Power to All or Few People? An Exploration of Power Dynamics in Holacracy

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Abstract

Power is key to all organizing. It allows actors to perform actions, make decisions and assign tasks to others. In bureaucratic organizations power is mainly associated with the position that the actor holds. Because actors compete for power, change their position within an organization or leave an organization, power is dynamically changing. We refer to these changes in power as power dynamics. Many New Forms of Organizing, such as Holacracy, claim that individuals have more decision-making capacity, *i.e., that power is more equally distributed within the* organization. In this paper, we use a unique dataset from a holacratic organization to empirically examine how power dynamics in Holacracy evolve over time. In particular, we use temporal network analysis to reconstruct and contrast two related networks that capture information on how decisions in Holacracy are made. Our findings indicate that also in Holacracy power is not equally distributed, but that few individuals hold most power.

Keywords: Holacracy, Power Dynamics, Temporal Network Analysis, Digital Trace Data, New Forms of Organizing.

1. Introduction

"[P]ower is to organization as oxygen is to breathing" (Clegg, Courpasson, & Phillip, 2006). As suggested by this quote, power is inseparable from organizations and the organizing that takes place within them. Power allows individuals or groups in an organization to allocate tasks and to enforce their execution (Fleming & Spicer, 2014). Power can be broadly defined as asymmetric control over valued resources (Magee & Galinsky, 2008). According to this definition, power is inherently relational; it manifests in the dependence of low-power parties on high-power parties, for example to obtain rewards or avoid punishments (Anderson & Brion, 2014; Emerson, 1962). Further, power allows individuals to exert influence on others more easily and to perform work in organizations more effectively (Magee & Galinsky, 2008). In bureaucratic organizations, power is bound to the formal position that individuals hold (Fleming & Spicer, 2014; Monteiro & Adler, 2021) and increases as they ascend in corporate hierarchy. As a result, there are few individuals with much power, while others in the organization are left powerless. Importantly, power and its distribution are not set in stone, but change dynamically over time (Anderson & Brion, 2014). We refer to the processes of power gain and power loss as power dynamics.

In the last two decades, different New Forms of Organizing (NFOs) (Puranam et al., 2014) have emerged. Although NFOs and bureaucratic organizations are both organizational systems that define how power and decision-making are distributed within a firm, they differ significantly in their approaches and principles. Specifically, NFOs have developed novel solutions to the fundamental but dynamic problems of organizing (Puranam et al., 2014), e.g., the distribution of relevant knowledge dramatically changed since the emergence of bureaucracies. In doing so, NFOs, such as Holacracy (Robertson, 2015) or opensource software development (Krogh & Hippel, 2003; von Krogh, 2003), draw extensively on information technology.

One NFO that has attracted considerable attention over the last years is Holacracy (Robertson, 2015). Holacracy draws on IT to combine high levels of decentralization with high levels of formalization (Robertson, 2015). Holacracy emphasizes distributed authority and power is distributed across self-organizing teams rather than being concentrated in a traditional, bureaucratic hierarchy. Decision-making authority is decentralized, and teams have the autonomy to make decisions within their defined accountabilities and purpose based on their relevant knowledge and expertise for a particular issue. It is submitted that this will lead to faster and better decisions. Power is distributed based on the work that needs to be done rather than being tied to job titles like in bureaucratic organizations (Lee & Edmondson, 2017). Consequently, holacratic organizations are said to be more adaptable and responsive to change. Because decision-making is distributed, teams can respond quickly to new information and market conditions. Organizational structures can be adjusted more easily as needed compared to structures in bureaucratic organizations. The distribution of decision rights requires but is also accompanied by a strong emphasis on empowering individual employees. Giving employees autonomy to make decisions within their roles can lead to increased job satisfaction and a greater sense of ownership over one's work. However, it also requires that employees can deal with this responsibility (Lee & Edmondson, 2017).

At the same time, also Holacracy is not free from hierarchical elements such as roles, responsibilities, and power (Bernstein et al., 2016). To examine this paradox, and to understand how power in Holacracy materializes and changes over time, we posit the following research question.

RQ: How do power dynamics in holacratic organizations develop over time?

We address this research question from two angles. First, we develop a conceptual understanding of power in Holacracy and argue that it materializes in the capabilities of actors to influence decision-making. Second, we explore empirically how this type of power manifests and changes in a prototypical holacratic organization. Specifically, we use digital trace data from Springest, a holacratic organization based in the Netherlands. Our data capture the organizational structure of Springest over a period of seven years and allow us to reconstruct how it evolved during this time. Based on Temporal Network Analysis (TNA) (Brey, 2018), we can analyze and contrast how the network of Roles¹ and the network of actors developed during this time. With this, we can provide empirical evidence how power structures in holacratic organizations materialize and develop over an extended period. Our findings challenge some of the claims of Holacracy offering distributed authority and a shift from personal leadership to constitutional provision of power.

The remainder of this paper is organized as follows. Next, we summarize the related work on Holacracy and conceptualize how power in holacratic organizations manifests. Then, we present our method, followed by our findings. Afterwards we discuss our findings and outline the contributions of our work.

2. Research Background

In this section, we present the related work on which our study builds. To this end, we first outline fundamental perspectives on power in organizations. We then present Holacracy, its organizing mechanisms, and argue how it challenges the traditional understanding of power in organizations.

2.1. Power

Power is an essential concept in the study of groups and organizations (Anderson & Brion, 2014; Emerson, 1962; Fleming & Spicer, 2014). Key to the concept of power in organizations is its relational character (Anderson & Brion, 2014; Emerson, 1962), i.e., an individual does not hold power per se, but relative to another person. Furthermore, power is not static. A process perspective on power suggests that power changes because of power gains and power losses of individuals that participate in the organization and compete for resources (Anderson & Brion, 2014). We refer to these changes in power occurring through power gains and power losses as power dynamics. Even though power maintenance does not change the relative power one individual holds over another, it requires effort from involved actors.

According to Anderson & Brion (2014), actors can gain power in three ways. First, actors can gain power through attaining access to valued resources. In organizations, this most commonly happens through a change in position as individuals are promoted. Second, actors can transform resources they already have access to. For example, by reorganizing a team to increase its performance (Anderson & Brion, 2014). Third, actors can change how others perceive their resources. For example, if an individual can demonstrate to their superiors that they possess knowledge for an important project (Anderson & Brion, 2014).

Power is tightly associated to the structural position that an individual holds within an organization (Anderson & Brion, 2014; Brass & Krackhardt, 2012). Brass (1984), for instance, showed that the more central an actor is in an organizational network, the higher others perceive their power and the more likely is their promotion. Further, individuals that bridge the flow of information from otherwise disconnected individuals, have control over the flow of information, which gives them advantages in negotiations (Burt, 1992, 2000).

¹ Since Roles in Holacracy are different from the concept of roles as characterized in organization studies, we use capitalization to

differentiate both terms. We use capitalization to further highlight terms from Holacracy.

2.2. Holacracy

Holacracy is a new form of organizing (Puranam et al., 2014) that combines high levels of IT-enabled formalization with decentralization (Robertson, 2015). Holacracy is receiving increasing attention from a wide array of industries and companies like Zappos (Bernstein et al., 2016) and Mercedes-Benz.io (Ackermann et al., 2021) have successfully adopted it. Thereby, the fundamental principle of Holacracy relates to the idea that decision making should be carried out by people affected by it. This is facilitated by a distributed authority of autonomous and empowered Roles as defined in a constitution (Farkhondeh & Müller, 2021).

Figure 1 visualizes the organizing processes underlying holacratic organizations. The most basic building block of holacratic organizations are Roles. Each member of the organization usually holds a set of 6-10 changing Roles that are defined by a Purpose as well as several Accountabilities. Because they prescribe how work is ought to be performed, holacratic Roles can be understood as a form of organizational rules (Schulz, 1998).

In bureaucratic organizations, roles encompass tasks assigned by authoritative figures, typically functional managers (Biddle, 2013); they crystallize through repeated interactions, including negotiations, particularly evident in subordinate-functional manager dynamics (Turner, 2006). In contrast, in Holacracy, Roles and their associated responsibilities evolve through a formalized process, devoid of conventional top-down task assignments. The formalization (Adler & Borys, 1996) in the form of Roles is intended to reduce ambiguity among individuals performing work. To highlight these differences, we capitalize when we refer to holacratic Roles. Functionally similar Roles are grouped in Circles. Circles, in turn, also are defined by their purpose and accountabilities (Robertson, 2015). Circles can be nested, i.e., they can be part of or contain other Circles.

In Holacracy, all members of the organization need to report Tensions, i.e., challenges or opportunities that limit the organization in reaching its full potential. In Holacracy, there are two types of meetings where Tensions are processed, each of which take place at Circle level. First, tactical meetings serve to exchange information and to triage on next steps. These meetings are equivalent to meetings in other types of organizations. Second, in governance meetings, the organizational Role system is adapted, for example by modifying existing Roles, creating new Roles, or discarding Roles that are no longer needed. In governance meetings also new Circles can be created when the decision-making process in a respective Circle becomes too complicated, as it grows (Robertson, 2015).



Figure 1. How Holacracy works (adapted from Robertson, 2015).

There are special Roles that are meant to support governance meetings and enable information exchange between different Circles. The facilitator is responsible to guide the meeting and to document meeting outcomes (Robertson, 2015). Further, lead links and rep links facilitate information flow between sub- and super-Circles by participating in the respective others' governance meetings.

Research on Holacracy is generally speaking still at its infancy. There are few studies that empirically examine how organizations adopt or use Holacracy in practice (Ackermann et al., 2021; Schell & Bischof, 2021).

2.3. Power in Holacracy

Holacracy challenges traditional understandings of power in organizations in several respects. First and most importantly, Roles in Holacracy are not the same as roles traditionally described in organization studies. In bureaucratic organizations, organizational roles prescribe authority relations, regulate access to valuable resources, and specify decision-making rights (March & Simon, 1958). Holacratic Roles, in contrast, are defined by their purpose and accountabilities (Robertson, 2015). Each holacratic Role is part of a Circle, but no Role holds direct power over another.

Farkhondeh & Müller (2021) contrast features of hierarchical organizations. In terms of *specialization*, the division of labor and the corresponding role structure is constantly updated by the people in the organization themselves. This implies the demand for a high degree of *participation*. *Decision autonomy* is constrained by the constitution with high autonomy within the boundaries of Roles. Still, the degree of *formalization* is high with the constitution serving as a rule book for the defined Roles. *Punishment* is low with coordination relying on direct interaction.

These observations raise questions regarding power from the perspective of an individual organization actor. How does power in Holacracy materialize? And how can actors gain or lose power? Actors gain access to Circles and their decision-making processes via the assignment to Roles. To actively participate in governance or tactical meetings actors must hold a Role in the respective Circle. Generally, each Role has the same capacity to influence the decision-making processes. In bureaucratic organizations, actors usually hold only one role for a considerable period. In contrast, Roles in Holacracy are more dynamic. An individual usually holds a set of 6 to 10 Roles, which change much more frequently compared to roles in bureaucratic organizations.

At the same time, Holacracy is not free from hierarchy (Bernstein et al., 2016). Circles can be nested and lead links as well as rep links participate in the meetings of two different Circles, endowing these Roles with the capacity to exert more influence. Because these Roles hold the potential to influence more Circles, they can be considered more powerful.

While in principle all other Roles have the same and constant capacity to exert influence, the power of individual actors, as understood as the potential to influence decisions, can change over time. To increase their capacity for decision-making, actors can acquire Roles in Circles other than the ones they are already part of. Actors may face loss of power, if they are removed from or drop Roles, which had been assigned to them. Following this understanding, also the maintenance of power is effortful, as requires actors to perform well enough to not be removed from Roles. Similarly, the same level of power of an actor might be the result of a change of Roles.

How is power in Holacracy distributed? How does power in Holacracy develop over time? And does the practice of Holacracy meet the claims of a strongly distributed authority? In the following, we report on a study on power in Holacracy examining these and related questions. We outline our methodological approach next.

3. Method

In this section, we describe our method for investigating the power dynamics within a holacratic organization. First, we describe our case company. Second, we discuss our data extraction, data quality. Last, we explain data transformation and data analysis procedures.

3.1. Case Description

For this study, we collaborated with Springest, a Dutch medium-sized organization that practices Holacracy. Springest is an intermediary for professional development courses, which Springest provides via its own platform. Customers can choose courses from a variety of different providers. Springest makes sure that the course quality adheres to certain standards and certifies each course offered on the platform. Springest is a prototypical holacratic organization, as they have implemented Holacracy "by the book". Springest is regularly invited to speak at Holacracy events and even offers courses on Holacracy on their platform. This makes Springest an ideal case to study Holacracy and how different aspects of Holacracy work in practice.



Figure 2. Springest's organizational structure.

During the last years, Springest has grown from a startup to medium-sized organization with about 60 employees. During this time Springest organizational Role system has grown to 629 Roles by October 2020. Springest's organizational Role system is illustrated in Figure 2. As shown in Figure 2, the organizational structure consists of a hierarchy of circles containing roles (the small white circles). Employees usually perform roles in multiple circles. In financial terms Springest is very successful with a turnover of 58 million in 2018. Furthermore, Springest has received various awards for good employership in the Netherlands. We describe details of our case in a related publication (see Wurm et al. 2021).

3.2. Data Extraction and Data Quality

Importantly, Springest uses the task management software ASANA (<u>www.asana.com</u>) to manage its Roles and Tensions. Whenever a Role is created, changed, or completed, the corresponding change to the Role system is logged in the ASANA system. Springest granted us access to ASANA from which we extracted all data pertaining to holacratic Roles. Overall, our data set covers 36,645 Role changes over a period of more than 7 years from August 2013 to October 2020.

We thus capitalize on digital trace data research (Berente et al., 2019; Grisold et al., 2022; Wurm et al., 2023). The availability of these digital trace data (Howison et al., 2011) open novel methodological opportunities that we exploit in this paper. To do so, we proceeded in five steps.

First, we extracted the data on Springest's Role system via the ASANA application programming interface (API). The data was extracted in JSON format and subsequently converted into an event data structure, where each event represents a change to a Role and timestamps that indicate when an event happened.

Second, we defined a coding scheme based on an exploratory analysis of the ASANA system and its logging functionality. In particular, the coding scheme differentiates between the creation of a Role, the completion of a Role as well as any changes that are made to a Role. Additionally, the data set comprises information on whom a Role is assigned to at any point in time. That is, the person who is expected to fulfill the purpose and responsibilities that are associated with a given Role.

Third, we applied the coding scheme to the extracted data. To make sure that our data was complete and that our coding was correct, we conducted various data quality checks. Specifically, we drew random samples of each code and compared the coding with the information in ASANA. After successfully passing the data quality checks, we transformed the event data into a network data format (Butts et al., 2023) to be able to visualize different networks and calculate network metrics that would help us answer our research question. We describe this data transformation process next.

3.3. Data Transformation

In Holacracy decisions regarding the organizational structure are made in governance meetings and governance meetings take place at Circle level. Since we wanted to understand how Roles and individuals influence decision-making, we analyzed two types of networks: (1) the network of Roles and (2) the network of assignees. (1) The network of Roles captures how the Roles at Springest interact with each other, i.e., how they are interconnected through different Circles. (2) In the network of assignees, the focus changes from how Roles are connected via Circles to how individuals (that hold Roles) are connected via Circles. Specifically, we were interested in when Roles, and assignees, respectively, enter circles, when they exit circles, and in how many circles they are at a given point in time.

The networkDynamic data format (Butts et al., 2023) requires each network to have vertexes (the different entities present in a network) and edges (the relationships between the different entities). In a network of friendships, for example, vertexes would be the different people whose friendships we aim to understand, and the edges indicate who is friends with whom. Additionally, in a dynamic network both vertexes and edges need to have onsets and termini, i.e., one needs to specify when a vertex/edge starts and when it ends. In our friendship network, onsets and termini would indicate the birth and death of a person (or the beginning and end of an observation interval) for vertexes and the start and end of a friendship for edges connecting the vertexes.

We thus constructed the networks of Roles, and the network of assignees as follows. For the network of Roles, vertexes are the Roles and edges are their Circle membership. The vertex onset is set to the timestamp when the Role is added to any Circle for the first time. The vertex terminus is set to the timestamp when the Role is completed, i.e., when it does no longer exist. The edge onset for the Role network is set to the timestamp when a Role is added to a Circle. The terminus is set to the timestamp when the Role is removed from the Circle or when the Role is completed, depending on what happens first.

For the network of assignees, on the other hand, a vertex onset is the first timestamp associated to an assignee. The terminus is the last timestamp that an assignee is associated with unless the assignee is still assigned to any roles at that point in time. If this is the case, the terminus is set to the last timestamp of the overall observation period. Finally, the edges in the assignee network are the connections of each assignee to the various Circles. Mind that assignees are not directly associated with Circles, but only via the Role(s) they hold. Thus, the onset of each edge is set to the time when a Role a person is assigned to is added to a Circle and the terminus is set to the timestamp when either the Role is removed from the Circle, or the assignee is unassigned from the Role.

For both networks, we changed the time format to continuous numbers as this is required by the network Dynamic format (Butts et al., 2023). All onsets and termini in both networks were standardized with respect to the first timestamp, i.e., the 26th of August 2013. Thus, vertex onset on the first day of observation would

be assigned the value "0" and all further onsets and termini would be assigned the respective difference in days.

3.4. Data Analysis

After we transformed our data set into the two different network datasets, we visualized the Springest's system of organizational Roles and assignees by means of dynamic network visualization and analysis (Bender-Demoll & Mcfarland, 2006; Moody et al., 2005). For our current analysis, we used the ndtv package implemented in R (Bender-deMoll, 2022) to generate a dynamic network visualization (Moody et al., 2005) of the two networks. The dynamic network visualization shows how Springest's Role network and assignee network developed since the introduction of ASANA. These visualizations are useful for initial analysis and provide us with some first insights into how both networks develop over time. This approach is consistent with recent methods promoting visualization as an analysis tool (Hansson et al., 2018; Pentland et al., 2017, 2020) to make large data sets easily accessible for interpretation.

While the network visualizations provide an intuitive overview of how the networks develop over time, it is difficult for the human eye to exactly assess important network characteristics. For this reason, we used our network data to further calculate different metrics that help us assess and compare how both networks develop over time. To do so, we used the sna and tsna packages in R (Bender-deMoll et al., 2021; Butts, 2023) and calculated an additional metric that we derived. Overall, we calculated three network metrics. First, we calculated edge formation over time, as this gives an indication at which point in time how many new edges between Roles and Circles and assignees and Circles are formed. Second, we calculated the connectedness of the network, as this is a high-level metric to understand the extent to which the different vertexes in the network are connected with one another. Third, we calculated the total time that a Role respectively an assignee is part of different Circles. This metric is particularly useful to assess the influence that a Role or assignee can take on governance meetings that take place in the different Circles. Compared to the sole number of Circles that a Role or assignees is part of, this measure further considers the overall duration that this connection lasts.

4. Findings

In this section, we present the findings of our study. First, we describe the two networks and show animations of how the Role network and the assignee network develop over time. Second, we use three distinct metrics to describe how fundamental characteristics of these networks change during our observation period.

4.1. Network Description and Visualization

The resulting Role network is comprised of 1,227 vertexes and 1,535 edges. Thus, on average each vertex has 1.25 edges. The dynamic network animation of the Role network that can be accessed via the following link: <u>https://youtu.be/IMgbzKCg0rg</u>. One can observe that most vertexes have only one edge and that particular vertexes bridge local clusters, i.e., they connect different Circles.

Figure 3 shows the edge formation for the Role network over time, i.e., at which points in time new edges were added to the network. From the figure it becomes apparent that edge formation fluctuates considerably, implying that the network is highly dynamic. In particular, there are spikes in edge formation at about 250 (May 2014), 1600 (January 2018), and 2600 (October 2020).



Figure 3. Edge Formation Role Network

In contrast to the Role network, the assignee network is considerable smaller. It comprises 186 vertexes and 1099 edges. Thus, on average each vertex has 5.90 edges. Also, for the assignee network we created an animation, which can be accessed via this link: <u>https://youtu.be/PpAGTaqEfJk</u>. One can see that the assignee network is smaller, but has more edges. Instead of local clusters, there is one large network that connects almost all assignees with one another.

Analogously to Figure 3, Figure 4 shows the edge formation for the assignee network. While edge formation in the assignee network also fluctuates considerably, also the largest spikes are at the same points in time as in the Role network. There are, however, more spikes towards the end of the observation period, i.e., after time point 1600 (January 2018).

of the observation period due to the specification of the network.



Figure 4. Edge Formation Assignee Network

4.2. Network Analysis



Figure 5. Connectedness Role Network

Figure 5 and Figure 6 plot the connectedness of the Role network and the assignee network, respectively. They confirm the visual impression from the movies that the assignee network is much denser than the Role network. Not only is the connectedness in the assignee network generally much higher than in the Role network, the connectedness for both networks also develop differently over time.

The connectedness of the Role network fluctuates to a considerable degree and varies between 0.17 and 0.7. In the beginning of the observation period, there are very large fluctuations. From time point 750 onwards, connectivity increases to a value of approximately 0.65. The connectedness of the Role networks drops at the end



Figure 6. Connectedness Assignee Network

The connectedness of the assignee network, in contrast, very quickly increases and then varies between 0.65 and almost 1.



Figure 7. Total Circle Time of Roles

Figures 7 and 8 show the distribution of the total Circle time of Roles and assignees, respectively. The figures show that the total time of Roles and assignees in Circles is skewed. Most Roles and assignees are only a relatively short time in Circles. About 280 Roles spend between 0 and 200 days in Circles. As Figure 7 shows the number of Roles that are present longer than 200 days in Circles strongly decreases. About 20 of the 1227 Roles are assigned to Circles between 2400 and 2600 days. That is, these Roles are in Circles during their complete lifetime.

In comparison, as Figure 8 indicates, the total time of assignees in Circles is more unequally distributed. Mind that the maximum time in Circles is 26,250 days, and hence the x-axis for Figures 7 and 8 are differently scaled. Approximately 75 assignees fall into the bin of 0 to 1,250 days. The count of assignees being assigned more than 1,250 to Circles then sharply decreases. There are only single individuals that are assigned more than 10,000 days in total to Circles. Furthermore, among these individuals, there is a large variation in terms of the total number of days they are assigned to Circles. One individual in particular has a total Circle time of 26,566 days which is far more than the majority of assignees. We continue with the discussion of our findings.



Figure 8. Total Circle Time of Assignees

5. Discussion

In this section, we discuss the findings of our study. First, we discuss implications for research, followed by implications for practice. Finally, we point to limitations of our study and outline possible paths for future research.

5.1. Implications for Research

Our research contributes to studies on power in organizations (Anderson & Brion, 2014; Brass, 1984; Brass & Krackhardt, 2012; Clegg et al., 2006).

This paper offers empirical insights on Holacracy (Robertson, 2007, 2015; Schell & Bischof, 2021) and New Forms of Organizing (Puranam et al., 2014). While certain New Forms of Organizing have received much attention from research, e.g., open-source software development (Crowston et al., 2007; Lindberg et al., 2016), there are only few empirical studies on Holacracy. Our study adds to this body of research by investigating power dynamics. Our work extends the research by Farkhondeh and Müller (2021). They find that despite its deviations from conventional bureaucratic models, Holacracy's inherent bureaucratic essence remains. Based on their qualitative content analysis, they conclude that "Holacracy has a very unique and unprecedented interpretation of power and authority, which requires more intensive empirical research and analysis" (p. 302). Our research addresses this call by analyzing the network of Roles and assignees, showing the potential for certain individuals to wield greater influence than others. We thus find empirical support that the commonly lauded perception of Holacracy as a highly egalitarian structure is not entirely congruent with reality, a notion frequently advanced by its proponents.

Specifically, we found that the assignee network is very unequally distributed. There are certain actors that have far more Circle time and thus considerable influence on Circle decisions than others. This suggests that, as in most bureaucratic organizations, there are only a few people that have great influence on the overall organization.

Our study also makes a methodological contribution on how digital trace data research can be used for information systems research and the structural development of organizations, in particular. Overall, our data set comprises 36,645 events on structural changes at our case company Springest. We thus have very detailed insights about how the organizational structure develops over a period of more than 7 years (from August 2013 to October 2020). Since Springest stores its complete organizational structure in ASANA and employees have come to say "if it is not in ASANA, it doesn't exist", this data set exactly represents Springest's organizational structure. By using dynamic network analysis to examine this data set, we were able to reconstruct two important organizational networks. We believe that such an analysis can be useful to study a broad set of other research areas, such as networks of formal and informal interactions within an organization.

Our study also offers implications for practice. For employees our insights can be helpful to judge whether they want to work for a holacratic organization, while for managers and business owner our findings can be a help in their considerations whether to adopt a holacratic organizational design or not.

5.2. Limitations

Our study has several limitations. First, we examined power dynamics at one holacratic organization, only. While Springest has adopted Holacracy by the book and is thus an ideal case, we cannot rule out the possibility that at other holacratic organizations the networks of Roles and assignees would develop differently.

Second, while we analyzed Springest Role network and assignee network extensively, we do not have data on how the organizational structure at bureaucratic organizations develop over time. Ideally one would have the same or similar data for a bureaucratic organization to make a meaningful comparison of how power dynamics develop over time.

Third, due to space constraints, we were only able to present selected measures for our dynamic network analysis. While we believe that together the chosen measures provide a good overview over the Role network and the assignee network, we want to apply further measures for possible follow-up studies.

5.3. Future Research

There are various promising avenues for future research. First, it would be interesting to investigate and compare the Role lifecycle of individual Roles. For example, based on the network analysis, one could select assignees that are particularly interesting, such as Roles that have a high total Circle time and Roles with low total Circle time and compare them with each other. One might study the "career" of these individuals. Given an event data set, as in our case, one can apply process mining (Grisold et al., 2020; Pentland et al., 2021; Wurm et al., 2021) to understand the detailed career paths of these individuals.

Second, it would be insightful to enrich our structural analysis of power in Holacracy based on digital trace data with qualitative data, such as interviews or observations. This would allow researchers to gain detailed contextual insights about the underlying patterns observed in the data. Furthermore, qualitative data can provide an additional perspective on informal power (Peiró & Meliá, 2003) that we did not take into account in this study.

6. Conclusion

In this paper, we have reported on a study on power dynamics in a holacratic organization. Drawing on a unique data set comprising 36,645 pertaining to the structure of a holacratic organization, we were able to reconstruct and analyze how two related networks – the Role network and the assignee network – developed over a period of more than 7 years. We visualized both networks and computed various metrics to understand how they develop and how power is distributed in Holacracy. Our analysis indicates that the assignee network is not only much denser than the Role network, but that it is also much more unequal with only a few people having the most total time in Circles to influence their decision making. With this study, we offer a longitudinal perspective on power in Holacracy and is the first of its kind. Future research might apply additional network metrics to analyze network dynamics in Holacracy. Furthermore, we believe that the combination of digital trace data with interview data would be an insightful combination to not only capture structural characteristics of power but get a better understanding of how employees of holacratic organizations perceive power.

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