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Comparing open strategy to open innovation**

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Opening up the strategy-making process: Comparing open strategy to open innovation

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Abstract

In this paper we compare the emerging field of open strategy to the established field of open innovation in order to facilitate their cross-fertilisation both in research and practice. Taking a communication-centred perspective, we argue that in both fields ‘openness’ concerns opening-up the communication process towards previously excluded individuals. On the basis of our review of the literature, we introduce a general framework that distinguishes between two dimensions of openness in terms of the direction that communication takes: *sharing* communication content with external participants and audiences and *receiving* communication content from external participants and audiences. Using the two dimensions of sharing and receiving, we map documented cases of empirical research in both fields and identify different forms of openness in processes of open innovation and open strategy. As we will show, in the material that we examined, in most of the cases of open strategy sharing and receiving are combined, while in many cases of open innovation we identified only one dimension. We suggest that this difference arises because, unlike innovation, open strategy typically involves joint sensemaking and thus a bidirectional communication process. Drawing on our findings, we put forward three propositions to provide a foundation for future empirical research on phenomena of open innovation and open strategy.

Keywords: communication perspective, forms of openness, open strategy, open innovation, sensemaking

JEL-Classification: D79; D89; L21; M19

Introduction

Over the last few years radical new practices have emerged in strategy-making that, in analogy to ‘open innovation’, have been described as ‘open strategy’ (Chesbrough and Appleyard, 2007; Doz and Kosonen, 2008; Whittington et al., 2011). While strategy was conventionally understood as the exclusive domain of an elite group within an organisation and treated with utmost secrecy, companies appear to tend increasingly to openness in the sense that they increasingly choose to disclose information about their strategic topics and to involve a greater range and number of people in discussions that concern strategy. New practices such as strategy crowdsourcing (Stieger et al., 2012), the interorganisational exploration of strategic issues (Werle and Seidl, 2012), and strategy jamming (Palmisano, 2004) are all indicative of this tendency. These new developments in strategy are fairly similar to developments that are observed in open innovation. This suggests that, despite some differences between these two domains, some of the insights that are gained in studies on open innovation might also pertain to open strategy. A transfer of knowledge between these two domains calls for an analysis of the similarities and differences between these two fields. This is what we set out to do in this essay. In particular, (1) we will examine how openness is understood in the fields of open innovation and open strategy and (2) we will compare these two fields with regard to the openness they exhibit.

The first step in this endeavour is identifying a theoretical perspective that is general enough to capture both phenomena. The existing frameworks that studies on open innovation use seem unsuitable for our purpose, because they focus on aspects of innovation that are not necessarily present in the domain of strategy, such as the role of intellectual property rights (Chesbrough, 2006; Henkel, 2006; von Hippel and von Krogh, 2003). Given that in the case of both innovation and strategy openness concerns aspects of communication, we suggest that

the two domains should be analysed from a communication-centred perspective (Craig and Muller, 2007; Putnam and Mumby, 2013). In both cases, openness can be conceptualised as the opening up of communication processes in terms both of the number of people allowed to participate in the process and the kind of topics that are communicated.

Taking a communication-centred perspective, we will compare open innovation and open strategy with regard to the purpose, content and modalities of openness. We will show that open innovation and open strategy are similar with regard to some of these dimensions but differ with regard to others. In particular, we will argue that open strategy tends to involve joint sensemaking and consequently requires two-way communication with external audiences, while open innovation can also rely on one-way communication.

The rest of this essay is structured into four sections. In the first section we will draw on communication theory to develop our approach to examining openness in the context of open innovation and open strategy. On that basis, we will discuss the commonalities of open innovation and open strategy in the second section and their differences in the third. In the fourth section we will discuss our findings and develop an agenda for future research in this area. We will conclude our paper with a summary of the main points of our argument.

Openness in innovation and in strategy as an aspect of communication

Comparing open innovation and open strategy requires that we start by defining clearly each concept. In the case of open innovation, a decade of research has led to a variety of approaches, most of which are juxtaposed to ‘traditional’, ‘proprietary’ or ‘closed’ models of innovation. Chesbrough (2006: 1), for example, defines open innovation negatively as ‘the antithesis of the traditional vertical integration model where internal research and development (R&D) activities lead to internally developed products that are then distributed

by the firm'. In contrast to the traditional approach, according to this newer perspective innovation processes 'combine internal and external ideas into architectures and systems' (Chesbrough, 2006: 1). Similarly, West and Gallagher, referring to the article by Cohen and Levinthal (1990) on absorptive capacity, define 'open innovation as systematically encouraging and exploring a wide range of internal and external sources for innovation opportunities, consciously integrating that exploration with firm capabilities and resources, and broadly exploiting those opportunities through multiple channels' (West and Gallagher, 2006: 320). In contrast to these very broad and paradigmatic approaches to open innovation, others focus more on the role of intellectual property (IP) in open innovation. Baldwin and von Hippel (2011: 1400), for example, state that an 'innovation is "open" in our terminology when all information related to the innovation is a public good—nonrivalrous and nonexcludable'. This definition of 'open' differs from Chesbrough's much broader notion of openness in the sense of "'openness" to the acquisition of new ideas, patents, products, etc., from outside its boundaries' (Baldwin and von Hippel, 2011: 1400). However, from both the broad and the narrow perspective, open innovation is about the production of new goods and services.

Soon after Henry Chesbrough (2003a, 2003b) popularised the concept of 'open innovation', he was accused of presenting 'old wine in new bottles'. In a paper with exactly this phrase in the title, Trott and Hartmann (2009) brought forward considerable evidence that many corporations have long been engaged in R&D activities that resemble the principles of open innovation that Chesbrough (2003) described and that in fact there was already some research on each principle. However, while certainly making some valid points, Trott and Hartmann (2009) overlooked Chesbrough's main contribution, which is the recombination and repackaging of different, previously unconnected insights into innovation under a new label: open innovation. Even Trott and Hartmann themselves acknowledge that 'the dichotomy

between closed innovation and open innovation may be true in theory' and call it a 'helpful and stimulating tactic to introduce a "new concept" (such as Open Innovation) to companies that are already most of the way there' (Trott and Hartmann, 2009: 728).

Some of the founding works of open innovation have also laid the foundation of the more recent debate on open strategy. The demarcation between 'traditional' and 'closed' approaches to strategy-making is another common feature of both debates. Tying the notion of open strategy to that of open innovation, Chesbrough and Appleyard argued that open strategy 'balances the tenets of traditional business strategy with the promise of open innovation' (Chesbrough and Appleyard, 2007: 58). Similarly, in the most comprehensive assessment of the concept of open strategy to date, Whittington et al. (2011) suggested that open strategy challenges traditionally exclusive approaches. In their definition of open strategy, Whittington et al. (2011: 534) went so far as to argue that 'open innovation is a subset of open strategy: innovation is just one of many kinds of strategy process increasingly subject to openness'. Stieger et al. (2012), in one of the first empirical works on open strategy, similarly emphasised that the origins of employing crowdsourcing methods in strategy-making lie in open innovation. There is a host of different items that can be subsumed under the label of 'open strategy', including the inter-organisational exploration of strategic topics (Werle and Seidl, 2012), collaborative strategy-making between organisations (Hardy et al., 2006), strategy crowdsourcing (Stieger et al., 2012), strategy jamming (Palmisano, 2004) and public strategy updates (Whittington et al., 2011).

While open innovation and open strategy have many aspects in common, the central link between the two is, of course, 'openness'. So, before engaging in a more systematic discussion of the conceptual commonalities and differences between the two, we will examine the notion of 'openness' that underlies them. Dahlander and Gann, who conducted a

systematic review of the literature on open innovation, distinguished different forms of openness with regard to inbound vs outbound processes and non-pecuniary vs pecuniary processes and discussed ‘two forms of inbound innovation—Acquiring and Sourcing; and two outbound—Selling and Revealing’ (Dahlander and Gann, 2010: 700). Similarly, in the context of crowd science projects, Franzoni and Sauermann distinguished between ‘openness in project participation and openness with respect to the disclosure of intermediate inputs such as data or problem solving approaches’ (Franzoni and Sauermann, 2013: 7). In the field of open strategy, Whittington et al. (2011: 535) defined openness as ‘widening inclusion and increasing transparency’ with regard to both internal and external stakeholders.

While the distinction that Dahlander and Gann (2010) drew between pecuniary and non-pecuniary aspects specifically relates to open innovation inputs and outcomes in the form of products or intellectual property rights, their distinction between inbound and outbound innovation is similar to the core distinction that Whittington et al. (2011) drew between inclusion and transparency. The distinction between openness in participation and the disclosure of intermediate inputs that Franzoni and Sauermann (2013) proposed also refers to similar characteristics.

On closer inspection, all these distinctions can be understood as aspects of communication, considering that they have to do with opening up the communication process. Inbound innovation, inclusion in strategy and openness in participation all imply *receiving* information, opinion and knowledge from previously excluded communicators. Outbound innovation, transparency and the disclosure of intermediate input in turn all refer to *sharing* information, opinions and knowledge with a previously excluded audience.

With regard to the notion of openness, we view receiving and sharing as the two core communicative aspects of both innovation and strategy; they should be understood as two

orthogonal dimensions that allow the categorisation of different forms of openness (see Figure I). In that respect we follow Whittington et al. (2011), who stress that the two principles of openness they distinguished (transparency and inclusion) should be regarded as continua rather than binary. This suggests that there are gradations of openness, as terms such as ‘selective revealing’ (Henkel et al., 2014) imply in the context of open innovation. In other words, the degree of openness in both strategy and innovation varies according to the degree of sharing and receiving.

Reconceptualising openness in terms of communication makes it possible to use established concepts of communication theory in order to analyse openness, especially with regard to the speakers, listeners, content, purpose and modalities of communication (Craig and Muller, 2007; Putnam and Mumby, 2013). Sharing, in particular, concerns the extent to which strategy-related and innovation-related content is communicated by organisational members to a wider audience. While traditionally these types of content were almost exclusively communicated within a small group of organisational members, the trend towards greater transparency means both that the content that is communicated is broader and that the audience with which this content is shared is larger. Receiving, in turn, has to do with the range of potential speakers and the range of topics that the organisation or the members of the strategy or innovation group are informed about. As in the case of sharing, opening up communication in that respect means increasing both the number of people who are allowed to communicate certain content and the range of what is potentially communicated. What specific content is communicated, for what purpose and in what way are questions that can be answered empirically. Communication theory highlights two fundamentally different aims of communication (Habermas, 1987). One aim of communication is to generate a shared understanding and involves the exchange and discussion of different views in order to achieve a common understanding. In that respect, communication serves as a means of sensemaking.

This is in line with the views of Weick et al., who described ‘communication [as] a central part of sensemaking [or] an ongoing process of making sense’ (Weick et al., 2005: 409). The other aim of communication is an instrumental one where communication is used to influence its recipient. This form of communication does not presuppose two-way contact. Whether in the case of open strategy and open innovation communication is oriented more towards generating a shared understanding or towards influencing the recipients is an empirical question that we will address further down in this paper.

Combining the two communicative dimensions of openness, i.e. sharing and receiving, we arrive at a very generic framework for positioning different forms of open innovation and open strategy according to the degree of sharing and receiving. Figure 1 depicts four quadrants that correspond to different forms of openness derived from different degrees of selectivity in terms of sharing and receiving. Quadrant IV represents a ‘closed’ setting, which in the literature is considered to be typical of ‘traditional’ innovation and strategy processes and to have a low level of both sharing and receiving. Conversely, Quadrant II represents a setting in which the levels of both sharing and receiving are high. Some scholars associate this setting with ‘democratising’ tendencies; see, for example, von Hippel (2005) with regard to the field of innovation and Stieger et al. (2012) with regard to the field of strategy. In quadrants I and III the emphasis lies on either sharing or receiving and the settings they represent are therefore ‘partially open’. Quadrant I represents a setting with a high level of receiving and a low level of sharing, while in quadrant III the level of sharing is high and the level of receiving is low.

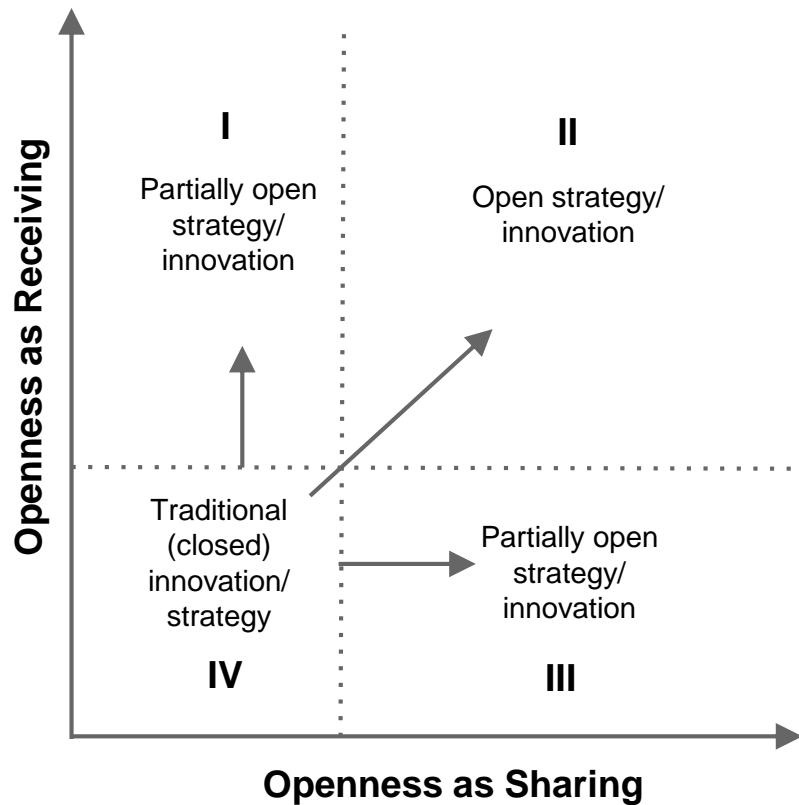


Figure 1: Dimensions of openness

Commonalities of open innovation and open strategy

The literature on open strategy tends to emphasise the commonalities it shares with open innovation. This is not surprising given that open strategy and open innovation are often portrayed as overlapping concepts and open strategy as a variant of open innovation (Chesbrough and Appleyard, 2007) or vice versa (Whittington et al., 2011). In both areas, authors tend to emphasise the prominent role of new communication technologies in opening up new possibilities of communication, not least due to reducing communication costs and thus broadening the potential field in which various approaches based on open innovation or open strategy can be applied. Stieger et al. (2012), for example, described how the company they studied used web-based crowdsourcing tools for the purpose of open strategising, which

were similar to the crowdsourcing tools used in open innovation (see also Hutter et al., 2011). In the context of open strategy, such tools are used to crowdsource strategic suggestions. Similar tools are used in the context of open innovation to crowdsource solutions to a problem. ‘Broadcast search’, for example is a type of crowdsourcing that involves broadcasting to a wide audience a problem and the requirements that an appropriate solution must fulfil, in the hope that some member of that audience will provide a solution (Jeppeson and Lakhani, 2010). A related tool involves sourcing ideas through contests (Afuah and Tucci, 2012). The main purpose of crowdsourcing suggestions is to receive more contributions by expanding the number of communicators allowed to participate in an innovation process or strategy process. Whether crowdsourcing is also accompanied by increased information-sharing depends on the features of the online platforms that are used, such as access to intermediate results, discussion boards or evaluation systems. In addition to online communication tools, there are also offline practices such as ‘strategy jams’ (Palmisano, 2004) or ‘innovation jams’ (Bjelland and Wood, 2008).

The responsibility for popularising openness both in innovation and in strategy lies with intermediaries such as consultancies or the designers and administrators of platforms. In the field of open innovation, new forms of intermediaries have emerged, such as InnoCentive (Lakhani, 2008), which deliver open-innovation services such as crowdsourcing tools. So far, in the field of strategy there are no new intermediaries specialising in open strategy; however, traditional strategy consultants integrate open strategy tools and approaches into their repertoire, as is the case of IBM’s ‘strategy jams’ (Fichter 2009).

Differences between open innovation and open strategy

Notwithstanding the commonalities we identified on a more general level, a closer analysis of the empirical cases of open strategy and open innovation that we have reviewed reveals that there are also certain differences. In the following we present the results of our analysis. We included in our review all existing empirical studies on open strategy. There are 12 such studies to date, some of which are still part of the ‘grey literature’, i.e. working papers or conference papers; see Table 1 for a summary of the analysis. Compared to that, the literature on open innovation is massive. For that reason, in our analysis we relied on a set of 12 studies (drawing particularly on the review by Dahlander and Gann, 2010) that are representative of the different forms of open innovation. Table 2 presents a summary of this analysis. We categorised the differences between the two areas on the basis of the following three dimensions: the purpose, the content and the modalities of openness.

INSERT TABLE 1 ABOUT HERE

INSERT TABLE 2 ABOUT HERE

Why open? The purposes of openness and reasons for pursuing it in innovation and strategy

Studies on open innovation have revealed three main reasons for opening up communication: obtaining technological benefits in the realm of R&D, obtaining marketing benefits related to standardisation and ecosystem development, and impression management. The first two reasons in particular have already been amply documented in the literature on open

innovation. Henkel et al. (2014: 880), for example, mention that the anticipation of ‘marketing and technological benefits [features] particularly prominently in the literature’. The emphasis on R&D and on standardisation and ecosystem development is reflected in the clear-cut and narrow focus on products and related engineering problems. With regard to the technological benefits that can be gained in the realm of R&D, Afuah and Tucci (2012: 356), for example, argued that open innovation by means of crowdsourcing ideas might lead to technologically superior solutions in those cases where the knowledge required to solve a problem falls outside the focal agent’s knowledge neighbourhood and thus requires distant search. In our set of 12 exemplary studies, nine refer explicitly to advantages that can be gained in the domain of R&D as a reason for opening up. For example, in their case study Chesbrough and Crowther (2006: 232) found that all 12 firms in their sample ‘engage in some form of technology in-licensing, acquisition and joint development to bring in technology’. Similarly, Laursen and Salter (2006) argued that openness is a way ‘to draw in ideas from outsiders to deepen the pool of technological opportunities’, while West (2003: 1281) wrote that openness can reduce ‘duplicative R&D’. And in the case analysed by Füller et al. (2011), the firm exclusively focused on receiving ideas and suggestions for product development.

Openness in innovation can also generate marketing benefits by increasing ‘the extent and pace of diffusion of that innovation relative to what it would be if the innovation were either licensed at a fee or held secret’ (von Hippel and von Krogh, 2003: 301). Six of the 12 studies in our set highlight standardisation and ecosystem development (separately or in addition to the benefits gained in the domain of R&D) as reasons for opening up. Studies on open-source software in particular emphasize that openness ensures that a product remains ‘compatible to other products’ (Henkel, 2006: 961) and helps products succeed in ‘standard contests’ (West, 2003: 1279). In another study, Lichtenthaler and Ernst (2007: 385) identified ‘outward technology transfer’ as a means of fostering ‘innovation ecosystems’.

In addition to the above, openness in innovation can also benefit impression management by increasing an organisation's reputation and visibility (Henkel et al., 2014). Three of the 12 studies included here refer to impression management in this regard. For example, according to Henkel (2006: 961), wanting to 'appear as a good player in the open source community' is one of the most important motives for revealing software code (aside from the legal requirements that are associated with open source licenses). Overall, R&D benefits appear to relate more to receiving, while standardisation and ecosystem development and impression management relate more to sharing (Allen, 1983; Dahlander and Gann, 2010).

From our analysis of the 12 studies on open strategy it emerged that, according to the proponents of open strategy, openness results in different types of benefits from those listed above. These are associated mainly with joint sensemaking, the creation of commitment and impression management. In all but one study (Angwin et al., 2014) open strategy is primarily associated with joint sensemaking (see Table 2 above). Schmitt (2010) described a process of collaborative strategy-making at a multinational company and showed that open strategising involves joint sensemaking. She posited that its purpose is to create and co-construct 'shared understanding' (Schmitt, 2010: 14) among stakeholders in the face of 'wicked issues' and argued for 'less controlled, open and sense-making oriented strategising with stakeholders' (Schmitt, 2010: 11). Werle and Seidl (2012, 2015) described two cases in which groups of organisations engaged in the joint exploration of strategic topics that they had not been able to make sense of on their own. Similarly, Hardy et al. analysed collaborative strategy-making that concerned metaproblems and showed that such practices helped construct 'shared meanings and understandings' (Hardy et al., 2006: 108). De Gooyert et al. (2014) described how an individual organisation involved its internal and external stakeholders in the joint exploration of strategic developments and trends. Wolf et al. (2014) and Teulier and Rouleau

(2014) also examined open strategy-making, focusing on sensemaking on the level of middle managers within an individual organisation and in an inter-organisational group respectively.

Some studies show that, in addition to joint sensemaking, open strategy can also help create greater commitment. In their study on strategy crowdsourcing Stieger et al. emphasised that involving many employees in the strategy process is ‘a means [of creating] shared understanding, stronger commitment, and effective implementation’ (Stieger et al., 2012: 46). The authors described this process as a ‘strategy dialogue’ aimed at creating ‘identification and understanding’ (Stieger et al., 2012: 46) and pointed out the role of two-way communication between management and employees: ‘the combination of listening and talking should lead to a dialogue, which creates new knowledge and [allows] shared understanding to emerge in the organisation’ (Stieger et al. 2012: 60). In another study, Dobusch and Müller-Seitz (2012) described how a non-profit organisation involved the community of volunteers in its strategy-making process, explaining that organisations of this kind are dependent on the volunteer community’s commitment and contributions. As the authors note, ‘the commitment of the broad base of globally dispersed volunteers is critical for crafting the desired output (here: the five year plan)’ (Dobusch and Müller-Seitz, 2012: 5). Their research highlights the ‘collaborative exchange’ that is part of ‘collaborative strategising where both parties interact’ (Dobusch and Müller-Seitz, 2012: 5).

Some studies also show that open strategy can be used as a form of impression management. Dobusch and Gegenhuber described how two start-up companies used strategy blogs as “‘engagement practices”, which allow firms to explicitly invite contributions and employ bidirectional dialogue with external audiences’ (Dobusch and Gegenhuber, 2014: 26). They argued that this is not only a means of joint sensemaking in strategy but also a means of

impression management. As they pointed out, the blogs offered the two companies ‘a new repertoire of impression management strategies and tactics’ (Dobusch and Gegenhuber, 2014: 25). Finally, there is one study by Angwin et al. (2014), which presents cases of open strategy that serve purely as a means of impression management without involving any joint sensemaking. The authors studied how organisations that were in the process of carrying out M&A deals temporarily opened up by disclosing publicly strategic information on those deals. In contrast to all the other types of cases that have been covered in the literature, here communication appears to be one-directional, from the organisation to external audiences.

Summarising our analysis of the selected studies, we can say that there are clear distinctions between the purposes of open innovation and open strategy and the aims they are intended to achieve. The main aim of open innovation is to generate benefits in the areas of technology (in R&D) or marketing (standardisation and ecosystems) and the communication it involves is often unidirectional. In contrast, open strategy-making mostly aims to create joint sensemaking and usually involves bidirectional communication that includes both sharing with others and receiving from others.

What is open? The content of open innovation and open strategy

In the case of open innovation, openness is mostly about either absorbing (i.e. receiving) or revealing (i.e. sharing) technological and product-related knowledge. With regard to the former, Chesbrough (2006) has pointed out that many existing works, including those by Nelson and Winter (1982), von Hippel (1988), Cohen and Levinthal (1990) and Rosenberg (1994), have already emphasised the importance of external sources of useful knowledge for internal R&D (see also Trott and Hartmann, 2009). With regard to knowledge-sharing, open innovation implies that what was previously considered a ‘knowledge spillover’ in fact

concerns ‘purposive outbound flows of knowledge and technology’ (Chesbrough, 2006: 11). The exemplary studies included in our analysis show that organisations acquire external knowledge via partnering and contracting (Chesbrough and Crowther, 2006; Christensen et al., 2005; Fey and Birkinshaw, 2005; Laursen and Salter, 2006), share the source code of the programmes they develop (Henkel, 2006; Henkel et al., 2014; West, 2003), collaborate informally with innovation communities (Fichter, 2009), discuss strategic innovations in workshops that involve several companies and industries (Rohrbeck et al., 2009), collect ideas via online crowdsourcing platforms (Füller et al. 2011; Piller and Walcher, 2006) and engage in the commercialisation of external technology by out-licensing agreements, striking alliances, generating spin-offs and promoting sales in the area of technology (Lichtenthaler and Ernst, 2007).

The importance of managing intellectual property rights as a type of formalised communication ownership in new and creative ways is characteristic of both outbound and inbound openness – what we refer to as ‘sharing’ with others and ‘receiving’ from others. Some researchers count licensing as an example of pecuniary openness (Chesbrough, 2006; Dahlander and Gann, 2010), while others emphasise the role of ‘free revealing’ (Henkel et al., 2014; von Hippel and von Krogh, 2003). Even in the latter case, however, communication practices related to the protection of intellectual property, such as alternative licensing, licensing open-source software or explicitly avoiding patentability (Baldwin and von Hippel, 2011; Merges, 2004), rely on the formalised appropriation of communicated content.

In the case of open strategy, the content of openness tends to concern opinions, ideas and interpretations, rather than information and defined knowledge. This reflects the fact that the primary focus of open strategy is joint sensemaking. Those who participate in open strategy may provide primary ideas and interpretations as well as opinions on or interpretations of

what others think, say and do. For example, in their study on strategy crowdsourcing, Stieger et al. emphasised the ‘diversity of opinions’ (Stieger et al., 2012: 51) that were exchanged in this way. In yet another example, Teulier and Rouleau noted that the process of participating in open strategy revealed how ‘the interpretations [...] differed’ (Teulier and Rouleau, 2014: 323) and how the process of participation as such helped ‘alleviate the divergent interpretations’ (Teulier and Rouleau, 2014: 323).

How open? Modalities of openness in innovation and strategy

Examining the modalities of openness, it becomes apparent that open innovation is almost always about opening up to external actors or the environment more generally. For example, firms may share information with members of external innovation communities (Fichter, 2009), acquire technology from other companies (Fey and Birkinshaw, 2005; Laursen and Salter, 2006) or reveal the source code of their own products to external audiences (Henkel, 2006; Henkel et al., 2014). Open innovation may also include discussing internal problems with an external audience while excluding select organisational members from participating, in order to avoid the phenomenon of ‘groupthink’ (Bonabeau, 2009; Surowiecki 2004). In contrast, in the case of open strategy opening up to external actors while excluding organisational members is rather uncommon. This is not surprising, given that the primary purpose of open strategy is to create joint understanding.

There are two general forms of interaction in open innovation that relate particularly to the reception of communicated content. In the first case, the participants collaborate in order to develop innovations (see Fichter 2009; Rohrbeck et al. 2009); the second involves contests of innovation that follow a winner-takes-all logic (see Füller et al., 2011; Piller and Walcher, 2006). Afuah and Tucci (2012) termed the first form ‘collaboration-based crowdsourcing’ and

the second form ‘tournament-based crowdsourcing’. In contrast to that, open strategy involves only collaborative forms of engagement. Again, this is in line with the primary purpose of open strategy, which is to facilitate joint sensemaking.

The manner in which communication takes place differs slightly between open innovation and open strategy: in open innovation, the dominant forms of communication tend to be electronic, while in open strategy there is a particular emphasis on face-to-face interaction. Among the studies on open strategy that we examined, especially those that focus solely on joint sensemaking, such as the works by Hardy et al. (2006), Werle and Seidl (2012, 2015), De Gooyert et al. (2014) and Schmitt (2010), have shown that open strategy is performed by those who participate in meetings and workshop processes. Even studies that focus on electronic forms of interaction, which are encountered in strategy platforms (Stieger et al., 2012), wikis (Dobusch and Müller-Seitz, 2012) or blogs (Dobusch and Gegenhuber, 2014), indicate that this type of interaction is often supplemented with meetings and workshops. This difference in the form that communication takes can be explained by the differences between the primary aims of open strategy and open innovation. In open strategy, the predominant aim is joint sensemaking, which calls for close interaction and limits the number of people that can be meaningfully included in the process. In contrast to that, in open innovation the emphasis lies on the input of larger groups (“broadcast search”, Jeppeson and Lakhani, 2010) and the promotion of R&D. In Table 3 we have summarised the main differences between open strategy and open innovation in terms of purpose, content and modalities of openness.

	Open strategy	Open innovation
Purpose	<ul style="list-style-type: none"> - Joint sensemaking - Commitment & ownership - Impression management 	<ul style="list-style-type: none"> - Research & development - Standardization & ecosystem development - Impression management
Content	Ideas, opinions, interpretations	Technological knowledge, product information
Modalities	Collaboration-based	Tournament-based and/or collaboration-based

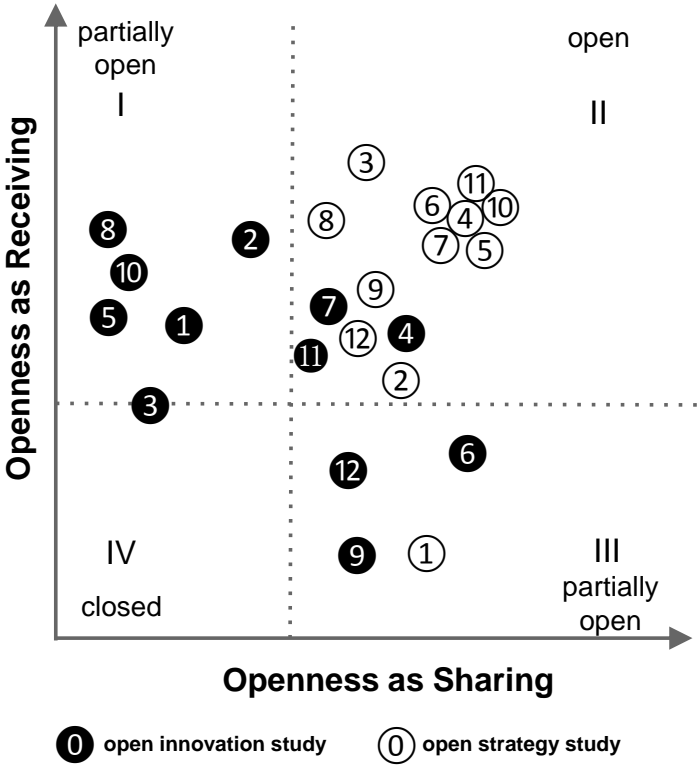
Table 3: Differences between open strategy and open innovation

Discussion

Our review of the literature on open strategy and open innovation has revealed certain differences in the perspective from which each body of works approaches its subject. In this section we will discuss these differences in order to derive some general propositions that might serve as a basis for future research. We will also map the studies on open innovation and open strategy that we analysed (see tables 1 and 2), according to the two dimensions of communication that characterise openness.

As we can see in Figure 2, the exemplary studies on open innovation that we considered here span the entire spectrum of openness. In some studies, openness is restricted to receiving (quadrant I), in others it is restricted to sharing (quadrant III) and in yet others it extends to both dimensions (quadrant II). This distribution is already well established in the literature on open innovation (e.g. Dahlander and Gann, 2010). Interestingly, in contrast to studies on open innovation, almost all studies on open strategy are located in quadrant II; that is, they examine cases of openness that *combine* aspects of sharing and receiving. Even though the studies on open strategy that we have considered are not necessarily representative of all possible forms

of open strategy, this finding indicates, albeit tentatively, that in this literature focusing solely on either sharing or receiving is less common than it is in studies on open innovation.



(Note: The numbers in the figure refer to studies in Tables 1 and 2; the positions not exact but merely indicative)

Figure 2: Mapping studies of open innovation and open strategy

This tentative finding can be explained with the help of insights from communication theory. As we noted above, in most cases of open strategy the purpose of openness is joint sensemaking (sometimes combined with creating commitment and impression management). We know from research on joint sensemaking (Taylor and Van Every, 2000; Weick, 2005) that this presupposes two-way communication. As Taylor and Van Every stress, sensemaking ‘takes place in interactive talk’ (Taylor and Van Every 2000: 58). In particular, research on distributed sensemaking has shown that interactive talk enables individuals holding different

pieces of information to generate ‘shared understanding’ and to collectively construct new meaning (Weick, 2005). Thus, joint sensemaking presupposes both sharing and receiving. In contrast, Angwin et al. (2014) described cases of open strategy in which openness is restricted to the sharing dimension. In these cases, the focus is exclusively on impression management. One could say that here communication is used merely instrumentally (Habermas, 1987). Unlike joint sensemaking, impression management does not presuppose reciprocal communication. However, this form of openness serves a less ‘substantive’ function with regard to an organisation’s strategy because it does not affect strategy development. That is to say, in this case, opening up is not aimed at improving strategy-making but at enhancing an organisation’s reputation.

This is very different in the case of open innovation. Excluding cases where openness serves merely the purpose of impression management, generally, openness restricted to just one dimension can serve substantive functions in the process of innovation. For example, the empirical cases described by Fey and Birkinshaw (2006) show that openness in innovation is an advantage for organisations because it enables them to acquire external knowledge. Similarly, Henkel (2006) has shown that sharing the source code of software contributes to innovation by increasing compatibility and inter-operability between that product and other products or services. Thus, sharing without receiving and receiving without sharing may occur and are important forms of communication in the context of open innovation. Interestingly, in contrast to open strategy, in those cases where open innovation involves both sharing and receiving, these typically serve different purposes. For example, Rohrbeck et al. (2009) have shown that receiving serves the purposes of R&D, while sharing serves the purposes of standardisation and ecosystem development. This means that in open innovation distinguishing between sharing and receiving with regard to the benefits they generate is possible and common. This conclusion is in line with the findings of more recent studies on

the emergence and development of open innovation practices. Henkel et al. (2014), for example, observed that organisations tend to start with one dimension of openness and then add the other dimension later on. In contrast, in all the studies on open strategy that we considered, the two dimensions of openness were combined from the beginning and inextricably linked to each other. On the basis of these arguments, we put forward two propositions regarding the role of the two dimensions of openness in open strategy and open innovation.

Proposition 1: In open strategy the aspects of sharing and receiving tend to be directly linked.

Accordingly, the degree of openness in sharing tends to be similar to the degree of openness in receiving.

Proposition 2: In open innovation the aspects of sharing and receiving tend to serve different purposes. Accordingly, the degree of openness in sharing can differ from the degree of openness in receiving.

In our discussion of open innovation and open strategy so far, we have dealt with each separately. Yet, the processes of innovation and of strategy-making are often interlinked. For instance, comprehensive concepts of open innovation as a paradigm (see, e.g. Chesbrough, 2006; von Hippel, 2005) and works that place open innovation in the tradition of absorptive capacity (see, e.g. West and Gallagher, 2006) increasingly incorporate aspects of open strategy. In some cases topics that concern innovation are addressed from a perspective that is informed by strategy-making; in other cases, innovation and strategy are treated as alternating phases. As mentioned above, Whittington et al. (2011) would even go so far as to treat innovation as part of strategy. ‘Fundamentally,’ they argue, ‘open innovation is a subset of open strategy: innovation is just one of many kinds of strategy process increasingly subject to openness’ (Whittington et al., 2011: 543); for them, innovation is always strategic. While we agree that innovation and strategy are often closely related, we do not subscribe to this line of

reasoning. Rather, we would argue that, even where strategy and innovation are linked empirically, it is possible to distinguish between them analytically. Thus, in contrast to Whittington and his colleagues, we distinguish between cases of open innovation that do not involve open strategy and cases that combine both.

A good example of cases that combine open innovation and open strategy is user innovation, where focal organisations pick up and build upon innovations that have emerged in a user community (Füller et al., 2013; Piller and Walcher, 2006; von Hippel, 2005). If open innovation becomes part of the strategy process, joint sensemaking will become important. For example, Fichter (2009) discussed organisations that share organisational and informational resources and thus build an innovation community, which contributes ideas and solutions that the organisations pick up and develop further. Consequently, the purely instrumental modes of communication that Habermas (1987) described may not be appropriate in cases where open innovation also includes strategic questions. Instead, one would expect more discursive forms of communication in which sharing and receiving are closely linked. Accordingly, we can formulate our third proposition:

Proposition 3: The higher the degree to which open innovation is part of open strategy, the closer the links between different aspects of sharing and receiving.

This suggests that open innovation may lead other aspects of the value-creation process, such as strategy, to open up. Henkel et al. (2014: 888) speculated that open innovation in the form of ‘selective revealing [...] might be a potential first step toward more intensive collaborations with externals’. However, in the light of our comparison between open innovation and open strategy, we would expect such a transition to require a more balanced approach between sharing and receiving.

Conclusion

In this paper, we have contrasted the notions of open innovation and open strategy. As a common theoretical basis for identifying similarities and differences between the two, we suggested that ‘openness’ should be conceptualised in relation to communication. From that perspective we identified *receiving* and *sharing* as the two defining dimensions of openness in the context of both innovation and strategy. On the basis of these two dimensions, we differentiated systematically between open innovation and open strategy. We argued that while in the context of open innovation sharing and receiving tend to serve different purposes and are thus independent of each other, they are mostly linked in those cases of open strategy that focus on joint sensemaking.

As research on open strategy is still in its infancy, we see the propositions formulated in this paper as a call and a foundation for future empirical research in this subject area. We recognise that testing our propositions requires measuring empirically and comparing the different aspects of sharing and receiving in cases of open innovation and of open strategy. At the same time, we believe that our systematic comparison lays the foundation for differentiating analytically between open innovation and open strategy and anchors both concepts in a common understanding of openness that rests on communication theory.

We would also call for a more critical application of concepts such as ‘democratisation’ in the context of both innovation and strategy. Even in cases where the levels of both sharing and receiving are high, the actual transfer of decision-making power may be very limited (Whittington et al., 2011). The various aspects of the relation between openness and participation in decision-making may thus also be fertile ground for further research.

On a meta-level, it is particularly the nascent debate on open strategy that presents an interesting case of transferring concepts and labels from one domain of management research

to another. Since the discourse on open strategy, like any discourse, 'also constitutes the problems for which it claims to be a solution' (Knights and Morgan, 1991: 255), studying the discursive role of 'open strategy' seems to be a promising avenue for further research. This endeavour could benefit from comparisons between open strategy and open innovation.

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Table 1: Overview of selected studies on open innovation

Study	Case	Purpose of openness			Content of openness	Modalities of openness	Emphasis on sharing and/or receiving
		Research & development	Standardization & ecosystem	Impression management			
① Chesbrough and Crowther (2006)	Open innovation outside 'high technology' industries	X			R&D is open for technology and from external actors	Search for technologies beyond the organisation	Receiving
② Christensen et al. (2005)	Transformation of sound amplification from linear solid state technology to switched or digital technology	X	X		Access to new external technologies allowed launching genuine innovations	License and incorporate external technologies	Mainly receiving
③ Fey and Birkinshaw (2006)	Governance modes of external R&D in large firms based in UK and Sweden	X			A culture of openness to external knowledge and new ideas	Acquire external knowledge via contracting and alliances with corporations and universities	Receiving
④ Fichter (2009)	Open innovation in the cases of IBM, BASF and the Solon AG	X	X		Organisational, informational and financial resources are shared in the innovation community	E-place information sharing platform (IBM), development network (BASF), financing (Solon)	Sharing and receiving
⑤ Füller et al. (2011)	Jewellery design competition Swarovski Enlightened™	X			Product design process is open for suggestions of external actors, including both professionals and amateurs	Tournament-based idea collection and assessment on an online platform	Receiving
⑥ Henkel (2006)	Selective revealing of source code in the case of embedded Linux		X	X	Software source code under free and open source software licenses	Code is made available on online platforms, allowing others to re-use it and collaborate	Sharing dominant, receiving present

7	Henkel et al. (2014)	Open innovation by embedded component manufacturers	X	X	X	Software source code under free and open source software licenses	Sharing software source code leads to open partnerships	Sharing in the beginning, followed by receiving later on
8	Laursen and Salter (2006)	Open search strategies used by large industrial firms	X			Breadth and depth of search strategies for external technologies are expanded	Increase the number of sources scanned and develop strong ties with some external sources	Receiving
9	Lichtenthaler and Ernst (2007)	Commercialization of external technology in medium-sized and large European firms		X	X	Previously proprietary, mostly patented, technologies	Product and process technologies are licensed to other industry actors	Sharing
10	Piller and Walcher (2006)	User innovation in the case of new product development at Adidas	X			Customers were invited to submit ideas in 12 'zones', including 'sales process' or 'additional services'	Ideas are collected via an online platform and selected in a tournament-like competition	Receiving
11	Rohrbeck et al. (2009)	Open innovation in the case of the Deutsche Telekom	X	X		External actors are invited to collaborate in R&D processes	University-industry collaborations, customer integration, consortia projects, joined development platforms	Sharing and receiving
12	West (2003)	Hybrid forms of proprietary and open source platforms in the cases of Apple, IBM, and Suns	X	X		Software source code under free and open source software licenses	Develop customised open source licenses and make source code available	Mainly sharing, receiving increasing important

Table 2: Overview of studies on open strategy

Study	Case	Purpose of openness			Content of openness	Modalities of openness	Emphasis on sharing and/or receiving	
		Joint sensemaking	Commitment & ownership	Impression management				
①	Angwin et al. (2014)	Organisations voluntarily shared information in 554 M&A deals, thus increasing transparency			X	Project-specific information on M&A deals (after announcement or before deal)	Voluntary disclosure of information (announcements, communication events with financial analysts)	Sharing
②	Dobusch and Gegenhuber (2014)	Two start-up companies that used blogs as part of strategy-making	X		X	Strategic considerations, strategy-relevant data, suggestions and surveys on strategic questions	Blog about strategic issues, collect and discuss comments, online surveys	Sharing and receiving
③	Dobusch and Müller-Seitz (2012)	Development of five-year strategic plan at Wikimedia	X	X		Suggestions, discussions, minutes of task force meetings and (intermediate) results of strategic plan	Strategy wiki software, task forces	Sharing and receiving
④	De Gooyert et al. (2014)	Single organisation explored trends and developments together with internal and external stakeholders	X			Perspectives on developments and trends in industry	Inter-organizational workshops in specific industry with different internal and external stakeholders	Sharing and receiving
⑤	Hardy et al. (2006)	Multi-sector collaboration (pharmaceutical companies and community organisations) to address specific meta-problem	X			Contribution of perspectives on how to achieve cross-sectorial strategic change in specific areas (joint development of skills, provision of guidance and advice, unanimity about	Conversations in meetings of autonomous national community advisory board	Sharing and receiving

						policy development)		
⑥	Irrmann and Paananen (2014)	Five cases of inter-organisational strategy-making processes conducted between different science organisations	X			Exchange of knowledge; collaborative development of strategic agenda and realignment of strategic processes within groups	Collaborations in workshops and meetings	Sharing and receiving
⑦	Schmitt (2010)	Open approach to building stakeholder relationships in the face of wicked issue at Shell	X			Information, uncertainties, plans for exploration in stakeholder consultation programme	Collaborations in workshops and meetings	Sharing and receiving
⑧	Stieger et al. (2012)	Internal crowdsourcing project in medium-sized technology company including four subsidiaries	X	X		Employee interpretations, perspectives and opinions on four strategic topics in internal employee crowdsourcing project	Software platform for specified project runtime of two weeks	Sharing and receiving
⑨	Teulier and Rouleau (2014).	Middle-manager sensemaking in inter-organisational group on introducing new software platform and to examine organizational challenges and business benefits	X			Interpretations, industry-specific expertise (collaborative sensemaking)	Collaboration in workshops and meetings	Sharing and receiving
⑩	Werle and Seidl (2012)	Joint exploration of a strategic topic by several companies from different industries	X			Interpretations of strategic topic from different perspectives	Collaboration in workshops and meetings	Sharing and receiving
⑪	Werle and Seidl (2015).	Joint exploration of a strategic topic by company and supplier together with other companies from different industries	X			Interpretations of strategic topic from different perspectives	Collaborations in workshops and meetings	Sharing and receiving
⑫	Wolf et al. (2014)	Inclusion of middle managers in strategy making in single organization	X			Different types of inclusion such as opportunities to comment on strategic decisions in the making	Collaborations in workshops and meetings	Sharing and receiving

