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WHY SOCIAL INNOVATORS SHOULD EMBRACE THE "OPEN" PARADIGM

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ABSTRACT

This paper seeks to contribute to current debates on social innovation by critically reviewing extant literature and proposing a model of "open" social innovation. It is argued that the social innovation field will benefit by embracing the open paradigm both within the internal organisational structure of socially innovative firms and, in the knowledge searching activities in which such organisations engage. The model will serve as a tool to stimulate discussion around the "opening up" of the social innovation process and will provide a framework for understanding how to engage more diverse knowledge sources in the process of solving complex problems.

INTRODUCTION

The locus of social innovation has shifted radically over the past 60 years, from a predominantly centralised state-led approach encompassing innovations such as nationwide health care systems, towards a devolved patchwork of civil society organisations providing customised solutions to niche contemporary problems. These individuals and organizations, often working across sectoral boundaries and embedded within resource-constrained milieu, have adopted entrepreneurial and market-based approaches to meeting demands in a sustainable and effective manner. Despite a tremendous measure of goodwill from academic and policy circles, social innovation is failing to live up to its promise(Jankel, 2011). Barriers exist, both in the conceptualisation of social innovation and in the larger social innovation system, that restrict or disincentivize such activities. These barriers include market protectionism, risk aversion, problem complexity, access to networks and access to finance.

To fully realise the potential of socially innovative behaviour, and to effectively leverage the value created by those who participate in socially innovative activities, it is argued that a new "open" paradigm should be formally embraced. The idea of an "open" approach to innovation has received much attention of late, supported in particular by the work of Chesbrough (2003; 2011) and Chesbrough *et al.*(2006), who define the phenomenon as *"purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation respectively"*(p.2). The central thesis of this approach, that the vertically integrated, "closed" model of innovation is now unsustainable and outmoded, assumes most valuable knowledge exists outside of the firm's boundaries. Therefore, organizations that widely search distributed knowledge sources and, more importantly, can successfully assimilate external knowledge into their own innovation process, are in a more advantageous position than their competitors (Laursen and Salter, 2006). The open approach is increasingly being applied to organizations outside of the high-technology manufacturing sector and towards low-tech, service-based SME firms (Brunswicker and Vanhaverbeke, 2010). It is argued therefore that socially innovative organisations should adapt both their internal structures and strategic search activities to best capitalise on valuable knowledge available through partnerships, competitors and the scientific research base. Associated with this stream of distributed innovation literature is user innovation (Morrison *et al.*, 2000) which contends *"that users have the knowledge and motivation to create innovations that solve needs unmet by existing providers"*(West and Bogers, 2010). Like Open Innovation, this model is potentially important for social innovators, as mechanisms and strategies for incorporating this useful knowledge into the innovation process must be explored further.

Following this introduction, the literature on social innovation and other closely related fields is reviewed and from this, the most prevalent barriers to socially innovative behaviour are identified and analysed. These barriers form a framework for discussing the applicability of open innovation practices for more effective social innovation. The paper concludes with a summary of the discussion points and an outline of further research avenues.

1. SOCIAL INNOVATION

Recent developments in the management literature have signalled a shift in focus from technological innovation towards social innovation and social entrepreneurship (Leadbeater, 1997; Dees, 1998; Shaw and Carter, 2007; Nicholls, 2010). The crux of this innovative behaviour is that skills and expertise used to develop successful commercial innovations can be used to solve a wide range of societal problems. Murray *et al.*(2010) define social innovation as *"innovations that are social both in their ends and in their means. Specifically, (social innovations are defined) as new ideas (products, services and models) that simultaneously meet social needs and create new social relationships or collaborations. In other words, they are innovations that are both good for society and enhance society's capacity to act"* (p.3). Sharra and Nyssens (2010) note two complementary approaches to social innovation in the literature: one focussing on social innovation as an outcome and the other focussing on social innovation as a process. Increasingly, both aspects are being incorporated into working definitions, as illustrated by Murray *et al.* (2010).

As with any fashionable term in the social science domain, a critical interrogation of the construct is necessary to ascertain its merit and relative value; this is particularly true when discussing social innovation, a phenomenon that, due to its particular characteristics, has a tendency to elicit passionate and emotional responses from those involved in its diffusion. This is manifest in a bias across the wider literature towards "feel good" case studies that focus primarily on reporting the positive outcomes of socially innovative behaviour (NESTA, 2008; European Union/The Young Foundation, 2010). It is a more troublesome pursuit identifying dissenting voices in the field, largely because it remains so loosely defined (Pol and Ville, 2009) that it becomes difficult for one to say they are somehow critical or "against" such a nebulous concept. Furthermore, Harrison, Klein et al. (2010) draw attention to the often-contradictory nature of social innovations whereby they can simultaneously enhance and disrupt the existing social order, further blurring understanding of the often competing ends social innovation seeks to achieve.

An enthusiastic body of extant literature, and the work of organisations such as The National Endowment for Science, Technology and Arts (NESTA) and Young Foundation, has played a critical role in propagating the notion of social innovation to a wider audience. In doing so, individuals and organisations have been offered - and have seized upon - alternative means of achieving social progress by challenging traditional problem solving mind-sets. In particular, there is greater awareness that structural barriers to solving complex social problems can be navigated through the utilization of entrepreneurial skills. Similarly, it has been shown that tools and systematic approaches borrowed from the technological and commercial innovation paradigms can be successfully appropriated and applied to the process of identifying and scaling up socially innovative opportunities (Mulgan, 2006; Murray *et al.*, 2010; Saul, 2010).

Despite this growing awareness and adoption of social innovation (bolstered by numerous well-reported success stories[1]), there has been a relative lack of academic research exploring its dimensions and antecedents(Sharra and Nyssens, 2010). Of research that has been published, attention is primarily afforded to: *defining and understanding the construct* (Mulgan *et al.*, 2007; Phills *et al.*, 2008; Dawson and Daniel, 2010); *establishing theoretical models of social innovation* (Mulgan, 2006; Goldstein *et al.*, 2010; Lettice and Parekh, 2010); and *providing detailed analysis of specific case studies* (Klein *et al.*, 2010). The general lack of any dominant theoretical assumptions or methods within the domain however, suggests that social innovation

[1] For instance, Muhammad Yunus winning the Nobel prize for his socially innovative Microfinance project.

is not yet a paradigm in the Kuhnian(1962) sense. Here, a paradigm is described as theories of world views that define legitimate problems, methods and solutions for a community (Kuhn, 1962). Given the multidisciplinary nature of the field and the contrasting ways in which Sharra & Nyssens (2010) claim social innovation is being interpreted, it follows that the scholarly field has not yet reached a normative state, as actors continue to compete in shaping the dominant logic. Nicholls (2010) argues that the related field of social entrepreneurship is at a pre-paradigmatic stage, and it would appear that the same conclusions can be drawn from analysis of the social innovation field.

2. SOCIAL INNOVATION: DURABLE CONCEPT OR PASSING FAD?

It is perhaps too early a juncture to evaluate whether social innovation is a passing fad or will become a dominant paradigm. Ramsay (1996)equates faddishness to superficial quick fixes, and the more sceptical observer may seek to attribute the recent political interest in social innovation and social entrepreneurship to such short-term policymaking opportunism. Although there has been enthusiastic support from across the political spectrum for social innovation, the structure and prevailing culture of government is almost antithetical to the habitually risky nature of disruptive innovation (Goldsmith *et al.*, 2010; Jankel, 2011). While on one hand there is explicit support and funding from authorities to develop pattern breaking social innovations[2], the other paradoxically opposes innovative ideas for bureaucratic or risk-related reasons (Antadze and Westley, 2010). When reviewing the field as a whole, this systemic inertia may serve to undermine the underlying promise of social innovation as a mechanism for change. Despite enthusiasm for the approach, clear barriers exist to social innovation that threaten to hasten the "fizzling out" of the concept unless specifically addressed.

3. BARRIERS TO SOCIAL INNOVATION

As both Jankel (2011) and Christensen *et al.*(2006) have noted, there is a disconnect between resources funnelled to the social sector over the past decade, and both the quality and volume of disruptive innovations that have ensued. There are undeniable successes that have enacted profound structural change in certain problem domains, including, Microfinance and the changes to the economic development landscape in Bangladesh and beyond. However it is questionable whether the hype around social innovation and social entrepreneurship can be reconciled, thus far, with any significant tangible outputs. It is unclear precisely why this is the case. Very little research has been undertaken exploring the reasons for social innovation failure (a notable example being McLoughlin and Preece's (2010)study on the failure of rural "cyber" pubs in the UK), and because of the aforementioned definitional and conceptual issues, it is difficult to meaningfully interrogate existing datasets for new insight.

Drawing from several empirical studies on social innovation (Hamalainen and Heiskala, 2007; Holmes and Smart, 2009; Klein *et al.*, 2010) and wider conceptual literature (Antadze and Westley, 2010; Dawson and Daniel, 2010; Jankel, 2011)a number of themes emerge that identify common barriers which are inhibiting a greater proliferation of socially innovative behaviour. These are discussed in detail below.

[2]Typified by the Social Innovation Fund (SIF) launched by President Obama in the USA.

4. PROTECTIONISM & RISK AVERSION

Rhetoric around social innovation perhaps naively assumes that all individuals and organisations share a common homogenous desire to develop the most effective solutions to societal problems; in reality however, this is not the case. The United Kingdom and any other country where social provision is increasingly being privatised, risk creating a market disincentive for disruptive innovations. Jankel (2011) notes that public managers and non-profits are encouraged to "keep projects in their own domains and silos, further preventing breakthrough innovation" (p.7). A failure to transcend these hardened institutional factors supports the *status quo* and perpetuates a cycle that allocates funding to "organizations that are wedded to their current solutions, delivery models, and recipients" (Christensen *et al.*, 2006: 95). This market protectionism coexists alongside a staunchly conservative culture within government and philanthropic circles that prevents the diffusion of new innovations. Antadze and Westley(2010) find there is a clear appetite to remove uncertainty from any novel product or process, even at the expense of potentially disruptive social innovations. This, contends Mulgan (2006),is inevitable as *"innovation must involve failure, and the appetite for failure is bound to be limited in very accountable organizations or where peoples' lives depend on reliability"* (p.156).

5. PROBLEM COMPLEXITY

Fittingly, a theoretical lens that has been applied to social innovation recently, is that of complexity science (Goldstein *et al.*, 2010; Moore and Westley, 2011). There appear to be two reasons why complexity is considered a barrier to social innovation. Firstly, Jankel (2011), Lettice and Parekh (2010) and Antadze and Westley (2010) touch upon the difficult and multifaceted nature of most social problems. It is argued that to effectively tackle an issue requires cooperation across multi-stakeholder environments, often necessitating more effort to manage effectively than technological-based counterparts (Lettice and Parekh, 2010). Jankel (2011) meanwhile advances the argument that the true scale of problems - and therefore solutions - are being artificially compartmentalised:

"The 'command and control' type of management so efficient when controlling workers and increasing their productivity tends to falsely divide complex social issues into linear, separate parts that one part of government, or social organization, can focus on" (p.7)

This is in line with Moore and Westley(2011) who claim that complex problems are exacerbated by rigid social structures that acts as problem "traps". It is suggested, in this case, that applying resilience theory offers a promising method of understanding and navigating the complexity of such problems. Secondly, Antadze and Westley (2010) hint at an ignorance towards social care provision amongst some service providers who adopt a managerial approach to problems, with the result that services are being delivered where *"the nature of the true need may not even be understood"* (p. 347).

A compelling argument begins to emerge that failure to adapt the social innovation process towards tackling the root of complex societal issues diverts attention and resources away from developing the bona-fide innovations that will work beyond the superficial "symptomatic" level.

6. NETWORKS & COLLABORATION

Lettice and Parekh (2010) find in their empirical study on the process of social innovation, that failure to connect to the right network has a negative effect on both the morale of the social innovator and access to finance and other support. Specifically it was found that *"sometimes innovators struggle to identify which conventional networks to align with, as social innovations often span boundaries and do not neatly fit into a single category"* (Lettice and Parekh, 2010: 150). The effect of this ambiguous identity is confirmed in the European Commission report (Pulford, 2010), which advocates stronger networks to help social innovators identify themselves as such, and in turn, to create a mutually supportive community. The same report (Pulford 2010) notably claims that social innovators are "hard to reach" which suggests the networks that Moore and Westley (2011) describe as being critical to the scaling up of ideas, are largely absent.

The importance of networks to entrepreneurial growth has been covered extensively in the entrepreneurship literature (Hansen, 1995; Hite and Hesterly, 2001; Greve and Salaff, 2003; Hoang and Antoncic, 2003) and it is judged to have similar importance for social innovators. Mulgan*et al.*(2007) argue the absence of networks *"explains why so many social innovations are stillborn and why so many social entrepreneurs are frustrated"*(35).

7. SUMMARY OF BARRIERS

In sum, innovators face many considerable obstacles when attempting to creatively tackle social problems. Firstly, both governmental and philanthropic organisations are naturally risk averse and tend to reject disruptive solutions in favour of incremental improvement. There also exist deep relationships between funders and service delivery partners that contribute, in part, to a perpetual a cycle of incremental improvements to social problem. It is a fallacy in the social sector to assume that firms providing social care wholeheartedly welcome disruptive innovation - even if it promises to solve a social problem. Like the private sector, such innovation threatens to make organizations redundant and may draw to a close to sometimes profitable relationships with the public sector. Established funding structures, clearly drawn down the lines of governmental functions and philanthropic/charity missions, artificially compartmentalise social problems meaning it is unlikely true systemic solutions will be achieved. Finally, social innovators are failing to identify and gain access to the networks that will facilitate their success. This reduces exposure to valuable sources of knowledge that may subsequently feed into the social innovation process.

8. INTEGRATING OPEN INNOVATION AND SOCIAL INNOVATION

The aforementioned barriers present a significant hindrance to social innovators and reduce the potential for disruptive social innovation. It is suggested therefore, that attention should turn to developments in the parallel field of open innovation for inspiration on how to overcome deficiencies in both social innovation research and practice. The following section will discuss the open paradigm in greater detail anda theoretical framework will be constructed for analysis of social innovation.

9. THE OPEN PARADIGM

Open innovation has emerged as one of the most popular strands in the innovation literature over recent years (Chesbrough, 2003; Elmquist *et al.*, 2009; Lichtenthaler, 2009; Chesbrough, 2011; Traitler *et al.*, 2011). The term describes a move from vertically integrated "closed" models of innovation, typified by Edison's Menlo Park and countless other large technology companies, to an "open" model that utilises knowledge and expertise from outside of the organizational boundaries. It is defined by Chesbrough (2006b)as *"the use of purposive inflows and outflows of knowledge to accelerate internal innovation and to expand the markets for external use of innovation respectively" (*p.2). Although open innovation is a relatively new term, some authors have pointed out that the concept behind it is not (Paul and Dap, 2009). Huizingh (2011) contends that open innovation is simply a neat umbrella term for a collection of parallel developments such as the use of networks and outsourcing in the innovation process, that provides a valuable integrative framework for academics and practitioners. The degree of originality is however a relatively moot point; the academic literature has since built upon the idea and extended theory in a number of different areas, including: leadership and organizational culture (Dodgson *et al.*, 2006; Fleming and Waguespack, 2007), business models (Chesbrough, 2007; Chesbrough, 2010) and industrial dynamics (Vanhaverbeke, 2006). Similarly, detailed case studies on firms such as Proctor and Gamble (Dodgson *et al.*, 2006)have described how open innovation practices have revolutionised the organisational processes of established manufacturing and technology companies, assisting in the creation of many valuable products and services.

Three archetypal processes form the core of the open innovation concept: outside-in processes (OI); inside-out (IO) processes; and, coupled processes (Gassmann and Enkel, 2004). Outside-in processes refer to the way firms use external sources of knowledge and innovation (Chesbrough *et al.*, 2006). This approach involves firms scanning for valuable knowledge that can be absorbed into their in-house innovation developments. Inside-out involves companies exploiting internal knowledge externally. This may involve the use of patents that the focal firm has no use for(Dahlander and Gann, 2010), or may involve revealing internal knowledge to the external environment in a bid to improve the chance of cumulative advancements (Levin, Klevorick et al. 1987) and participation (Henkel, 2006). Finally, coupled processes involve utilisation of both IO and OI processes to bring new ideas to market. This entails cooperation with other firms in strategic networks and facilitates knowledge creation and learning within the innovation system (Dahlander and Gann, 2010). A growing body of literature also finds that this cooperation with customers and competitors reduces the risks associated with the innovation process (Kirschmann and Warschburger, 2003; Enkel *et al.*, 2005; Ogawa and Piller, 2006).

While many of the popular examples of open innovation concern large multinational enterprises (MNEs), the concept is increasingly taking hold in the broader business environment (van de Vrande *et al.*, 2009). Pullen *et al.*(2008) discuss the need for SMEs to focus on their core competences while using external sources to overcome areas of weakness and deficiency. This involves moving to what Rahman and Ramos (2010)call a "networked paradigm" of collaboration between competitors and customers. Despite examples showing that SMEs can overcome disadvantages relating to size and resource scarcity through open innovation practices (Gassmann and Keupp, 2007), Gassmann *et al.* (2010) provide empirical evidence to show that a larger organisational size remains beneficial. Finally drawing from research conducted in the Taiwanese Biotech sector, Lee *et al.*(2010) argue that a way of overcoming issues associated with size is to create intermediated networks that facilitate collaboration. On the whole, significant gaps remain in research relating to open innovation in SME and micro-sized firms and it is considered unwise to assume similarities with MNEs in many areas.

It is acknowledged that some parts of the open innovation literature may have limited relevance to the field of social innovation (in particular, research specifically relating to particular technological contexts and many intellectual property issues), however it is proposed that several key dimensions of the open paradigm can provide a useful insight for social innovation scholars, practitioners and policymakers. The following section will examine key theoretical areas of open innovation:

10. KNOWLEDGE SEARCHING& NETWORKS

Knowledge is one of the fundamental inputs to the innovation process (Nonaka, 1995; Fischer, 2001; Asheim and Coenen, 2005; Popadiuk and Choo, 2006). Schumpeter (1934) theorizes that radical products and services and introduced to the economy through combination of different pieces of knowledge. While the closed paradigm of innovation can be characterised by the notion that *"the smart people in our field work with us"* the open paradigm recognises that knowledge is distributed (unevenly) across the globe, and as a result *"not all of the smart people work for me"* (Chesbrough, 2006c: xxvi). This shift in the locus of useful knowledge means that knowledge searching and assimilation capabilities have become the key activities and sources of competitive advantage in the open innovation process.

It has been suggested by Laursen and Salter (2006) that there are two dimension which firms must consider when searching for knowledge: *breadth* and *depth*. The deeper and broader the search for knowledge, the greater the degree of openness the firm displays. Search breadth involves searching through a number of different channels for knowledge while depth involves how deeply a firm draws from external sources (Laursen and Salter, 2006). Empirical findings show that increasing the breadth and depth of knowledge searching has a positive effect on innovation (Laursen and Salter, 2006; Leiponen and Helfat, 2010). Chiang and Hung(2010) find that firms who pursue broad search strategies enhance their radical innovation performance while those who pursue depth improve their incremental innovation performance. It is argued however, that there is a tipping point after which search activities become subject to diminishing returns (Laursen and Salter, 2006). This is described as "over-searching" and may be a result of:absorptive capacity problems; timing problems (ideas in the wrong time and place to be exploited); or, attention allocation problem (Koput, 1997).

In terms of searching broadly for sources of knowledge, one particular channel has been increasingly integrated into the innovation process over recent years: *the customer(von Hippel and Katz, 2002; Franke and Piller, 2004; von Hippel, 2005)*. In the private sector, a failure rate of 50% or greater exists for newly launched products, a number attributed to a *"faulty understanding of customer needs"*(Ogawa and Piller, 2006: 65). It is argued that integrating the user reduces the risk associated with introducing new innovations, primarily as there is a commitment from customers. This notion of user participation has been particularly well developed in the open-source software community where firms such as Linux have benefited from the coding expertise and product design ideas of thousands of individual users (von Hippel, 2001; Chesbrough, 2006a). This is an insightful and highly relevant example of how firms can successfully use open innovation processes in order to elicit participation from users.

A further dimension of the innovation literature has been a focus on going beyond local and towards boundary-spanning knowledge searches (Rosenkopf and Nerkar, 2001). Local searches tend to lead to narrow myopic sources of knowledge while boundary-spanning searches can reveal distant knowledge that can assuage "*industry blindness*" (Gassmann and Zeschky, 2008; Brunswicker and Vanhaverbeke, 2010). It is proposed that searching for analogical problems – that is, *"searching for isomorphic relationships of apparently unrelated knowledge domains, markets or technology functions"* (Brunswicker and Vanhaverbeke, 2010: 684) – is a promising method of ensuring radical new innovations. This method has been employed in the fields of psychology and creativity thinking for many years (Gick and Holyoak, 1980; de Bono, 1990), and it would appear to integrate easily into the knowledge-focused "open" paradigm. Gassmann and Zeschky (2008) provide the example of BMW overcoming the problem of providing an easy method for effectively controlling the 200 different functions available to drivers. By examining other industries, engineers were able to recognize a solution in the video game control stick, in turn successfully incorporating the innovation into their *iDrive* device. Further examples of this "creative imitation" are provided by Enkel and Gassmann (2010) who illustrate how the easyjet model has been applied to other industries with price-elastic demand curves (such as easyCar and easyMobile) and even demonstrate how the physics principle of the Erlenmeyer flask has led to the creation of waterless urinals.

The extensive use of inter-organisational networks to facilitate open innovation also raises questions over the apparently paradox associated with concurrently sharing and protecting knowledge(Bogers, 2011). It is suggested that firms adopt a hybrid strategy somewhere between "open knowledge exchange" and a "layered collaboration scheme", to effectively manage the tension that exists with multiple innovation partners(Bogers, 2011).

11. ORGANISATIONAL FACTORS

While the preceding section primarily examines external dimensions of the innovation process, attention will now focus on internal factors that facilitate organizational "openness". As Chesbrough(2006c) notes, firms must reorganize their internal operations and create a porous boundary to fully benefit from external knowledge. He(Chesbrough, 2006c)provides the example of firms such as IBM and Intel who radically altered the internal dynamics of their respective firms in order to adjust to the new paradigm. A well-reported example of this new internal structure is Proctor & Gamble's (P&G) Connect and Develop approach to innovation (Dodgson *et al.*, 2006; Huston and Sakkab, 2006). Connect and Develop works by tightly defining a problem then broadcasting the problem across the firm's global network. In one particular instance, a baker in Italy had developed a means of printing edible images on baked goods, and this was soon profitably absorbed into P&G's production process.

One caveat to the open innovation approach however, is that organisations cannot simply eliminate R&D spend. While some of the MNEs discussed in the literature have certainly reduced costs, recognising and integrating external knowledge requires internal knowledge and expertise. This ability, known as absorptive capacity, is defined as *"the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends*"(Cohen and Levinthal, 1990: 128). While it can be safely assumed that firms such as IBM and P&G contain a significantly high level of absorptive capacity – especially in the wake of initiatives such as Connect and Develop that link up and leverage the firm's global knowledge – the same cannot be said for SMEs. Spithoven(2011) suggest that low-tech, traditional firms do not have sufficient absorptive capacity to benefit from open innovation, and therefore should join collective industrial research centres to remain competitive in the open era. The evidence suggests that firms in such industries are not exposed to as many opportunities as those who invest in building and maintaining absorptive capacity.

12. DISCUSSION

Overcoming Barriers through Open Social Innovation

One of the common barriers to the adoption of social innovation lies in the risk associated with disruptive innovation (Antadze and Westley, 2010; Jankel, 2011). There remains a dichotomy in the social innovation sphere however, where those offering support to social innovators in the form of capital are institutionally conditioned to favour incremental "safer" forms of innovation. The literature however illustrates that increasing "openness" can significantly mitigate some of the risk associated with innovation (Leiponen and Helfat, 2010). Firstly, empirical evidence supports the theory that increased variety and volume of knowledge sources simultaneously improves the innovation, increases the likelihood of disruptive innovation, and reduces the risks associated with introducing innovation (Laursen and Salter, 2006; Chiang and Hung, 2010; Leiponen and Helfat, 2010). It is therefore questionable whether creating networks of social innovators - as suggested by the EU (Pulford, 2010) - is an entirely productive venture. If social innovators identify too strongly as social innovators, and develop strong ties to other social innovators at the expense of more diverse groups, the innovation process may be starved of new knowledge and capabilities. This myopic "local" sourcing of knowledge within narrow domains is well documented in other industries (Stuart and Podolny, 1996) and risks limiting the creative potential of social innovation.

The second factor that may help reduce risk in the social innovation process is through systematically searching distant knowledge domains for isomorphic relationships. The ingenious transfer of proven ideas into new problem contexts is well documented by Enkel and Gassmann (2010) in the commercial sector. In the social innovation field, one only has to look at Kiva for an example of the immediate impact analogous problem solving can have. Kiva, a Swahili word for "unity", is a microfinance platform that extends upon the original concept of Muhammad Yunus' Grameen Bank. The innovation with Kiva lies in the way in which it connects individual funders with recipients. This is achieved through a process called peer-to-peer lending, a concept that originally emerged as a means of sharing - *normally illegally* - music files and other documents via sites like Napster and BitTorrent. By recognising the power of this model and its applicability to microfinance, the founders of Kiva successfully adapted and implemented this disruptive innovation into their own social innovation. The most interesting aspect of this for innovators is that although Kiva is a radical idea, the associated risk was minimized as the success of the peer-to-peer platform was proven in another industrial setting.

A final consideration that has potential to significantly minimize risk in the social innovation process is careful consideration and selection of knowledge sources. As research from the private sector has shown, integrating the user into the innovation process has multifarious benefits (von Hippel, 2001; von Hippel, 2005). There is growing consensus that this could have a positive effect on the success of social innovations by closely aligning user needs with services provided (Henkel and Von Hippel, 2003; Broberg, 2010). Svensson and Bengtsson(2010) analyse the introduction of social innovations through a user innovation lens and find that incorporating the user adds legitimacy to the innovation and helps in its wider diffusion. This contrasts with McLoughlin and Preece's(2010)work on the failure of "rural cyber pubs", where web-enabled computer units were installed in rural pubs in the UK as a means of providing information technology access to groups otherwise excluded from the Internet. The venture ultimately failed however, and one of the reasons was owing to poor integration of user knowledge in the innovation process. This failure points to a more general malaise in some areas of the social service provision, where the question of *"whether the program meets the client needs in a significant fashion is rarely measured"*(Antadze and Westley, 2010: 347). The evidence suggests that social innovations work best when utilizing the expert knowledge of users, though at present, the dominant paradigm is often to provide services *to* people rather than *for* people.

As Jankel (2011) notes, there is also an inherent difficulty tackling social problems, primarily due to the manner in which they are artificially compartmentalised. This is problematic as it means dispersed groups of unconnected individuals see part of a problem without benefiting from a fuller conceptualisation (similar to the blind men and the elephant fable Brazeal and Herbert (1999) use to describe the difficulty of understanding the entrepreneurship paradigm). In contemporary civil society, thousands of organisations are operating in comparable blindness, tackling small parts of a particular social problem and perhaps even duplicating failed approaches in different contexts.

Open innovation provides a mechanism for cutting across these silos by allowing organisations to share problems and invite collaboration from globally distributed knowledge sources. This process may be analogous to panning for gold:time consuming and resource intensive. Though, by initiating this process, there is opportunity to engage a wide range of stakeholders in socially innovative activities and a broader pool of knowledge can be drawn from.

This approach to tackling complexity can be illustrated by the open sourcing movement. Although linkages between the software industry and the social sector may not be immediately obvious, Chesbrough (2011) hints at some possible commonalities: *"Unlike the innovation merchants and architects, they (open source programmers) do not seek financial profits from their work. Instead, the mission is what motivates them. This is characteristic of many community-based non-profits and religious groups but also occurs in the software industry*(p.135). The revolution in the software industry also offers a possible avenue for social innovators to overcome the aforementioned vested interests and protectionism. Linux, the open source operating system (OS) created and distributed for free by keen hobbyists, has taken an unprecedented share of Microsoft's Windows OS market, ending years of the larger firm's almost monopolistic dominance. The collective effort of programmers has also contributed to social innovations such as the low cost laptop scheme, One Laptop Per Child (OLPC), as prohibitive cost barriers have been removed due to the availability of a free OS. The notion of open sourcing as a method of engaging the effort and input of others is gaining traction amongst policymakers. The UK government is currently in the process of preparing a white paper entitled "Open Public Services" which is a promising development in the removal of functional silos that currently limit socially innovative progress.

13. CONCLUDING COMMENTS

Although the fields of social and open innovation have thus far remained somewhat distinct, it is suggested that adoption of openness with regards to solving societal problems is a promising avenue for future research and practice. While previous work has either explicitly or implicitly hinted towards the promise of open innovation for social entrepreneurs(Holmes and Smart, 2009; Murray *et al.*, 2010), this paper offers a more overt linkage of the concepts by exploring how increasing organizational "openness" can overcome common barriers to social innovation. It is proposed that this form of social innovation, termed "open social innovation", be characterised by a porous organisational structure, committed investment in developing absorptive capacity, the involvement of multiple stakeholders – including the user, and a systematic focus on reducing the risk involved with innovation through broad knowledge sourcing activities. Open social innovation differs from traditional social innovation processes in that it repudiates the heroic individual approach to social innovation and social entrepreneurship, and identifies collaborative organisational structures and behaviours required to systematically tackle social problems. Organisations pursuing open social innovation should be prepared to selectively reveal parts of their knowledge and expertise to both competitors and customers in the pursuit of solving messy cross-disciplinary problems.

It is argued that consciously adopting aspects of the open paradigm will assist social innovators in overcoming barriers to social innovation that have been identified. In particular, this paper has provided an insight into how network utilisation and knowledge searching activities can positively affect the social innovation process. This paper is however conceptual, and empirical work investigating the relationship between the openness of the socially innovative firm and innovative outcomes is urgently needed. Little is known about the knowledge search strategies of socially innovative organisations and there has been no research examining how the absorptive capacity of small socially innovative organisations limits their potential to innovate. Finally, as risk is considered one of the fundamental barriers to adoption of social innovations, it would be valuable to explore to what extent different volume and variety of knowledge sources reduce the perceived risk of introducing any particular innovations.

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