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Title:

**A Hub is a Hub, not a Network:
Towards a typology of hubs framed as a transferor for sustainable development**

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Abstract

In recent years, the landscape of organizations, alliances, and networks has been enriched by the emergence of hubs. While the term is used in a variety of domains, in this context, it is approached as an organizational arrangement. Hubs are dedicated, loosely coupled networks often focusing on pluralistic themes with the intent to develop new and often innovative combinations of products and/or services. This method of organizing requires novel ways of collaboration between inter-constituents. This contribution sets out to better understand the nature of hubs resulting in the development of a typology that aims to identify those that contrast with other forms of organizing. Before proposing this typology, it is deemed necessary to briefly discuss problems associated with classifying hubs. We identify seven properties that set hubs apart from networks. These are: (i) addressing wicked problems; (ii) often initiated by citizens that share certain needs, aims, and values; (iii) leading to a broad configuration of constituents; (iv) often with a local or regional orientation; (v) using and sharing resources and results in a reciprocal and complimentary manner; (vi) shaped organizationally in a unconventional way; (vii) leading, over time, to a "community". Discussing these aspects demonstrates that a classification is limited by definition. We acknowledge that a further theoretical exploration sustained by empirical evidence is required.

Keywords: hubs, typology, sustainability, inter-organizational, wicked problems

Introduction

In their need to realize goals, over time, people have always looked for ways to work together. All types of organizational forms have been utilized to give shape to people's need for collaboration and how to coordinate their activities. Many of these collaborative forms have been successful in various ways. Governmental organizations have been able to shape nation states (Fukuyama, 2011) while firms have achieved the delivery of products and services to the masses (e.g., March & Simon, 1958). Still, in this myriad of organizational forms, the search continues for those forms that address changing demands, impacting the way people collaborate, and the objectives that they are collectively aiming to realize.

Over the past decades, the 'landscape' of conventional, rational structural organizations has been enriched and broadened by alliances, value-chains, and networks (e.g. Grant & Baden-Fuller, 2004; Kogut, 2000; Lewin, Long, & Carroll, 1999; Schilling & Steensma, 2001, Porter, 1998). More recently, this landscape has been enhanced once again by the emergence of hubs. The term hub itself is not novel and has been used in various fields, e.g., sports, logistics, and automation, with different meanings. However, the way the notion of a hub is currently used in the organizational realm is distinct. It appears that, in addition to the already available organizational concepts, new forms are required to address the need to organize at the crossroads of a network and a community. In this realm, hubs are a family of dedicated networks focusing on specific themes with the intent to develop often new and innovative combinations of products and services. This is accomplished by an amalgamation of collaborative constituents that are not bound by structure but, instead, through common values and shared goals. This results in loosely coupled, agile organizational 'entities' addressing wicked-problems. For example, the global FabLab hubs initiated at MIT offer a global network of public workshops where people are able to learn about and use state of the art production technologies (FabFoundation, 2009; Posch, Ogawa, Lindinger, Haring, & Hörtner, 2010).

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Additionally, the FabLab hubs attempt to craft a global community around these technologies. Of a different nature are the Impact Hubs, an Austrian initiative that established its first hub in London. Impact Hub typifies itself as a community centre, the starting point of a new business, and a laboratory for experiment and innovation (Impact Hub, 2014; Bachman, 2014). The aim of Impact Hub is to realize a better world. Another is the Australian Food Hubs Network, which is an initiative to offer farmers' produce to local communities and businesses. To realize this goal, these hubs organize marketing and distribution (AFHN, 2013). Other examples can be found around the globe addressing a wide variety of complex problems and concerns that are often at the interface of business and society and of individual and collective needs. While initially appearing as conventional network organizations, these forms of organizing require novel ways of inter-constituent collaboration, co-creation and collective strategy crafting, and sharing values and community development particularly due to their heterogeneous nature. In this paper, we aim to provide insights that assist with improving the understanding of the nature of hubs and resulting in the development of a proposed typology. The purpose of this venture is to be able to identify hubs that contrast with other forms of organizing. As such, the typology we propose provides an answer to the question of what sets hubs apart from other forms of collaboration.

The paper is structured as follows. In the next section, we will provide some background information about hubs, which facilitate a discussion regarding several problems that emerge when classifying them. We will then discuss the various perspectives on hubs that can be observed in the organizational arena. We develop our typology of hubs in Section Three whereby we identify seven properties distinguishing this peculiar form of organizing from other forms. In the final section, we conclude our discussion and provide several lines of thought for both theoretical and empirical research.

Background

The term hub is not new in the debate on organizational forms (Porter, 1998, Marshall, 1890). However, thus far, it has primarily been discussed from the intra-organizational perspective. Originally, hubs denoted the centre of any star-shaped configuration whether this concerns organizations, logistics, computer networks, or mathematical theory. The hub is one of the two components in the hub-spoke network model (e.g., O'Kelly, 2008). In organizations, its function is that of both a connection between parts of the organization as well as a relay between the various parts it connects. For instance, in logistics, the hub is often a central depot where packages are gathered which potentially originated from all outskirts of the network and where packages for delivery are sent out. More generically and from an inter-organizational perspective, the hub connects various parts of an organization and relays goods and information between different departments or locations. As such, Mintzberg and Van der Heijden (1999) typify hubs as centres of coordination.

In contrast, we consider hubs as collaborative constructs between various constituents aiming to address the needs and expectations on the edge of business and society (see also Brafman and Beckstrom, 2006). What differentiates this approach on hubs is that the constituents of our conception of a hub concern a variety of entities. These can very well be organizations but can also be civilians or governmental and non-governmental organizations that are participating in hubs. Otherwise stated, the perspective on hubs we present here goes beyond the inter-organizational or even intra-organizational perspective that has been discussed in literature.

Knowing where hubs can be found, however, does not make identifying or typifying these forms of organizing any easier. The typology of hubs we intend to develop in the next section must be able to capture their complete variance in appearance. In this aspect, we distinguish two factors that complicate the construction of this typology.

First, hubs vary in their forms and sizes from regional networks to networks at the level of city neighbourhoods. As previously indicated, hubs take shape around the function they aim to fulfil; a function that follows from a specific topic or concern in which the constituents have a shared understanding that it needs to be resolved. Hubs emerge because none of the constituents is individually able to address the topic or needs that are created from the topic or concern. The need requires collective, coordinated action. Fulfilling the need exceeds the capabilities and competencies of the individual constituents. Needs that hubs typically address range from fulfilling societal needs such as energy, healthcare, or waste management to city-based gardening or action-based learning to school dropouts. In the process of formation, hubs take shape around constituents of diverse backgrounds and types which are

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sometimes limited by regional or geographical boundaries yet unbounded in their numbers and diversity. As such, no hub appears similar to another. This creates complications in the comparison of hubs as well as in charting the possible appearances in a simplistic manner.

Another complicating factor when observing hubs is that various motives are distinguishable around which hubs take shape. For instance, hubs have been observed that emerge around a guiding principle or design such as the circular economy (e.g. Wirth, 2014; Park, Sarkis, & Wu, 2010; Winkler, 2011) or an open-source principle (e.g., Birtchnell & Urry, 2013). Other hubs develop from a shared desire to create a (societal) difference, taking a specific theme (e.g., transition impact), function (e.g., creating mobility), or technology (e.g., 3D printing) as a starting point. A possible common denominator could be striving for sustainable development whereby hubs have been observed to address both social and material issues. However, at this moment, it remains ambiguous whether the intention to contribute to sustainable development is also met and, hence, whether hubs are a form of organizing that is suitable to actually contribute to sustainable development.¹ Considering the development of hubs thus far, the belief of participating constituents/parties in their capacity to contribute to sustainable development may be stronger than the factual results they are able to provide on this matter. Against the backdrop of the issues discussed in this section, we propose a typology of hubs in the next section.

Developing a taxonomy

Hubs are considered as an inter-constituent configuration of capacities and competencies aiming to organize collectively in a ‘rich’ or ‘thick’ network. They are characterized by seven properties including: (i) addressing wicked problems; (ii) often initiated by citizens that share certain needs, aims, and values; (iii) leading to a broad configuration of constituents; (iv) often with a local or regional orientation; (v) using and sharing resources and results in a reciprocal and complimentary manner; (vi) shaped organizationally in a unconventional way; and (vii) leading to a “community” over time. Each of these properties is briefly elaborated below.

(i) **Wicked problems.** Many of the issues and questions in today’s society represent complex interlinked problems for which not one problem or answer is suitable. In attempting to solve one element, new problems arise elsewhere. Conditions that might lead to solving the specified issue are incomplete and contradictory, and requirements under which creation solutions might appear change over time. Problems with a wicked nature seem to be characteristic for our times, be it in food, politics, health, energy, asylum seekers, etc.

(ii) **Citizen initiated.** Hubs are most often not initiated by businesses or by governments but instead by groups of citizens that share certain problems and needs who, based on sharing certain values, perceive a hub as an organizational ‘answer’ amidst many other forms of organizing. In initiating a hub, the citizens involved together develop an answer to their problems and might eventually gain collective control over their needs, even though it may only partially reach fruition.

(iii) **Multiple constituents.** What distinguishes a hub from other forms of organizing is the involvement of a broad array of constituents. We see a clear distinction when compared to the well-known stakeholder involvement where organizations form the fundament of the underpinning organizational thinking (Freeman, 2010). In this aspect, people from various walks of life together with companies and with the involvement of governmental bodies gradually create a (local) ‘system’ that addresses the needs and aims involved.

(iv) **Local orientation.** It appears that most hubs are created on a local or regional level whereby constituents know each other and are able to see and meet with each other. In operations under specific institutional constraint that have created the current wicked problems, it will be easier for people to develop a form of collaboration. Still, these two characteristics should be handled with care. Given the growth and use of, e.g., the Internet of Things (IOT), communities can be driven by social digital networks that materialize in local initiatives. This facilitates the possibility of re-localizing industrial activities and activities in the area of the commons giving ground to a trend called ‘glocalization’.

(v) **Value creation.** In developing a hub, people commit time, energy, money, and other forms of ‘investment’. This amalgamation of resources not only leads to a hybrid set of means. A broad array of constituents also always participates. It means that the participants not only invest with various means but also share the results of their endeavour. This is called multiple, collective, and shared value creation. This approach to value creation could relinquish to hybrid asset-management. While approaches such as time-

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banking or community currencies are relatively well known, governing multiple values from an asset-management perspective are unfamiliar. Even further, it might very well be the case that a different paradigm is required for multi-value governance, i.e., a paradigm that is able to simultaneously address a wide variety of incomparable, irreducible, and incompatible values and resources.

(vi) **New ways of organizing.** Characteristic of our society is that what we do collectively needs to take an organizational form or shape, often translated in a legally recognized entity such as an Ltd (UK), SARL (France) or B-corp. While we can utilize a broad variety of those already existing and recognized forms, the question remains to what extent they really are apt to facilitate what constituents have in mind when crafting a hub. Most, if not all, of our present-day organizational forms are derived from a time of industrial, functional thinking in one way or another. It is not self-evident that these constructs developed in the past are appropriate to encapsulate and reinforce the needs and aims of those involved in a hub. Novel, more network like ‘structures’ need to be proposed and investigated to discover what is needed in this aspect.

(vii) **Community development.** All these activities might lead to the creation of a ‘community’ of people over time. We see a community as a group of people intrinsically connected by a set of shared values and needs creating a network-based manner of organizing to enable fulfilling certain needs and aims. Communities have certain stability and a durable presence over time.

Our brief typology of hubs demonstrates that they can be distinguished from other forms of activities between constituents. While their roots can be traced back in history, it appears as if hubs are currently emerging as organizational alternatives that do not have the organization at its core but enables creating a loosely-coupled network based on the flexible use of competencies and resources given a specific local context. While the rise of hubs can be empirically observed in a broad variety of settings, the conditions under which they emerge, the way constituents craft their strategy and operations, what kind of governance seems to be the most appropriate, and what their legal status is amidst other legal entities remains to be investigated.

Discussion

In this paper, we have made an attempt to better grasp the phenomenon of hubs as an upcoming alternative to traditional forms of organizing collaboration and coordination of activities. We have postulated a hub as a collaborative construct. In contrast to traditional forms of organizing, a hub unites a variety of constituents, e.g., organizations, governmental and non-governmental bodies, and citizens. Together, these constituents set common goals and have shared interests or expectations that they collaboratively address. The challenges that hubs tackle are often found on the edge between business, government, and society, in the voids between the arenas in which the constituents normally operate. Thus far, no current systematic investigation has been conducted to identify and ‘measure’ hubs, therefore, only a small number of facts are known about the rise, nature, and development of hubs. In proposing a typology, we have attempted to more firmly grasp an emerging organizational phenomenon. Still, this is a classic example of ‘work in progress’. In no way are we certain or convinced that our taxonomy genuinely and fully covers the subject under observation. What we have proposed, therefore, is open for debate. The taxonomy we proposed builds on the seven identified characteristics that distinguish HUBs from alternative organizational forms. These seven characteristics, although presented separately, are strongly intertwined. Most importantly, HUBs form around collaborations of heterogeneous groups of constituents. Where known collaborative forms exclusively take shape around organizations, HUBs include and are often initiated by civilians whose motive is the desire to resolve their dissatisfaction with the methods that organizations or governmental bodies address specific problems within their local area; a dissatisfaction that connects to diverging perspectives that these different parties have in relation to offered solutions. The problems we mention are often of a complex, wicked nature but reduced to simple issues for which organizations and governmental bodies provide single-focused solutions that fit within the ways they operate. Civilians, however, cannot resolve these wicked problems alone but need to team up with organizations and governmental bodies. The diverging perspectives give rise to a collaborative form that is faced with multiple, often opposing values that the constituents of HUBs are confronted with. Consequently, HUBs demand the rethinking of value creation and the search for new forms of organizing. Finally, as constituents of HUBs collaborate to tackle wicked problems, they share common goals and

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interests around which a community takes shape.

We developed our taxonomy with the sole purpose of identifying HUBs in the extensive field of organizational and collaborative forms that are already known. We contend that the identification of HUBs is hindered by the nature of this novel phenomenon. As HUBs emerge, their shape remains quite covert as they often begin as an initiative of civilians. Once they have formed, they often adopt some legal form amidst other organizations. From the outside, HUBs appear as any other organization, which once again renders them invisible. The seven characteristics we presented should provide several footholds and make empirical identification possible. Although we recognize how the seven characteristics of HUBs intertwine, it remains a theoretical exercise with which we aim to understand and explain the phenomenon of HUBs. As it appears, our typology presents HUBs as forms of organizing that are uniquely suitable to deal with complex, wicked problems; problems such as those that are related to sustainability, for example. We argue that this is much more a conjecture than a normative position and, as such, requires further investigation. Furthermore, it may very well be that the seven characteristics we present contain redundancies or that additional characteristics need to be included in our taxonomy in order to identify HUBs. For now, we hypothesize that the seven characteristics form a complete set with which HUBs can be identified amidst other forms of organizing and is ready to be submitted for empirical testing.

While this contribution provides a number of theoretical/conceptual insights on the phenomenon of hubs, we have not specified or framed the research and related relevant questions. First, what stimulates the emergence of hubs, and how can this be recognized at an early stage? We contend that this question relates to the pattern logic underlying the hub as a form of organizing. Since hubs aim to fulfil a specific need by working on the basis of a variety of competencies, the constituents will need to plot some type of course that guides their collective actions. Therefore, the second question raises the issue of how constituents in hubs develop a collective strategy. More specifically, the question is how constituents shape strategies in action. From a methodological perspective, we argue that this can be perceived as a form of “bricolage”. To understand how a hub’s actions take form in a purposeful manner, we deem it relevant to understand the way this emerging process takes shape. Finally, because a hub takes form around the values, needs, and aims shared by a variety of differing constituents; it operates on the basis of a multi-value logic. How this emerges and how people craft a collective method of working and a strategy of some sort leading to appropriate and relevant ways of organizing given the novel nature of hubs is unknown. This is why we argue that research is required to understand how people in hubs shape, realize, and govern their collective value creation.

HUBs form a challenging, novel form of organizing in the organizational realm that is believed to enable humankind in realizing a sustainable development. A belief that begs for further investigation, demystification, and destigmatization for the sake of understanding the breadth of possible forms of human collaboration and for the sake of future generations. Hubs provide a manner of organizing that, combined with a new generation of business models, enables simultaneously addressing some, if not many, of the societal, organizational, and economic issues of our time.

Notes

¹ It would be interesting to make a systemic theoretical comparison of hubs as opposed to more traditional ways of organising with the aim to show in what way and to what extent hubs are more appropriate for fostering sustainable development. While being a valuable challenge, we refrain from this endeavour given the aims and scope of this paper.

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