

# A Complex Adaptive Systems Perspective to Appreciative Inquiry: A Theoretical Analysis

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Appreciate inquiry is utilized to facilitate organizational change by encouraging stakeholders to explore positives and generative capacities within their organization. In the literature, analysis of the effectiveness of AI is confined to psychological and managerial explanations such as highlighting the promotion of positive mindset and collective organizational planning. This paper will discuss a complex adaptive systems (CAS) perspective and present a new model for understanding the functionality of AI. The emphasis of this paper is placed on exploring the effects of AI on the behavior and interactions of agents/employees related to how they cope with change. An analysis of AI's functionality through the lens of CAS reveals two critical insights: a) AI enhances adaptability to change by strengthening communication among agents, which in turn fosters the emergence of effective team arrangements and a more rapid collective response to change and b) AI possesses the potential to generate a collective memory for social systems within an organization. Furthermore, a systematic analysis of AI indicates a close connection between this method and CAS-based styles of management. This paper concludes by suggesting that AI might represent a potential method with the capacity to place organizational teams at the *edge of chaos*.

**Keywords:** appreciative inquiry, organizational change, management, complex adaptive systems, edge of chaos

## Introduction

In today's fast-paced world where the fluctuating preferences of consumers, the growth in the global web of interdependence, and technological advancements guide the co-evolving relationship between the dominant business environment and the social systems within its domain, an organization's capacity to cope with change in a timely manner determines its survival (Hesselbein & Goldsmith, 2006; Macready & Meyer, 1999; Senge, 2006). While in the last few decades companies have developed a wide range of methods and strategies to adapt to the dynamic requirements of the business landscape, facilitating organizational change remains a highly challenging effort (Cawsey & Deszca, 2007). The primary reason behind this continuing challenge is the human need for certainty, which fosters developing traditions of success (i.e., outdated mental models) and remaining within static intellectual comfort zones (Thompson, 2003).

In order to increase their degree of responsiveness and adaptability, companies can either design new organizational change methods or enhance the functionality of the existing approaches. A successful implementation of the latter option requires analyzing the functionality of the existing change method from multiple perspectives. However, most organizational methods and tools evolve slowly because individuals within companies use the same theoretical perspectives and descriptive models when they dissect the operating structure of these approaches (Morgan, 2006; Stavros,

Cooperrider, & Kelley, 2003). As a result, studying management techniques will repeatedly produce insights with similar implications, embedding the development process of the subject of the study into a stationary cyclical mode. Appreciate inquiry (AI) is an effective organizational change method that fits into the group of approaches with a slow rate of evolution. The analysis of the effectiveness of AI has been confined to psychological and managerial explanations such as highlighting the promotion of positive mindset and collective organizational planning. The examination of AI through a fresh analytical lens can enhance its effectiveness and lead to the emergence of new insights. In addition, an evolved description of AI can potentially present a reference model to managers for developing and advancing a wide range of organizational methods, tools, and techniques.

The purpose of this paper is to analyze the functionality of AI using a complex adaptive system perspective (CAS). According to Watkins and Mohr (2001), “Appreciative Inquiry is a collaborative and highly participative, system-wide approach to seeking, identifying, and enhancing the life-giving forces that are present when a system is performing optimally in human, economic, and organizational terms” (p. 14). In detail, this paper will first analyze technical and strategic dimensions of AI and discuss the existing views on the operating structure of this method. Following an introduction to complex adaptive systems, the functionality of AI will be analyzed through the lens of CAS and the emerging insights will be examined. The remainder of this paper will include an overview of AI criticism, implications of the study for managers, and suggestions for future research. Finally, this paper will conclude by merging the highlights of each preceding section.

## Appreciative Inquiry through Theoretical Lenses of Psychology and Power

The theoretical lenses of psychology and power place an emphasis on influential behavior-changing and cognitive processes such as conflict, negotiation, and coalition building and recognize shifts in power of stakeholders as key drivers of change (Morgan, 2006). These lenses primarily produce linear explanations of a phenomenon of interest and its dynamics (DeLuca, 1999). In this section, AI is analyzed using the lenses of psychology and power.

### The Origins of AI

Firmly grounded in social constructionist theory, the concept of AI stemmed from David Cooperrider’s research on physician leadership in 1980 (Bushe, 2011). Following a series of interviews with the participants of the study regarding their success and failure stories and a careful observation of the dynamics of the research site, Cooperrider realized the generative outcomes and value of positive cooperation, innovation, and egalitarian governance (Coghlan, Preskill, & Catsambas, 2003). As a result, Cooperrider focused his subsequent research solely on a life-centric analysis of the factors contributing to the highly effective functioning of the social systems within the research site (Watkins & Mohr, 2001). Cooperrider’s study led to the development of AI and its employment by the Cleveland Clinic as a method to facilitate organizational change (Cooperrider, Whitney, & Stavros, 2003). Cooperrider and Srivastva (1987) officially publicized the concept of AI in their article, which marked the initiation of two critical currents on the evolutionary path of AI: a) the transformation of AI from an academic theory-building effort into a practical and powerful process for organizational change, and b) the shift in viewing organizations from *problems to be solved* to *mysteries to be embraced*.

### The Process of AI in Practice

As one of the first post-Lewinian Organization Development (OD) methods, AI is utilized to facilitate organizational change by transitioning the focus of a firm’s stakeholders from seeking the negative aspects of their workplace into exploring the positives and hidden capacities of their

organization (Cooperrider & Whitney, 2005). A review of the literature confirms that an AI-approach is implemented in various formats and settings; however, all the employed methods follow a general accepted procedure/model referred to as the 4-D cycle (Bushe, 2012; Fitzgerald, Murrell, & Newman, 2001). The steps involved in the 4-D cycle are as follows (Cooperrider, Whitney, & Stavros, 2008):

1. Discovery: The identification of organizational processes that work well; mobilizing a whole system inquiry into the positive change core.
2. Dream: The envisioning of processes that might work well in the future; generating a results-oriented vision in relation to discovered potentials and to questions of higher purpose.
3. Design: Planning and prioritizing processes that would work well; creating possibility propositions of the ideal organization.
4. Delivery/Destiny: The implementation of the proposed design; strengthening the affirmative capability of the whole system, building hope and momentum around a deep purpose, and creating processes for continuous organizational learning, adjustment, and improvisation.

In its broadest format, the AI process is initiated by stakeholders from different levels of hierarchy interviewing one another (in a group setting) using questions that carry the potential of extracting the generative and life-giving events experienced in the workplace. A sample question includes, “Describe a time in your organization that you consider a highpoint experience, a time when you were most engaged and felt alive” (Cooperrider & Whitney, 2005). In the next step, the workgroup in charge of facilitating the AI process locates common themes and topics that appeared in members’ dialogues during the interview session. Instances of critical emerging topics/themes include commitment, effective communication, and collective decision-making. The identified themes become the focus of a more specific interview protocol. The second round of interviews produces information regarding four to six topics as the basis for constructing provocative propositions that describe the future image of the organization (signifying new building blocks for the organization’s vision and mission) (Watkins & Cooperrider, 2000). The process is completed by the implementation and practice of the proposed agendas.

### **Instances and Results of AI in Practice**

Adequate implementation of AI has helped organizations produce sustained sources of collective capability, reduced employee resistance to change, strengthened relationships among team members, cultivated constructive behaviors, and promoted employee autonomy and organizational learning (Cameron, Dutton, & Quinn, 2003). In an example, Nutrimental Foods of Brazil, a manufacturer of healthy food products, engaged all its 750 employees in two AI summits and within one year absenteeism decreased 300%, sales increased 27%, productivity increased over 23%, and profits increased 200% (Barros & Cooperrider, 2000; Bushe, 2011; Powley, Cooperrider, & Fry, 2002). In another instance, Roadway, a US-based unionized trucking firm, transformed its union-management relations and significantly improved performance following multiple AI summits at its various locations (Bushe, 2011; Ludema, Whitney, Mohr, & Griffen, 2003). A 2004 internal audit indicated Roadway’s sites that had engaged in AI summits achieved cost savings approximately seven times higher than sites not present at the summits (Barrett & Fry, 2005; Bushe, 2011). As evidenced, AI represents a highly effective organizational method and a careful analysis of its successful cases can potentially broaden the exploitation of this approach in companies.

### **Existing Perspectives on How AI Facilitates Organizational Change**

Subject matter experts including Bushe (2011), Cooperrider and Whitney (2005), and Watkins and Mohr (2001) have each proposed an explanation for how AI facilitates organization-wide change. These authors' analyses reflect a common set of dynamics and form a general explanatory model for AI's functionality. The authors' descriptions are informed significantly by an ideology referred to as the *heliotropic hypothesis*, which asserts that human social systems evolve towards the most positive image they hold and articulate about themselves (Bushe, 2001; Cooperrider, 1990). In detail, the general explanatory model initiates its analysis by linking resistance to change to uncertainty and fear of the unknown. This model further explains that the positive image of the future, generated through the engagement of stakeholders in the process of AI, reduces the degree of uncertainty by enforcing a mental transition, from focusing on problems to focusing on individual and collective strengths (Boyd & Bright, 2007). The reduction in uncertainty about the future and a motivation to explore new possibilities are two necessary conditions for the transformation of stakeholders' mental models, which often become blinders to change (Scull, 1999). The above descriptions underline a number of AI's attributes that operate towards facilitating change. These attributes include:

- Energizing the system as a whole by developing a positive and transformational shared vision of the future;
- The promotion of organizational learning and holistic thinking;
- Empowering stakeholders at all levels by engaging them in critical planning efforts (an emphasis on collective planning and generating the conditions that liberate power); and
- Most importantly, creating dissatisfaction with the status quo by evolving members' mental models (sets of assumptions of how the world operates) and the organization's strategic frame.

A careful review of various descriptions of AI indicates that researchers including Barrett and Fry (2005), Bushe (2011), and Cooperrider et al. (2008) have analyzed the functionality of this method primarily through theoretical lenses of organizational psychology and power. This explains the reason behind the repeating appearance of terminologies, such as the promotion of positive psychology, collective planning, and employee empowerment in AI-focused literature. In order to move beyond the existing descriptive models and gain new insights, this study will analyze the functionality of AI through the theoretical lens of complex adaptive systems.

### **The Complex Adaptive Systems Perspective**

True to its title, a complex adaptive system consists of a complex set of diverse and autonomous components referred to as agents, which are dynamically interrelated, interdependent, linked through many interconnections, and behave as a unified whole in learning from experience and in adjusting to environmental changes (self-organization) (Clippinger, 1999; Kauffman, 1993). The agents within a CAS interact in random/nonlinear ways based on their local knowledge about their surrounding agents and their environment. The collective behavior of the system emerges from these nonlinear interactions among agents as they attempt to select and retain patterns of behavior that could secure their survival and satisfy the needs of the system as a whole (Anderson, 1999). Instances of CAS include the immune system, human cells, stock markets, trees, a colony of termites, and various forms of human social systems such as a project team in which team members are the system's agents (Clippinger, 1999).

The phenomenon of behavioral patterns arising from agents' nonlinear interactions in the absence of a central control or a predefined plan signifies a critical property of CAS referred to as *emergence* (Eidelson, 1997). Note that the macro- or system-level behavior that emerges from the behaviors and interactions of the system's components cannot be explained at the agent level alone (Kaisler & Madey, 2008). In other words, because each agent possesses a wide range of impacts given the high number of potential interconnections within the system, a descriptive model that predicts with precision the internal functioning of the system becomes impossible (Emison, 1997). In addition to emergence, *connectivity* is also considered a vital property and structural feature of CAS. The survival and evolution of the system highly depends upon how individual agents connect to one another at a given time (forming team arrangements). The agents' connections (configuration) determine how effectively the system can respond to changes imposed by the dominant environment.

Considering the above points, a CAS perspective directs attention to the interactions of a system's agents and places great emphasis on their connections. From a CAS perspective, evolution (i.e., organizational change) within an organization initiates by an alteration of its stakeholders' existing connections or by a modification of its architecture; either case will stimulate the emergence of new behaviors (Manson, 2001). Those behaviors that satisfy the members' needs at a given time are reinforced, and repeated behaviors are retained and transform into routines because they form an interlocking, mutually reinforcing structure and because agents learn and tend to develop habits (Anderson, 1999). Therefore, through a CAS perspective the occurrence of change within organizations is viewed as a Darwinian process through which agents select and retain behaviors that align strongly with their definition of success and survival.

## **AI through a CAS Perspective**

A CAS perspective regards the aggregation of social systems within an organization as complex adaptive systems. An analysis of AI's functionality through the lens of CAS reveals two critical insights: a) AI enhances adaptability to change by strengthening communication among agents, which in turn facilitates the emergence of effective team arrangements and a more rapid collective response to change, and b) AI possesses the potential to generate a collective memory for social systems within an organization, which dynamically informs agents of their existing capacities.

### **Facilitating the Emergence of Effective Team Arrangements**

At its most basic level, AI's emphasis on positive psychology represents a case against negative thinking, which is a common behavior in organizations and results in disconnections within social systems by negatively influencing the flow of effective communication among members (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). In addition, negative thinking possesses the capacity to isolate stakeholders from their environment by promoting the cultivation of a false reality (i.e., an unrealistic subjectivity) that causes individuals to misinterpret their surrounding events and organizational dynamics (Damluji, Sievert, & Downey, 2005). The destruction of complex, diverse relationships within the network of stakeholders often leads to a lack of resilience and adaptability in the system (weakening the organization's learning capacities). The AI process reverses the adverse side-effects of negative thinking by cultivating fresh perceptions and the acquisition of new schemas of stakeholders (Barrett & Cooperrider, 1990).

As noted previously, in complex adaptive systems the interactions of agents that guide the behavior of the system as a whole, are influenced by each agent's local knowledge and the system's architecture (simple rules governing how agents interact). Through a CAS perspective, AI's functionality is justified by emphasizing how positive inquiries enhance each stakeholder's knowledge

regarding other agents, the organization's subsystems, and the environment. This acquisition of valuable intelligence fosters a dynamic exploration and formation of generative connections and proper group arrangements, which lead to a more rapid emergence of effective responses to change and an increase in social system's flexibility. Therefore, the dynamic and continuously unfolding process of AI enables an organization to frequently adjust to change by reconfiguring its networks/node structures (influencing agents' connectivity) (Anderson, 1999). The reconfiguration of networks and achieving new proper arrangements represents a process of adding or eliminating connections between organizational members (i.e., the network's nodes) (Scarborough & Somers, 2006). Inadequate connections can reduce the organization's ability to coordinate adaptive responses to internal or external changes (Eidelson, 1997).

Placing the point in more metaphoric term, AI's facilitation of change from a CAS perspective is similar to the role of continuous practice and exposure to individual tactics within sport teams. For instance, in a soccer team, the players who have played with one other for many years and are familiar with each others' strengths, potentials, and game plans (local knowledge) can instantaneously alter their existing arrangement and form new effective ones in order to respond to their opponent's tactics at a given time. A new configuration for these players will facilitate the emergence of a fresh team behavior that could secure their survival. In contrast, players who possess minimal knowledge regarding one another often fail to attain new arrangements and form interlocking behaviors in a timely manner to respond to their opponent's tactical changes.

### **Generating a Collective Memory for Social Systems**

The dynamic and complex nature of business has increased the pace in organizations, causing firms and stakeholders to frequently suffer from memory loss (Benkard, 2000; Oberg, 2000). In detail, organizational learning has transformed into a phased short-term practice, which implies new intelligence, lessons, and insights that emerge during a project can easily vanish upon the initiation of a new project (Trinh & Mitchell, 2006). An analysis of the AI process using a CAS perspective directs attention to an emergent phenomenon, which involves AI generating a collective memory for social systems within the organization.

The organization-wide interviews that are held during the AI process bring back to life the success stories and hidden capacities of the company. Focused exclusively on extracting genuine strengths and instances of functional relations, the generative inquiries gradually form a dynamic collective memory for the organization's networks, one that is filled with realistic and reliable intelligence. This collective memory differs from the notion of organizational memory. Walsh and Ungson (1991) define organizational memory as "stored information from an organization's history that the firm can bring to bear on present decisions" (p. 61). The primary difference between the collective memory formed through the AI process and organizational memory is that in the latter stored information exists in multiple forms (e.g., one-sided stories and biased reporting) and locations (Walsh & Ungson, 1991).

The existence of information of various types stimulates subjective interpretations of organizational events, thereby placing the validity and practicality of the stored knowledge at risk. Simultaneously, information stored in organizational memory might originate from a single person's interpretation of events, which raises concerns regarding the accuracy of data. An example of this category of information is a project lessons learned report conducted by an executive who never visited the project site nor spoke directly to project team members to obtain an accurate depiction of work events. In addition, the scattering of information (location-wise) can generate significant problems related to granting access to all stakeholders for the use of records in a timely fashion. The collective nature of AI and involving people who are closest to reality of organizational events on a daily basis minimize the odds of data misinterpretation and extraction of inaccurate information.

AI creates a collective memory that is similar to a human brain in terms of concurrently existing with its user throughout the lifetime of the organism and actively collecting information. From a CAS perspective and informed by its emphasis on the evolution of systems through a Darwinian (natural selection) process, the emergent phenomenon of the collective memory indicates the fact that AI establishes an indirect selection mechanism scientifically known as a vicarious selection system. In the framework of management, a vicarious selection system is a process for selecting desirable behaviors based on the learning experiences of others rather than placing self through an entire process of evolution (Cohn, 2009; Cox, 2008). Hence, the employment of vicarious selection systems represents a transition from a risky trial-and-error learning into a low-risk, low-cost, and timely informed decision-making process. Consistent with the operating structure of a vicarious selection system, the collective memory can accelerate the rate of evolution in organizations by replacing time with intelligence. A unique feature of the collective memory of social systems is its ability to only store what has worked previously for individuals and for the organization. The generative knowledge that is extracted through positive inquiries and is stored in the collective memory plays the role of retained behaviors (i.e., traits that can secure the survival of the system) in vicarious selection systems. The effectiveness of the collective memory depends highly upon how frequently and precisely the organization implements the AI process.

### **Criticism of AI**

According to Bushe (2012) and Makino (2013), criticism of AI in the literature has primarily focused on how this method's excessive emphasis on positivity can invalidate and conceal the negative organizational experiences of participants and suppress potentially crucial and meaningful dialogues that need to occur to resolve conflicts (Barge & Oliver, 2003; Egan & Lancaster, 2005; Fitzgerald, Oliver, & Hoaxey, 2010; Pratt, 2002; Reason, 2000). In her study, Pratt (2002) discovered that an organization's failure to provide proper conditions for surfacing and expressing unspoken resentments will cause members to find AI invalidating. In response to this wave of criticism, a number of solutions in terms of improving AI's functionality have emerged over the last decade. These solutions include enhancing AI's generative capacities rather than focusing exclusively on positivity, improving AI's effectiveness using recent advances and discoveries in positive psychology, and re-emphasizing AI's primary role, which is energizing social systems through the power of inquiry and establishment of a strong shared vision (Bright & Cameron, 2009; Bushe, 2007; Cooperrider & Avital, 2004; Miller, Fitzgerald, Murrell, Preston, & Ambekar, 2005).

### **Implications for Managers**

By focusing on the generative dynamics of human organizing, AI provides an expanded understanding of how organizations can effectively respond to change and create sustained competitive advantage (Cameron et al., 2003). A systematic analysis of AI reveals a close connection of this method to CAS-based styles of management. This form of management is centered on creating proper conditions to guide the evolution of employees' behaviors that emerge from the interaction of independent agents, towards fulfilling the objectives of the organization and securing its survival (Anderson, 1999; Clark, 1999). Management methods that are informed by CAS principles signify a minimal hierarchical control structure and a transition in the style of management from directive into facilitative.

The primary objective of a CAS-based management is that, by altering the firm's network structures, managers help social systems self-organize (Clark, 1999). Self-organization refers to how,

in the absence of a central control, stakeholders constantly re-organize their connections/configuration to find the optimal fit with the environment (i.e., respond to change) (Davies, Rieper, & Tuszynski, 2013). A number of management approaches to guide (not control) the evolution of stakeholders' behaviors include selecting the firm's external environment, managing meaning (modifying the firm's culture and subcultures), selecting well-qualified employees, reconfiguring the firm's network structure, evolving vicarious selection systems, and energizing the system (Anderson, 1999).

According to Watkins and Cooperrider (2000), the work of the consultants who facilitate the process of AI is to help the organization explore its own path. Accordingly, the engagement of all stakeholders in the process of AI confirms the employment of a facilitative style of management with an emphasis on fostering agents' self-organization. The capacity of AI to influence the agents' interactions and to guide the evolution of their behavior by enhancing each agent's local knowledge signifies critical dimensions of a CAS-based management. These dimensions include altering the firm's architecture and shaping the outcomes of agents' self-organizing behaviors. Furthermore, the collective memory of social systems, a valuable product of AI, directly reflects the establishment of a vicarious selection system, which is a crucial CAS-oriented management approach. From a general perspective, both AI and CAS management methods operate based on the same organizing principle: guiding the behavior of individual agents such that the system as a whole is in an optimal regime. The difference is that the optimal regime in AI implies the possession of a better self-image (rooted in the heliotropic hypothesis) whereas in CAS the optimal regime implies the possession of a better survivability (systems evolve towards survival).

As yet, research has produced minimal guidance for managers in regards to designing practical CAS-based management methods and techniques. The analysis of AI from a CAS perspective suggests a transition of the principles of a CAS-based management from theory into practice. The insights that emerged from this analysis can help managers identify the key ingredients for developing CAS-centered facilitative styles of management.

In order to increase the effectiveness of AI and ensure its successful implementation, managers need to possess an in-depth understanding of organizational decision making and behavior considering that adapting to change represents a decision. Cyert and March (1963), the founders of the *Behavior Theory of the Firm*, described the organization as a coalition between various individuals/agents and social groups (e.g., managers, workers, stockholders, suppliers, customers, lawyers, tax collectors, and regulatory agencies) with limited rationality and decision making capacity, with each possessing a unique set of information (i.e., local knowledge), goals, needs, and aspirations. In this description, the firm is introduced as an information-processing and decision rendering system. Influenced by this behavior-focused depiction of the firm, the authors (1963) defined organizational decisions (e.g., adapting to change) as cognitive products that emerge from the interaction of stakeholders with distinct/conflicting knowledge and perspectives in an attempt to generate a balance between internal aspirations and capacities and external demands.

The presence of distinct values, beliefs, goals, and needs within a firm's social systems and the importance of gaining acceptance of change on a collective level direct attention to two interdependent administrative elements that play a critical role in facilitating change: (1) employing unifying methods such as AI that possess the capacity to encourage the *majority* of employees to support change (i.e., engaging most members in a desirable collective behavior) and (2) meeting certain conditions to prepare the firm as a whole to break the status quo and adapt to change (i.e., creating readiness for organizational change) (Armenakis, Harris, & Mossholder, 1993). The above elements are interdependent primarily because organizational readiness determines, to a great extent, the effectiveness and success of the unifying methods. For instance, the implementation of AI will be less challenging in a company where most employees trust their managers in terms of supporting them



during transitions (a readiness factor) compared to a firm in which employees repeatedly received minimal managerial support for change efforts. Accordingly, it is highly important that managers recognize the co-evolving relationship between the unifying methods and readiness factors. The following points reflect a number of influential readiness factors that could contribute significantly to the success of AI and other approaches to organizational change and development (Garvin, Edmondson, & Gino, 2008; Holt, Armenakis, Field, & Harris, 2007; Senge, 2006):

- Discrepancy: Members realizing the necessity of a proposed change.
- Efficacy: Members realizing that an internal capacity exists to implement the change.
- Organizational valence: Members realizing that the proposed change will be beneficial on a collective level.
- Management support: Ensuring that managers will be committed to the change and support their teams throughout the process.
- Personal valence: Using systems thinking to help each member realize the benefits of the change.
- Organizational learning: Helping members realize the constant interplay between certainty and uncertainty and the importance of questioning the status quo (i.e., certainty) as a key step towards exploring more effective solutions.

## Future Research

A few simple computational experiments conducted by Packard (1988) and Langton (1990) suggested that systems poised at the edge of chaos, a region between ordered and chaotic behavioral regimes, possess the capacity for emergent computation (Kaufman, 1993; Miller & Page, 2007). Simply stated, a system at the edge of chaos is sufficiently structured and maximally responsive to changes imposed by the dominant environment (Clippinger, 1999). As discussed previously, AI facilitates the formation of generative team arrangements by enhancing members' knowledge related to the individual and collective capacities within the organization. Agents' enhanced level of intelligence in parallel with flexible network structures and team arrangements can guide social systems towards a highly adaptive and responsive state (Manville, 1999). Considering this knowledge, AI might represent a potential method with the capacity to place organizational teams at the edge of chaos. However, further research and analysis is required to quantify a team's state of responsiveness prior and following its engagement in the AI process.

## Conclusion

This paper focused on analyzing the functionality of AI through the lens of CAS. AI was operationalized as the art and practice of asking questions that strengthen a system's capacity to comprehend, anticipate, and heighten positive potential; AI process, referred to as the 4-D cycle, represented a search for the elements that give *life* to a social system when it is most effective, alive, and constructively capable in economic, ecological, and human terms (Barge & Oliver, 2003; Cooperrider & Whitney, 2000). An overview of the descriptive models in current literature demonstrated that the effectiveness of AI is proven by linking its capacities to the promotion of positive mindset and collective organizational planning.

A CAS perspective was employed in this paper to move beyond the existing descriptions and gain new insights regarding the operating structure of AI. The analysis of AI using key principles of

CAS indicated that this method facilitates organizational change by: a) preparing the ground for the emergence of effective team arrangements, which play a critical role in producing collective timely responses to change, and b) generating a collective memory for social systems, which fosters agility and informed decision-making. Moreover, AI and CAS-based management approaches seemed highly comparable in terms of their shared emphasis on adopting a facilitative style of management and on guiding the evolution of social systems (self-organization). From a general perspective, this paper represented a practical instance of integrating and colliding different analytical perspectives, ideologies, and schools of thought following the objective of achieving a more holistic image of the subject of interest. The transition in theoretical lenses utilized to understand AI, from organizational psychology and power into CAS, helped to reach a deeper level of analysis. This is primarily because the new emphasis was placed on the operating structure of AI rather than on its general cognitive and emotional influences. A multi-perspective study of organizational methods, tools, and techniques can be considered a vital step towards advancing management capacities and securing organizational survival.

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