Orientations of Open Strategy: From Resistance to Transformation

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Abstract

Four basic orientations capture open strategy practices that are progressively transparent to and inclusive of an outside community: resist, share, join, and transform. By building upon works in innovation studies, I argue and illustrate that the most exciting cases of open strategy are driven, long-term, by insiders as well as outsiders to the organization and I attend to the idea of orientations of open strategy by formulating an agenda for strategy research that looks at the practices through the lenses of business model design, technology-in-use, and organizational regulation. A key challenge when opening up strategizing at the intersection of multiple networks is the quest for the organizational purpose.

Introduction

Strategy is a complex field and discipline undergoing a change process that leaves it precarious in structure (Whittington et al., 2011) but wealthy in purpose. Purpose refers to how *thought, artefacts, and action* are being perceived as strategic (Gond et al., 2017; Laasch, 2018) and to the alignment of the values at the core of the organization with the wider community (Moore, 2012: 309). It is this wider community that shares values, knowledge, and direction with the organization that is embedded and integrated not only in a market but also in multiple networks of practice, expertise, and preferences. Orientations are the strategic intentions manifest in choices of business model, technology, and regulation. With this chapter I attempt to achieve the following: first I derive orientations within open strategy that are not only transparent to but also inclusive of outsiders by building upon works in innovation studies that theorise about participation and open

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strategy *avant la lettre*. Second, I argue and illustrate that the most exciting cases of open strategy are driven, long-term, by insiders as well as outsiders to the organization and, third, I attend to the idea of orientations by formulating an agenda for strategy research taking account of the practices of *business model design, technology-in-use, and organizational regulation*. Business models are not only descriptions of economic linkages between value creation and value capture but also cognitive devices (Baden-Fuller and Haefliger, 2013), technology-in-use refers to the tools and systems that support and influence strategizing (Jazrabowski and Kaplan, 2015; Neeley and Leonardi, 2018), and organizational regulation covers practices of rule setting and rule following or breaking within organizations (deVaujany et al., 2018). Open strategy at the intersection of multiple networks may pose an immediate challenge to the organizational purpose and inclusiveness, in particular, may impact what practices are considered good and acceptable (Tsoukas, 2018).

The idea of open strategy breaks with the fixture that top management is in control of the process and content of strategy by tearing down, conceptually, the boundaries of the firm following insights from innovation studies (von Hippel, 1976; Arora et al., 2001; Chesbrough, 2003). Neither the process nor, by implication, the content of open strategy is exclusively controlled by top management (Chesbrough and Appleyard, 2007). Yet, the discipline of strategy research almost always speaks to top management more or less explicitly. As a rule, implications of findings in strategy research point to levers and opportunities for management. However, given the premise of open strategy, who holds these levers and who is running the strategy process? Openness can prevent management from exerting power over content, possibly even over process. In the extreme, the process involves external networks and the content is decided by actors not formally involved with the organization. Admittedly extreme, however, such a scenario is rewarding to study more closely because of the evolutionary implications for change and the complexity and ambiguity of objectives involved. The extreme scenario may even lead to radical novelty in organizational forms (Padgett and Powell, 2012) because multiple networks co-create

templates for collective action that might, just might, lead the way out of some of the worst and pressing environmental and social disasters[1].

This chapter explores orientations not as levers for top management but as evolutionary forces to move the organizations forward: the orientation is a collective action that represents the evolutionary variance growing from the meeting of diverse networks (internal and external) and co-creating knowledge flows across the boundaries of our focal organization. While the possible complexity might be staggering, I distinguish just three such orientations as ideal types of open strategy by separating the notions of transparency from inclusiveness, following recent work in open strategy (Hautz et al., 2017; Mack and Szulanski, 2017; Keinz et al., 2012). This distinction yields three strategic orientations that can be called open: the first one is the intention to join (inclusive but not transparent), the second one the intention to share (transparent but not inclusive), and the third one is the intention to transform (both transparent and inclusive of outsiders). An organizational vignette each provides illustration: three London-based organizations embody the three orientations. An architecture and engineering practice that is inclusive but not transparent, a business school that is transparent yet not inclusive, and a space curator and social enterprise that is both inclusive and transparent.

The vignettes demonstrate a range of purposes, from education to social enterprise to profit-seeking and the strategic choices vary widely yet include elements of open strategy that require further research to understand the first contingency all these organizations share: to survive they need to sustain economically. Hence, the first lens for a research agenda is the business model, its design and implementation. A second lens of strategizing is the use of technology, that is how tools act alongside human actors in determining the possibilities and promises of change. While actors access and shape networks, networks shape the actors. The way in which networks interact and models of strategizing are enacted shape the possible outcomes. For many, control is the elephant in the room:

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[1] Major initiatives providing relief to environmental and social issues in recent years have adopted novel forms of organizing such as crowdfunding ocean cleaning (Lewis, 2017), financing entrepreneurship in poor regions through microlending (Yunus, 2007), or empowering millions with Free software technology through private-collective innovation (von Hippel and von Krogh, 2003).

regulation describes the setting and adhering to rules in organizations and represents the third lens to study open strategy going forward.

With a broader involvement of outsiders comes a broader mandate to perform and serve the networks involved in making strategy, which is why the notion of the organizational purpose dramatically gains importance. The implicit claim that comes with laying out strategic orientations that are anywhere from slightly to radically open is that the discipline of strategy research needs to ask questions adapted to the multiple objectives and practices connecting interlinking networks. This marks a departure from a focus on managerial implications geared to support top management yet remaining largely silent on policy or community implications. The implications for management science, discussed below, attempt to take this bigger role of strategy into account. The chapter proceeds as follows: after introducing the two dimensions of open strategy, transparency in terms of knowledge flows and inclusiveness of actors, the orientations are introduced and illustrated by three vignettes. In the third section, I propose a research agenda that builds on the notion of orientations to study business model design, practices of technology-in-use, and organizational regulation.

Participation in open innovation and open strategy

Openness as a label for strategy has been adopted from a specific area of strategic action within the organization: open innovation. There, openness refers to the purposive flows of knowledge crossing organizational boundaries in both directions (West et al., 2014; Bogers et al, 2016), a practice that has been documented for many decades in innovation studies (von Hippel, 1976; Arora et al., 2002) and has given rise to significant insights about organizations built as communities that organize economic activities in novel ways (O'Mahony and Ferraro, 2007). Arguably, the growth and sustained success of Free and Open Source software communities and their impact on software markets triggered scholarly interest beyond innovation because some of these communities mobilized resources and self-governance to achieve a level of organization beyond what seemed necessary to just share knowledge among hobbyists (Lakhani and von Hippel, 2003). Complex organization of community routines around joining and specialization (von Krogh,

Spaeth and Lakhani, 2003) serve innovative activity at the core yet display collective action with wide participation and specialized roles: this is open strategy *avant la lettre*.

Participation has always been central if not definitive of collective action (McCarthy and Zald, 1977; Klandermans, 1984) and the participants tend to be individuals but also organizations or their representatives. A separate debate in collective action concerns the logic or purpose of the wider community or boundary organization (O'Mahony and Bechky, 2008). Open innovation or open strategy, however, theorize first about the focal organization that interacts with a wider community (Dahlander and Wallin, 2006) and asks about shared ownership of the process and an emergent content that straddles networks inside and outside the organization. This interaction and mutual participation in strategizing is important because what is at stake is the direction of the organization. Innovation deals with products and services, platforms and technological agendas yet much less with the purpose and direction of the organizations behind the development efforts. Innovation scholars care for novelty first of all and deal with the organization of innovation from the perspective of the resulting novelty. Strategy scholars care for the survival of the organization first of all, which includes crucially the sustainable economic activity or, as we will argue, the business model (Baden-Fuller and Haefliger, 2013).

If we apply a lens of open strategy to the organizations that have led open innovation for decades, successfully and through growth in membership and economic impact we quickly learn how important participation is for their success. Consider Debian (O'Mahony and Ferraro, 2007) or Apache (Franke and von Hippel, 2003; Roberts et al., 2006) or Mozilla (MacCormack et al, 2006) as examples of carefully managed organizations which are usually a combination of social enterprise, non-profit foundation, and business (see also O'Mahony, 2003). Fundamentally, however, participation results from a self-selection into tasks and community membership is fragile and non-contractual (Yamauchi et al., 2000; Bonaccorsi and Rossi-Lamastra, 2003). In innovation communities, such as Free and Open Source software development projects, participation means relating to a code base under development, a technology that forms the substrate and base of most if not all interactions: the technology mediates participation and works as a platform and central actor in a community that congeals and develops around it (Rullani and Haefliger, 2013). In this view,

the technology is much more than output or the innovative product of an organization geared to running a software project. The code is the non-human actor in a network formed with and through the code as mediator, translator, and standard of excellence for what participation means and should be.

Studies in open innovation have pioneered and advanced an understanding of collective action in the domain of technology, often software (von Hippel and von Krogh, 2003; Shah, 2006), and can inform open strategy more broadly if we can marry the organization of innovation with sustainable economic activity. The observation that innovation communities can thrive on being open does not necessarily mean that open strategy should follow their templates but it's a start. First of all, a clearer definition of participation may advance and differentiate various ways to include outsiders in strategizing. Second, technology may remain an indispensable element in bridging the inside with the outside of an organization and we retain from this discussion of open innovation that participation benefits from a material enabler such as communication platforms or boundary objects.

A business organization faces a number of challenges when opening up strategy making to participants outside its boundaries: outsiders may be in rivalrous competition to the focal organization and undermine its source of business or legitimacy; outsiders may hijack the top management's agenda; outsiders may steal intellectual property and appropriate it for their purposes; outsiders' interests may conflict on multiple levels with top management or insiders more generally. These challenges suggest caution when opening up. The phase of opening up is critical but only a starting point. Strategizing is a process and, once open, no longer in the hands of a select few and no longer a guarded secret. In this long-term perspective, the strategic orientation needs to be shared by many and carried by both insiders and outsiders. This orientation rests on continued support and an enabling context, as I will argue. Proceeding, I first build on the analytical distinction between transparency and inclusiveness (Hautz et al., 2017) and, then, lead with three examples and a shopping list for future research in open strategizing.

A strategic orientation for inclusiveness

The perspective on strategy as a practice suggests a focus on who is making strategy and on the doing, the strategizing, as a practice (Whittington, 1996). Strategizing is an ongoing effort of balancing stability and change (Jarzabkowski, 2004) and routinely involving organizational outsiders may be hard to reverse. Relevant outsiders may include any stakeholders, vocal customers, suppliers, investors, or anyone who donates their time and effort as volunteers. The extent to which these participants are being listened to and engaged defines open strategy and holds potential for an overall direction that reflects a broader voice than that of top management.

Prior work has recognized the voice and creativity of consumers, particularly when they organize into communities (e.g. Füller et al., 2008), the contribution of ideas by crowds (Bayus, 2013), structural changes to organizational design (Keinz et al., 2012; Franke and Piller, 2004), and more. When strategizing routinely involves outsiders a more fine-grained view of participation helps distinguish what participation really means. The recent work of Mack and Szulanski (2017) clarifies that inclusiveness refers to a higher level of involvement:

> *This view suggests that inclusion not only stretches beyond the concept of participation as a practice for gathering participants' content input for a particular strategy but also describes the greater connection among participants at a higher level of involvement in the process of strategy formulation and implementation (Mack and Szulanski, 2017: 387).*

Adapting from Quick and Feldman (2011: 272), who wrote about public engagement, the notion of inclusiveness refers to a form of open strategy that continuously creates and maintains communities engaged in the co-production of processes, policies and programs. The implications of inclusiveness in open strategy are radical as shown by Luedicke and colleagues (2017) because organizational outsiders are given power in determining outcomes of critical importance to the organization. Sustaining inclusiveness in strategizing corresponds to a strategic orientation to co-create networks and shape the business environment by joining forces with a wider community or inviting transformation of the organization (see Figure 1).

Transparency is an orthogonal dimension to inclusiveness because the co-creation of strategy can but does not have to coincide with knowledge flows across organizational boundaries. Transparency refers to the give and take of knowledge, for free or in exchange for money. Strategy consultants, by definition, allow for the flow of ideas and insights across boundaries because sharing programs and policies is the service they sell yet they are hardly inclusive when it comes to their own strategizing. As far as innovation touches upon matters of strategic relevance, as it often does, organizations involved in open innovation also practice open strategy. This is essentially the definition of open strategy as worked out by Appleyard and Chesbrough (2017) where top management is firmly in control of strategizing and may close the sharing of knowledge at any time. This is true whenever inclusiveness is low as on the left side of Figure 1.
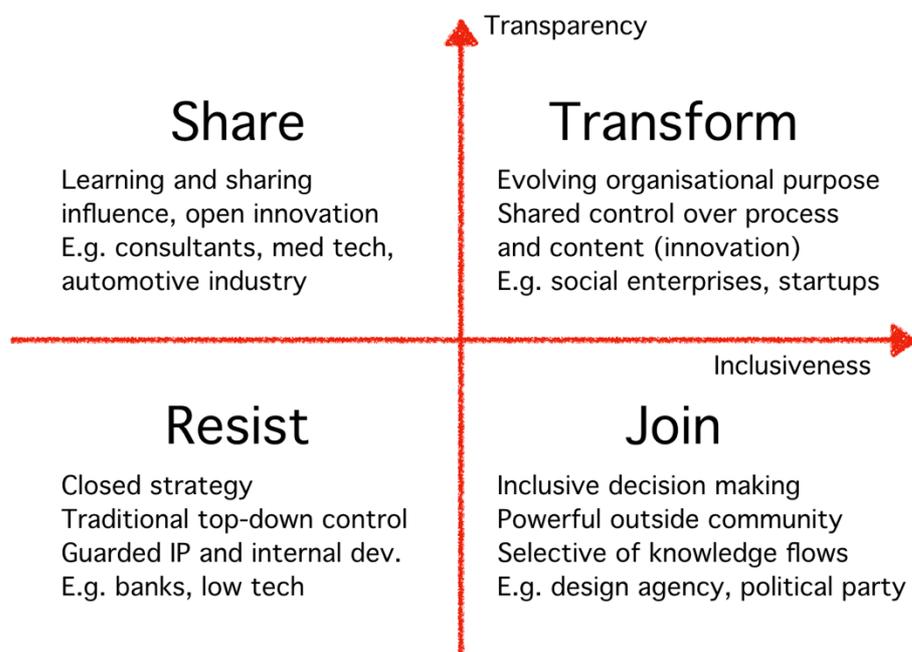
Figure 1: Dimensions of open strategy

Strategizing that is inclusive of outside participants dislodges the fundamental assumption about strategy being driven from the top of one organization. On the short term this may amount to an exception, an experiment, or a gesture to important stakeholders. On the long term, however, it signifies a shift towards a form of strategy making that no longer leaves exclusive control over the direction of the organization with its management or its employees. What Padgett and Powell (2012) describe as co-creation between multiple

networks can be described as an orientation or impulse for evolutionary variation because it departs from the idea that owners and their agents control or dominate strategy making for the organization. I define the templates of open strategy making in Figure 1 as strategic orientations enacted by multiple networks of individuals inside and outside the organization: this is particularly true where inclusiveness is high in the two right quadrants.

An orientation implies an ongoing strategic intention to change given new direction or new knowledge or both. Open strategy does not leave the organization unaffected. Change in process or content of strategizing can transform the organization and, depending on the level of openness, can hardly be controlled from a single point of departure. Let's look at three examples that illustrate three cases of open strategy. The three vignettes are adapted from three real, London-based organizations: an architecture and engineering practice we call Bridge&Shed, a business school called Publish&Flourish, and a social enterprise that curates pseudo-public and community spaces called Art&Space, see Figure 2.

Publish&Flourish

Not for profit public university
International orientation
Strong research culture
Open knowledge exchange
Strategising formally internal
Competition seen as rivalrous

Art&Space

Social enterprise
Experimenting with new online platforms and customer groups
Community leads service design
Purpose community-driven
Competition seen as collaborative

Transparency

Inclusiveness

Bridge&Shed

Architecture and engineering practice
Project-based organization
Strong outside partners involved in strategising
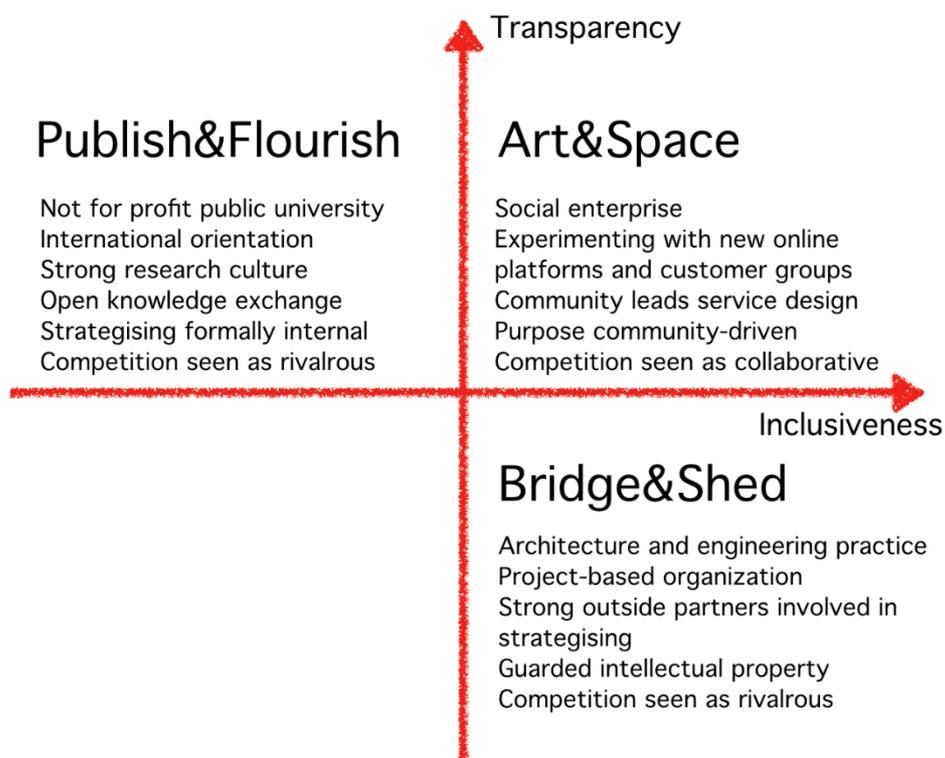Guarded intellectual property
Competition seen as rivalrous

Figure 2: 3 organizations with an open strategy

Bridge&Shed exemplify a join orientation. They have been in business for over 12 years and employ 40 individuals of which most are architects and a few are engineers. To critical acclaim they've built pedestrian bridges in highly visible city centre locations and their business model is built on projects of various profitability yet always involving outside partners who develop large-scale real estate projects or urban redevelopments. Bridge&Shed is strategizing along a highly inclusive path yet without being transparent because their core intellectual property includes designs and novel engineering solutions that are both structurally innovative and aesthetically appealing. In the absence of open innovation and a limited exchange with outsiders about designs, they routinely involve outsiders in strategic decisions that include market entry (e.g. partnering with offices abroad for joint submissions), partner network selection (guided by trusted partners and past collaborators), and product and service offerings (renovations, re-developments, extensions, service contracts). Fundamental strategic decisions are coordinated and jointly made with outsiders who hold no equity in the company and develop and grow via personal and professional networks over many years.

Publish&Flourish exemplify a share orientation. They are a mid-sized and very international business school with a strong research focus: their programs range from undergraduate to PhD and a number of their faculty members are thought leaders in their fields. The management team regularly reads and writes not only research insights in strategy and management but also public opinions and best practice manuals for higher education. While transparent, their strategizing is not inclusive. Since they view their competitive landscape as highly rivalrous they do not let outsiders in on their plans and keep program launches and hiring initiatives a secret until late in the process. In contrast to the other two vignettes, the management of Publish&Flourish retain a high level of control over their strategizing and limit outsiders' voice to consulting and learning in terms of expert meetings and high-level personal contacts.

Art&Space are an example of the orientation to transform. They view themselves as curators of space for artists and of large real estate developments, old and new. They run multiple online platforms reaching tens of thousands of unique visitors per month offering artists work spaces and educational offers and market opportunities. Their strategizing is

both transparent and inclusive in that they share ideas for next ventures with network partners such as real estate developers and artists and include online communities and network partners in decisions that shape their strategic possibilities. A new development in East London comprising of 350 apartments houses a large ground floor area yet awaits convenient commuter connections to commercial areas. The space requires animation on multiple levels lest it remains unused and unattractive to residents. Mixing artistic use with commercial and educational facilities has become Art&Space's core capability and each new site and each new online platform transforms not only their business model but also their mission: past developments have seen stronger emphasis on education and monetisation via state schools and art teaching whereas current real estate price surges in London and smart curation of space has led to sustainable commercial and public spaces that enable monetisation from long-term leases and in keeping with the social mission of supporting the arts. Inclusiveness means that the broad mission can be shaped and supported by various and fundamentally different business models: services offered to real estate developers versus multi-sided matching in online market places for art studio space.

It is important to remember that the strategic orientation does not capture a stable state but a dynamic and long-term intention and practice. The orientation to "Resist" describes organizations that prefer to keep both their knowledge and involvement in strategizing internal. The orientation to "Share" is a form of open strategy that engages with knowledgable actors outside organization boundaries and engages in learning that informs strategizing without directly involving outsiders in the process: the business school is an example here and so are many consulting firms and high tech companies engaged in open innovation. The orientation to "Join" is a form of open strategy that seeks to diffuse ideas and knowledge generated internally combined with a willingness to involve outsiders in strategizing: acting in coordination with network partners, allowing outside networks to shape important decisions and diffuse own designs in multiple ways that may expand and change the business model. The orientation to "Transform" combines both forms of open strategy in that both content and process are fundamentally open to outsiders and the organization learns and integrates into bigger networks in ever changing ways often in support and sharing risks of new experiments that come with new business models.

The design of business models is a cognitive activity that interprets and argues using the model (Baden-Fuller and Morgan, 2010) before and during practice, which consists of using and working with tools and artefacts. A holistic view on practice comprising of cognition, artefacts and activities (Laasch, 2018) helps guide an agenda for research into the orientations of open strategy using further examples from the vignettes. We turn to this emerging agenda for management science next.

Issues for management science

Co-creating strategy with networks inside and outside organizational boundaries brings with it not only higher complexity but also higher responsibility: for communities and for stakeholders beyond the direct reach of the organization. Breaking this challenge down into a more precise agenda yields questions that have started to attract research (Baptista et al., 2017; Haefliger et al., 2011). The three strategic orientations of open strategy should be analysed in more detail through lenses that can capture practices and dynamics of organizing involved in business model design (first of all cognition), technology-in-use (as an example for the artefacts), and organizational regulation (an ongoing activity). Table 1 summarizes the issues at stake which we introduce briefly before discussing in more detail how the orientations shift emphasis and sharpen responsibility both of and for external stakeholders in open strategy.

First and foremost, open strategy applies to economic activity that requires a mechanism of monetisation in order to sustain. The business model research agenda has over the last 10 years and more attracted growing interest from strategy scholars not least because it models the customer interface explicitly while integrating the traditional supply side view of strategy with its resources and capabilities (Chesbrough and Rosenbloom, 2002; Afuah and Tucci, 2001; Baden-Fuller and Morgan, 2010). Strategizing includes designing and implementing business models and more research is needed to integrate open strategizing with business model thinking both in terms of fit and appropriate models given each strategic orientation described here.

Second, strategizing in a transparent and inclusive way implies practices of learning, expanding, and possibly changing course. What are these practices and the tools in use? Technology mediates much of the practices that connect organizations with outsiders in communication and boundary objects such as documents, software code, communication protocols and, more generally, a material environment that can support learning (Engeström, 2014). What are the tools and appropriate practices that enable open strategizing in inclusive networks? Important issues not only revolve around the type of tools but specifically the tools-in-use (Jarzabkowski and Kaplan, 2015). Babtista and colleagues (2017) refer to a necessary capability they call reflexiveness that enables receiving and making sense of discourses involving outsiders and managing emerging tensions in open strategy.

Third, control is an issue. Not only has recent research on open strategy probably overstated the ability to control openness and its reversion (Appleyard and Chesbrough, 2017), there is also a dearth of research on a sustainable state of low control over strategy. Technology plays a key role in mediating organizational regulation (de Vaujany et al., 2018) and the making and breaking of rules depends on practices and the materialization of rules in code and other devices. Open strategizing has only just begun to consider systems that support open designs (von Krogh and Haefliger, 2010) and a lot more research needs to take the strategic orientation as a given intention that is here to stay in order to carry out research into regulatory episodes and systems of organizational regulation.

<insert Table 1 here>

Business models. In extension to a supply side perspective in strategic management that tends to privilege resources and value chains, the more recent work on business models takes a closer look at the demand side: the customer (Baden-Fuller and Mangematin, 2013). Such work models the customer interaction explicitly (Aversa et al., 2015) and follows a tradition of work that takes learning from customers seriously (von Hippel, 1978; Füller et al., 2008), both as a source of innovation and, ultimately, new monetisation and engagement with the brand and so forth. The customer relationship is not only one of value creation but, critically, must include monetisation if the model is to be about business. A

sustainable economic activity can be characterized by a business model that serves as an intermediary device between the actors' thinking and their doing (Baden-Fuller and Morgan, 2010). By consequence, any social enterprise has a business model and so does a university, a think tank, a social movement when it involves economic activity and, of course, a for-profit company. The orientation distinguishes between learning from customers and co-creating with customers. In open strategy, learning involves a mutual sharing of insights including product prototypes, communication, branding, and customer behaviour in general. Co-creating with customers starts with mass-customization, tool boxes, all the way to deep integration of customers in product development and innovation strategy (Piller and Walcher, 2006). Learning from customers, the orientation to share, implies transparency yet not joint decision making. Learning can mean segmentation of customers into lead users or experts to identify and observe (Poetz and Prügl, 2010) and it implies an openness in strategizing for the unexpected. In terms of business model design, this can mean that some customers pay for services or products whereas others receive them for free. Triadic business models have been identified across industries as types of business models that engage with more than one customer group for any given transaction. Historically, these include businesses such as newspapers where subscribers pay for a copy, advertisers pay per placement, and some groups of readers for example at universities receive free copies. More recently, digital production and consumption technologies have made it easier to connect customer groups in triadic models, be it as match makers such as Airbnb or as multisided models such as Snapchat.

Co-strategizing with customers occurs in services where fundamental decisions about product offering and long-term interactions are carried out by both the focal firm and its customers (see Gegenhuber and Dobusch, 2017). The orientation we call Join is frequent in networks of service professionals that collaborate on the basis of specific projects and build trust in the relationships to last for many years, sometimes entire professional careers. Architects and engineers, expert contractors, creative agencies and many other professionals operate product or service business models that include organisational outsiders involved in strategizing. This is not only true when firms are small. Joint decision making about project acquisitions, market entry, key client relationships and more are made under open strategy: inclusive of outsiders yet not necessarily transparent in terms of

knowledge sharing. Consider the business model of Bridge&Shed. Traditionally, their service model implies charging clients by the hour or by achievement of specific objectives and agreements about competing for larger projects are made in conjunction with long-term outside partners who, informally, may grant each other preferential inclusions in bids based on mutual respect and trust. Alternatively, they attempt to create platforms that connect industry partners and forge new relationships by offering different but complementary services to, say, quality assurance subcontractors and developers: this multi-sided business model explains why Bridge&Shed combine engineering and architecture under one roof.

The strategic orientation to transform points to both essential knowledge as well as decision making occurring outside firm boundaries. This radical form of open strategy is driven by renewal through stakeholders including customers who, by majority or meritocratic decision making, influence the firm to enter new markets or even redefine its purpose. Open strategizing, here, includes the possibility of transformation to adapt the organization to new demands, new values, and new goals. Yet, this orientation is rare not least because the ownership of firms usually adheres to traditional capitalist structures where the decision-making power lies with the owners and their agents, the top management.

Technology-in-use. Tools in strategizing include frameworks and models as well as artefacts such as communication technologies, social software, boundary objects, and more (Jarzabkowski and Kaplan, 2015; Haefliger et al., 2010). Importantly, tools play an important role in strategizing in that users of tools apply tools and tools, in turn, shape users in reciprocal relationships. On the long run, this relationship shapes evolutionary co-creation (Padget and Powell, 2012) and is well known as structuration theory (Giddens, 1984) and it has influenced technology scholarship significantly over the decades. Consider how Publish&Flourish applies technology in higher education to offer learning experiences to students via distant learning or via experiences in the field. Simple recordings of lectures made available online might have a negative impact on learning (Edwards and Clinton, 2018) whereas high quality and interactive materials may attract additional students to enrol. The orientation to share may prevent Publish&Flourish from collaborating with one institution when offering online learning programs in order to retain autonomy over offerings yet partner with another where the technology platform appears aligned with the

identity, brand, and so forth. Choosing the correct tool becomes a matter of choosing what kind of higher education institution one wants to become.

Beyond a long-term influence, technology shapes the daily interactions and strategizing in organizations (Neely and Leonardi, 2018) and leads to the insight that structure is inseparable from agency (Jones and Karsten, 2008). Hence, for the strategic orientation it matters which tools are applied for example to share knowledge with stakeholders outside the organizational boundaries and, for the orientation to join, relating via the tools is likely to be inseparable from the structure of decision making in the network. Thus, the provisional intention for an orientation can be a choice of the tool-in-use and the experimentation with that technology. Take the example of an architectural model as a boundary object with which external network partners are implied, enticed, incited, and, ultimately, engaged in joint action to implement. Experimenting with new technologies and ways to interact with outside stakeholders can lead to transformation in strategizing, as Art&Space demonstrates when opening new platforms to connect previously underserved communities who identify ways to mobilize via the platform created and to the benefit of Art&Space: the platform connects artists with real estate owners to share working and living space linked to a social network. From a strategy perspective, the tool that is a website in this case not only creates opportunities that can be monetised it also represents a multi-sided business model in that it connects at least two distinct customer groups. More research is needed to document the process by which major business model changes can and are being introduced by outside stakeholders.

Organizational regulation. The making and breaking of rules changes when technology mediates between the rules and the practice (deVaujany et al., 2018). Organizational regulation captures the dynamics of rules (such as the policies and processes of corporate governance) as they play out in strategy-as-practice: materially, cognitively, and in action. The dynamics include the negotiations of meaning among stakeholders inside or outside the organization (Reynaud, 1988). Open strategy is, therefore, not only fraught with the challenge of losing control in top management but also with the use of technology embedding the rules and attempts at control made by the focal organization. Subject to more research, it appears that organizational regulation may be decentralised and

centralised as top management sees fit and depending on their ability to effectively lead a dynamic technology landscape through innovation (Appleyard and Chesbrough, 2017): this includes the orientation to share. However, a reversal or two-way choice appears less likely in the case of the orientations to join or transform. With joint regulation the outcome in practice is determined by both insiders and outsiders in open strategy (Reynaud, 1988). An online learning collaboration between Publish&Flourish and a publishing house entails the benefit of reaching broader audiences and the risks of misinterpreting mutual intentions and norms when it comes to disseminating content or advertising the educational offer. Equally strategic, consider the price point of the online education offer: publishing content under creative commons could bring education to audience who could otherwise not afford education while cannibalising expensive executive education modules building on similar content. Pricing the module is a matter of business model design (monetising from the audience or not), technology-in-use (how teaching is delivered), and organizational regulation (licensing, pay-wall, distribution rules).

Open strategizing that is inclusive of outsiders in decision-making and relies on technology for interaction with outside stakeholders (as in online communities or multi-sided business models relying on online platforms) faces multiple and dynamic effects of the rules set and materialised in the technology-in-use (Jarvenpaa and Lang, 2011; Aten and Thomas, 2016). In other words, the meaning of rules in practice is a function of sensemaking by actors and of the materialisation of the rules in technology (Lanzara et al., 2016). By consequence, there is no longer one single point of control even if the orientation is to share only. To take the example above, online learning platforms can be hacked or outside partners violate distribution agreements with implications for pricing, market entry, and future partnerships. Organizational regulation is an important and somewhat overlooked topic in strategy not least because participation in strategizing is beneficial already internally (Ketokivi and Castaner, 2004) and may inform the strategy discipline about the locus and nature of control as well as the sources of legitimacy when strategizing is inclusive of outsiders. Consider the challenges of design and architecture practices, such as Bridge&Shed, that strategize inclusive of outsiders and face technology that makes sharing intellectual property cost free: a snapshot of a model or drawing can be sufficient to replicate a structure half a world away. Networks of collaborators must jointly regulate their conduct

because often, and by default, the ability to access and share sensitive content is available. Norms become crucial (Fauchart and von Hippel, 2008) and professionals who collaborate for years and build trust also build boundaries of competences and deep understanding of each other's' abilities to monetise and compete with rival networks.

A research agenda for open strategy

The orientations of open strategy outlined above imply many strategic options (Fig. 1) and open more research questions than could be answered. Open strategy inherits much from research in open innovation and, yet, remains shy to declare what knowledge openness brings to strategy that is qualitatively different from innovation. While innovation studies focus on novelty and the creation and launch of products, strategy as a discipline focuses on the survival or performance of the organization: the first may support the latter and may be more than a necessary condition for survival. At the same time, strategy is relational in essence and survival, in most industries, depends on others: an insight that is often cut short under the umbrella idea of competition. We learn from recent work on relational competing that competition is more than rivalrous behaviour towards another actor in that it includes both different types of relations (such as rivalrous and collaborative) and action and arenas of relational behaviour (Jarzabkowski and Bednarek, 2017). This complexity is welcome because it opens a gateway towards studying the knowledge needed to understand the firm's relationship to others.

<insert Table 2 here>

In a more complex competitive landscape, how does strategizing unfold and lead to smart behaviour conducive to long-term success in terms of the means and the ends envisioned? To unpack this question, we can distinguish both the cognitive side of business model design and the implementation in a real-world setting using tools and technologies to advance collective goals. Both the means and the ends are open to change and the locus of control may not always rest inside the organisation, which calls for organisational regulation as a distinct lens in open strategy. Competition also matters for inclusiveness simply because a strong focus on rivalry prevents management from even considering outsiders to influence

the strategy content, possibly also the process. Moving along the strategic orientation to join or transform we need to ask how decision making and monetisation are linked. Business models sharply distinguish between customer groups and beyond the traditional one-product-firm we've become accustomed to the idea that some customers pay whereas others receive a service for free, for numerous reasons of varying impertinence. Models are tools to inquire into as much as to argue with (Morgan, 2012) and business models that imply open strategy offer many options of monetisation and fine lines that separate customers from other stakeholders including investors, suppliers, and competitors. Strategizing is also modelling as one way to apply tools (Jarzabkowski and Kaplan, 2015) and much more work is needed to understand collective (business) modelling in open strategy.

If business models work as tools then certainly so do many other technologies and not least information technologies. Many important tools may not be readily available and their design itself follows use and remains open to users' adaptations and co-creations (von Krogh and Haefliger, 2010). Asking what are the appropriate tools to use should include a perspective on identifying and enacting technologies in order to enable open strategizing. Technology-in-use may determine the nature of competition because technologies play a role in how actors are linked, how they are able to relate, and what type of vision of the joint future they can develop (Santos and Eisenhardt, 2009). Inclusiveness itself is tied up with technology-in-use if we accept the premise that structure is inseparable from agency. Inclusiveness in decision making is a form of integration that requires not only communication but, more strongly, the mediation of technology between firm insiders and outsiders (Frey et al., 2011). An example is the use of social software and social networks by companies and emergent leadership and governance structures in such networks (Sutanto et al., 2011; Haefliger et al., 2011).

Organizational regulation describes the emergence and state of the system of rules in place (Reynaud, 1988). Setting and implementing rules within organizations implies sense-making and sense-giving, materialization of rules into systems and artefacts, as well as compliant or deviant action in time and space (deVaujany et al., 2018). Rules are designed to regulate the behaviour of employees in their internal and external conduct as well as bind all members of the organization to agreements when operating the day-to-day business. Importantly,

rules interact with practice in that they can be followed or broken, rules are often contradictory internally and over time (Alter, 2003). Interpretations of rules matter in practice and, crucially, rules may become invisible due to their materialization into artefacts including code. Artefacts that materialise rules include speed bumps on roads and password protections in information systems. According to rules, management exerts control or relinquishes control to outsiders, employees may or may not be allowed to exchange views with outsiders and share knowledge (Alexy et al., 2013). Much research is needed into the dynamics of organizational regulation given rule obsolescence, disobedience, multiple competing information systems and more. Fundamentally, however, organizational regulation can support research in open strategy as a framework for studying the devolution of control from top management to more open forms of strategizing, either open or inclusive or both. A framework that integrates technology-in-use appears consistent with a practice-based perspective because it no longer evacuates the link between rules and practice from the context of practice: the material base for adhering to rules and negotiating the grey zone of organizational regulation (deVaujany et al., 2018).

Table 2 cannot capture a comprehensive list of relevant topics and some of those left out yet implied in an open strategy orientation might prove more pertinent than the questions articulated here. One precious piece that needs more thought and research is the ethical dimension to opening up. The joint monetisation, creation, and regulation with outside stakeholders via inclusion and transparency shines light on the moral and ethical dimension of practice. A famous claim in Open Source software development called Linus's Law states that 'given enough eyeballs, all bugs are shallow' (Raymond, 1999). By analogy, we could expect more eyes on organizational processes and decisions with the consequence of more debate or, at least, awareness. Given openness, outside stakeholders may learn about the skills and motivation of organizational actors. They may question the strategy by becoming more or less involved, addressing issues, or correcting mistakes: from bugs all the way to the skeletons that can no longer hide.

When does open strategy also mean shared responsibility? Product liability, investor protection and other compliance laws all point to top management as the agents of the owners who are, in last resort, responsible for all corporate conduct. Open strategy may

devolve control without distributing responsibility, a scenario that may prevent management from sharing decision-making with outsiders. How can open strategy envision a practice of shared responsibility that follows a shared purpose? Abstracting from the law, well known to follow practice very slowly, how can the strategy discipline update its sometimes narrow and historically individualistic thinking on ethics in collective action? If we discharge the heroic leader as the dinosaur in the boardroom, conveniently impersonating the individual agency and responsibility we've come to take for granted, what are other models of good open strategizing can we study and build on? One possible way forward is an Aristotelian ethics in a more contemporary form (MacIntyre, 1995: 10; Tsoukas, 2017) because it allows for the social practice to define its appropriate and definitive standards of excellence and makes their pursuit a strategic orientation. In this definition of orientation, the direction of open strategy approximates what Moore (2012; 2017) calls organizational purpose and organisational insiders as well as outsiders may rally around the standards of excellence because they define what the social practice is really about: building better sheds and bridges, publishing great business research, and serving artists in London. Not forgetting why companies do what they do may be the most promising of avenues for future research and the most powerful driver of open strategy.

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	Resist	Share	Join	Transform
Business model design	Know your customer	Learn from your customer	Co-create with your customer	Become your customer
Technology-in-use	Apply the tools correctly	Apply the correct tool	Relate via the tool	Experiment with tools
Organizational regulation	Central and top down	Decentral regulation	Joint regulation	Joint regulation

Table 1: Variations across the orientations of open strategy

	Share	Join	Transform
Business model design	o How can customers and users inspire strategizing beyond innovation? o How can learning from customers become part of the business model? o When does selective revealing apply to open strategy?	o What are limits to inclusiveness in customer relationships? o What are the links between decision-making and monetization? o How do business models change, when they do, due to inclusive strategizing?	o What are models of profit sharing in open strategy? o When is transformation sustainable in economic terms? o What is the role of top management in the absence of control?
Technology-in-use	o What are the learning tools appropriate for open strategy? o Is openness technically reversible in IP strategies and sharing?	o What are the networking tools appropriate for inclusive strategizing?	o What are the tools appropriate to connect learning and inclusive decision-making in open strategy?

	o How does the locus of agency change, if it does, as learning becomes open?	o How does technology-in-use influence the locus of decision-making? o How does technology impact the customer relationship?	o When does technology-in-use accelerate or defer transformation? o How does technology mediate an orientation to transform?
Organizational regulation	o How are impulses from the outside materialized into rules? o What are the links between planning and implementation ex post?	o Is joint regulation a necessary consequence of inclusive strategizing? o How does joint regulation become legitimate and materialized?	o What is the legitimacy of co-creation of strategy and organizational transformation? o Where is the locus of control in open strategy at any given time?

Table 2: Research questions