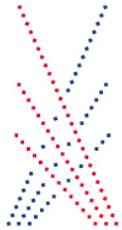

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Explaining Relational Rewards in New Forms of Inter(Organizational) Collaboration

Deniz Kruse (deniz.kruse@ufo.uni-hannover.de)
Golo Rövekamp (golo.roevekamp@ufo.uni-hannover.de)
Christiana Weber (christiana.weber@ufo.uni-hannover.de)
Institute of Management and Organization, Leibniz Universität Hanover

Abstract

In the light of open organizations and new forms of organizing we are experiencing the emergence of novel types of collaborations as well as novel partners for organizations (e.g. crowds and communities). Although the motivations and goals, the *why* organizations collaborate has not changed over time, the way, the *how* seems to have changed significantly. In this conceptual paper, we systematically analyze and conceptually disentangle novel forms of firms' collaboration with "non-organizational types" (*NOTs*) and thereby applying the relational view (RV). Along four theoretical dimensions, we investigate *how* firms' engaged in these innovative types of cooperative arrangements generate relational rewards, and discuss whether and how the RV corpus as well as its basic assumptions hold for this somewhat different context.

Keywords: new forms of collaboration; relational view; interorganizational collaboration; relational rewards; crowds; communities; innovation

1. INTRODUCTION

There is large consensus in the literature that organizations need collaborative activities to grow and thrive (Hardy et al., 2003; Kale & Singh, 2009; Panico, 2017; Parmigiani & Rivera-Santos, 2011). Interorganizational collaboration can be understood as cooperative arrangements between two or more organizations to share resources and ultimately pursue the goal of improving performance (Parmigiani & Rivera-Santos, 2011).

When scholars examine such activities, they usually refer to classical forms such as alliances, licensing, cross-sector partnerships, or networks (Parmigiani & Rivera-Santos, 2011). In order to stay innovative and competitive, organizations increasingly face the need of a new strategic openness and to act outside their well-known boundaries (Appleyard & Chesbrough, 2017; Chesbrough, Lettl & Ritter, 2018; Dobusch & Kapeller, 2018; Sims & Woodard, 2019). One way of translating this need into action is to not only to engage in traditional forms of collaboration but to also incorporate "new forms" or "non-organizational types" such as crowds or different kinds of communities in their relationship portfolio (Alexy, Frederiksen & Hutter, 2017; Amit & Han, 2017; Boudreau & Lakhani, 2013; Dobusch & Kapeller, 2018; Fisher, 2018; Puranam, Alexy, & Reitzig, 2014).

These relationships become increasingly relevant and an important means for different kinds of rewards (e.g. knowledge & innovation, performance improvements, and efficient ways of resource allocation). We observe that our traditional approaches, theoretical lenses as well as underlying assumptions are continuously challenged regarding their power to explain those new and complex developments in this field (Amit & Han, 2017; Alexy et al., 2017a; Majchrzak, Jarvenpaa & Bagherzadeh, 2014; Puranam, Alexy & Reitzig, 2014). For example, Felin et al. (2017) state: „While we are descriptively learning much about these crowd-type phenomena and more open forms of organization, the underlying theoretical and comparative commonalities and differences—as well as their implications for theories of the firm—remain under-specified." (p. 119) In addition, Alexy, Frederiksen & Hutter (2017) ask "to develop and test both new and established theories" (p. 403). Obviously, collaboration with new types have not yet been sufficiently theoretically explored and explained (Felin, Lakhani & Tushman, 2017; Alexy et al. 2017) and there is strong need for "additional and deeper integration with theories and theoretical questions that are well-established in management research." (West & Bogers, 2017, p. 46)

Building on these statements, we answer the question, how firms generate relational rewards via collaborations with non-organizational types and address two research gaps: (1) we provide theoretical arguments to specify the relationship between firms and their "new" counterparts

and (2) we help closing the gap between insights on interorganizational relationships and new forms of collaboration.

Figure 1 provides an illustrative overview of the constellation.

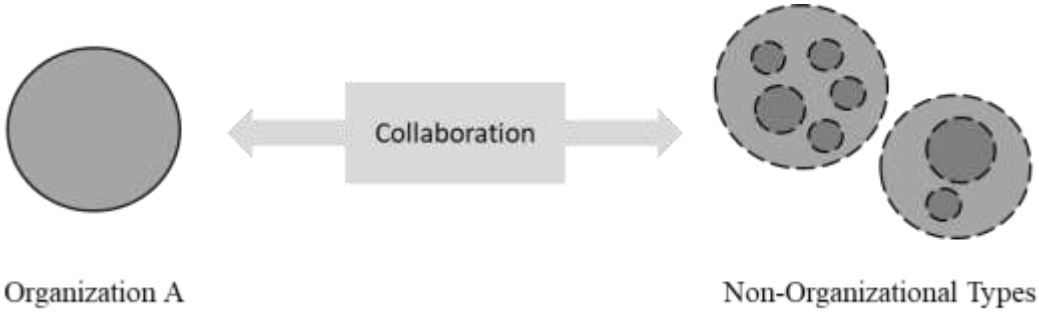

Figure 1. Illustration of the collaboration

To help closing these two gaps, we use apply the relational view (RV) as the theoretical foundation and analytical lens of our study (Dyer & Singh, 1998; Dyer, Singh & Hesterley, 2018). Four determinants—'complementary resources and capabilities', 'relation-specific assets', 'effective governance', and 'knowledge-sharing routines'—are the primary sources for the generation of relational rewards via collaborative activities (Dyer & Singh, 1998; Dyer, Singh & Hesterley, 2018). We describe in greater detail below, how the RV helps in explaining jointly generated rewards for both firms and their collaboration partners. Along the four RV dimensions, we revisit the theory to explore its explaining power for collaborations between firms and "non-organizational types". More precisely, we investigate the underlying processes and structures of these innovative types of collaborations and discuss whether and how the RV corpus as well as its basic assumptions hold. As recommended by Barney (2018), we follow a clear approach to expand our selected theory (RV) in a novel and creative way. We systematically take "its assumptions and basic logic […] and explore how these can be applied in new ways, to new phenomena, and to new questions" (Barney, 2018, p. 1).

We contribute to the OMT literature in the following ways:

First, we aim to expand literature on new forms of collaboration by systematically explaining how firms generate relational rewards when collaborating with non-organizational types and mapping out the subsequent processes and structures.

Second, by integrating the existing relevant knowledge regarding new organizational forms of collaborating (stemming mostly from the innovation literature) and interorganizational collaboration our study combines two parallel, yet largely unconnected streams of research and

therewith complements both OMT and innovation literature. Most importantly, we complement those research streams by integrating an established theory (RV) into a new context.

Third, we aim to expand theory, the relational view itself, by problematizing elementary principles of the theory in a new context. We apply it to the specificities of the phenomenon of collaborating with "non-organizational types" and thus make it accessible to a broader audience (Barney, 2018).

We thereby follow various calls for new insights about new forms of collaboration (Felin, Lakhani & Tushman, 2017; Majchrzak, Jarvenpaa and Bagherzadeh, 2014) and by introducing the relational view into the discussion of new organizational forms and interorganizational collaboration, we fill a theoretical gap in a largely unexplored field of research (Alexy, Frederiksen & Hutter, 2017; West & Bogers, 2017).

This conceptual article is structured as follows: First, we briefly integrate our conceptual article into the body of literature surrounding both interorganizational relations and new forms of collaboration. We then elaborate on the relational view as our theoretical lens and why this analytical framework helps to answer our research question. Based on this, we conceptually disentangle processes and structures of how firms generate relational rewards via collaborations with new types of collaboration partners. We finish with concluding arguments and contributions and provide implications for practice and future research.

2. RESEARCH OBJECT – New form of collaboration (firms collaborating with non-organizational types)

2.1 The new actor – non-organizational types as collaboration partners

2.1.1 Non-organizational types (NOTs)

In the recent past, the debate on crowds and communities has shifted from a sole perspective on the specific forms and sub-forms (e.g. online communities, innovation communities, user communities, crowd-sourcing activities, community sourcing; Felin et al., 2017; Harhoff & Lakhani, 2016) towards a more broadened understanding of the commonalities between these forms (Dobusch & Kapeller, 2018; Sims & Woodard, 2019; West & Sims, 2018). It becomes clear, that "[…] there is often considerable overlap between these forms — and often the boundaries are fuzzy […]." (West & Sims, 2018, p. 61) and that "[…] that crowd and community attributes can coexist and that some open source projects display the attributes of both." (Sims & Woodard, 2019, p. 18).

Adding to this discussion and prior work, we argue for the purpose of our paper, these forms are similar enough to be treated under one umbrella term while at the same time acknowledging certain differences and specific properties. We conceptualize "Non-Organizational Types" (NOTs) as an umbrella term for most importantly crowds and different kinds of communities that are engaged in boundary-spanning collaborative activities with traditional organizations (Boudreau & Lakhani, 2013; Felin, Lakhani, & Tushman, 2017; Dahlander & Frederiksen, 2012; Harhoff & Lakhani, 2016).

This procedure also follows Parmigiani and Rivera-Santos (2011), making a similar argument about differences and commonalities between more traditional organizational forms. As a consequence, we pay more attention to the similarities and overlap of these forms and less to their differences. Incidentally, this discussion about similarities also emerged in earlier research on traditional forms of interorganizational relationships e.g. with regards to different types of alliances or networks (Dyer & Singh, 1998; Hardy et al., 2003; Parmigiani & Rivera-Santos, 2011).

To make it clear, we value the research that deals with the subtle differences within and between these forms and recognize that it is important to gain deeper insights into the different types, for example, understanding how a crowd works and what its idiosyncratic characteristics are. Consequently, scholars have begun to study crowds (Felin, Lakhani & Tushman, 2017; Kolbjørnsrud, 2017; Nickerson, Wuebker & Zenger, 2017) or innovation communities (Baldwin & von Hippel, 2011; Faraj et al., 2016; Kane & Ransbotham, 2016). These studies, however, deal with specific issues related to those presumed forms such as the governance of crowds (Nickerson, Wuebker & Zenger, 2017). They fall short, though, on explaining what these novel aspects mean for traditional organizations and whether and how firms' collaboration with such non-organizational types is impacted both from a practical and a theoretical perspective.

2.1.2 NOTs vs. traditional collaboration partners

Non-organizational types differ significantly from the concept of traditional organizations. From our understanding, much of the novelty regarding new forms of collaboration therefore stems from this difference. In comparison to traditional forms, the new collaboration entities are often characterized by non-identifiable boundaries – a feature that has, however, been argued to be a core characteristic of any organization (Puranam, Alexy & Reitzig, 2014; Scott 1998; Weick, 1969) and fuzzy structures (Dahlander & Frederiksen, 2012). As a consequence, in contrast to "most other organizations [...] little prevents individuals from being members of

multiple communities." (Dahlander & Frederiksen, 2012, p. 989). Thus, being a "member" of a non-organizational type is less an issue of membership but rather one of "contributership". Nevertheless, these rather unstructured and decentralized collaboration partners work effectively and in certain situations more efficiently because they are so disorganized and loosely structured (Boudreau and Lakhani, 2013).

Another difference lies in the fact that "crowd-based organizational models are purported to be more open and participatory than traditional organizational forms." (Powell, 2017, p. 289) (Online) communities, for example, "are different […] due to their fluid nature and the extent to which they depend on the voluntary participation and intrinsic motivation of members to persist (Faraj et al., 2009)." (Fisher, 2019, p. 279)

Moreover, NOTs are driven by technological advancements in IT technology (Puranam, Alexy, & Reitzig, 2014; Amit & Han, 2017) and provide a (online-based) platform for sharing and exchanging knowledge or interests (Amit & Han, 2017; Dobusch & Kapeller, 2018; Fisher, 2019). Similarly to traditional organizations, NOTs are characterized by certain social structures, however, the socially relevant activities are virtual and driven by online interaction (Dahlander & Frederiksen, 2012; Fisher, 2019). Communities with its core members (users that have a core position inside a community) and cosmopolitans (boundary spanning users with periphery positions across multiple communities) represent an attracting social and highly collaborative structure with distributed knowledge (Dahlander & Frederiksen, 2012).

In summary, non-organizational types are characterized by (1) a fluid nature with permeable boundaries, (2) a dependence on voluntary participation, (3) a social structure that is driven by online interaction that happens on a (4) digital or internet-based platform. These differences to traditional organizational forms are at the same time common characteristics of non-organizational types – the somewhat different collaboration partner of the focal organization.

2.2 The new constellation – firms collaborating with non-organizational types

2.2.1 Collaboration with NOTs

Collaborating with "non-organizational types" plays a growing role in organizations' relationship portfolios. Online communities, for example, have become "a key stakeholder group to form a source of competitive advantage that comes from the firm's ability to generate information, influence, and solidarity benefits from engagement in the online community." (Fisher, 2019, p. 281) Such (rather user-oriented) forms of collaboration have become particularly prominent e.g. in order to design and implement innovation processes (Harhoff & Lakhani, 2016). Chesbrough (2017) labels collaboration with "a large number of players across

multiple phases of the innovation process" (p. 37) as Open Innovation 2.0. Regardless of the label scholars dedicate to those constellations, the future will be characterized by more collaboration with diverse partners (Chesbrough, 2017).

In fact, novel forms of collaboration have already become a standard solution for organizations e.g. for innovation and growth (Boudreau & Lakhani, 2013; Harhoff & Lakhani, 2016), but also for strategy making (Dobusch & Kapeller, 2018) and other forms of firms value creation. For instance, it has become a shining example for a rewarding collaboration when firms and communities mutually work on open source software (Dahlander & Magnusson, 2008; West & Lakhani, 2008; West & Sims, 2018). When firms leverage non-organizational types in this manner, we argue, there is reason to believe that NOTs serve as a complementary asset for the firm. Thus, these apparently non-organizational types offer fruitful breeding grounds of know-how and information that organizations can leverage to foster relational rewards.

2.2.2 Precondition for collaboration – debates and observations on openness

A salient precondition for firms' collaborations are permeable boundaries "to enable knowledge exchange with a broad set of partners." (Zobel & Hagedoorn, 2018, p. 2) Although earlier research did already highlight the importance of open boundaries of the firm (von Hippel, 1986; 1988; Chesbrough, 2003; Enkel et al., 2009; Powell et al. (1996), we observe that scholars renewed the concept of strategic openness of organizations to explain the growing outward orientation in the last years (Alexy et al., 2017a; Kane & Ransbotham, 2016; Appleyard & Chesbrough, 2017) In the same notion, Trott and Hartmann (2009) challenged the concept of open innovation (Chesbrough, 2003) as being "old wine in new bottles" (p. 715).

The practice to access and use knowledge from outside the firm is not new. In this manner, the new phenomenon of e.g. firm-crowd collaboration does not necessarily imply that the reasons behind this collaboration are also new or should be treated as completely new (see e.g. early discussions on (innovation) networks or open innovation (e.g. Ahuja, 2000; Dhanasai & Parkhe, 2006; Gulati, 1998; Robertson & Longlois, 1995; Chesbrough, 2003) and new discussions on strategic openness or free innovation (e.g. Alexy et al., 2017; von Hippel, 2017)). We state that organizations who engage in collaboration with non-organizational types strive for similar or the same goals as those who pursue traditional forms – for example knowledge transfer (van Wijk, Jansen & Lyles, 2008), building relational capital (Elfenbein & Zenger, 2017) or taking advantages of synergetic benefits (Panico, 2017). In case of the latter, new forms seem to function as a new vehicle for already existing, traditional organizational goals. Thus, new forms of collaboration are by no means an indication of new organizational goals – and vice versa. In

this context, the debate about novel forms of collaboration does not necessarily imply new goals that organizations pursue with their openness, but rather novel types of collaboration partners. The motivations and goals, the *why* organizations collaborate may not have entirely changed over time, the way, the *how* seems to have changed significantly.

The new collaboration constellations differ from traditional interorganizational collaboration (e.g. strategic alliances) mainly by the fact that organizations collaborate no longer with other organizations but with a "non-organizational type". We further argue that if the partner now differs in terms of various characteristics, the collaboration itself must now also be exposed to new processes and structures.

We now summarize and compare further characteristics of new and traditional types of collaboration (table 1) in order to broaden a mutual understanding of the differences between both types. As a result of our literature analysis, we extracted arguments on research about the traditional forms predominantly from Hardy et al. (2003), Kale & Singh (2009), Mesquita et al. (2008); Panico (2017), Parmigiani & Rivera-Santos (2011) and Weber et al. (2017). The statements on the new types were mainly derived from contributions by Boudreau & Lakhani (2013), Felin, Lakhani, & Tushman (2017), Dahlander & Frederiksen (2012), Raasch & von Hippel (2013) and von Hippel (2017).

Table 1: Comparison of key characteristics between traditional and new forms of collaboration

General comparison	***Traditional and new forms of collaboration***	
Key characteristics	Traditional Collaboration	Collaboration with NOTs
Definitional Basics	Counterpart is one (or more) other organization	counterpart is decentralized / loosely structured (mainly crowds & communities)
Relationship type	formal agreement between partners; dyadic relationship or closed network; strong interpersonal ties	fluctuant, broad base of individuals; open network; weak interpersonal ties to the focal organization
Formation process	ex-ante decisions based on structural characteristics and organizational fit between both partners	problem finding and solving (via non-organization)
Means of control	hierarchical	heterarchical
Typical (theoretical) Approaches	Organizational Economics and Organization Theories (Agency;	(Open) Innovation “Theories” or Frameworks

	Transaction Cost; Institutional; Social Network; Learning Theories)	
Resource Sharing	supplementary; complementary	complementary
Benefit created	Organizational level rewards	Organizational and individual level rewards
Benefit recipient	Organization	Organization or Individual
Theoretical obstacles	principal-agent-problem (information asymmetry); High transaction costs (ex ante)	Lack of organizational control; low transaction costs
Major sources to this comparison	Hardy et al., 2003; Kale & Singh, 2009; Mesquita et al., 2008; Panico, 2017; Parmigiani & Rivera-Santos, 2011; Weber et al., 2017	Boudreau & Lakhani, 2013; Felin, Lakhani, & Tushman, 2017; Dahlander & Frederiksen, 2012; Raasch & von Hippel, 2013; von Hippel, 2017

3. THEORETICAL LENS AND ANALYTICAL APPROACH

3.1 Theoretical Lens: The Relational View – collaborations as sources for relational rewards

The RV is an influential and frequently cited theoretical framework (e. g. Carnahan & Somaya, 2013; Chen et al., 2004; Lavie, 2006; Weber et al., 2017; Wiengarten et al., 2016) to explain the benefits of collaborative relationships. This analytical lens is particularly suitable for the purpose of this paper because the RV covers four important determinants that help to explain how organizations generate relational rewards via collaborative activities (Dyer & Singh, 1998; Dyer et al., 2018). These dimensions, (1) complementary resources and capabilities, based on Barney's (1991) resource-based view and recently highlighted as a precondition for entering into collaborations (Dyer, Singh & Hesterley, 2018), (2) relation-specific assets, based on transaction cost theory (Williamson, 1985), (3) knowledge-sharing routines, and (4) effective governance, "assumed to influence transaction costs and the willingness to combine or exchange complementary resources and capabilities" (Weber et al., 2017, p. 932) Figure 2 illustrates the original RV model.

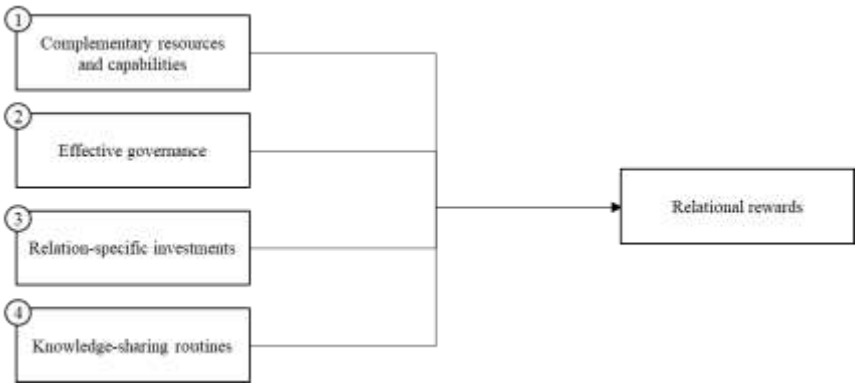

Figure 2. The RV model (based on Dyer & Singh, 1998)

The RV has proven its relevance for explaining collaborations for a broad range of studies: For example, scholars applied the RV in the context of risk management, supply chain integration and innovation performance (Wiengarten et al., 2016), to corporate innovation via corporate venture capital (Weber et al., 2016), to strategic purchasing, supply management and organizational performance (Chen et al., 2004), or to social value creation in the Not-For-Profit Sector (Weber et al., 2017). Also, first empirical studies already integrated selected ideas and concepts from the RV into the literature on open innovation (Monteiro, Mol, & Birkinshaw, 2017) or corporate entrepreneurship (Simsek & Heavey, 2016).

Taking the RV as a starting point, we recognize an interesting analogy: twenty years ago, Dyer & Singh (1998) mentioned, "the 'explosion in alliances' during the past decade suggests that a pair or network of firms is an increasingly important unit of analysis and, therefore, deserves more study" (p. 661). To date we observe this very same development looking at firms collaborating with NOTs. Thus, twenty years after its introduction, we revisit the relational view considering an emerging phenomenon.

Recently, Dyer, Singh & Hesterley (2018) have returned to the theoretical underpinnings of the now 20 years old relational view by focusing on an evolutionary view of interorganizational collaborations and discuss recent developments in business alliances. More importantly, they added a contemporary, dynamic perspective in regard to value creation and value capture in alliances (Dyer, Singh & Hesterly, 2018).

As we argue that firms use new forms of collaboration to leverage relational rewards, the relational view may very well still be applicable in this new context. Organizations apply cooperative strategies to leverage relational rewards – in our specific case stemming from building relations to non-organizational types.

3.2 Analytical approach

By investigating the new form of collaboration and taking the RV as an analytical lens, we adopt an existing theoretical framework. In so doing, we aim to build on the core assumptions and thoroughly guide through "[…] the logical structure of prior theory […]" (Barney, 2018, p. 1). We take the RV's internal logic and apply the theoretical frame to a new phenomenon. This also goes in line with Puranam et al. (2014) who argue that "[…] existing theory provides a sound basis for understanding much of […] novelty, because the solutions are rarely novel to the world" (p. 173). Finally we condense what we can learn from our approach for future studies. This procedure follows recent discussions in organization and management theory (OMT) literature, highlighting an analytical way of taking assumptions, deriving implications

and finally stating these observations in propositions (e.g. Havemann, Mahoney & Mannix, 2019).

We will proceed as follows: We begin by revisiting the elementary principles of the RV (unit of analysis, the generation of relational rewards, and the value of non-arm's lengths relationships) and elaborate these fundamentals in the light of collaboration with non-organizational types (chapter 4.1). Thereafter, from chapter 4.2, we systematically integrate the logical structure of the four primary sources of relational rewards. By this, we carve out the processes and structures behind those new forms of collaboration and investigate how the respective parties reach their aspired goals of generating relational rewards.
To highlight key findings and guide the reader, we substantiate our analysis with the help of practical examples, like other studies in this area (e. g. Chesbrough, 2017; Puranam et al., 2014). Figure 3 provides an overview of our conceptual approach.

Figure 3. Conceptual Approach

4. DISENTANGLING THE GENERATION OF RELATIONAL REWARDS – Applying the RV to firms' collaboration with NOTs

4.1 New forms and the elementary principles of the RV

Unit of analysis. The very core of analyzing rewards that result from collaboration is the collaboration itself, being the fundamental unit of analysis in management research (Dyer, Singh & Hesterley, 2018). In contrast to a perspective on resources (Barney, 1991) with the firm as the central unit of analysis, or the industry view (Porter, 1980), focusing on the specific industry context, the (traditional) perspective in RV studies lies on the dyad (or network) between firms (Dyer & Singh, 1998; Dyer, Singh & Hesterley, 2018).
We follow this unit of analysis, because it reflects an important assumption at the very core: important sources for relational rewards (and innovation) can lie outside the boundaries of the focal organization. Building on recent discussions and developments in the context new forms

of organizational collaboration (Sims & Woodard, 2019; Tucci, Afuah, & Viscusi, 2018), this argument is up to date as rarely before.

Relational rewards. We understand relational rewards to be equivalent with relational rents, being a more precise terminus for all types of value created out of collaboration with non-organizational types. Dyer & Singh (1998) acknowledge that these "quasi-rents […] are not permanent in nature" (p. 661) and can be understood as competitive advantage (on the firm' side) or supernormal returns. Transferred to this paper, relation rewards are advantages or benefits resulting from firm-NOTs collaboration. Relational rewards can be generated as the respective collaboration partners profit from a new combination of resources (e.g. new knowledge or ideas) and thus taking advantage from the relationship (Dyer & Singh, 1998). For example, collaboration with NOTs are of capital importance for innovation capabilities (Dahlander & Frederiksen, 2012; Harhoff & Lakhani, 2016). Thus, these non-organizational types offer fruitful breeding grounds of know-how and information for firms to leverage relational rewards and turn into competitive advantages. The four primary sources of relational rewards will be discussed below in more detail. There is also evidence that NOTs can be helpful in achieving more operative goals like cost reduction or increased revenue/growth (Fisher, 2019).

Relational rewards are jointly generated by the collaboration partners (Dyer & Singh, 1998; Dyer, Singh & Hesterley, 2018). This is also true for firms-NOTs-collaboration. Dahlander & Frederiksen (2012), for example, explain that both firms and the community benefit from user innovation processes.

However, we argue that the characteristics and the distribution of relational rewards are different in new forms of collaboration compared to traditional interorganizational relationships. As in traditional forms the type of resulting reward is more or less comparable for both parties, in new forms the firms often achieve "the lion's share of the rewards" (Powell, 2017, p. 294). It may seem that most of the (financial) value created is captured by the respective firms (Dyer, Singh, & Hesterley, 2018). We argue, that the respective types of value for each partner resulting from collaborations with non-organizational types differ significantly.

Exemplarily, value such as knowledge increase and innovation are certainly created for the focal organization (Dahlander & Frederiksen, 2012). On the other hand, for the non-organizational partner, values and benefits such as reputation or self-rewards within the crowd/community are undisputed (Dahlander & Frederiksen, 2012; Raasch & von Hippel, 2013; von Hippel, 2017). Thus, the concept of joint rewards still holds because value is created

for both sides (Dahlander & Frederiksen, 2012). The value for the non-organizational type may be much more diverse, for example, fun, learning, altruistic motives, or financial incentives (von Hippel, 2017; Raasch & von Hippel, 2013). The relational rewards for firms are – beyond the general access to innovative contributions – for example, stronger brand consideration (Kim et al., 2008), reduced tensions in strategy-making (Dobusch & Kapeller, 2018), or, efficiency gains, cost reduction, and revenue increase (Fisher, 2019). Furthermore, often the roles of contributors and customers are blurred for members of NOTs, therefore firms' benefit eventually from increased marketing and demand for firm products (Miller et al., 2009).

Arms-length relations. Collaborations in an arms-length logic are, at a fundamental level, usual market relationships that are rather easy to imitate and not rare (Dyer & Singh, 1998). The RV suggests that relationships are rewarding if they offer a higher level of value creation relative to other arms-length market relationships (Dyer & Singh, 1998; Dyer, Singh & Hesterley, 2018). Thus, collaborations are idiosyncratic and relational rewards are generated "[…] only as they move the relationship away from the attributes of market relationships." (Dyer & Singh, 1998, p. 662)

Extant literature has proven that this a true for traditional forms of interorganizational collaborations such as buyer-supplier relationships or alliances (e.g. Mesquita et al., 2008).

Transferred to the context of this paper, we observe that collaborations with non-organizational types are also going beyond traditional market relationships (Boudreau & Lakhani, 2013; Chesbrough, 2011). Successful firms build and develop long-standing relationships with their respective communities (Andersen, Kragh & Lettl, 2013; Antorini et al., 2012; Chesbrough, 2011; Hienerth, Lettl & Keinz, 2014). LEGO for example takes great benefit from an active and longstanding relationship towards their user community tracing back to the mid-1990s (Antorini et al., 2012).

If firms want to establish a beyond-market-collaboration and use e.g. communities as complementary assets in their portfolios, they have to actively participate in the respective community, interact with the members and learn from them (Dahlander & Wallin, 2006). Based on the RV, this is, what makes collaborations rewarding for both parties involved. Both parties leverage relational rewards that cannot easily be generated without these type of collaborations and the respective partner involved. This also goes in line with statements in innovation context as scholars state that open innovation, of which e.g. crowds or communities are popular examples (Bogers et al., 2017; Sims & Woodard, 2019), in general goes beyond arms-length market relationships (Chesbrough et al., 2006; Vanhaverbeke, 2006).

4.2 Primary sources of relational rewards in new forms of collaboration

In the following, we introduce the four primary sources of relational rewards into the discussion about collaboration with NOTs. We begin with complementary resources and capabilities as this dimension has recently been highlighted as "a state variable that provides the potential for value creation whereas the other three mechanisms are instrumental (and typically coevolve) in the process of realizing this potential." (Dyer, Singh & Hesterley, 2018, p. 8).

Complementary Resources and Capabilities. This dimension is primarily based on assumptions from the resource-based view (Barney, 1991). It is assumed that complementary resources are resources that together provide a greater value than if they are claimed individually by the respective parties (Dyer & Singh, 1998) and are key for taking advantage of the collaboration (Albers et al., 2013; Weber at al., 2017). Complementary resources and capabilities can be both tangible and/or intangible (Dyer, Singh & Hesterley, 2018). To leverage this source for relational rewards, the respective partners need to be capable to identify and to subsequently access and incorporate the valuable complementary resources from the collaboration partners (Dyer & Singh, 1998). To tap into such complementary resources (knowledge, technologies etc.), firms traditionally form strategic alliances with other organizations (Simsek & Heavey, 2016) as the full potential of complementarities cannot be acquired by market mechanisms (Dyer & Singh, 1998).

When adapting this process to firms' collaborations with non-organizational types, this means that the focal firm needs to be able to leverage resources or capabilities that lie e.g. in a crowd or an online community. Similar to traditional alliance portfolios, nowadays firms incorporate NOTs in their external collaboration portfolios in order to extract valuable, rare, imperfectly imitable, and non-substitutable resources, and, subsequently, leverage relational rewards and performance improvements (Barney, 1991; Simsek, & Heavey, 2016). An important mechanism in this context is the sourcing of external knowledge (Monteiro, Mol & Birkinshaw, 2017) to expand the knowledge pool of the firm and thus providing a better base for problem solving (March, 1991). A catalyst of this development is the growing outward orientation of firms and the increasing availability of NOTs that "provided firms with opportunities to create and/or engage with communities not previously accessible to them." (Fisher, 2019, p. 281), driven by the fast development of IT and broadband internet availability (Amit & Han, 2017). These developments lead to complementarities resulting from efficiency gains and cost reduction. Firms do no longer have to spend money on extensive distant search for certain problems, but owners of relevant knowledge "self-select to solve [the problem]" like "needles in the haystack reveal themselves" (Afuah, 2018, p. 15).

It becomes apparent that the collaboration with NOTs offer an entirely new pool of potential complementary resources and capabilities. Traditional complementarities relate for example, to one firm possessing expertise in sales and marketing and the other in production. With regard to new types, the complementarity lies, for example, in the efficiency or in the quickly accessible, broad, deep, or high-quality knowledge of the respective non-organizational partner (e.g. software firms access crowds to test codes) (Dahlander & Frederiksen, 2012). This is especially important for firms with limited financial resources (e.g. for R&D spendings), which would be a substantial barrier to source external knowledge (Galunic & Rodan, 1998; Garriga, von Krogh, Spaeth, 2013; Monteiro, Mol & Birkenshaw, 2017). Thus, for those firms the opportunities to access complementary resources have increased significantly.

Looking at the NOT-side, complementarities occur, because firms open their R&D or production departments in a way that access to corporate knowledge and capabilities becomes possible for individual community members. Users inside the LEGO community for example can realize their own ideas and input with the help of the LEGO engineers and production capabilities (Antorini et al., 2012). For software coding, GitHub users get the opportunity to gain access into early-stage products from software companies (e.g. Microsoft) and the latest developer-frameworks (e.g. Alphabet's Google Android) (Sims & Woodard, 2019). These complementarities can only be leveraged by combining corporate and community inputs. Especially in technologically complex and knowledge-driven industries, "[…] an individual often lacks sufficient expertise to innovate alone […]" (Dahlander & Frederiksen, 2012, p. 988) and participation in communities and community-firm relations offers unique access for the recombination of knowledge.

Indeed, the non-organizational type can not only function as access to complementary resources for the firm, but also become a complementarity itself. Research on communities for online software development shows, for example, that community members function as developers on the one hand and as customers (or early adopters) of the product on the other (Dahlander & Wallin, 2006). In such cases, the community itself becomes a complementary asset, as it transforms input into output (Dahlander & Wallin, 2006).

Effective Governance. This dimension is primarily related to a transaction cost perspective (Williamson, 1985) as effective governance mechanisms positively impact transaction costs of the collaboration and thus improve the above mentioned exchange of complementary resources and capabilities (Dyer and Singh, 1998). Effective governance can generate relational rewards "by either (1) lowering transaction costs or (2) providing incentives for value-creation initiatives" (Dyer & Singh, 1998, p. 670). Dyer and Singh (1998)

differentiate between formal and informal as well as self-enforced and third party enforced governance mechanisms. In traditional collaborations, firms can use formal ways of governance (e.g. contracts) or third-party enforcements (e.g. court settlements) to govern their interests (Dyer & Singh, 1998).

By applying this dimension to firm-NOTs-collaboration, it becomes apparent that effective governance is relevant on two levels: First, on the level of the collaboration, this is the governance between the firm and the corresponding non-organizational type. Second, on a subsequent level, between the respective individuals inside certain NOTs. Resembling patterns described by Dyer and Singh (1998), a trustful relationship is built up between individuals. Applying this logic to the context of this paper, firms must establish a personal bonding towards individual members of e.g. communities to leverage this source of relational rewards. Newness in this dimension lies in the fact that employees or managers of the focal firm no longer interact with their counterparts from other firms with similar professional backgrounds, businesses and professional language but have to find ways to establish governance practices with members of non-organizational types.

On the governance level inside NOTs, crowds and communities in most cases have established individual forms of internal governance mechanisms (Dahlander & Frederiksen, 2012; Lee & Cole, 2003; O'Mahony and Bechky 2008). Demil and Lecoq (2006) subsume these crowd and community specific forms of governance as *bazaar governance*. Therefore, firms should take these specific forms of governance into account when building up relations. For example, when Microsoft started to engage with the software development community "GitHub" (2008) (and eventually buying the platform in 2018), it raised questions inside the community, if Microsoft would align with established forms of governance inside the community (Silver, 2018) eventually leading to the then future CEO of GitHub (Nat Friedman) addressing these concern via the online forum Reddit.

Looking at formal and third-party enforced governance mechanisms, both forms are likely to be uncommon and even unwelcomed in most forms of non-organizational types as this seems to be highly contradictory against the voluntary characteristics of crowds and communities. Individuals engage especially in community projects, because formalized ways of governance and control are missing. Therefore, to leverage rewards via this dimension (lowering transactions costs and initiate value creation), very formal ways of governance or third-party enforcements are not promising and therefore less relevant for firm-NOTs-collaborations. In contrast to LEGO embracing input from their community (Antorini et al., 2012), Sony reacted to a similar community developing around its AIBO robot by filing lawsuits against hackers

and developers for infringing the DMCA-agreement. In this case, a possible fruitful relationship fell short by applying traditional interfirm governance mechanisms.

Instead, we argue, informal governance mechanisms such as trust and longstanding-partnerships are much more relevant for generating relational rewards. How can firms build that longstanding partnership and achieve trust? One way of achieving trust is to well explain the purpose of the collaboration and, above all, stay responsive if certain contributions are not further pursued. For example when firms use crowds as a means for idea generation, the probability for individuals to submit further ideas is significantly higher, when they receive an explanation why the first ideas are rejected by the respective firm (Piezunka & Dahlander, 2019). Forming the relationship to individuals inside a crowd or community can be essential in developing trust and therefore for effective governance over time. "Newcomers ceasing to submit ideas is particularly harmful because the quality of contributors' ideas tends to improve as they continue to submit (Conti, Gambardella & Mariani, 2014; Deichmann & van den Ende, 2014; Huang, Singh & Srinivasan, 2014)." (Piezunka & Dahlander, 2019, p. 504) In this regard, the *tie formation process* (Piezunka & Dahlander, 2019) between the focal organization and the respective NOT becomes especially important for building and sustaining a working relationship and thus effective means of governance. Both forming ties towards the NOT as a whole and towards the individual members inside becomes of importance for the focal firm (Piezunka & Dahlander, 2019).

A difference that should not be neglected in the governance area is the fact, that potential contributors in e.g. crowdsourcing contests are also customers or users of the respective firms' products. In contrast to the alliance logic of Dyer & Singh (1998), this can lead to a more nuanced focus on the relationships to the respective participants.

While preventing unintended knowledge drain is important, Zobel and Hagedoorn (2018) also point to the necessary external search openness to create value from open innovation. The authors argue that at the same time "transaction costs (Christensen, Olesen, & Kjær, 2005), knowledge integration challenges (Zobel, 2017), as well as behavioral biases (Antons & Piller, 2015) inhibit value creation from external search openness." (Zobel & Hagedoorn, 2018, p. 1) It thus becomes apparent that effective governance, more precisely organizing the non-organized and decentralized collaboration partner in an efficient way is key for the focal organization to be successful (Nickerson et al., 2017).

Relation-Specific Investments. This dimension primarily concentrates on asset specificity, stemming from a transaction cost perspective (Williamsson, 1985). These include

physical asset specificity, site specificity, and human asset specificity. Relational rewards can be generated if the respective partners make investments that are specific to the collaboration (Dyer & Singh, 1998; Williamson, 1985).

Transferred to the context of firm-NOTs-collaboration, investments in physical assets (such as production sites) as a source for creating relational rewards are most likely not applicable in this context. Monteiro et al. (2017) even exclude these dimension from their analysis, reasoning that Dyer and Singh (1998) were referring to the automobile sector in their original work. Thus, there is reason to believe that this aspect is "[…] too rooted in a context that no longer corresponds to present day reality […]" (Puranam, Alexy & Reitzig, 2014, p. 162). However, building on the example of Microsoft and Github, we can certainly see relation-specific investments as the company has invested heavily in this collaboration. Microsoft did not only engage employees (human resources) over a longer period of time to work with the community, but also invested financial resources (7.5 billion dollars) to keep the community even closer to them (Microsoft, 2018). On the other side, members of the GitHub community build specific knowledge regarding the Microsoft software structure and thereby invest time and knowledge into topics only relevant for this specific collaboration.

In this new context, the structure of relation-specific investments has changed because the most important assets are no longer characterized by investments in e.g. shared production sites. However, investing in relation-specific assets is still important for achieving relational rewards, for example, firms need to make certain relation-specific investments e.g. in the setup of community platforms or in employee resources and capabilities to learn how to deal with those non-organizational types. Furthermore, certain communities emerge independently from direct corporate investments (the LEGO community was established by the users themselves; Antorini et al., 2012). Regarding firm investments, timing of certain investments becomes especially important. Therefore, we assume that new forms of collaboration do not emerge inevitably or even automatically at the time companies seek for collaboration. In contrast, we argue that a crowd or a particular community is likely to have already existed before, and as a result, the "new forms of collaboration" (from the organizations' and only from the organizations' or maybe industry's perspective) are subsequently emerging with a certain time gap.

In collaborating with NOTs, human asset specificity becomes especially important e.g. when firms follow the goal of knowledge creation and learning (Simsek & Heavey, 2016). Traditionally, strong interpersonal ties between different organizations develop into an asset over time (Dyer & Singh, 1998). For collaboration with NOTs, strong and long withstanding interpersonal ties (e.g. long-term contracts) turn into weaker and more exchangeable ties (less

contracts, short-term commitment, certain amount of boundary-spanners and cosmopolitans) (Dahlander & Frederiksen, 2012). Longstanding interpersonal ties in traditional forms are replaced by an increasing number of interchangeable ties with different community members leading to less commitment and obligations (e.g. contracts).

To achieve the ability to handle these interchangeable ties, human capital as a form of relation-specific investments are getting more relevant in the context of firm-NOTs-collaborations. For example, employees are explicitly assigned to spend time working in these communities. In this regard, Dahlander and Wallin (2006) show for online software communities, that employees of firms spend serious amounts of company time working in online communities and even earn extra income from this form of work. Thus, if firms want to use, for example, communities as complementary assets in their portfolios, they have to actively participate in the respective community, interact with the members and learn from them (Dahlander & Wallin, 2006).

By this, we highlight important mechanisms for building relation-specific investments: first, via dedicating human resources to the respective collaboration partner, the firm ensures a gateway (in)to the non-organizational type and thus to the desired complementarities (e.g. expert discussions, technologies, codes). Second, there is potential to strategically steer relevant discussions or collective problem-solving for the purpose of the firm (Dahlander & Wallin, 2006) and eventually increase the relational reward. Third, firms also make financial relation-specific investment e.g. by paying the members of the NOTs (e.g. via innovation contest) or by investing into a NOT itself (e.g. the example of Microsoft's investment in Github). Finally, firms can also invest into the development and sustaining of self-built communities (see e.g. research on the LEGO communities).

Knowledge-Sharing Routines. This source for relational rewards is predominantly based on the assumption that the exchange of knowledge and learning via collaboration is a critical factor for the generation of relational rewards (Dyer & Singh, 1998; Weber et al., 2016).

For the traditional context, Dyer & Singh (1998) already highlight the importance and quality of suggestions of customers and suppliers; this is, from beyond the boundaries of the focal firm. They do so, by tracing back to examples by von Hippel (1988) and Powell et al. (1996) and demonstrating the potential of this mechanism for traditional production (automotive) and biotech industries. For example, "[…] more than two-thirds of the innovations […] could be traced back to a customer's initial suggestions or ideas." (Dyer & Singh, 1998, p. 664) The example from Powell et al. (1996) shows that "[p]atents were typically filed by a large number of individuals working for a number of different organizations, including biotech firms, pharmaceutical companies, and universities." If an organization, in this case biotech companies,

does not have the ability to generate learning and innovation from this constellation including of many individuals, this is a competitive disadvantage (Dyer & Singh, 1998; Powell et al., 1996). These examples illustrate that innovation originates outside of the organization and is created from acting across boundaries and also holds for firms' collaborations with NOTs as they are also rather disorganized and characterized by a large number of individuals. These non-organizational and decentralized types of collaboration partners work effectively and in certain situations more efficiently *because* they are so disorganized and loosely structured (Boudreau and Lakhani, 2013). We further argue that this effect is even more distinct in new forms, because it could involve a very high number of individuals, who in turn are acting in different communities and in turn have different roles (Dahlander & Frederiksen, 2012). In this complexity, however, there is great potential for the focal organization since such trans-crowd/community acting individuals (cosmopolitans), to a certain degree, have a greater potential for innovativeness and represent an attracting social and highly collaborative structure with distributed knowledge (Dahlander & Frederiksen, 2012).

Knowledge-sharing routines also hold for new forms of collaboration as a source for relational rewards. Now and then, for both new and traditional forms, mechanisms to share and incorporate know-how and information from outside the focal organization help to innovate and generate competitive advantage (von Hippel 1988, Dyer & Singh, 1998; Alexy et al., 2017a; Appleyard & Chesbrough, 2017). At this point we refer to our observations and statements we made in section 2 when we state that scholars renewed the concept of strategic openness to explain the growing outward orientation of organizations in the last years (Alexy et al., 2017a; Kane & Ransbotham, 2016; Appleyard & Chesbrough, 2017).

Thus, for the focal firm engaging in a collaboration with NOTs, a high absorptive capacity (Cohen & Levinthal, 1990) will be critically important (Monteiro, Mol & Birkinshaw, 2017). Because the counterpart can be decentralized and changing (cosmopolitans and boundary-spanners), partner specificity is less important in new types. Thus, the ability to dynamically establish new routines and to deal with changing partners is key. New organizational routines and internal processes need to be developed and continuously reevaluated. LEGO, for example learned, that members of their community engaged in collaborative activities in many cases worked full time on other jobs (Antorini et al., 2012). Therefore established inter-firm routines for knowledge sharing and communication had to be adopted to the real-life circumstances of their community members.

The RV also highlights the importance of incentive-systems for knowledge sharing (Dyer & Singh, 1998). These systems are also present for collaboration with NOTs since firms need to

establish (intrinsic and extrinsic) mechanisms and opportunities to incentivize the non-organizational partner (Chesbrough, 2017; Chesbrough & Bogers, 2015; Felin et al., 2017). Beside extrinsic factors (e.g. money for winning an innovation contest) firms need to consider that the individuals also "[…] benefit from such things as the fun and learning of developing their innovations, or the good feelings that come from altruism, they are also self-rewarded (Raasch and von Hippel 2013)." (von Hippel, 2017, p. 2-3)

5. CONCLUSION

This study set out to explain how firms generate relational rewards via non-organizational types. By applying the relational view in this novel context we adapt the primary sources of relational rewards to firms' that are exposed to new forms of collaboration. Closing the call for theoretical underpinnings of these innovative collaboration activities and demonstrating the applicability of the relational view in this context, we follow a systematic approach and, by this, make use of OMT and innovation literature.

For the context and viewpoint of firms' collaborating with non-organizational types, we illustrate that those firms enter into collaborations that can result in relational rewards. We find that introducing the relational view into the discussion about using e.g. crowds and communities as a collaboration partner helps to understand how firms can use complementarities while at the same time establishing specific governance (trust based and bazaar governance), knowledge sharing routines (different approaches to "boundary spanners" and "core members" in new forms), and relation specific investments (different levels of employee commitment).

We show that the unit of analysis – the collaboration – holds and that the control of the relational reward generating process are dependent on both sides. The relational reward cannot be generated without the respective counterpart. However, the amount of the relational reward captured differs between the focal organization and the non-organizational counterpart (depending on the context; rather individual, e.g. self-rewarding, financial incentivized).

With this conceptual paper, we contribute to the literature as follows:

First, we expand OMT literature by systematically explaining the processes and structures about how firms generate relational rewards when collaborating with non-organizational types. By focusing on the focal firm, we conceptually disentangle and analyze those novel forms of collaboration with non-organizational types from a relational view perspective. We thereby follow various calls for new insights about new forms of collaboration

(Felin, Lakhani & Tushman, 2017; Majchrzak, Jarvenpaa and Bagherzadeh, 2014). We also provide a systematic comparison of key characteristics of traditional and new forms of collaboration.

Second, we contribute to OMT and innovation literature by integrating those literature streams and their respective lines of arguments. By this, we not only reveal and clarify fruitful interrelations between and overlaps of these two streams but we also help to understand the emerging phenomena of firm-NOTs-collaboration in a broader context. Extant studies that deal with non-organizational types as a collaboration partner are either located in innovation research (Boudreau & Lakhani, 2013) or lack on a connection with interorganizational relations and organization theories (Felin, Lakhani & Tushman, 2017). By integrating existing knowledge regarding non-organizational types (stemming mostly from the innovation literature) and interorganizational collaboration our study combines two parallel streams of research and therewith complements those research streams by integrating an established theory (RV).

Third, we expand the selected theory, the relational view, by applying this analytical framework to a new context and discuss its traditional logics in the light of a new phenomenon. We do so by problematizing elementary principles of the theory in a new context, this is by applying it to the specificities of firms' collaborations with non-organizational types and thus making it accessible to a broader audience (Barney, 2018). By introducing the RV into the discussion of new organizational forms and interorganizational collaboration, we fill a theoretical gap in a largely unexplored field of research (Alexy, Frederiksen & Hutter, 2017; West & Bogers, 2017).

Limitations and future Research.

This paper is subject to limitations. For example, we decided on using one central umbrella term (non-organizational types) for similar but still different collaboration partners. In this manner, our study is somewhat limited as there are of course specific differences in different sub-forms regarding the extent to which relational rewards can be generated. Second, our discussion about relational rewards for the respective individual members of crowds and communities is limited to a sole OMT perspective. Third, as most of the current research on crowds and communities stems from an innovation perspective, our findings may be most applicable to innovation-related collaboration.

We also provide avenues for future research. In this paper, we have based our analysis on the elementary principles of the theory. Empirical papers that apply the RV have in shown

in different contexts that moderation effects and other dependencies between RV dimensions exist (e.g. Monteiro et al., 2016; Weber et al., 2016; Weber et al., 2017). A fruitful research might lie in an empirical consideration of those moderation effects in the context of new forms of collaboration. Moreover, since we have mainly taken the firm's perspective, the processes and structures of relational reward generation on the side of the non-organizational types provide further research avenues. We have already incorporated arguments and evidence (e.g. Dahlander & Frederiksen, 2012; Harhoff & Lakhani, 2016; Raasch & von Hippel; von Hippel, 2017), but a closer analysis (of the specific types of NOTs) could help to create an even more detailed understanding. Also, future studies could set out to explain the role of (digital) platforms (e.g. *Innocentive* or *HeroX*) as facilitators between organizations and their new collaboration partners. Furthermore, most of the work on crowdsourcing and user innovation is centered in specific areas (e.g. software development). Further research is needed in expanding our understanding of different contexts for such innovation endeavors.

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