

A 5C model of responsible service leadership: learning from living systems to play the infinite game

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Abstract

Purpose – This paper offers a new vision of responsible service leadership for service organizations nested in economic, societal and environmental contexts across time to foster collective flourishing.

Design/methodology/approach – Following the call for novel perspectives that recognize service as a game among (vs between) people in service ecosystems, we build on service leadership theory to integrate insights from infinite (vs finite) games and biomimicry practices to propose a holistic model for responsible service leadership.

Findings – We extend the 3C (competence, character and care) model of service leadership (Shek *et al.*, 2021) adding context and chronos as essential pillars of responsible service leadership in nested ecosystems. We offer new interpretations and applications of the 3Cs through the lens of context and chronos.

Research limitations/implications – This paper furthers the emerging conversation about unique leadership approaches for service, linking existing service leadership theories with holistic views of service ecosystems and enabling a shift from decontextualized models of leadership to a more inclusive approach.

Practical implications – We propose that responsible service leadership can inspire new approaches to leadership development within organizations and in business education (e.g. competencies, settings) and a reconsideration of organizational structures (e.g. culture, selection and incentive design).

Social implications – The proposed 5C model revisits foundational assumptions of responsibility in service leadership, integrating actors across and within service ecosystems, society at large and the environment in the present and future.

Originality/value – This paper offers a conceptual framework – the 5Cs model of responsible service leadership – aimed at reimagining service leadership.

Keywords Service leadership, Service ecosystems, Games, Infinite game, Biomimicry, Sustainability, Responsible business, Responsible leadership, Context, Time

Paper type Conceptual paper

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From digitization and AI to service robots and the expansion of self- and hybrid-service experiences, the ways services are designed, delivered and experienced are rapidly evolving (Bowen, 2024; Kandampully *et al.*, 2023). In this dynamic environment, service leaders are forced to engage in increasingly complex and interconnected service ecosystems [1] shaped by economic, societal and environmental factors. As stakeholder expectations, attitudes and behaviors adapt to this shifting terrain, service leaders at every level of the service ecosystem need to evolve to meet the moment. Our objective in this conceptual paper is to identify and elaborate the essential components of responsible service leadership within complex, nested service ecosystems from both theoretical and practical perspectives.

We define responsible service leadership as the act of being responsible for and responsive to diverse stakeholders within and between service ecosystems in the present context and over time. Service ecosystem scholars acknowledge the complex, dynamic and diverse nature of nested service ecosystems (Ben Letaifa and Reynoso, 2015; Vargo and Lusch, 2011) and call for a holistic approach (Kandampully *et al.*, 2023) that can help “change the service game” (Bowen, 2024, p. 2). These ideas of nestedness, however, have rarely been applied directly to service leadership despite their potential to inspire new visions of responsibility for service leaders. We propose a holistic approach to responsible service leadership that situates service ecosystems as socially embedded systems nested within context (e.g. economy, society and environment) and chronos (temporal effects). We argue that acknowledging context and chronos when leading in nested service ecosystems allows reimagining the relational dynamics and critical competencies that can advance service leadership more broadly and responsible service leadership more specifically.

Our conceptual framework builds upon service leadership theory (Shek *et al.*, 2021), which suggests that service leaders are driven by competence, character and care at every level of engagement with stakeholders. These 3Cs provide a useful starting point by illuminating individual leadership characteristics and relational practices unique to value co-creation through service. While this model begins to address the social aspects of service leadership, it neglects to explore the opportunities and challenges that exist when leaders acknowledge the broader context and time in which service is embedded.

Inspired by Bowen’s (2024) call to explore a new gameplay for service operating within nested ecosystems, we turn to the literature on finite and infinite games and its insights on context and time to explore implications for responsible service leadership. Specifically, we move away from the view that service business is a finite game that centers on mastering or strategically changing the rules of a game for the purpose of winning at the cost of others (e.g. Schneider and Bowen, 2010; McKee *et al.*, 2006) and introduce infinite games (Carse, 1987) as an alternative framework that invites a broader and longer perspective of the game to identify new opportunities and redefine relational practices for responsible service leadership. We then turn to biomimicry (Benyus, 1997; Olaizola *et al.*, 2021; Somoza-Norton *et al.*, 2023) to draw upon living systems as a source of inspiration for uncovering best practices for responsible service leadership in nested service systems operating as infinite games.

Building on insights garnered from these perspectives, we introduce a *5C model of responsible service leadership* that embeds competence, character and care in a web of interdependence with two new dimensions – context and chronos. Context captures the economic, societal and environmental circumstances in which responsible service leaders operate and are situated in and across time. We suggest that acknowledging the diverse actors within this broadly defined context and their interdependencies offers diverse implications for responsible service leadership. Much like infinite games marked by competition and cooperation and approaches seen in living systems in which “agreements” about resource allocation and sharing exist alongside a competition for individual niche enabling diverse species to collectively flourish, we invite responsible service leaders to acknowledge that cooperation and competition are both vital for co-creation of sustainable value. Chronos captures the temporal orientation of responsible service leaders. Inspired by the idea of a never-ending game and the cyclical nature of change in living

systems, we call on service scholars and service providers to acknowledge the temporally embedded nature of service. In contrast to presenting the service encounter and the emerging immediate future as primary, we posit that responsible service leaders should recognize that the past, present and future are tightly connected and continuously woven and rewoven. Responsible service leadership should, therefore, consider a longer temporal arc as a guide for responsible service decisions. Lastly, rather than simply incorporating Shek's 3Cs within our 5C model, we argue that context and chronos profoundly influence the practice of competence, character and care in service leadership, both in theory and in practice.

The contributions of our paper are threefold. First, we invite scholars to consider responsible service leadership as more than an individual-level skill or competency (e.g. [Ali, 2024](#); [Nguyen, 2023](#)) or a relational phenomenon between a leader and their stakeholders within an organization ([Shek et al., 2015](#)). Instead, we propose that responsible service leadership operates across systems to discern opportunities and challenges within, between and beyond any particular individual service ecosystem. Second, we propose a 5C model of responsible service leadership that illuminates two under-researched dimensions requiring attention by leaders: context and chronos. We posit that exploring the role that *context* plays in service offers valuable insights regarding the dynamic interplay between competition and cooperation in service ecosystems responsible service leaders are called to navigate. Recognizing *chronos* (e.g. pace, time horizons, short- and long-term considerations and other temporal elements) calls leaders to consider the implications of their decisions for cultivating lasting flourishing at organizational and societal levels, representing a critical pillar of responsible service leadership. Lastly, we expand the meaning embedded in the 3C service leadership model ([Shek et al., 2015, 2017](#)). We emphasize additional competencies such as adaptability, resilience and the paradox mindset. We shed light on new dimensions of character such as moral courage. Moreover, we expand the meaning of care possible when we consider relational bonds among stakeholders mobilized for the good of the service enterprise and the well-being of future generations.

Service leadership – what we know and what's missing

It is widely acknowledged that leadership is one of the most consequential factors for the overall performance, functioning and well-being of teams and organizations ([Lacerenza et al., 2017](#)). Although definitions of leadership vary considerably, a common approach in the expansive scholarly literature has been to consider it as an individual-level capability and examine its impact on "followers" and organizational outcomes ([Day, 2014](#)). Consistent with this approach, many leadership models represent decontextualized approaches to leadership that describe a set of leadership traits, attributes, attitudes and behaviors that enable them to influence others toward a certain goal or purpose (see [Drath et al., 2008](#); [Raelin, 2011](#) for a review of these models).

In an attempt to capture existing insights and identify potential gaps in leadership in service contexts, we explored leading service journals such as the *Journal of Service Research*, *Journal of Retailing and Consumer Services*, *Journal of Service Management*, *Service Industries Journal*, *Journal of Services Marketing* and *Journal of Service Theory and Practice* for leadership-related papers that included the keywords leader, leadership or leading. We identified 15 papers published between 1992 and 2024. To offer a comprehensive review of leadership in service, we explored peer-reviewed management journals, broadly defined, for papers on leadership devoted specifically to service organizations using leadership and service as keywords. We found an additional 18 papers published between 2015 and 2024. Our analysis of this collection revealed a number of patterns that highlight key streams of research within the existing literature on service leadership and uncover a number of opportunities to advance service leadership research.

First, despite the acknowledgement of differences between manufacturing and service economies yielding a call for a unique type of leadership needed in service settings (e.g.

Sandvik *et al.*, 2019), the majority of service leadership papers applied common leadership theories developed and tested in manufacturing and knowledge worker organizational settings to service environments. For instance, *transformational leadership*, or a subset of dimensions of transformational leadership applied to service contexts, is found in 14 papers (e.g. Ali, 2024; Nguyen, 2023; Sandvik *et al.*, 2019). Transformational leadership theory focuses on leaders' attributions and a set of behavioral approaches, including idealized influence attributes and behaviors, inspirational motivation, intellectual stimulation and individualized consideration. For example, Ali (2024) demonstrated that transformational leadership is crucial in tourism and hospitality contexts and showed that transformational leadership in such service contexts impacts employee motivation, job satisfaction and performance. Put together, this body of research demonstrates the universal value of transformational leadership across manufacturing and service domains.

In contrast, other scholars argue that leadership in service firms requires fresh perspectives in our theorizing (Sandvik *et al.*, 2019). To address this need, a different stream of research began to focus on unique aspects of service leadership that are well aligned with principles unique to service. Recently, Alkire *et al.* (2023) summarized three principles defining service thinking grounded in transformative service research, i.e. *justice, mutualism and human-centrism*. We found that many research papers on service leadership address some subset of these service thinking principles but rarely all three.

We found five leadership papers that relate to the *justice* principle of service thinking (i.e. distributive, procedural and interactional justice). Although one of these papers addresses justice explicitly (e.g. Cropanzano *et al.*, 2007), most papers focus on justice implicitly as part of ethical leadership in service settings (e.g. Anser *et al.*, 2021; Kerse, 2021). Ethical leadership suggests that excellence in leadership demands not only managers' expertise, knowledge and strategic power but also leaders' moral character. Research reveals that ethical leaders tend to be morally responsible, visionary and honest (Sharma *et al.*, 2019). Ethical leaders are able to integrate moral values into organizational practices (Guo, 2022), mainly through two-way relationships, communications and open, transparent decision-making (Brown *et al.*, 2005). For example, Kerse (2021) tested and found that ethical leadership strengthened the trust in the organization both directly and indirectly through person–organization fit. Moreover, this study demonstrated that organizational trust mediated the relationship between ethical leadership and extra-role service behavior.

Some service scholars have offered leadership insights centered around the *mutualism* principle, i.e. referring to reciprocally beneficial relationships between parties, which range from diffused and indirect interactions to highly integrated and co-evolved associations between different parties involved in service. Consistent with the propositions of service leadership theory for a bottom-up, distributive approach to leadership, an emerging area of service leadership research has shifted the emphasis from studying leaders, who are often identified as individuals holding managerial positions or supervisory roles in organizations, toward a leaderful approach that considers leading as a concurrent, collective and collaborative practice that brings out leadership in everyone (Raelin, 2003), encourages self-leadership (Chai *et al.*, 2021) and empowers all service employees (Bowen, 2024; Bowen and Lawler, 1995). In a recent reflection piece, service research pioneers Bowen *et al.* (2023, p. 35) suggested that service leadership “takes the whole organization rather than a narrow organizational facet.” This line of research sheds light on the development of leadership capabilities among frontline workers (Thøgersen, 2022) through the cultivation of sensemaking capacities (Aflaki and Lindh, 2021), resilience or leadership humility (Sok *et al.*, 2021). Nguyen (2023) also highlights that promoting information sharing between employees is a key challenge for leadership in service settings.

Recently, Shek *et al.* (2015, 2017) advocated for and proposed a service-specific leadership model illuminating the distinct required leadership qualities and practices that best fit the service economy and center on comprehensive service principles. Shek *et al.* (2015, 2017) echo

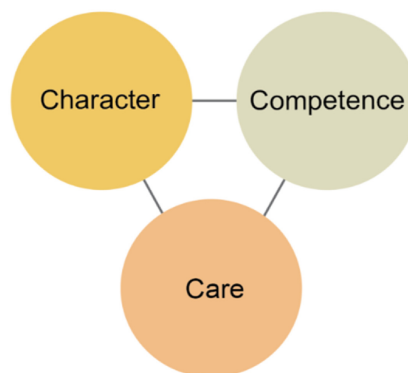
prior calls for service leadership as a collective distributed engagement concerned with bottom-up approaches that do not center only on individual leader behaviors while overlooking follower contributions. This service leadership theory offers a human-centric model of service leadership – emphasizing the importance of 3Cs (see [Figure 1](#) for our depiction of the 3C model by [Shek et al. \(2015, 2017\)](#)): competence (the ability to apply knowledge and skills), character (positive traits such as honesty, reliability, and integrity) and care (sincerity and empathy to those who one serves as well as oneself). According to [Shek et al. \(2021\)](#), service leadership should demonstrate competence, character and care at every level of engagement with stakeholders.

We ground our theorizing of responsible service leadership in [Shek et al.'s \(2015, 2017\)](#) service leadership model for a number of reasons. First, in contrast to leadership research in service that focuses on universal aspects of leadership across manufacturing and service, the 3Cs model is a service-specific leadership approach that is well aligned with the focus of our paper. Second, in contrast to previous research focusing on a subset of service principles (e.g. ethical leadership focuses on justice), the 3C offers a comprehensive model that centers on multiple tenets of service, such as justice, mutualism and human centrism. Lastly, whereas other leadership models center on intra-organizational dynamics and their interface with customers, the 3Cs model calls our attention to the social setting in which leadership is enacted, which is especially important to the exploration of responsible service leadership in nested systems.

Importantly, although the 3Cs model begins to engage with service ecosystems as nested systems, we argue that their conceptualization is incomplete. Specifically, the model underexplores the rich web of interconnectedness and interdependence between objects, people and entities that is an integral part of leading in complex, nested service ecosystems, which has been argued as being especially important for service organizations by leading service scholars ([Kandampully et al., 2023](#)). To illuminate these contextual dimensions of responsible service leadership, we turn to games – a well-developed lens of organizing and leading (see [Clancy, 1999](#)) to reimagine responsible service leadership when focusing on the nested nature of service systems.

Evolving the service game

The [Schneider and Bowen \(1995\)](#) book “Winning the Service Game” outlined the history of work and service. They propose that service began with an agrarian “game against nature” in which work and service reflected humans versus land, followed by an industrial era “game



Source(s): Adapted from [Shek et al. \(2015\)](#)

Figure 1.
3C model of service
leadership

against fabricated nature” that represents the interplay between human and machine and the post-industrial service “games between persons” to capture the interplay between a service professional and a customer or client. Later, [Schneider and Bowen \(2010, p. 1\)](#) proposed that service organizations can outperform the competition if they “master the rules of the service game.” This inspired ample scholarly work that focused on innovative approaches for service encounters and customer participation in service, demonstrating important service breakthroughs that advanced service as an interplay between service professionals, their customers and other stakeholders within a service ecosystem.

More recently, [Bowen \(2024, p. 2\)](#) invited us to acknowledge that service is a game *between* people, decontextualizing service from the broader setting in which it is embedded. We argue that important opportunities for service researchers and practitioners lie ahead when we recognize service as nested systems or ecosystems that call for a new type of game. Alongside the “game *between* persons,” Bowen proposes that service scholars and professionals should consider the “games *among* actors played in an ecosystems arena” to “change the game” to one that better fits the service offered in this arena. The remaining question is, how is this new game played and what kind of leadership does it require?

To explore these questions, we draw upon the seminal scholarly work of [Carse \(1987\)](#), who introduced two forms of games – finite and infinite. We describe both below and posit that finite games, which are grounded in prescriptive rules, roles and outcomes, may best fit the “games between persons” approach but may not always afford the most effective and efficient solutions to challenges that invite us to play a less prescribed “game among actors.” Instead, we propose that responsible service leadership in complex nested systems is more aligned with an infinite game played among diverse actors.

Finite game

[Carse \(1987\)](#) describes a finite game as a game played for the purpose of winning with players who are competitors. Here, the players, whether single individuals or teams, play until there is a winner agreed upon by the rules of the game that are established prior to the game. Thus, a finite game has a beginning and an end, and it requires more than one player, as one player can only win when another loses. The rules in a finite game provide structure, and players create strategies or plays that can lead to a decisive win. Further, because the rules cannot change during the game, they yield expected normative behavior ([Arora and Rovenpor, 2018](#)). Finite games often involve clearly defined roles that emerge from the game structure, leading to what seems like prescriptive responsibilities and involvement, including establishing a hierarchy, spans of controls and who can (or cannot) play. Rules and roles together also establish game boundaries related to the inclusion and exclusion of players and resources.

Business as a finite game is centered around winning within a defined set of parameters. A winner, then, is often the player who is able to anticipate the moves of an opponent or overcome an unfavorable situation through skill and preparation for the game, a characteristic of expert or master players ([Carse, 1987](#)). A second category of winners are those who are able to surprise their opponents despite the constraints offered by the rules of the game by being creative about alternatives and options. Winners, therefore, are those who can leverage the context of the game to turn either their strengths or the weaknesses of other players into a competitive advantage.

Infinite game

[Carse \(1987\)](#) defines an infinite game as one played for the purpose of continuing the game. Considering service as an infinite game involves building relationships that can deepen loyalty and lead to long-lasting engagement with customers, supply chain providers and

other stakeholders in the field, akin to the relational (vs transactional) approach to service (Grönroos, 1995). This engagement can even extend to competitors to support the continuation of the game for all players. Despite the popularity of finite games in business, Clancy (1999) suggests that infinite games have more merit in the context of business where there is no fixed endpoint, demonstrating commitment to long-term sustainability over any one single win.

In contrast to finite games, the rules in an infinite game are like the “grammar of a living language” (Carse, 1987, p. 9), which change and evolve as players play the game. Thus, the rules of an infinite game must change in the course of play when the players agree that maintaining set rules will put the game at the peril of ending with a finite outcome, usually in the form of victory for some players and defeat for others. Infinite game players do not seek a win to define them but rather only to define that particular play. Thus, the wins are not a goal in and of themselves. Infinite game players focus on strategies that continue the game and enable enjoying the act of playing, even if it means taking a short-term loss to keep the game going.

Understanding context and its influence within games

The defining characteristic of finite games are players, or competitors, focused on the goal or the reason to play, the resources they bring, and their prowess in playing the game, independent of the larger contextual environment and potential ripple effects. Players are required to outsmart competitors and focus on the goal of winning, which can result in compartmentalizing morality as well as any responsibility to a broader collective (Hamington, 2009). Indeed, if finite games are only about winning, then cutting corners or crossing acceptable social normative and moral boundaries are all options, and the seriousness of consequences for stakeholders, including suppliers, customers and employees, need not be considered (Long *et al.*, 2014).

The focus on eliminating the competition in a finite game can unintentionally inspire the use of strategies and tactics that are incompatible with the more contemporary and collaborative principles of responsibility and leadership (Long *et al.*, 2014) by trivializing tasks and privileging adversarial rather than cooperative relationships. Competitiveness is the primary motivation, though cooperation may be used as a strategic tool in finite games if it serves a win. Consider competitors who choose to cooperate to address a collective problem, as in the case of restaurants of a similar standard who come together to petition for better public transportation and parking so they can hire and retain high-quality wait staff. Beyond such focused cooperation, the restaurants compete for diners from within the same local customer base.

Players in the *infinite* game acknowledge that the context (e.g. economic, societal, and environmental) in which play unfolds is a fundamental interdependency inherent in the game. Their actions impact the current and future contexts and choices of other players, even as they, in turn, are impacted in the same way. Moreover, infinite players can come together to change the very boundaries of the game and who may (or may not) play, removing any constraints imposed upon the players of a finite game. In contrast to finite games, cooperating with competitors enables an infinite game as it is the best way to ensure the game continues. Consider real estate brokerages whose brokers represent buyers and sellers in a desirable neighborhood. In any given purchase of a home, the brokers for the buyers and sellers are in a finite game that ends when the transaction is complete. Each transaction is but one game within a larger infinite game played across the brokerages in the local area whose brokers interact across multiple transactions. Their goal is to continue the longer-term game of homes continuing to be bought and sold through the same brokers, often with the same buyers and sellers who may switch their roles of buyer or seller. We propose that cooperation – a fine

balance of cooperation between competing parties (Brandenburger and Nalebuff, 1996)– may cost any one broker or brokerage a win in a finite game but will ensure the infinite game continues to the greater benefit of all. The interdependency extends beyond known players to include all those who may be connected to the game across time and space. Thus, when all stakeholders are considered, buyers, sellers, brokers, neighbors, local community, government and even local service providers all benefit, whether or not they know that they are participants in the game.

Understanding chronos and its influence within games

The rules of a finite game shape the time horizons considered while also defining who is considered stakeholders. A finite game, therefore, inherently ignores those who may not be players at a current point in time. It ignores the consequences of actions enacted during a play beyond the game itself. Further, the finite game misses the complexity and ambiguity of business that unfolds over time (Clancy, 1999). Business operations and service provision do not always have a clear start, end, rules and time constraints; they extend out in time without any fixed end or constraints around the scope and activities. Similarly, while game-specific incentives for the players can be directly and fruitfully linked to the win that will end the game, aligning incentives with a short-term win in business may not be beneficial for its long-term success.

For instance, agribusinesses in Argentina routinely farm the land they own and rent as leases are renewed annually and for as long as a decade. These agribusinesses are effectively in a game with the landlord where a win requires making more money than the rent for that year. This finite annual game inadvertently creates a long-term loss since crop yields typically reduce on exploited land. Interestingly, the same agribusinesses play an infinite game, where they seek to maintain land productivity for future generations (Arora *et al.*, 2015). Notably, when annualized earnings over a decade are considered, the cumulative earnings are typically higher from the land that has been maintained, even if exploited land yields a greater return (and therefore a win) in any given year. Approaching business as a finite game is largely responsible for some of the grand challenges we face today, such as greenhouse gas emissions. Thus, the temporal frame of choice can determine the game played and the plays considered responsible.

There is no shortage of academic and trade titles that provide advice, guidance and frameworks for capturing market share, taking on the competition and winning finite games in business. Arguably, best practices for leaders who make the bold and potentially risky choice to shift from competitive, short-term play in favor of changing the game and embracing the infinite game are less available. Living systems provide a myriad of examples of the infinite game in practice, offering a framework for the motivated responsible service leader willing to change the service game.

Biomimicry as best practice for changing the service game

Biomimicry represents an enduring bridge between the inherent wisdom of living systems and the aspirations of humanity. While humans have drawn inspiration from living systems for millennia, the term coined in Benyus's seminal work conceptualizes biomimicry as the "conscious emulation of life's genius" (1997, p. 2). Derived from the Greek words "bios," meaning life and "mimesis," meaning to imitate, biomimicry embodies both an ideological framework and a practical approach. It encompasses a deliberate and systematic process of learning from (rather than about) the natural world's forms, processes and ecosystems to inform and transform human-designed systems as part of, rather than adjacent to, living systems (Benyus, 1997). In contrast to the industrial view of living systems as something to be dominated, contained, extracted from or improved upon (akin to service as a game against

nature, Bowen, 2024; Schneider and Bowen, 1995), biomimicry presents nature as a source of new perspectives that can reveal practical applications and sustainable solutions to systemic challenges in adaptive and complex systems (Benyus, 1997; Somoza-Norton and Whitfield, 2019).

Companies like Nike, Interfact, Inc., PAX Scientific and Sharklet Technologies (see Farnsworth, 2020) illustrate the vast potential of engaging living systems as a source of inspiration for sustainable, efficient and innovative approaches to mundane and complex marketplace challenges. However, little biomimicry-related research has been conducted in service management. Exceptions include exploring the beneficial outcomes of biophilic servicescapes (Purani and Kumar, 2018), customer response to indirect engagement with nature in servicescapes (Kumar *et al.*, 2020) and the complex boundary zones between different service ecosystems (Simmonds and Gazley, 2018). Thus, responsible service leaders can learn much from living systems as they seek to understand and engage in the infinite game.

We now focus on three fundamental tenets of biomimicry that are central to our exploration of responsible service leadership (see Benyus, 1997 for review): self-organization, interconnectedness and change. First, living systems are self-organized. Beynus (1997) argues that a mature living system is not run by one universal message broadcast from a single source. Instead, complex natural systems such as wildfires or storm patterns are controlled by countless individual interactions that occur inside and outside the system. Numerous, even redundant, messages emerge from the grassroots and are dispersed throughout the community structure. In this way, living systems echo infinite games, where multiple, diverse actors within the field of play engage in self and system regulations that simultaneously enable actors to keep playing the game and ensure the game continues even if players leave.

Second, organisms in nature operate as unique integral elements in interdependent and interconnected systems (Farnsworth, 2020; Somoza-Norton *et al.*, 2023) rather than as isolated entities. In contrast to human-centric approaches prevalent in service management and marketing, biomimicry invites us to consider humans as integral (but not inherently superior) members of living systems (Beynus, 1997). Applied to service, interconnectedness suggests that service encounters are not only nested within a service organization, service ecosystems, society, environment and time but that all these elements impact one another in predictable and unpredictable ways through their web of interdependence.

Third, living systems, much like infinite games, are designed to adapt and endure in the face of changes in elements, contexts over time and even sudden disruptions. Whereas linear transformations in the marketplace turn energy and materials into products or services for consumption and disposal, living systems are ever-changing, operating in cyclical patterns. For example, “When a leaf falls to the forest floor, it is recycled in the bodies of microbes and returned to the soil water, where it is reabsorbed by the trees to make new leaves” (Beynus, 1997, p. 242). Change in living systems is not only created when an element is repurposed but when the environment changes. Wildfires, floods and droughts can require living systems to adapt quickly to new conditions. Importantly, such adaptation is not achieved by strong adherence to prescribed and established responses. Instead, like the infinite game, context-relevant responses involve keen observation, discernment and integration of new information into existing systems. Altogether, this underscores the value of considering living systems as a source of insights on synergistic co-existence in an infinite game versus a source of production resources.

Biomimicry in practice: why context matters

Although we often think of living systems as environments marked by “survival of the fittest,” biomimicry scholars suggest that in mature systems, “cooperation seems to be just as important as competition” (Beynus, 1997, p. 258). Indeed, even the most dangerous predators

recognize that to eliminate their prey completely is to deplete necessary future resources. Thus, living systems model potential organizational strategies and tactics within and between nested service ecosystems that are marked by cooperative competition.

Organisms in nature spread out into non-competing niches [2] and clean up every crumb before it even falls off the table. The diversity of niches creates dynamic stability for the system as a whole. Consider Denmark's Kalundborg eco-industrial park, in which four diverse companies operating in non-competing market niches are linked to each other via sources of energy as an example. Here, the Asnaesverket power company pipes some of its waste steam to power the engines of two companies – the Statoil Refinery and Novo Nordisk (a pharmaceutical plant). The waste steam is then used by Novo Nordisk to heat their fermentation tanks, which produce nitrogen-rich slurry that is offered to nearby farmers as fertilizer for growing plants. These plants are harvested to feed the bacteria in the Novo Nordisk fermentation tanks. Waste gas from the Statoil Refinery is purified, and any excess is shared with Asnaesverket Power and Gyproc, a local wallboard maker. This example of cooperation in non-competitive market niches invites us to breed opportunities for synergy with partners outside of our service ecosystem to seek sustainable solutions that increase efficiency and limit the potential negative impact on organizations, societies and the environment. Moreover, environmental and economic benefits accrued to the local community underscore how the economy, society and the environment can interact in ways to serve the whole.

Importantly, living systems are not built on cooperation between non-competing organisms alone. Rather, they also demonstrate cooperative competition. When individual organisms within a species share a niche, there are “agreements” about resource allotment. For example, animals will claim territories or feed at different times of day to avoid overlapping with their counterparts, creating conditions for peaceful co-existence (Beynus, 1997). A similar balance between cooperation and competition is achieved when service companies embrace cooperation beyond organizational boundaries: Dee Hock was inspired to design VISA systems like living systems, partly chaotic, partly ordered, with both cooperative and competitive interdependencies at the same time. To do so, he structured systems so banks could compete with each other chaotically, coupled with enough rules to create a playing field they all could agree on (Hock, 2005).

Biomimicry in practice: why chronos matters

Living systems offer meaningful insights about temporal implications at the heart of thriving that can inform and inspire responsible service leadership. First, living systems operate as infinite games, inviting us to consider a longer view that values the primary goal of sustaining the system over longer time horizons. Living systems are subject to entropy and decay but this contraction is often met with later expansion, enabled by decomposition, nutrient cycling and evolution that sensitize us to acknowledge the importance of renewal and regeneration unfolding over time. Consider, for example, a volcano erupting. A short-term view highlights the destruction and devastation of living systems – plants, animal life, soil – by the lava flow over the surrounding area. A longer temporal arc, however, showcases the flourishing resulting from the weathering of lava deposits yielding fertile soil.

Similar decay and renewal patterns can also be found in service organizations such as Netflix, which was founded in 1997 as a mail-based rental business. Technological changes in the market in the early 2000s threatened the viability of Netflix's business model and made mail-base rental an irrelevant service, leading Netflix to reinvent the entertainment delivery industry by providing its subscribers with innovative instant access to entertainment. We propose that biomimicry invites an alternative perspective of living systems as a source of

inspiration for creating and sustaining systems that tolerate disruption and stand the test of time, a much-needed skill set for responsible service leaders.

Second, mature living systems engage resources through slow expansion and extraction until they reach balance and become sustaining through circular, self-directed and self-contained processes (Fehrer *et al.*, 2023). Evidence of living systems adjusting to instability is all around us. Moss, for instance, takes hundreds of years to grow. This process unfolds as it needs to, as this slow-moving plant does not rush. Trees grow around buildings, and seedlings grow through a crack in the sidewalk to find light. These and many other natural processes unfold gradually and persistently, requiring patience and a long-term perspective that is often lost in the immediacy of day-to-day operations. Responsible service leaders have much to learn about the value of considering the pace at which we pursue goals and objectives. All too often we favor fast speed over steady, slower growth, in part because we consider time as finite and short-term. Boutique consulting firms specializing in niche areas often prioritize maintaining high-quality service and deep expertise over rapid expansion. They deliberately limit the number of clients they take on at any given time to ensure personalized attention and tailored solutions. By growing slowly, they can carefully select projects that align with their values and expertise, leading to long-term client satisfaction and reputation building within their industry. Responsible service leadership has much to learn about how the imposed timeframe impacts the economic, social and environmental context of players and whether it leads to the sustained health and flourishing of both human and non-human actors in the present and the future.

Finally, a longer time arc and attention to systemic resilience can also sensitize us to the idea of lasting impact, anticipating and considering the risk our actions pose to current and future generations (Somoza-Norton *et al.*, 2023). Examining nature through the lens of lasting impact uncovers examples of de-growth. Overcrowding and overexploitation of resources such as food, and habitat often lead to degrowth in animal population, stabilizing at a level that the ecosystem can support sustainably. Service organizations can also demonstrate deep care to lasting impact. For example, companies specializing in eco-tourism often prioritize sustainability and responsible travel practices. They may limit the number of visitors to fragile ecosystems, promote low-impact activities such as hiking or wildlife observation and support local communities through revenue-sharing or conservation initiatives. Embracing a longer temporal arc as inspired by biomimicry practices expands the role of responsible service in cultivating caring ecologies designed not only for the prosperity of organizations, current customers, communities and the immediate environment but also for the health and well-being of future generations and the flourishing of our interconnected ecosystem as a whole (Livne-Tarandach *et al.*, 2021; Olaizola *et al.*, 2021). Importantly, scholars have argued that humans are exquisitely adapted to respond to immediate threats but are not hardwired genetically to respond to long-term danger (Ehrlich, 2000). We propose that taking inspiration from biomimicry practices can inspire us to think differently about long-term threats and reconsider our role in cultivating long-lasting systemic thriving.

Toward a 5Cs model of responsible service leadership

Our discussion of games (infinite and finite) and biomimicry offers important insights for character, competence and, care of the 3C model (Shek *et al.*, 2021) and points to two additional dimensions, context and chronos, as critical elements of responsible service leadership. Figure 2 represents our proposed 5C model of responsible service leadership and illustrates the interdependence of its elements.

Competence captures the ability to apply knowledge and skills to inspire competitive advantage (Hoshmand and Chung, 2021). Specifically, individual-level competencies, including cognitive and emotional competence, enable effective service leaders to translate

their knowledge and skills into action (Hoshmand and Chung, 2021). An examination of games and biomimicry uncovers additional dimensions of competence required in complex and nested service ecosystems. Finite games emphasize clear roles and portray leaders as master players who are technical experts who are highly skilled in their ability to create competitive advantage. Infinite games, however, highlight that rules, roles and context can change – in ways that can make past technical expertise irrelevant. In such conditions, responsible service leadership may need to foster other competencies to better adapt to dynamic contexts, such as flexibility, curiosity, agility and tolerance for ambiguity and paradox. The possibility of change in rules and roles also sensitizes service leaders to the importance of adaptation and a willingness to consider positions of leadership and followership as interchangeable based on the expertise needed at that moment, calling for notions of dynamic distributed leadership and competencies.

Additionally, we propose that leaders who are inspired by biomimicry should develop competencies that are directed not only at creating optimal outcomes within the organization with their constituents but also competencies that organize their relationship and delineate their impact beyond the organization such as a global mindset (Erez, 2011), self-transcendent purpose (Jacobs and McConnell, 2022), critical consciousness (Yadav, 2023) as well as improved awareness of collective flourishing and resilience in the face of disruptions.

Character is the driving force behind how one engages the world, which reflects leaders acting with integrity and demonstrating honesty and reliability (Shek *et al.*, 2015). The 3Cs model points to key positive attributions of dimensions of a leader's character to have (1) respect for others, (2) fairness, (3) compassion, (4) courage, (5) passion and (6) benevolence (Hoshmand and Chung, 2021). Our discussion of games and biomimicry offers a number of insights that extend the original framework on character, especially in terms of integrity, respect and courage.

In infinite games, integrity may span far beyond playing by the rules to include leaders grappling with moral issues, especially when considering multiple stakeholders and a longer temporal arc that takes into consideration the needs of future generations. Respect in a finite game is often confounded by power, status and reputation, which are contingent on a given context and time, while an infinite game may stress the importance of "dignity," the inherent worth and value of individuals that transcend time and context (Pirson, 2019). Lastly, courage as a manifestation of character in infinite games pertains to service leaders making tough

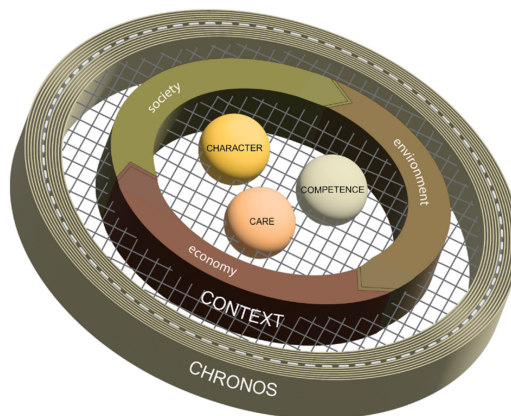


Figure 2.
5C model of
responsible service
leadership

Source(s): Authors

choices to address certain stakeholders' needs that may not be aligned with short-term profitability. To this end, breaking the rules of a current game may sometimes be a sign of courage (and integrity) when considering the needs of future generations.

Biomimicry invites us to look to living systems to reframe what respect may mean, spanning beyond our organization and social systems to consider the place, planet and all sentient beings. Respect here invites responsible service leaders to focus on learning from, rather than extracting from, the environment, pointing to the value of respecting the natural world as a teacher rather than simply a resource. Biomimicry also illuminates how responsible service leaders can demonstrate character that does not translate to growth but de-growth. Taking the posture of a student of living systems rather than one of dominion over them requires a kind of paradoxical courage that is driven by humility and a willingness to be right-sized in the larger living system.

Care implies concern, consideration or special attention, often reflected in sincerity and empathy to those whom one serves (e.g. customers and employees) (Shek *et al.*, 2015). Our discussion of games and biomimicry suggests that empathy and care should expand beyond the members of an organization to include competitors; making love of the enemy a critical component of care. Infinite games help us notice the importance of building and maintaining relationships that enable us to consider others and make tradeoffs to benefit the collective now and in the future.

Service leaders might be inspired by nature to create caring relationships mimicking the connection of organisms with their natural environments. Organisms in living systems, for instance, recognize the importance of keeping their habitats clean and habitable, so they take care not to soil their nests or create strife where they create their lives. While we do not live in our organizations, the cultures service leaders create are where livelihoods for all can be nourished for flourishing or poisoned by neglect. Moreover, acknowledging our interdependencies with and honoring our obligation for our habitat calls for service leaders to embrace responsibility for the social communities and environmental context impacted by organizational choices. This, in turn, sensitizes responsible service leaders to recognize their role in shaping the health and well-being of the system in which service is embedded (Olaizola *et al.*, 2021) rather than just prioritizing the health and well-being of one part at the expense of the whole.

Beyond the extension of Shek's original 3Cs, our exploration of games and biomimicry points to two additional pillars, context (economic, societal and environmental) and chronos, as critical elements for responsible service leadership.

Context sensitizes us to consider that service organizations are embedded within economies, societies and environments, inviting us to consider the role of context in how we engage with diverse actors and stakeholders. We propose that coopetition represents a promising approach to inform responsible service leaders attempting to navigate the context in which they are embedded. Coopetition refers to the strategic approach of engaging in cooperative activities while concurrently competing in the market (Brandenburger and Nalebuff, 1996). This paradoxical dynamic is particularly relevant for the service sector, where organizations often share resources, knowledge and expertise to enhance overall industry performance. For instance, service providers may cooperate on research and development initiatives to address common challenges, even as they compete for market share.

Coopetition mirrors the principles of both finite and infinite games within the ecosystem of service organizations. As a finite game, players adhere to established rules and compete for measurable victories. Indeed, we see organizations engage in strategic coopetition – building alliances with competitors to attain specific goals such as market share, operational efficiency, productivity and innovation (Park *et al.*, 2014; Oum *et al.*, 2004). Moreover, coopetition also enables players to expand the scope of value that can be created. For

instance, cooperation among airlines through shared systems that make travel and transfers easier increases the total number of travelers, expanding the market and benefitting all airlines. What then follows is traditional competition, where each airline competes for a greater percentage of these travelers on any given route. As an infinite game, service entities can participate in a continuous, adaptive dance of coopetition, analogous to the interconnected relationships among species in an ecosystem (Bengtsson and Kock, 2014). Responsible leaders can harness coopetition as a powerful tool to benefit various stakeholders within their service ecosystems' context, such as prioritizing customer-centric coopetition initiatives to enhance overall satisfaction and loyalty. Furthermore, coopetition can be leveraged for the collective benefit of firms and their competitors. Leaders can engage in pre-competitive cooperation, such as industry-wide standards development or joint research projects, to address common challenges. This fosters an environment where competitors become collaborators, driving positive change and elevating the entire industry. Additionally, responsible leaders can use coopetition to address societal challenges, contributing to the well-being of communities and demonstrating corporate social responsibility and commitment to societal good (Manzhynski and Figge, 2020). Through strategic coopetition, leaders can not only fortify their own organizations but also contribute to the greater good in a sustainable and ethical manner.

Chronos. Responsible business is dramatically impacted by the arc of time considered. We propose chronos as the fifth pillar of responsible service leadership to capture the fundamental conception of time as “a quantity of duration, the length of periodicity, the age of an object or artifact and the rate of acceleration as applied to the movement of identifiable bodies, whether on the surface of the earth or in firmament beyond” (Smith, 1969, p. 1). Acknowledging time as a pillar of responsible leadership invites us to ask temporal questions: How fast? How frequent? How long? The finite game shapes the time horizons considered while also redefining who, among all stakeholders, is included. While game-based incentives for the players can be directly and fruitfully linked to the win that will end the game, the alignment of incentives with a short-term win in business may not be beneficial for its long-term success. Importantly, infinite games are not detached from the idea of time but invite us to consider a longer time arc when we consider our moves. Time is created within the infinite game since the game itself is without boundaries. This perspective highlights “past-present-future as a tangle in which the past, present and future form a mutually constitutive relationship” (Hernes, 2022, p. 141). It suggests that disparate events are rarely entirely separate; rather, they permeate one another and connect internally. Taking a longer temporal arc also sensitizes us to the importance of gradual persistence that illuminates the value of a slow pace. In contrast to speedy growth as a hallmark of modern businesses, infinite games and biomimicry invite us to embrace “slow growth” as a *modus operandi*, standing against a “slash and burn” mentality that relies on the exhaustion of resources internally and externally.

As we examine responsible leadership, chronos invites us to move away from favoring the service encounter moment or its short-term gain to consider the long-range impact of business and service choices we are making today. Thus, concerns for people, ethics, equity and environmental impacts do not pertain to actors currently included in the ecosystems solely, but their long-term impact on generations. The biomimicry lens and the study of mature natural systems lead us to acknowledge the importance of expansion and extraction as principles of sustainable growth and regeneration over time. Thus, we propose that responsible service leaders be mindful of the longer arc of time so they may explore when growth and degrowth should be pursued and commit to honoring the tight embeddedness of service ecosystems not only within our social systems but also within context and time.

In sum, we propose that a broader understanding that encompasses these 5Cs, integrating context and chronos with competence, character and care, can help to ensure flourishing at all levels.

Discussion

Implications for research

Our research joins an emerging conversation that aims to envision how responsible leadership can be understood and enacted in the context of service. Similar to [Shek *et al.* \(2021\)](#), our conceptual model offers a direction to move beyond applications of universal leadership theories that are often rooted in manufacturing contexts to service. With our model, we hope to build a foundation for leadership in the unique principles that are rooted in service research. Our 5C model extends the human-centric, mutualistic and justice focus of the 3C model by offering a holistic view that accounts for the nestedness of the service ecosystems within a broader context and time beyond a specific service organization. In doing so, we integrate insights from service ecosystem scholars ([Bowen, 2024](#); [Kandampully *et al.*, 2023](#)) with novel applications of games and biomimicry to propose the additional pillars of context (e.g. economic, social, environment) and chronos (temporal effects). Our expanded model of 5Cs points to the multi-level and contextualized nature of the responsibility of leading in service and inspires new avenues of research on service leadership.

Considering service leadership through the lens of games and biomimicry expands the focus of decontextualized models of leadership evident in service leadership thus far, by shifting the view of leadership as an individual-level skill or competency to a process that manifests across a system and is inclusive of all involved in the system, the broader context and the longer temporal frame. Our 5C model of responsible service leadership challenges traditional top-down models and emphasizes that leadership theories and practice can benefit significantly from systems-level thinking “that incorporates leaders, followers, dyads, teams, organizations, and contextual concerns” ([Day, 2014](#)). It illustrates how holistic multi-level thinking that acknowledges complexity and nestedness in service systems can bring new insights for responsible service leadership scholarship and practice.

The proposed 5C model of responsible service leadership offers a number of implications for service leadership research, especially as they pertain to the two new dimensions we illuminated namely context and chronos. First, the role of context in service leadership provides fertile ground for understanding leadership enactment in nested ecosystems. We argue that service and service leadership are not only situated within a service system; rather, they are nested within service systems marked by interdependence. This broader view of the context in which service leaders operate invites us to notice new opportunities and challenges to navigate to ensure system-wide flourishing. One of the main propositions we offer is that this can be achieved by a deeper understanding and skillful application of co-competition in service leadership. Service leadership models have long pointed to leaders’ cooperative nature ([Hoshmand and Chung, 2021](#)), especially when it comes to the leader-employee relationship. When leaders collaboratively define work identity for the employees of the organizations, they build cooperative work environments and encourage work commitment.

The 5Cs model invites us to consider the broader context and ecosystem in which service is offered and that cooperation could take place *between* firms. It also propels us to recognize that a singular focus on cooperation may inadvertently overlook critical aspects of the dynamic at play in competitive markets and nested service ecosystems. We argue that recognizing the role of co-competition in responsible service leadership moves us away from separating what may be perceived as contradictory dimensions (e.g. cooperative behavior in a competitive context), reflecting dualism ([Livne-Tarandach and Bartunek, 2009](#)) and ushers us toward integrating these two seemingly disparate dimensions. Future research may

explore the impact of cooperative competition on service outcomes, such as service quality and well-being co-creation (Landry and Furrer, 2023). Future research may also explore the organizational culture and climate implications of the cooperation approach in service encounters. Lastly, future research may examine how organizational systems (e.g. roles, goals, performance evaluations, and metrics) can be redesigned to encourage cooperative competition within service contexts.

Second, our call to acknowledge the idea of *chronos* as a critical pillar of responsible service leadership emphasizes that the past-present-future are tightly connected and continuously woven and rewoven, which calls us to view “time as a resource, underscoring how time may influence interrelationships in multiple ways” (Hernes, 2022, p. 102). Presenting intends to center our focus on current service encounters. In contrast, acknowledging the interconnectedness of the past-present-future can propel responsible service leaders to engage in creative imaginations and realistic inferences about desired futures – beyond targets for future profitability – that can shape current decisions and actions. These ideas may invite researchers to consider the possibility of legacy and envisioned legacy of present service choices. Relatedly, our model emphasizes the value of a paced approach to reaching these desired futures and one that allows for decay and regeneration, calling for a reconfiguration of our understanding and measurement of performance and success of service leadership. Importantly, “changing the future demands changing the past” (Hernes, 2022, p. 177). Thus, future research may explore the processes and mechanisms that enable responsible service leaders to engage in sensemaking (and sensegiving) of the past in order to accompany actors into a different future through narratives. Prior research suggests that narratives tie past and future events into wholes that exhibit meaningful patterns to organizational members (Cunliffe and Coupland, 2012). Future research may explore how narratives and storytelling used by service organizations can promote the interconnectivity of past-present-future not only for organizational members but also for service ecosystems more broadly, especially as diverse stakeholders may introduce contradictory needs of service providers. Such an approach can not only impact service organizations’ business performance but can also unlock service organizations as healing spaces (Livne-Tarandach *et al.*, 2021).

Third, although many scholars approach leadership solely as a process of social influence, responsible leadership theories posit the question “influence for what and for whom?”. Service literature has long focused on the idea of well-being co-creation, viewing the service encounter as an opportunity to move from power over toward power with dynamic (Kabadayi *et al.*, 2023), in which the well-being of service providers and consumers are mutually amplified. Expanding the research lens to acknowledge the context and arc of time in which service is offered and the diverse stakeholders – past, present and future – calls scholars to re-examine the conditions and processes that can enhance system-wide well-being co-creation intended to cultivate organizational and societal lasting flourishing. In doing so, our proposed model encourages scholars to bridge the micro-macro divide to more directly examine the role of leadership in how macro-level societal factors (e.g. national economy, political events, environmental changes and pandemic) or the needs and expectations of a diverse array of stakeholders (e.g. communities, planet and future generations) may influence organizational and societal flourishing through service design and delivery or intra- and inter-organizational behavior and outcomes in service.

Relatedly, taking a system approach invites us to create an inclusive framework for diverse stakeholders who bring to the fore contradictory needs (Clark *et al.*, 2016). Navigating paradoxical demands is a key challenge of responsible service leadership. Successfully navigating such challenges doesn’t rest on the shoulders of service providers solely but can be impacted by organizational scaffolds (e.g. structures, roles, routines, metrics and incentive systems) promoting transparency and accountability (Steckler and Clark, 2019). Whereas responsible service leaders may demonstrate mission and metrics clarity as those relate to

organizational intention and commitment to demonstrate responsible service, incentive frameworks may still favor well-being creation as it relates to present stakeholders. Future research may explore alternative performance evaluation systems and incentive frameworks to motivate organization-wide commitment to responsible service that is conscious of diverse stakeholders' needs. Future research may also explore the role of social and corporate governance in service organizations' attempts to authentically navigate well-being co-creation for diverse stakeholders introducing contradictory needs.

Finally, our application of an infinite game perspective and biomimicry approach can inspire a new paradigm for further delineating the key elements of service and service leadership. Beyond offering new visions of leading, these approaches can encourage researchers to reconsider the foundational assumptions and processes that are established in service research. Therefore, we hope that future studies can continue to draw inspiration from infinite games and biomimicry to inform new understandings in areas such as organizational strategy, marketing and human resource theory in service research.

Practical implications

Our model, especially the two additional dimensions of context and chronos, inspires new approaches to prepare current and future leaders to operate and create lasting value in a contextually embedded service ecosystem. First, changing the service game may require cultivating a new set of competencies and enactments of care and character, such as dignity (Pirson, 2019), self-transcendent purpose (Jacobs and McConnell, 2022) or paradox mindset (Miron-Spektor *et al.*, 2018) that have not traditionally been addressed in leadership development efforts that focus on skills that are required for short-term profit-oriented success or improving intra-organizational dynamics. Further, our model calls for holistic, whole-person approaches to leader development (Yemiscigil *et al.*, 2023) through the cultivation of meta-level skills such as self-awareness and relational awareness, which are applicable across context and time and can build abilities to shift to self-directedness from rule-following. Second, our model encourages us to reconsider who we should develop as leaders. Consistent with existing models of distributed leadership (Raelin, 2003), our ideas suggest that it is critical that these development efforts are inclusive of all actors in the service ecosystem, from front-line employees to C-level executives. It is also important to capture not only the intra-individual development of the leader but also the development of collective leadership capacities of larger groups (Day, 2014), which could involve the broader organizational communities, as well as collectives of organizations engaged in competition with a common purpose. Finally, our model also draws attention to leadership development methods that are contextually sensitive and can learn from and inspire unique forms of leadership enactment *in situ* in traditionally unrepresented contexts (e.g. economically impoverished regions and Indigenous communities).

Relatedly, our model draws attention to cultivating a new set of competencies that better address complexities and ambiguity that are inherent in nested systems stretched over longer time horizons (Ball and Savin-Baden, 2022). Business schools teach aspiring business leaders the tools of analysis and prediction in part to remove unpredictability from the game and give leaders a decisive advantage for their plays (Arora *et al.*, 2018). Scientific management grew from the motivation to remove ambiguity in business outcomes and reduce the complexity of business actions, thereby allowing for greater predictability of the outcomes. In a nested system, however, removing unpredictability or ambiguity may be an impossible mission. Rather, we may consider what other leadership competencies are needed to enable future leaders to navigate and thrive in uncertain, ambiguous and unpredictable environments (Ball, 2022), not only to build resilience for sustenance but also wisdom and courage to lead with pace and through de-growth and decay for a new and brighter future.

Informing the practice of organizational structuring, we propose that responsible service leaders of the future first cultivate organizational cultures that encourage a professional practice

that moves away from over-reliance on past expertise, builds tolerance for complexity and willingness to experiment with new ways of engaging with customers, co-workers, suppliers and other stakeholders to create healthy, interdependent, co-created service ecosystems that are oriented toward success over short and long time horizons. Second, selection practices and composition of organizational communities and teams can be informed by the importance of context and chronos. For example, Das (1987) found that individuals are inherently oriented toward the flow of time and that some are more oriented toward the near rather than distant future. Service organizations seeking to cultivate responsible service leadership may benefit from selection practices devoted to the recruitment of a diverse workforce demonstrating diversity as it relates to actors' temporal reach, orientation, depth and horizon that have the potential to shape actors' understanding of the temporal world (Hernes, 2022). Third, service leaders and their teams need to fundamentally rethink incentive programs, accountability and governance beyond developing rules and directives in favor of systems that can spark self-direction, motivation, curiosity and creativity at every level of the organization. This should include processes and metrics to better align with this intention to allow organizations to evolve with the unique needs of the system in relation to changing contexts, roles and stakeholder needs now and over time.

Notes

1. Service ecosystem is defined as a “relatively self-contained, self-adjusting system of resource integrating actors connected by shared institutional arrangements and mutual value creation through service exchange” (Lusch and Vargo, 2014, p. 24).
2. Importantly, “niche in nature is more than just a physical place: it is an animal's (or a plant's) profession” (Colinvaux, 1979). A niche of a wolf-spider is everything it does to thrive and enable future generations to prosper. To do so, it must relate properly to the place where it lives and to other inhabitants of that place.

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