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# What makes self-managing organizations novel? Comparing how Weberian bureaucracy, Mintzberg's adhocracy, and self-organizing solve six fundamental problems of organizing

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## Abstract

The bureaucratic organizational structure has been recently challenged by a number of organizations that claim to offer employee emancipation and autonomy through self-management, self-organizing, or “holacracy.” To facilitate theorizing about such organizational-level self-management, I examine it as an ideal type of organizational form, comparing it to two more established organizational forms, Weberian bureaucracy and Mintzberg’s adhocracy. More particularly, building on the four universal problems every organization needs to solve—two of which I divide into two sub-problems—I utilize a framework of six fundamental problems of organizing—task division, task allocation, rewarding desired behavior, eliminating freeriding, providing direction, and ensuring coordination—to demonstrate how these three forms of organizing have found different solutions to them. The radically decentralized model of authority at the heart of self-managing organizations is shown to lead to solutions to these problems that are based on peer-based accountability and rewarding, transparency of key information, and bottom-up emergent processes where employees have the authority and responsibility to identify necessary tasks and ensure that they get done. It is concluded that the self-managing organization indeed is a novel form of organizing that can better explain certain real-life organizational outliers than the existing paradigms of organizing. It is argued to be especially viable in industries where interdependence between units is low, outputs are highly tailored, and employee expertise and motivation are high. Accordingly, research on such organizations can offer several new insights relevant to both the practice and theory of organization design.

**Keywords:** Adhocracy, Bureaucracy, Emancipation, Hierarchy, Motivation, Organizational design, Organizational theory, Self-management, Self-organizing

## Introduction

Recent years have seen an upsurge of academic (Puranam and Håkansson 2015; Martela and Kostamo 2017; Burton et al. 2017), influential business review (Hamel 2011; Bernstein et al. 2016), and popular interest (Gelles 2015; Robertson 2016) in self-managing organizations (SMO), which are defined as organizations that have radically

and systematically decentralized authority throughout the organization to the degree of almost abolishing the whole layer of middle management and supervisor-subordinate relationships (Lee and Edmondson 2017). Zappos, Buurtzorg, Morning Star, and Valve have arguably been most in the spotlight, but several other examples such as W.L. Gore, Hayer, and Reaktor also exist. While self-managing at the *team level* has been discussed at least since the 1950s (Trist and Bamforth 1951), with an upsurge of interest in the 1980s and 1990s (e.g., Cohen and Ledford 1994; Ezzamel and Willmott 1998), only in recent decades have we started to see examples of organizations with thousands of employees that are "applying the principles of self-management to entire institutions" (Bernstein et al. 2016, p. 42) through abolishing leader-subordinate relationships and hierarchical control not only at the team level but throughout the organization. The rise of SMOs has been attributed to more rapidly changing business environments requiring quicker adaptability, a more professionalized workforce requiring more autonomy, and more advanced IT systems making it possible to coordinate and manage work without the managers (Bernstein et al. 2016; Lee and Edmondson 2017). The leaders of such organizations tend to believe in empowerment as the way to get the best and most innovative performance out of employees (e.g., Gelles 2015). The promise is that this new way of organizing work leads to employee potential being unleashed as self-directedness and bottom-up innovativeness are able to bloom no longer constrained by the hierarchical and bureaucratic obstacles. This ought to lead to significant cost cuts as one no longer needs to have middle management on the payroll (Hamel and Zanini 2016), while also contributing to a more motivated, innovative, and loyal workforce (Martela and Kostamo 2017). Buurtzorg not only offers care 20% cheaper than its key competitors making it financially successful, it also has higher employee and customer satisfaction than the competitors (Gray et al. 2015). Better performance with lower costs and more engaged employees: Who could resist the promise?

However, to be able to evaluate whether this really is a new way of designing an organization, or just another managerial fad, we need to ask what really is novel about this type of organization. Organizations are "systems of coordinated action" (March and Simon 1993, p. 2) that somehow need to solve the problems of how the individual agents are motivated, assigned tasks, and their actions coordinated in order to contribute to the organizational goals (Puranam et al. 2014). Accordingly, they must find solutions to certain foundational challenges in order to function. Assessing whether a proposed type of organizational structure is novel is in essence about assessing whether it has found novel ways to solve one or more of these foundational challenges (Puranam et al. 2014). Given that such solutions tend to co-occur and reinforce the utility of each other, thus forming clusters of interconnected structures and practices (Meyer et al. 1993; Fiss 2007), we are thus asking whether the SMO is a configuration of novel solutions to these basic challenges.

More particularly, the present article will compare self-managing organizations and self-organizing (which I use as synonyms) to two established ideal types of organizational structure, bureaucracy (Weber 1946) and adhocracy (Mintzberg 1980). In this respect, this article joins a long chain of essays that have aimed to illuminate organizational life by describing ideal types that then manifest themselves in more or less pure forms in real-life organizations (Weber 1946; Mintzberg 1980; e.g., Adler

2001). Even though real life is always more complicated than the ideal types (see e.g., fig. 1 in Lee and Edmondson 2017), understanding the benefits, drawbacks, and success factors of these ideal types in various environmental conditions can help practitioners to make more informed choices about the best ways to design their own organizations. And even though it might be hard to find a completely “pure” SMO with no traces of bureaucracy (in the same sense as it is impossible to find a completely “pure” bureaucracy), I argue that an SMO as an ideal type is better able to explain the internal configuration of several real-life companies such as Morning Star or Valve than the existing ideal types that are based on more top-down solutions to the fundamental problems of organizing. For example, the more than 8000 nurses of Buurtzorg do not have any supervisors to report to and are supported by fewer than 50 back office people who take care of salary administration and other administrative tasks (Gray et al. 2015). Given the complete lack of middle management and manager-subordinate relationships at Buurtzorg, it is clear that bureaucracy or even adhocracy as organizational structures are not able to explain how Buurtzorg works. To account for such organizational outliers, we thus need a new ideal type: the self-managing organization. And to examine what really makes it novel, this article investigates what new solutions it has found to the fundamental problems of organizing, as compared with bureaucracy and adhocracy. Thus, this research answers not only calls to understand SMOs better (Puranam and Håkansson 2015; Bernstein et al. 2016; Lee and Edmondson 2017) but also recent calls to explore “alternative organizing” and more emancipatory organizational structures and practices (Grote and Guest 2017; Parker and Parker 2017).

### **From four to six universal problems of organizing**

Following Puranam et al. (2014, p. 163), I see organizations as “(1) a multiagent system with (2) identifiable boundaries and (3) system-level goals (purpose) toward which (4) the constituent agent’s efforts are expected to make a contribution.” Each of the four criteria is taken as critical in the sense that only entities fulfilling all four criteria can be seen as an organization. Organizations thus are goal-oriented entities constituted of an identifiable group of independent agents that together contribute towards that goal. To be able to achieve this coordinated goal-striving, there are four universal problems that any form of organization must, by definition, solve (Puranam et al. 2014): (1) *Task division*: The overarching goal of the organization must be mapped into a set of interrelated tasks and subtasks that can be then assigned to individual agents. The division of tasks can be done consciously in a top-down manner where the larger tasks are divided into increasingly smaller subtasks or it can be done organically in a more bottom-up manner where every employee has the authority and responsibility to identify what tasks need to be accomplished in order to contribute to the overall goal of the organization. (2) *Task allocation*: The next step after task division is to map the obtained list of tasks to individual agents and groups of agents. The aim is to ensure that for each necessary task and subtask, there is some agent or group that is responsible for ensuring that the task gets accomplished. Again, this allocation can be done in several ways using several principles such as specialization (assigning clusters of similar tasks to the same individuals), streamlining (minimizing interdependence across agents), or job enrichment (ensuring that the tasks are diverse enough and lead to

tangible output in order to be interesting and motivating, see Hackman and Oldham 1980).

While the two first universal problems are about the division of labor, the latter two are about the integration of effort that needs to be accomplished when individual agents start fulfilling their tasks. (3) *The provision of rewards*: Given that individual agents have their own interests and values, the organization needs to provide some form of reward to make the agents motivated to accomplish their tasks. The most prototypical form of reward in organizations is monetary compensation, but the agents can also be motivated by many other factors such as status and advancement opportunities, or more intrinsic motivations such as self-expression and contributing to a worthy goal through one's work (Deci and Ryan 2000; Martela and Kostamo 2017). One way or another, the organization must ensure that the constituent agents have the necessary motivation to accomplish their tasks and contribute to the organizational goal. (4) *The provision of information*: To successfully accomplish their tasks in a manner that advances the overarching goal, the individual agents need constantly updated information about the environment and about what the other organizational agents are doing. In particular, several tasks are often interconnected and the agents need to coordinate their actions in order to be able to accomplish them.

Puranam et al. (2014, p. 166) argue that any form of organization “must necessarily feature solutions to each of the four basic problems of organizing.” While an organization has to deal with other problems, especially adaptation to environment, in order to endure and be successful, without solving these four problems it does not even get in the game where it's potential for adaptation is tested. Finding solutions to these four problems transforms a group of individuals into an organization, and in this sense are, according to Puranam et al. (2014, p. 166), “sufficient for an organization to exist”:

“If the four problems have proposed solutions, then we have in effect (a) a set of tasks believed to contribute toward a goal (b) assigned to a set of agents who have been (c) rewarded for and (d) informed about executing those tasks so that their efforts are expected to contribute toward the goal of the organization.” (Puranam et al. 2014, p. 166)

In comparing SMOs with bureaucracy and adhocracy, I will base the examination on these four universal problems of organizing. However, to add more granularity to the comparison, I will divide two of these four problems both into two sub-problems. This is done because I believe the sub-problems will be illustrative in highlighting what makes SMOs special as compared with other organizational structures. First, *provision of rewards* aims to solve the problem of how to “motivate the agents to cooperate” (Puranam et al. 2014, p. 165). For this, one firstly needs to have some inducements or rewards for the agents that motivate them to act in ways that fulfill the organizational goals. The other side of the coin is that there must also be some mechanisms that ensure that these rewards are given only to those deserving them. Freeriding is a universal problem in any collective human action (Simon 1991; Fehr et al. 2002). Given the private interests of individual agents, there is always a risk that someone is free-riding by reaping the rewards without making the contribution—or outrightly using the collective resources for their own personal benefit. In addition to corruption or stealing, someone

might exploit the system by getting the same compensation without putting in the same effort as others. In economic public good games, it has been shown that without any option to punish free-riders, cooperation quickly declines (Fehr and Gächter 2002). When people see that others ‘get away with it’, they start to question why they should put in the effort. Similarly, if an organization is unable to address self-serving and free-riding, morale can quickly deteriorate leading to an escalation of self-serving behavior. Thus, in order to function, any organization must have both an incentive structure *rewarding desired behavior* and effective means of *addressing freeriding*. Both are essential parts of efficient provision of rewards, and as we will see, SMOs offer interesting solutions to both of these sub-problems.

Second, Puranam et al.’s (2014) *provision of information* problem will be divided into two sub-problems: *providing direction* and *ensuring coordination*. First, when individual employees execute their work, it must be ensured that what they do and the decisions they make contribute to the overall goals of the organization. In other words, they need some direction in regard to what actions and decisions are the right ones. Without such direction, there is a very real danger of sub-optimization where people make decisions that make sense from their partial point of view, but that are actually disadvantageous on the organizational level. Thus, the organization needs to ensure that each individual has some guidance mechanisms that ensure that their actions and decisions are beneficial from the point of view of the whole organization and its goals. Second, given that the successful accomplishment of many singular tasks by one agent is often interdependent on the progress of other tasks carried on by other agents, there need to be mechanisms that ensure the coordination of these interdependent tasks. Although both of these sub-problems are about the provision of information, how to ensure the coordination of interdependent tasks and how to ensure that people’s actions and decisions contribute to the organizational goals are relatively independent problems, requiring different kinds of solutions. Thus, in comparing SMOs, adhocracies, and bureaucracies, it will be informative to examine separately how these three types have solved both of these sub-problems.

Accordingly, we arrive at a list of four main problems, two of which are divided into two sub-problems that any organization needs to solve in order to function (see Table 1), and that will be used as a base for comparing bureaucracy, adhocracy, and self-managing organizations.

### **Comparing bureaucracy, adhocracy, and self-managing organizations as solutions to the universal problems**

Bureaucracy as an organizing paradigm (see Weber 1968 especially chapter XI) emerged as a replacement to the older forms of organizing, which had been based on “individual privileges and bestowals of favor” (p. 958), where a person “owns” one’s position and can take advantage of it as one wants, thus blending personal and organizational property and loyalties. Instead of such organizing based on personal relationships, loyalties and blood ties, bureaucracy is based on impersonality: Individuals occupy certain roles and their responsibilities and rights are determined by strict and explicit rules. As classically outlined by (Weber 1968, pp. 956–958; see also Hall 1963), such bureaucracy is based on six principles: (1) There are fixed official jurisdictional areas ordered by rules, (2) there is a well-defined hierarchical system of authority, (3)

**Table 1** How the three organizational forms solve the six fundamental problems of organizing

	Weberian bureaucracy	Mintzberg's adhocracy	Self-managing organizations
Basic structural arrangement	Hierarchical	Matrix	Flat
Manager power over subordinates	Extensive	Loosened, especially within-teams	(Almost) non-existent
Decision-making power	Hierarchical	Selective decentralization	Radical decentralization
Division of labor: <i>Task division</i>	Top-management identifies the necessary tasks, which are then divided into sub-tasks and sub-sub-tasks by layers of management in a top-down process.	Top-down process. But within-team task division is done more autonomously, with managers retaining the right to intervene and authorize larger decisions.	Bottom-up and top-down with top management as well as individual employees having the responsibility and authority to create new tasks.
Division of labor: <i>Task allocation</i>	Top-down process where tasks and responsibilities are allocated by managers to their subordinates.	Within-team allocation done autonomously, but allocation of employees to teams and other major resource decisions done by a top-down process.	Emerges from the interaction between employees who have considerable authority to decide which roles to fulfill.
Provision of reward: <i>Rewarding desired behavior</i>	Monetary compensation, bonus systems, and advancement options allocated by supervisors.	Monetary compensation with sometimes team-based bonus systems allocated by supervisors. The chance to work in more interesting projects in the future.	Monetary compensation with salary levels and bonuses often determined through a peer-based process. Much emphasis on making the work intrinsically rewarding.
Provision of reward: <i>Eliminating freeriding</i>	Supervisors responsible for monitoring the actions and/or outputs of their subordinates.	Supervisors responsible for monitoring the actions and/or outputs of their subordinates. Within teams employees might be primarily accountable for each other.	Employees primarily accountable for and monitored by each other with explicit conflict resolution mechanisms to resolve conflicts.
Provision of information: <i>Direction setting</i>	Strict task boundaries and precise instructions eliminate the need for distributing broad information.	Teams typically have necessary information to make most task-related decisions. Other decisions made at higher levels where the managers have enough overall information for decision-making.	Transparency of all key information and active distribution of information to ensure each employee's capability to make decisions that benefit the wholeness.
Provision of information: <i>Coordination of interdependent tasks</i>	Standardized procedures and top-down task allocation and monitoring ensure the necessary coordination.	Within-team coordination typically done through constant communication. Within-function coordination accomplished hierarchically, with interfunctional teams helping the functions to coordinate.	Within-team coordination accomplished through constant communication. Within-team and within-function coordination accomplished through coordination roles and through extensive use of IT systems.

administration is based on written documents, (4) management presupposes expert training, (5) taking care of one's office requires the full working capacity of the official, and (6) the management of the bureaucracy "follows *general rules*, which are more or less stable, more or less exhaustive, and which can be learned" (p. 958, emphasis in original). The last point emphasizes the embedded idea of rationality within bureaucracy: The manager—given the right training—can control, govern, and lead the whole organization in a rational manner. The apparent complexity of the organization and its relations to its environment can be reduced to such a degree that a single person (or a

small group of top managers) with “a special technical expertise” (p. 958) can identify the law-like general rules through which the organization can be administered in the most efficient and rational manner. Equipped with this rationality and expertise they then divide the necessary tasks to their subordinates, who in turn divide them to their subordinates, and thus, the will of the top-level experts is executed in the hierarchical organization, where those at the lower levels are entrusted with highly specialized and fixed tasks as part of a mechanism that “cannot be put into motion or arrested by him” (Weber 1968, p. 988). All that the subordinates need to know and care about is fulfilling the duties and obligations of their specific roles, with the boundaries and goals of these roles determined by their superiors. Classically it is seen that the resulting alienation that the workers often feel is the price one has to pay for efficiency (see Adler 2012).

While bureaucracy in its most classic form was found in the factories of the early 20<sup>th</sup> century, Mintzberg argued that after World War Two *adhocracy*, a new ideal type of organizational structure, emerged as it was better able to answer the call for more innovativeness in dynamic environments (Mintzberg 1980). Almost forty years ago he argued—citing examples such as The Boeing Company and NASA—that “adhocracy seems clearly to be the structure of *our* age” (Mintzberg 1980, p. 338 emphasis in original). Mintzberg defined adhocracy as an organizational structure where highly trained experts work in multidisciplinary teams producing unique outputs, and where the organization is relatively decentralized and coordination is achieved largely through mutual adjustment (Mintzberg 1980; Mintzberg and McHugh 1985). These firms tend to operate in environments that are both dynamic and complex, thus requiring fairly sophisticated levels of innovation in their outputs. Typical examples are consulting firms, advertising agencies, film companies, and space agencies. Adhocracy thus seems to take several steps away from classic bureaucracy towards self-organizing. However, at the same time, Mintzberg emphasizes that adhocracies still rely “extensively on matrix structure” (Mintzberg 1980, p. 337), where traditional line organization exists in tandem with project-based teams. Although “quasi-formal authority” is given to staff personnel, thereby “blurring the line-staff distinction” (Mintzberg 1980, p. 337), the supervisor-subordinate relationship is not eliminated and decision-making authority is not fully given to the personnel, thus making this form of organizational structure clearly distinct from that of an SMO. Galbraith’s study of Boeing (Galbraith 1973), which Mintzberg (1980) cites as one of the prime examples of adhocracy, describes how the company adopted a functional form with some cross-functional teams and task forces enabling the necessary coordination, but within each function the design of the aircraft was placed “under a single authority structure” (p. 123) with hierarchical chains of command and functional managers making decisions “relating to who would do the work and how to do it” (p. 133). The plastics organizations in Lawrence and Lorsch (1967), another key example of adhocracy according to Mintzberg (1980), had a very similar functional form with dedicated teams handling integration between functional units. Adhocracy thus introduces matrix-like elements into the organization with cross-functional teams having the authority in certain decisions and with teams given more independent decision-making power within certain boundaries. Instead of one clear chain of command, there are a few competing chains of command, but the essentially hierarchical manager-subordinate authority relationships are still retained, with managers having the right to intervene in most decisions made by their subordinates.

If adhocracy was in vogue in the 1980s, one could claim that the self-managing organization is the organizational structure that has currently captured the headlines as the next big thing in designing organizations (e.g., Hamel 2014; Gelles 2015). Following Lee and Edmondson (2017), SMOs are defined by three characteristics: (1) *Decentralization of authority is radical rather than incremental*. Instead of delegating *some* authority to employees, in SMOs the hierarchical reporting relationship between the manager and the subordinate is (almost) completely eliminated and the employees have full authority to make key decisions as regards their work. For example, at Valve, employees can even “ship” their own products provided that two or more other employees agree (Puranam and Håkonsson 2015). The decentralization also applies to resource control, a key dimension of power within organizations (Astley and Sachdeva 1984). The employees of SMOs typically can make independent or team-level decisions on the purchase of resources that would require permission from above in more bureaucratic organizations. 2) *The decentralization of authority takes place throughout the organization*, with only a handful of key decisions left to the top management. Instead of pockets of self-management within hierarchical structures—such as self-managing teams typical in adhocracies—the decentralization of authority and the elimination of hierarchical relationships is effective throughout the organization. (3) *The decentralization of authority is formal and systematic*. Informally delegated authority can be reversed at any point (see Foss 2003), the threat of which can easily constrain subordinates even when the reversal of authority is not actualized. In SMOs, the decentralization of authority is codified in explicitly articulated organizational principles that institutionalize the self-managing way of working, in effect prohibiting the managers from exercising certain forms of authority. SMOs thus are organizations that have formally and systematically decentralized authority throughout the organization to the degree of having abolished supervisor-subordinate relationships and layers of middle management almost completely (Lee and Edmondson 2017).

Having identified the key characteristics of bureaucracies, adhocracies, and SMOs, it is time to investigate how they solve the six fundamental problems of organizing enlisted above (see Table 1).

### **Task division**

In classical bureaucracy, top-level management provides the task architecture. Having established the organizational goals, their expertise allows them to identify the necessary tasks needed to accomplish these goals. In order to be able to control the whole process, they thus divide the whole operation into rather fixed official jurisdictional areas with detailed specifications about what each area needs to accomplish and how. The managers of each of those areas then further divide the task into smaller sub-tasks, making the task division into a top-down process.

In adhocracy, the higher-level task architecture is also provided by the top management but, within certain boundaries, teams can have relatively unrestricted autonomy to establish the sub-goals and tasks needed to achieve the overarching goal of the team. Sometimes they can also set precedents that can affect the direction of the whole organization. For example, the consulting team working with a particular client might note a “unique challenge requiring a creative solution” (Mintzberg 1980, p. 337), and in

adhocracy, it has the authority to decide how best to address that challenge. However, the authority given to the teams is “quasi-formal” and the decentralization is “selective” (Mintzberg 1980, p. 337), meaning that the freedom of the teams has clear boundaries, beyond which they have to seek permission from their supervisors, who also retain the right to intervene at any moment (cf. Foss 2003).

In SMOs, given that distributing decision-making power is their defining feature, it follows that task division is also more distributed. Although the top management might provide the overarching structure, individual employees and teams have the responsibility to identify new tasks that need to be accomplished to serve the organizational goals, and the authority to make these tasks part of the organizational structure. At Valve, “self-selected teams of individuals form spontaneously around topics of interest” (Puranam and Håkansson 2015, p. 3) and temporary role structures emerge organically within each team, and at Zappos, “a formal governance process enables anybody, even the most junior members, to propose changes to the roles, accountabilities, policies and decision rights in their work group” (Lee and Edmondson 2017, p. 47). At Morning Star, there are no centrally defined roles, and the employees are even made responsible for initiating the hiring process when they find themselves overloaded or spot a new role that needs filling (Hamel 2011). This way a significant part of the task division emerges organically from the bottom-up rather than being imposed top-down.

One implication of this is that employees at SMOs need to be both willing and capable of taking much broader responsibility for business success than in traditional organizations. Instead of just executing the tasks allocated to them from above, the employees need to be on the lookout for what new tasks need to be accomplished for better results. This requires an understanding of the broader goal of the organization in order to be open to finding out what new things could advance those broader goals. The proactivity of employees is thus crucial for successful task division at SMOs, and as work engagement contributes to proactivity and personal initiative (Salanova and Schaufeli 2008; Hakonen et al. 2008), this puts pressure on these companies to ensure that each employee is highly engaged and motivated. In organizations where task structure is given to an employee from higher up, that employee can successfully execute tasks without having to be particularly proactive, but in SMOs, where the responsibility to identify necessary tasks is to a large degree on employees, higher levels of proactivity become almost a necessity.

### **Task allocation**

In a bureaucracy, task allocation is also done in a top-down manner. Having established the necessary broader tasks for the accomplishment of organizational goals, the top management allocates these to the next level of management, which in turn makes the allocation decisions in regard to their subordinates. Thus, each manager is responsible for making the task allocation for the layer of employees directly below themselves. This task allocation is typically done in a meritocratic manner, aiming to match tasks and sub-tasks to employees’ skill profiles.

In regard to adhocracy, the overarching task allocation is also done in a top-down manner. However, teams typically have the authority to divide the tasks among themselves as they wish, thus creating pockets of more distributed decision-making power

within the more hierarchical allocation process. But in major decisions such as recruiting new members to accomplish tasks that the current members do not have the time or skills to accomplish, they typically need to get approval from higher up in the hierarchy, and the decision about which employees are allocated to which teams are typically also made by the managers above the teams.

SMOs are defined by the decentralization of decision-making power, and this decentralization also applies to task allocation, one of the key dimensions of decision-making power. Thus, for several types of tasks, one would expect that SMOs have given to individuals or teams the authority to choose what tasks are done by whom. For example, Valve gives employees the ability to choose which projects they want to work on (Puranam and Håkansson 2015). And Buurtzorg allows each team to decide within the team how various tasks are allocated. This requires that the employees are committed enough to the organizational goals to want to make sure that even the less attractive, but necessary, tasks get accomplished.

Such distributed allocation of tasks is probably easier to implement when there is not too much interdependence between teams/units. If team X works with customer A and team Y works with customer B, and their work is mostly not dependent on what the other team is doing, it is relatively easy to give both teams the authority and independence to allocate tasks within their customer project as they wish. Both Valve and Buurtzorg work in industries where each team works quite independently, not being dependent on the input of other teams.

If, however, teams X and Y work in a factory where team Y's capability to execute their own work is significantly dependent on team X accomplishing certain tasks in a certain order, then distributed task allocation is not so straightforward. One needs to ensure that somebody actually executes the tasks that one's own work is dependent on. And in the absence of supervisors ensuring this, one is required to invent other mechanisms. For example, at the heart of Morning Star's way of organizing work at their tomato processing factories are Colleague Letters of Understanding (CLOU) that each employee negotiates with the associates who are most affected by one's work (Hamel 2011). The CLOUs list the responsibilities (with relevant performance metrics) that the two employees have towards each other, and can cover as many as 30 activities. Most employees have about 10 colleagues with whom they negotiate such CLOUs. The task allocation is built around the several thousand formal relationships between the employees that are formed this way and that are renegotiated regularly. This ensures that each necessary task gets allocated to somebody. But instead of a top-down process, the employees thus allocate each other to certain tasks and roles through mutual negotiations.

#### **Provision of rewards: rewarding desired behavior**

In a bureaucracy, there is typically no assumption that the tasks would be intrinsically rewarding, given that alienation from one's work is seen as one of the unfortunate side effects of increased rationalization and efficiency (see Adler 2012). Accordingly, monetary compensation in the form of salaries and bonuses is the key reward mechanism. And decisions about compensation are made in a top-down manner, with supervisors deciding who gets a raise or who gets promoted to a

higher position in the organization. Given the hierarchical structure, many employees find motivation in a chance to climb the corporate ladder—to have “a ‘career’ within the hierarchical order” (Weber 1968, p. 963). To achieve more power, autonomy, status, and compensation in the future the workers aim to offer a diligent performance in the present day.

Also in adhocracies, monetary compensation is the key reward mechanism, with supervisors deciding compensation levels and allocating bonuses. Given that work is often done in teams, bonus systems are sometimes team-based rather than individual-based. However, given the matrix structure and often project-based work where many experts occupy specialist roles, there might not be clear pathways for promotion. Instead, the employees might be motivated by the ability to work in more interesting projects and having more responsibility in the future.

In regard to SMOs, given that they often lack the supervisors that can make salary decisions and other rewarding decisions, a different solution to this problem must be found. The key is to identify which body in the organization would have enough information about individual employees to make accurate decisions about the salary levels they deserve as well as other rewards. In some industries, it might be possible to have quantitative performance metrics that are so accurate that one could base the reward mechanisms entirely on them. However, in many industries, especially those requiring expertise, qualitative results, and collaboration, the quantitative metrics might not capture a large part of the employees’ actual work and contribution to the organization. In these situations, the most reliable source of information about an individual employee’s performance is often her or his coworkers. Accordingly, it is expected that various peer-based compensation and reward mechanisms would be the most typical way to solve the problem of rewarding employees in SMOs. For example, at Morning Star compensation is determined through a process of peer feedback with ultimate decisions made by an elected local compensation committee whose members are elected by colleagues (Hamel 2011). Similarly, Valve has a peer-reviewed performance system where employees rank each other’s performance and top performers receive generous bonuses and raises (Puranam and Håkonsson 2015). Given the lack of managers in a position to evaluate the employees, the compensation decisions thus have been allocated to those people who directly see and are affected by the employee’s performance, i.e., one’s colleagues.

Furthermore, SMOs typically rely more on intrinsic motivation than classical bureaucratic organizations (Martela and Kostamo 2017). They are built on the assumption that people are not passive and lazy, only moved to action by extrinsic rewards, but instead active and willing to perform well if only given a chance and a task that they find intrinsically motivating (McGregor 1960; see Deci et al. 2017). Thus, Buurtzorg is built on the assumption that nurses want to serve their patients to the best of their ability and should be given the freedom to do so. This mission has served them well as they have won the “Best Employer” award in the Netherlands four times in the 2010s (Beste Werkegevers 2017). At Morning Star, each employee is responsible for drawing up a personal mission statement that aligns one’s own mission with that of the company (Hamel 2011), while Zappos is dedicated to creating an especially fun place to work (Gelles 2015). Giving employees significant autonomy and freedom tends to require that motivation of the

employees is not only based on extrinsic rewards and punishments but on an intrinsic willingness to perform one's tasks well (Martela and Kostamo 2017).

#### **Provision of rewards: eliminating freeriding**

In a bureaucratic organization, a strict hierarchical structure aims to ensure employee compliance through supervisors monitoring their subordinates' output and actions. The supervisor provides the goals and tasks, and a time frame of when they need to be accomplished, and the subordinates are held accountable for being able to deliver the necessary work in time. In addition to holding employees accountable for completing the tasks provided by the supervisor, bureaucratic organizations often include explicit ways to monitor the whereabouts of the employees such as a time clock to record their presence in the workplace and the supervisor visually observing that they are actually doing work. The ideal is to be able to eliminate through monitoring the possibility that the employees could somehow evade doing the work they are paid to do. This might sound rational and effective, but it is important to remember that the more the employees are observed, the more they tend to hide things (Bernstein 2012, 2017).

In adhocracy, the employees are also held accountable for their results by their supervisors, and similar monitoring techniques are used. The monitoring becomes slightly more complex as in a matrix organization an employee might be held accountable by two separate managers, requiring more coordination regarding what amount of time one is supposed to spend serving the separate tasks administrated by separate managers. Furthermore, while teams are accountable for their managers, within individual teams, the team members might be primarily accountable for each other to accomplish the assigned tasks, and thus, peer control might replace supervisor control on a within-team level (cf. Barker 1993).

In SMOs, the lack of supervisors again means that monitoring must be conducted by those parties who are best able to see whether the employee is doing what is expected. Firstly, this means that the emphasis is typically not in monitoring the activities of the employees—they are often free to choose when and how they work—but in monitoring their performance using the available quantitative metrics. Furthermore, for many aspects of performance that are not captured by these metrics, it is typically one's peers who are in the best position to evaluate whether the employee is fulfilling one's responsibilities. Thus, the potential lack of performance or effort is expected to be monitored by one's colleagues. For example, Valve uses a system of peer-driven employee evaluations (Lee and Edmondson 2017), and at Morning Star, through a system of mutual contracts, each employee becomes "a contractor in a web of multilateral commitments", with each employee expected to hold one another accountable for results (Hamel 2011, p. 52).

One implication of this is that individual employees need the skills to handle situations where one party fails to fulfill one's responsibilities. As they cannot ask the supervisor to intervene, they need to be able to intervene themselves. Laloux (2014, p. 114), in investigating several organizations that manifested principles of self-organizing, found that many of them had converged around "virtually identical conflict resolution mechanisms" that typically involved a few formalized steps that the employees have to

take with each other when they find themselves in conflict over fulfillment of responsibilities or other issues. The spirit of SMOs in ensuring that the work gets done is captured by one Morning Star employee that Hamel (2011, p. 53) quotes: “Around here, nobody’s your boss and everybody’s your boss.”

#### **Provision of information: direction setting**

In a bureaucratic organization, key information is concentrated at the top, and the task division aims to be so specific that individual agents do not have to be aware of the bigger picture in order to fulfill their tasks. They are “a small cog in a ceaselessly moving mechanism which prescribes to him an essentially fixed route of march” (Weber 1968, p. 988). The traditional assembly-line worker does not have to know anything about the organizational strategy because top-down task allocation and instructions ensure that the tasks they execute contribute to the organizational goals. As long as they accomplish the specific tasks and roles assigned to them from the above, the employees will contribute to the organizational goals, whether they are aware of those goals or not.

In adhocracies, the teams typically face more unique and complex problems and often have among themselves the best expertise to make decisions about how to solve these problems. Thus consulting teams working with a customer typically get the necessary information to make decisions straight from the customer. However, the teams typically concentrate on the task at hand, without having to think about the overall strategy of the organization and thus do not typically require information about this either. At the higher levels of the organization, adhocracies typically rely on the same mechanisms as bureaucracies: Subordinates report to their supervisors who report to their own supervisors, and key decisions are done at higher levels where the managers have enough overall information to make such decisions. Furthermore, the supervisors who are in a better position to see the wholeness typically “reviewed decisions made by their subordinates to make certain that specialists working on one part of the product line were not doing anything that would adversely affect another part” (Lawrence and Lorsch 1967, p. 144).

In SMOs individual employees are given authority to make independent decisions on matters and purchases that would in a bureaucratic or adhocratic organization need to be approved by someone higher up in the managerial chain. As Hamel (2011, p. 53) describes, “if a maintenance engineer needs and \$8,000 welder, he orders one.” The bigger the decision the individual employee is able to make, the wider are its implications for the organizational wholeness. Accordingly, in order to make those decisions in a way that is beneficial for the organizational wholeness, the employees must have enough information about the organizational wholeness. Thus, in empowering employees to make such decisions SMOs need to ensure that each employee has enough information about the whole situation of the organization and its environment in order to make wise decisions from the point of view of this wholeness. As Martela and Kostamo (2017) argue, in bureaucratic organizations typically only top management has the capacity to make decisions that benefit the wholeness, because only they have up-to-date information about, for example, the current financial situation of the organization. When decision-making power is decentralized, the information distribution must be

decentralized as well, to avoid employees making suboptimal decisions due to lack of relevant information. Thus, a wide distribution of information is necessary for self-organizing to succeed.

Accordingly, to ensure that individual employees can make decisions that are benefiting the wholeness, self-organizing organizations typically make all information, including financial information, transparent to ensure that every employee has clarity over the current organizational situation and goals. Transparency here is thus about disclosure—making previously restricted information available for employees (Bernstein 2017). For example, at Morning Star each business unit publishes detailed financial accounts twice a month that are available to every employee (Hamel 2011). Wider access to information also means that the employees need to have the necessary skills to use and understand that information in their decision-making. For example, if they need to take the financial situation of the company into account in some decisions, they need to be able to analyze the financial information to determine the situation. This puts increased pressure on SMOs, compared with traditional organizations, to ensure either through recruitment or through internal training that each individual has the necessary skills to analyze and understand the information that they need for their decision-making. This is one reason why SMOs can be expected to have more educated employees than traditional organizations. All in all, in SMOs, transparent and effective distribution of information is a key enabling condition to ensure autonomous-yet-wise decision-making.

#### **Provision of information: ensuring coordination**

To ensure necessary coordination, bureaucratic organizations tend to implement a set of prescribed procedures using formal communication. Directives, schedules, plans, and standards aim to eliminate—as much as possible—any need for spontaneous, ad hoc coordination (Puranam et al. 2014, p. 166). Coordination is thus ‘rationalized’ by management expertise that designs the procedures and steps that individual employees must follow in order to establish necessary coordination. An individual employee can trust that if one just follows the procedures and standards, one’s actions will align with those of others.

In adhocracy, within-team coordination is typically established with the team spending face-to-face time with each other, thus ensuring that everybody is ‘on the same page’ and knows what others are doing. For example, at Boeing, the units working on the same section of the aircraft were physically located together (Galbraith 1973). In operating adhocracies (Mintzberg 1980, p. 337), such as consulting firms, IT firms, advertising agencies, or film companies, there typically is not much need for cross-team coordination as each team works with a separate project. In administrative adhocracies, such as chemical firms or space agencies (Mintzberg 1980, p. 337), the administrative component functions as an adhocracy, but the operating core below it works in a more bureaucratic manner. For example, at Boeing an interfunctional team chaired by the program manager was used to coordinate when each function had to deliver certain key outcomes. In addition, various interfunctional task forces and teams were used to ensure the lower-level coordination needs between the functions. But within each function “rules, hierarchy, goal setting and planning, and direct contact” (Galbraith 1973, p.

134) were still used in a more bureaucratic manner to ensure within-function coordination.

In SMOs as in adhocracies, individual teams achieve coordination through close proximity, regular meetings, and regular electronic communication. The key difference is in how the coordination between teams is organized. While adhocracies rely on a combination of hierarchical structures and interfunctional task forces, SMOs typically lack the possibility to rely on the former and accordingly need to rely on the latter. When the coordination between two teams or units requires constant interaction, specific individuals and groups are given the responsibility to act as links between them. Here necessary coordination is thus achieved through specific individuals engaging in enough communication between two groups to be able to act as intermediaries.

Furthermore, another option open for SMOs to achieve coordination is to use various IT systems, software, or even physical artifacts like Kanban boards for this task. The rise of such programs and systems, in fact, might be one of the contributing factors to the rise of SMOs in the first place, as they have been able to take over many key coordinating needs of organizations traditionally performed by managers. For example, the coordination of work at Zappos relies to a significant degree on “Glass Frog,” a dedicated software meant to assist in “adoption, record keeping, and ongoing practice” of self-organizing (Robertson 2016, p. 154). Glass Frog and similar systems at other SMOs track the progress of various individuals, teams and projects, and keep tabs on who is responsible for what, and through being accessible to all employees, make sure that each employee can check the situation of any project or process that they need to be aware of for their own task fulfillment. Thus these systems take over much of the coordination, progress monitoring, and information distribution tasks that traditionally managers have taken care of.

### **Boundary conditions: in what contexts is self-management likely to succeed?**

Self-managing organizations thus seem to offer a different way to structure an organization compared with the more traditional alternatives. But what we need to ask is in what industries and under what conditions is it a more viable option compared with other organizational structures. In other words, what are the boundary conditions under which self-managing organizations could outperform bureaucracies or adhocracies? To answer this question, I will identify three factors that are likely to influence how easy it is to implement self-management and how successful it might be when implemented.

#### **Independence vs. interdependence between units**

The relative independence of units from each other affects the coordination challenge that an SMO faces. If there is very little need for mutual coordination between units or teams, it is relatively easy to give teams independence to make their own decisions and be responsible for their own performance. For example, at Buurtzorg, nurses working within a team taking care of one region of the Netherlands need to do very little coordination with other teams working in other regions. Each team serves its own customers, without having to know what other teams are doing—and thus, it is possible to give them almost complete autonomy to make decisions in their own region. In contrast, in

a factory producing airplanes, one unit's decisions will significantly affect other units downstream from it. The ability of a certain unit to accomplish its tasks is dependent on getting the necessary input such as parts and bolts from other units, requiring the units to engage in a high level of mutual coordination, information sharing, and scheduling, which is accomplished easiest through top-down oversight. This is not to say that it would be impossible to implement self-management even in contexts of high unit interdependence—the factories of Morning Star seems to be an example of this—just that in the latter case the challenges of coordination that need to be solved are much more complex, thus leading most organizations to default to tried and tested coordination mechanisms offered by bureaucratic organization.

#### **Output standardization vs. customization**

If the products or the services of the organization are highly standardized, it is easier to apply the bureaucratic model of task separation and process optimization, leading to individual employees being given clearly defined tasks that they can execute without having to know much about the context or things outside their strictly defined role. If, however, each customer is served a highly tailored and unique product, such top-down standardization easily produces obstacles that make it harder for the teams to serve the customers well. In these situations, it makes sense to decentralize decision-making power to allow each team serving their own customers enough authority to make the necessary decisions that ensure that they can offer the customers the best possible products and services. In other words, in markets where customers demand highly customized and unique products, organizations with empowered teams that have the means to respond to customer demands rapidly and accurately are likely to outcompete teams whose ability to serve the customer right is more restricted by company policies and having to ask and wait for approval to any deviations from the standard.

#### **Employee expertise and motivation**

SMOs, in minimizing the power of supervisors to control employees, depend on employees to be both willing and able to put in the effort for organizational goals. When there is less monitoring of employees, one is more dependent on the self-motivation of the employees. And when there is no supervisor to guide and command the employees, one needs to rely on the expertise of the employees to be able to make the right choices. Thus SMOs are likely to function better in sectors where employee expertise, motivation, and work ethic are high. In fact, when proactivity is high, too much supervisor oversight and control could prove to be demotivating (Grant et al. 2011), making SMOs especially attractive for industries with a proactive workforce. Traditional strong professions such as medical doctors, nurses or lawyers, where entry into the workforce requires an advanced educational degree, could thus be places where one could expect SMOs to succeed. On the other hand, in low-salary, low-skill industries where most employees are only motivated by the paycheck and have no loyalty towards the profession, implementing self-management is prone to lead to lower performance and freeriding. In such industries, the constant monitoring of employees might be necessary to get adequate output out of the employees. The organization also needs to ensure that employee motivation is directed towards serving the interests of the organization. While

an expert might be highly motivated to perform certain specific tasks well, self-managing requires these employees to also look at the overall picture to ensure that they are performing tasks that benefit the overall goal of the organization. Thus, in addition to loyalty to their profession, the employees need to have adequate amount of loyalty towards the organization. This means that having a mission worth committing to and being able to communicate it to employees might be especially important to the success of self-managing organizations. Moreover, given the need to ensure that employees are highly motivated and skilled, SMOs most likely need to offer wages above the average wage level in their industry to ensure that they attract the motivated and talented workforce that they require. For example, it is reported that Buurtzorg pays its nurses above industry average.

All in all then, I argue that we are more likely to see successful SMOs in industries where teams can work relatively independent from each other, where output is tailored to each customer, and where employees are highly motivated and skilled professionals, compared with industries where interdependencies between units are high, where output is standardized, and employee motivation and skill levels are low. It is worth noting that these obstacles might not be insurmountable, but these three boundary conditions can help to explain the most likely contexts where SMOs could have a competitive advantage over bureaucracies, and in what contexts a more bureaucratic structure could still provide an advantage. For example, Valve produces video games, which is an industry where each product is unique and highly tailored, where one team working on one game does not have to do much coordination with other teams, and where employees typically are highly motivated and the competition for the best talent is fierce. Similarly, Buurtzorg operates in an industry where each customer requires individually tailored care, where teams of nurses serving different neighborhoods do not need to coordinate their efforts with other teams, and where employees are part of a strong profession with certified expertise and high work ethics. Despite the apparent differences between video game producing and home care delivering, they thus both represent industries where SMOs are most likely to succeed.

## Discussion

This article has aimed to compare how Weberian bureaucracies, Mintzbergian adhocracies, and self-managing organizations answer four fundamental challenges every organizations needs to solve, two of which I divided into two sub-challenges. As this investigation shows, the SMO model seems to offer novel ways of solving these problems and thus can be considered a new form of organizational design as compared with the more established alternatives (Puranam et al. 2014). As compared with bureaucratic organizational design, adhocracy loosens some bureaucratic constraints and leads to some decentralization of authority, especially at the team level. At the same time, as compared with SMOs, adhocracy retains some of the hierarchy, controlling, and chains of command associated with bureaucracy. Adhocracy, as outlined by Mintzberg, thus seems to occupy a space somewhere in between classical bureaucracy and fully-developed self-organizing. This emphasizes the fact that we should treat both bureaucracy and self-management as ideal types and understand that the continuum between these two ends is occupied by organizational structures that borrow some characteristics from both ends of the spectrum (see especially Lee and Edmondson 2017 Figure 1).

It has been argued that bureaucracy is “a matter of degree, rather than kind” (Hall 1963, p. 37) and behind the “static ideal type” there is “a living, changing, and diverse set of practices” (Alvesson and Thompson 2006, p. 501). These ideal types illuminate what kind of organizational configurations are possible and what solutions to the key problems of organizing tend to co-occur, thus illuminating and helping to explain how various real-life organizations function. In trying to explain such organizational outliers as Morning Star, Buurtzorg, or Valve, the explanatory power of the bureaucratic and adhocratic ideal types seems not to capture the structural arrangements and dynamics of these organizations. The SMO as an ideal type thus helps us to understand this relatively novel form of organizational design.

Self-organizing as an ideal type of organizational structure seems to have many attractive qualities. It promises to offer employees more individual-level autonomy and organizational-level decision-making power. Thus, at best such organizations could answer calls for increased employee emancipation and empowerment. Organizations practicing self-management have often experimented with a plethora of interesting new practices ranging from transparent salaries to bottom-down coordination of operations, making them interesting contexts for case studies. If we would have rigorous evidence of their success (or failure) in increasing employee engagement, emancipation or productivity, this could pave the way for a more wide-scale adaptation of such practices.

At the same time, there is a clear need for research looking critically at self-management and whether it really delivers on what it promises. Popular press tends to write uncritical success stories where ‘the revolution’ brings nothing but good for both the employees and the bottom line. The reality is, naturally, more complicated (Parker and Parker 2017). Self-management can also bring forth confusion, stress, and chaos. When Zappos adapted full-scale holacracy in 2015, their annual turnover rate increased from roughly 20% to roughly 30% (Lam 2016). Accordingly, at the organizational level, we need research on the real consequences and potential downsides of self-management. What are the pitfalls and challenges that need to be taken into account in striving towards more self-management? Which groups benefit from it, which do not? For example, having explicit performance criteria can help various minorities advance in organizations. Given the various well-known social and cognitive biases of us humans, the more informal structures in self-managing organizations can in the worst case lead to social interaction and recruitment to projects being based on homophily (Felin 2015), at the expense of various minorities. The problem is made more acute because the informal power structure might make it harder to detect such a bias. While in a traditional bureaucracy it is relatively easy to count the gender ratio in top or middle management, the distribution of informal power within SMOs might resemble a high-school popularity contest (see Warr 2013), where being similar to the CEO or top management in terms of gender, age, or hobbies might yield significant power without it being easy to pinpoint. Thus, to avoid such biases that can easily emerge without anyone consciously driving them, SMOs probably need to have explicit policies in place that counter such problems. Furthermore, there is no reason why “being overruled (or even ostracized) by a community of peers” would be less bad for the individual than “being overruled by a boss” (Puranam and Håkonsson 2015, p. 4), and thus the community norms and ways of handling disputes can significantly affect the psychological experience of being part of an SMO.

By offering a supposed antidote to hierarchical structures, self-management can also offer important insights into research on hierarchies and their functions in organizations. It has been argued that the pervasiveness of hierarchies is due to the fact that in most contexts they are adaptive and can facilitate organizational success (Magee and Galinsky 2008; Halevy et al. 2011). On a psychological level, hierarchies structure work making it more predictable and thus often give employees a sense of order and security (Pfeffer 2013). Self-management can enrich our understanding of hierarchies and perhaps demonstrate the contexts and requirements where such traditional hierarchies are not needed. At the same time, self-managing organizations might give rise to informal hierarchies leading one to ask whether “hierarchy” is a monolithic concept or whether there can be several different types of hierarchies (cf. Hardy and Leiba-O’Sullivan 1998), some more adaptive than others. For example, dominance and prestige have been shown to be two distinct paths to having influence and power over others (Anderson and Kilduff 2009; Cheng et al. 2013). While formal hierarchies emphasize dominance, SMOs that lack such hierarchies might still have significant differences in regard to how much prestige-based power various individuals have within the organization. Some people, due to their knowledge and expertise might exercise disproportional power within the organization without necessarily having any formal credentials. Whether or not such prestige-based power distances are good or bad for organizations is an important question, and SMOs would provide a particularly apt context to study it.

SMOs would also provide an interesting context to study strategy. Research on strategy has sometimes been skeptical about the success of bottom-up strategy formulation due to, for example, in-group biases within organizational subunits (Reitzig and Sorenson 2013). Can such bottom-up strategy formulation lead to bold enough decisions, like entering a new market? Or does it rather lead to organizational inertia? There is a risk that people within the organization are too invested in their own sub-task to be able to see when that sub-task as a whole has become a burden for the organization and its goals. It is hard to imagine strategic decisions like abolishing or outsourcing a company division being made by people within that division. It is thus perhaps no surprise that in their examination of four SMOs, Lee and Edmondson (2017) note that firm strategy is a dimension that tends not to be decentralized even within these organizations. Thus it could be the case that strategy is one of the dimensions that resist decentralization even within SMOs. Yet, it would be interesting to study strategy formulation in SMOs to see whether the process within them is more inclusive and whether one could identify examples of SMOs in which even the strategy formulation has been to a significant degree decentralized.

At the individual level, it has been argued that self-management requires ‘more’ from the employees as compared with traditional organizations in the sense that in a bureaucracy many functions such as scheduling, goal-setting, and prioritizing are often taken care of by the supervisor (Martela and Kostamo 2017). Here we were able to identify several reasons why more is required from the employees. Being responsible to identify what tasks need to be done to advance organizational goals (task division) means that employees must exhibit more proactivity and personal initiative than in traditional organizations where it is enough to execute tasks allocated to oneself. Given the lack of monitoring (rewarding desired behavior), employees need to find motivation from

within, leading to increased expectations of intrinsic motivation and engagement. As supervisors are not there to resolve conflicts (eliminating freeriding), employees must have considerable skills in conflict resolution and confronting colleagues not fulfilling their tasks. To make bigger decisions in a way that benefits the organization as a whole (providing direction), they need to be able to understand the organizational wholeness, leading to requirements to be able to, e.g., understand the financial realities of the company.

Accordingly, self-managing organizations offer an especially illuminating context to study concepts such as self-leadership (Neck and Houghton 2006; Plowman et al. 2007), proactivity (Grant and Ashford 2008), self-determination, and intrinsic motivation at work (Deci et al. 2017; Martela and Kostamo 2017). Furthermore, the lack of formal supervisors makes this an interesting context to study leadership, especially various forms of distributed leadership such as shared leadership (Carson et al. 2007), dispersed “power-with” leadership (Salovaara and Bathurst 2018), relational leadership (Uhl-Bien 2006), and leadership of emergence (Lichtenstein and Plowman 2009). These leadership theories argue that leadership does not have to be concentrated in formal leadership positions, and given the lack of such formal positions, SMOs could offer important insight about which persons, routines, structures, or systems take care of the functions and tasks that have traditionally been taken care of by supervisors.

It needs to be acknowledged that this article has focused on organizational structures, which are rather general design features of how an organization has structured their authority relations, their decision-making powers, information-distributing channels, and similar. Organizations also have other important dimensions such as organizational routines (e.g., Feldman and Pentland 2003) or organizational culture (e.g., Schein 2010) that have not been covered by this review. An important task for future research would be to examine what implications for organizational culture SMOs have. For example, what cultural aspects are necessary for SMOs to function or are some other aspects of culture incompatible with the structures that SMOs rely on? Similarly, what kind of routines are beneficial or detrimental in the case of SMOs? Examining these questions will help us to get an even broader picture of the nature of SMOs.

SMOs also offer an interesting case for Adler’s (2001) three organizational logics: markets, hierarchies, and communities. While in markets, affiliations are handled through market contracts and in hierarchies through employment contracts, in communities the membership is looser and more trust-based (Kolbjørnsrud 2018). In that sense, SMOs would be categorized as hierarchies as the employees are affiliated to the organization through contracts. Furthermore, in SMOs the roles, responsibilities, and expectations are typically explicit and involve (often peer-based) mechanisms of enforcing them, rather than tacit and based on gifts, favors, and fluctuating levels of involvement as in communities (Adler et al. 2008). At the same time, communities are characterized as places where “actors self-organize guided by shared values, rules, and protocols” (Kolbjørnsrud 2018, p. 3), a characterization that seems to fit well with SMOs. Thus SMOs seem to represent a way of introducing aspects of community logic within employment-based organizations while retaining certain aspects of the ‘hierarchical’ logic, although implemented in less-hierarchical ways. Thus, when observed from the point of view of these three logics, SMOs could be characterized as a hierarchy-community hybrid (see Kolbjørnsrud (2018) who sees holacracies as such hybrids).

## Conclusion

"Management is the least efficient activity in your organization. ... A hierarchy of managers exacts a hefty tax on any organization." Thus proclaims Gary Hamel (2011, p. 50), predicting that due to the flexibility, innovativeness, and cost benefits associated with self-organizing, we are going to see much more such organizations in the future. Is this the future we are heading for?

It is too early to say, despite the encouraging examples of some pioneering companies. The "end of bureaucracy" has been proclaimed many times ever since Weber, but it still arguably is the dominant form of organizing corporations and public institutions (Alvesson and Thompson 2006). However, given that more volatile business environments require an ability to adapt fast to changing environments, and a more professionalized workforce requires less managerial oversight, time could be right to move towards more self-management in many sectors. Furthermore, sophisticated IT systems have made it possible to coordinate the actions of thousands of people in real-time making self-management more possible than in previous eras. Accordingly, the prime examples of self-organizing such as Zappos, Buurtzorg, Morning Star and others (see Laloux 2014) might not be only isolated examples but represent the dawn of a new era of organizational structure. While certainly not suitable for all industries and all contexts, there arguably are many organizations today that would benefit from taking one or more steps towards self-organizing. However, if we want to see such a shift towards self-managing organizations, this only becomes possible once we've identified what are the key enabling structures that need to be in place for such organizations to work. Building this understanding is what the present work has attempted to contribute to.

## Abbreviations

SMO: Self-managing organization

## Author's contribution

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