesses offline to encourage future support] “Although you should wait until later in your campaign to ask for a pledge, we advise ‘warming up’ your target businesses early on. Pop in and let them know that you live locally and would appreciate their opinion on a local project idea you have. By asking for their feedback and taking their opinions into consideration they will feel like they’re a part of the project, and therefore may be more inclined to pledge to the project later on when you come back with a 50% funded campaign.” (Project Creator Guide, p15)</li> </ul>