

PROSPECTS OF GOVERNANCE 4.0: MOVING BEYOND DIRECTORS' NETWORKS TO THE NETWORKED BOARD

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Abstract

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The problem that this paper addresses is growing evidence that conventional board models (especially the unitary board version) are approaching their use-by-date and may no longer be fit-for-purpose. This paper follows the published research by Ernst & Young (EY, 2021) with Dean Blomson as the lead researcher on board operating models of the future. One model was the 'networked board operating model'; but its operation was not outlined in any detail. This conceptual paper examines the relevance, contribution, role and operation of a networked board. Methodologically, it draws on existing governance and networks' literature and extrapolates that abductively to consider the applicability of a networked board/governance model. This paper outlines the design logic, construct, features and possible operation of such a model; and the key conditions for its success. The conclusion is that a networked board (governance) model for an enterprise (as opposed to multiple enterprises): 1) has interesting, relevant features worthy of consideration and adoption; 2) is not simply an abstract, theoretical construct but could be pragmatically applied and 'operated'; and, therefore, 3) should have a place as an 'alternative' governance model (recognising that what is unconventional today may be mainstream tomorrow). The relevance of this paper is that it provides a foundation for further contemplation and critique of the model — as a viable alternative governance construct that is likely to be far more responsive to the vagaries of a VUCA (volatile, uncertain, complex and ambiguous) world, where 'always on' vigilance and heightened stakeholder engagement will be governance imperatives, for growing numbers of enterprises.

Keywords: Operating Models, Board Governance, Board Structures, Network Operating Models, Networked Board, Networked Governance

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1. INTRODUCTION

This paper builds further on the article by Blomson (2021), which explored the suitability and continued

relevance of the current (mostly 'Anglo') unitary board operating model. The prequel paper drew heavily on joint research conducted with Ernst & Young (EY, 2021) in Australia (via their Global Centre

for Board Matters), with Dean Blomson as the lead researcher. The research was conducted between July 2020 and January 2021 and involved board members of EY's clients, from some of the largest companies on the Australian Stock Exchange (ASX).

With what is termed "the board operating model" (see Appendix) as the frame, the main focus of the originating research was to consider:

- whether the predominant, classic board operating model had/has passed, or is fast approaching, its use-by-date (for some boards, not all); and if 'yes', then
- what changes or options would make boards more future-ready.

The first paper concluded that current board governance operating models were showing signs of significant strain and were no longer (or not likely to be) 'fit-for-future-purpose' (for certain enterprises and circumstances).

The presenting problem is that the prevailing external forces at play are placing significant pressures on many boards, so much so that for some boards (not all) it is questionable whether their current governance operating models are serving them well, or will continue to do so into the future.

Three alternative board governance models, or strawmen, were originally posited as a 'provocation' to address current model shortcomings, namely:

- "hybrid", moderately devolved governance;
- "hub and spoke";
- "networked" (more virtual) governance, which may include features from other models, such as those above but also two-tier board systems, advisory boards, stakeholder panels, etc.

The *networked board* model was offered as a 'provocation' based on the arguments that 'tinkering' with a conventional model is not sufficient (for some boards and some contexts); and, therefore, that more revolutionary changes would be required that jump several generations of board models, to far more contemporary versions

This paper focuses only on the *networked board* (or *networked governance*) model, as it has generated particular interest.

This paper considers (relatively briefly) network thinking and the theory and research that supports it. It then unpacks the features, benefits and key 'conditions for success' required for a networked governance operating model to function efficiently and effectively.

While a considerable amount of academic and commercial research focuses on current board issues, performance drivers, etc., there is little apparent futuristic thinking about board operating models.

The literature review will point to extensive research into networked governance, as 'governance over a set of related entities', but which does not consider network theory and constructs as being applicable to the board of a single enterprise. Conversely, 'board networks' in the literature is shorthand for directors' social networks — which are different in their design, intent and functioning.

Therefore, the intent is to create a set of distinctions between the current research use of the term 'networked governance', versus the intent of this paper, which is the application of network theory and features to governance over a single entity.

A range of key foundational terms (governance, networks, etc.) is defined in the Appendix. A different definition of governance opens the door to more imaginative ways to consider how to govern so as to achieve expected stakeholder outcomes.

The networked board model is (or may be) a solution that is 'hiding in plain sight': where current governance realities and future demands may require a shift in emphasis from a largely *closed system* to an *open system* of contribution; where external connectivity (of people) and rapid dissemination of ideas and information, wider vigilance and vantage points, a great contribution to actionable insights and decisions, are highly beneficial enablers.

A networked governance model would enable the above benefits by mimicking:

- the attributes of an ecosystem-oriented and *networked, operating environment*; and similarly,
- the capabilities and connectivity evident in *technology networks* where humans are supplemented by technology, i.e., with 'humans in the loop'.

The overarching motivation in writing this conceptual article is to seek critical and constructive inputs and to look for ways to improve upon the ideas outlined in the construct that follows. It is driven by the following philosophy: "Remember, always, that everything you know, and everything everyone knows, is only a model. Get your model out there where it can be shot at. Invite others to challenge your assumptions and add their own" (Meadows, n.d.).

This study's ambition is that influential directors, 'peak bodies', thought-leaders and researchers, and regulatory authorities will decide that there are features of a networked model that are attractive and worthy of adoption; but more broadly that all three constituencies together are prepared to confront 'the elephant in the room'. This means taking a more pragmatic view that encourages more bespoke or customised approaches to governance models, over conventional thinking, and a prevailing consistency (or uniformity) of adoption and approach.

The structure of the paper is as follows: Section 2 provides context including future trends in governance, and a literature review covering network theory in the broader sense and applied to governance models. Section 3 analyses the methodology that has been used to conduct the research on networked governance. Section 4 focuses on network thinking and network orientation relevant to a VUCA (volatile, uncertain, complex and ambiguous) world. Section 5 describes the organising logic and mechanisms of a networked board model. Section 6 outlines the key conditions for successfully implementing a networked model. Section 7 describes the conclusions, including the relevance and limitations of the research and a "call to action".

2. LITERATURE REVIEW

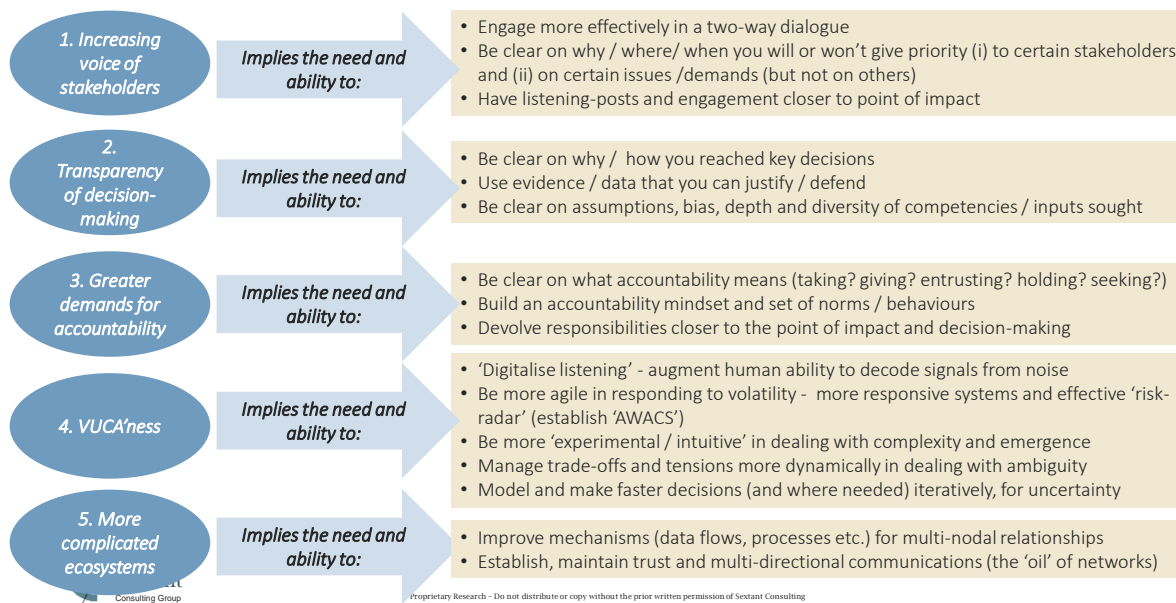
Before outlining the existing literature, it is important to set the context and to remind the reader of what has been argued in the prior article.

First, in terms of the *current state*, the prequel article by Blomson (2021) shone a light on a ‘me-too’, look-alike approach to governance, i.e., there is a significant degree of sameness/homogeneity in board operating models across sectors and even geographies, despite different regulatory regimes. This is a symptom of a trend towards ‘neo-institutionalism’.

Second, in terms of *future state challenges*, the prior paper had called out specific external

trends that governance systems need to be responsive to and can scarcely afford to ignore. While the internal and external context of each enterprise is different, a set of related and mutually reinforcing trends are being observed that will have profound and long-lasting impacts on the probable operating environment for boards in 2030. These trends are summarised in Figure 1 below.

Figure 1. Key implications of the main trends



Source: Author's elaboration based on the joint EY research (2021).

If an operating model needs to be responsive to context, and the preceding predictions are directionally correct (i.e., not exactly, but broadly), governance operating model elements will need to be receptive to these changed circumstances.

The conclusion about the current state of boards (in the EY research), was that boards are caught between two shifting tectonic plates: 1) the *outside pace* of change moving faster than boards are responding, and 2) also the *inside pace* of change (within management/the organisation) moving faster than non-executive directors can or are willing to do.

It should not be hard to recognise that contemporary *organisational* (not board) models bring significant governance challenges to traditional board models. We observe a range of current organisational models beyond classic structures: 1) digitalised or virtual or networked enterprises, and 2) 'stateless' or multi-jurisdiction enterprises of the FANG (Facebook, Apple, Amazon, Netflix, and Google) variety.

Maintaining a line of sight into enterprise performance and strategy execution, across dispersed geographies, supply chains, customer bases and regulators — and ensuring that suitable controls are in place and working reliably — places enormous strains on management and boards.

Further, beyond networked 'technology platform' businesses, new forms of dispersed businesses such as DAOs (decentralised autonomous organisations) of the blockchain variety, stretch

governance models well beyond their design capabilities.

Taken together, these arguments led (in the joint-EY research) to the inescapable conclusions that:

- Board operating models and governance design thinking have not kept (and are not keeping) pace with changes in society and within the business itself.

- Governance models are a creation of a different century and for the most part, are caught in a time warp from an era when information arrived by train or steamship or telegraph; technology was non-existent; regulatory oversight and controls were few and litigation was extremely rare/limited.

- Today, information is instantaneous and overwhelming; investment is democratised and dispersed and capital does not come just from a few monied individuals or families (with a long-term appetite), i.e., capital is today impatient; and broader stakeholder demands and expectations are rampant and hard to predict.

- Consequently, board operating models (for some enterprises, depending on their unique contexts) are showing signs of being under significant strain; and, if not yet broken, are already sub-optimal, in the main, for today's realities.

- Structural responses alone are inadequate to cope with new ways of working, thinking and a far faster tempo. This requires not only different structures but a wider range of enablers (including

particularly technology) for ‘observing, interpreting, engaging, deciding and responding’.

It is worth reminding ourselves of the design of the typical conventional classic ‘unitary’ board (i.e., not the two-tier variety) model which is indicated in Figure 2 below.

The intent is not to repeat a dissection and re-litigation of the limitations of conventional models (addressed in the preceding article), but rather to acknowledge that if the desired governance attributes are:

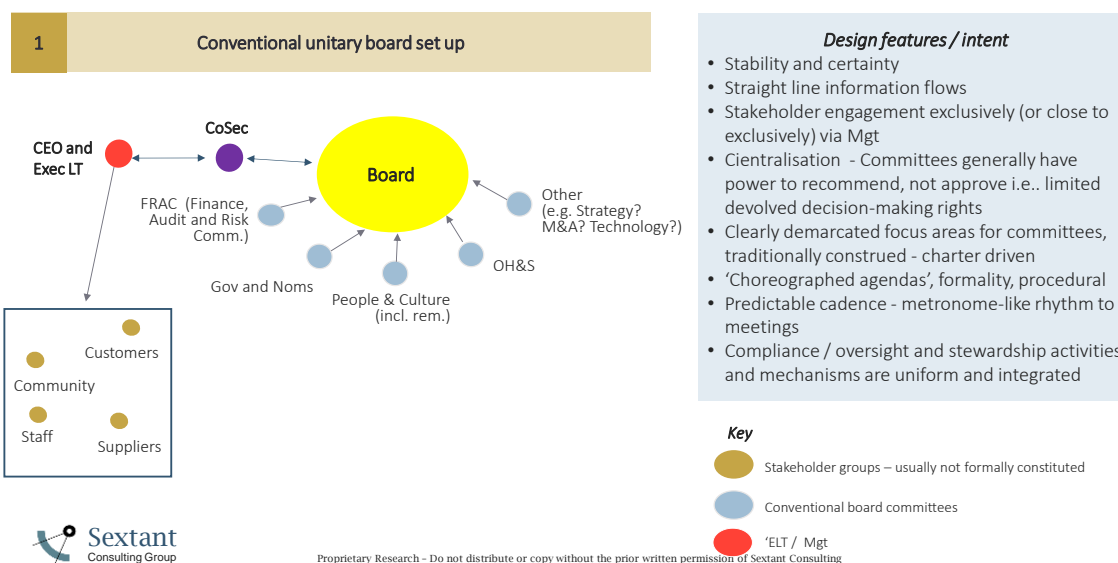
- speed of information exchange,
- agility and fast responses,

- enhanced ability to interpret the emergence,
- meaningful back-and-forth conversations and external engagement,
- ‘joined-up’, non-siloed thinking,

then the classic model generally is not well-designed to achieve these benefits. With the conventional, unitary model, *the whole is equivalent to (and not greater than) the sum of its parts*.

The above points are amongst the key design challenges to be addressed in a future governance model/system outlined in Section 4.

Figure 2. ‘Classic’ unitary board structure



Source: Author’s elaboration.

This is essentially a centralised, command and control model where limited powers are delegated and there are few connections. The committee structures, their focus and charters, are mostly traditionally defined and functionally arranged in ‘stovepipes’. As Senge (2010) said, “Reality is made up of circles but we see straight lines” (p. 63).

The constraints of a (semi-) closed system are one inhibitor. A recent study by the World Business Council for Sustainable Development (WBCSD, 2021) found that about 33% of respondents said that “No or limited engagement of the stakeholders by the board” is a key barrier to effective engagement; and almost 30% said “The way in which information is presented to/received by the board, i.e., more board-friendly outputs” are needed.

A second limitation lies in dealing with complicatedness and complexity in the external context: one does have to consider how, in this day and age, a unitary board can serve the governance needs of increasingly complicated organisations (multiple products, multiple markets, multiple investments, dispersed supply chains and crucial relationships, etc.) that are operating in complex environments. Put differently, how can a largely ‘closed’ and static board system (i.e., ‘in stasis’, more or less) function efficiently and effectively in an environment that is ‘open’ and going through entropy?

In a VUCA world, and with added stakeholder pressures and expectations on the board, how can a council of approximately 10, presumably intelligent and skilled men and women, *all part-timers*, undertake their governance responsibilities and avoid unpleasant surprises?

A third limitation lies in capacity: the *inward-facing oversight tasks* of boards are challenging enough. Even assuming no capacity constraints (i.e., no time or bandwidth issues) on non-executive directors as part-timers, there are limits to a board’s ability and bandwidth to attend to the critical task of ‘controlling’ via checking (part of their oversight function).

To this onerous core responsibility of oversight, we need to add their *outward-focused task of sense-making*, i.e., guiding via anticipating (part of their stewardship function).

A fourth, related ‘debilitator’ lies in systems’ overload (and ‘sensory overload’): if you believe that sense-making and sense-checking are two critical functions for a board, how can one realistically believe that non-executive directors (NEDs) can reliably 1) sense and interpret what’s coming (sense-making)?; 2) verify everything that management is putting to the board? (sense-checking); as well as 3) be vigilant about material matters that management may not be sharing at all, or doing so selectively?

At some point, fast-evolving events and trends, hard-to-define stakeholder expectations, general emergence and 'noise', or deficient reporting and analysis by the executive, are likely to overwhelm or undermine the ability of a board to be effective. There is a greater probability that risks and opportunities are likely to get overlooked or misinterpreted. The conventional board increasingly looks like 'an accident waiting to happen'.

If the summation above is correct about the shortcomings of a classical board model, and if predictions about future challenges for governance are broadly right, then what specific features and inherent benefits would a networked governance model provide to meet these circumstances?

Below, it will be ascertained what has been written about such a model/s in the literature.

The terms 'network boards' or 'networked boards' have received attention in academic literature, albeit with considerable variability and a lack of focus, generally speaking, in two regards: 1) why and how network attributes translate well into the world of governance of a *single enterprise*; and 2) how these models would function in practical terms.

Firstly, to clarify our terms: "A network consists of a set of actors or nodes along with a set of ties of a specified type (such as friendship) that link them. The ties interconnect through shared endpoints to form paths that indirectly link nodes that are not directly tied. The pattern of ties in a network yields a particular structure, and nodes occupy positions within this structure. Much of the theoretical wealth of network analysis consists of characterizing network structures (e.g., small-worldness) and node positions (e.g., centrality) and relating these to group and node outcomes" (Borgatti & Halgin, 2011, p. 1169).

Secondly, the paper will consider what well-cited research sources have to say about networked boards.

Pirson and Turnbull (2010) make a range of arguments in support of the network board construct. These include the humanistic aspects (as opposed to the industrial basis of the organisation of traditional boards); aspects of decision-making effectiveness and the challenges of effective decision-making in groups, etc.

While Pirson and Turnbull's (2010) article usefully outlines a case for network boards, it does not describe their operation in the classic terms of a network. Nor is network theory referenced anywhere as the guiding principle.

There are a number of important distinctions between the above two authors' views of 'networked governance' models and how this paper constitutes the alternative model of networked boards:

1. There is a significant difference between having customer panels or staff councils that provide counsel or advice versus those that have delegated powers and operate as nodes of the board. Generally speaking, stakeholder councils do not operate as empowered arms of governance but rather as inputs to the arms of governance. This is an important distinction.

2. The above authors apply the term 'networked boards' loosely to what could be termed 'fragmented and largely autonomous' separate entity- or subsidiary- boards. They include

references to stakeholder panels and several company examples, but without discussing how these are empowered and how they interact with management and the board.

3. Additionally, a number of key factors are left unexplained, for example: how the network/s would operate, how connectivity would work, how the nodes would shoulder some of the governance load, share information and support (or mutually reinforce) each other (all critical requirements for a smoothly operating network). Therefore, this paper addresses the possible '*modus operandi*' of a networked board in due course.

Borgatti and Halgin (2011) address research into social network analysis (SNA), noting "...that SNA theorizing encompasses two (analytically) distinct domains, which we refer to as "network theory" proper and "theory of networks"" (p. 1168).

Jones et al. (1997) present a case for network governance through the lens of exchange or transaction mechanisms: "Our theory integrates transaction cost economics and social network theories, and, in broad strokes, asserts that the network form of governance is a response to exchange conditions of asset specificity, demand uncertainty, task complexity, and frequency" (p. 911). They point out that other studies into the network governance topic, "... although important, rarely define network governance and do little to show how network governance resolves fundamental problems of adapting, coordinating, and safeguarding exchanges" (p. 912).

The same authors (Jones et al., 1997) leverage and connect two disciplines, economics and sociology, and assert that: "A synthesis of transaction cost economics (TCE) and social network theory can resolve this vague specification of network governance in multiple ways. TCE [...] allows us to go beyond descriptive observations of where network governance has occurred and identify the conditions that predict where network governance is likely to emerge".

These authors' definition of network governance (cited in Appendix) is: "Network governance involves a select, persistent, and structured set of autonomous firms (as well as non-profit agencies) engaged in creating products or services based on implicit and open-ended contracts to adapt to environmental contingencies and to coordinate and safeguard exchanges. These contracts are socially — not legally — binding" (Jones et al., 1997, p. 914).

This definition is telling, not because it is wrong or inappropriate, but because of four other factors:

1. It focuses exclusively on how to govern clusters of independent enterprises that generate economic exchanges with or via each other. The definition omits any reference to 'enterprise' focused governance systems and makes no mention (directly or via inference) of boards or the roles of directors in these arrangements.

As such, the definition used by Jones et al. (1997) is literally about the *governance of networks of businesses*; in their case, an external network of enterprises and associated exchange relationships. This is governance over what are also known as "inter-organisational networks" or "meta organisations" (Hoberecht et al., 2011, p. 23).

2. Their definition is not about how to apply the principles of network thinking or network models to governance; or in this case, to the governance of an enterprise specifically (i.e., enterprise governance). While highly nuanced, this points to a subtle but important distinction needing to be made between 'network governance' across separate enterprises and 'networked governance' of a single enterprise (or 'governance of the network' versus 'network-based governance').

3. Additionally, the research of Jones et al. (1997) is not anchored in a consideration specifically of what makes network thinking attractive or particularly relevant to the contextual challenges and forces at play that business is increasingly encountering.

4. Lastly, the mentioned paper does not contemplate (in practical terms) how the governance system may actually operate; or what needs to be in place for it to be effective.

Jones et al. (1997), do, however, point to some factors that are important to economic exchanges. One of these is reputation. "Reputation safeguards exchanges because it relays the detection of and serves to deter deceptive behavior, which enhances cooperation" (Parkhe, 1993, as cited in Jones et al., 1997, p. 933).

A number of other researchers point to a similar factor, namely the importance of trust. Provan and Kenis (2008) mentioned, "Trust has frequently been discussed in the general network literature as critical for network performance and sustainability (p. 237).

Provan and Kenis (2008) focus on *inter-organisational networks*, not governance using network approaches/features: "We define the term "network" narrowly. Our focus is on groups of three or more legally autonomous organizations that work together to achieve not only their own goals but also a collective goal" (Provan & Kenis, 2008, p. 231). They note that "Although networks have been studied from a variety of perspectives, surprisingly little attention has been paid to the governance of whole organizational networks" (Provan & Kenis, 2008, p. 230).

Provan and Kenis (2008) go on to explain: "Most research on organizational networks can be broadly characterized by two basic approaches: the "network analytical" approach and the "network as a form of governance" approach, both of which are limited when it comes to analyzing network-level functioning and governance. Network analytical approaches focus mainly on micro-level, egocentric aspects of networks, building largely on work done by sociologists studying networks of individuals" (p. 232).

At face value, the second form, i.e., the "network as a form of governance" approach, appears to be closely aligned with the field of interest of this research. A deeper read, however, indicates that they explore a number of alternative arrangements for organising the governance *across multi-lateral cooperating enterprises*. Expressed differently, their focus is on *inter-organisational governance models, not intra-organisational*. So their line of exploration does not yield direct benefits for this article.

Applying network thinking to an organisational milieu, Jones et al. (1997) note that the terms

"network organization" and "networks forms of organization" "have been used frequently, and somewhat metaphorically, to refer to interfirm coordination that is characterized by organic or informal social systems, in contrast to bureaucratic structures within firms and formal contractual relationships between them (Jones et al., 1997, p. 913). Jones et al. (1997) call this form of interfirm coordination "network governance" (p. 913).

Borgatti and Foster (2003) talk about the abundance of research relating to *network organizations* and *organizational networks*. "During the 1980s and 1990s, "network organization" (and related terms) became a fashionable description for organizational forms characterized by repetitive exchanges among semi-autonomous organizations that rely on trust and embedded social relationships to protect transactions and reduce their costs" (Borgatti & Foster, 2003, p. 995).

Search Google Scholar for "networked boards" and you are most likely to find articles addressing board members' collegial networks, such as from Homroy and Slechten (2019) or Harris and Helfat (2007).

The prevailing usage of the term usually references how board members themselves are socially networked to share opportunities.

A number of research papers use the words "networked boards" interchangeably with 'networked directors' or 'networks of directors'. For example, Homroy and Slechten (2019) indicate that boards with directors who are better-networked are more likely to enjoy an advantage.

Another case in point is found in the research of Kim (2005) who discusses two network characteristics: the board's network density and its external social capital. The former is defined as the how extensive or cohesive the contact is between board members; and the latter (i.e., the social capital) refers to the extent to which board members have external contacts.

Goergen et al. (2019) use the terms in a similar way: in indicating that directors with superior networks and stronger positions within their networks hold more information because their share purchases trigger significantly higher abnormal returns. The implication is that directors' networks yield informational advantages.

Therefore, while outwardly the use of 'networked directors' or 'networked boards' sounds like the same thing/topic, this literature doesn't address or consider network-style governance over an enterprise.

Outside of the standard word or topic searches for 'networked governance', the words '*polycentricity*' or '*polycentric governance*' are unlikely to pop up. Nonetheless, this concept addresses the same broad topic, but with some differences. McGinnis (2016) defines it as follows: "A polycentric system of governance consists of (1) multiple centers of decision-making authority with overlapping jurisdictions (2) which interact through a process of mutual adjustment during which they frequently establish new formal collaborations or informal commitments, and (3) their interactions generate a regularized pattern of overarching social order which captures efficiencies of scale at all levels of aggregation, including providing a secure foundation for democratic self-governance" (p. 5).

His definition applies to groups working together in democratic institutions to advance social cohesion and impact and to enable 'self-governance' by individuals and groups.

Turnbull (2020) has written extensively on the topic, expanding on stakeholder-controlled firms, using as a construct described as "polycentric governance". The role of network concepts does feature in this consideration, although more from a 'stakeholder-as-participants-perspective' than using the power of a network as a form of 'force-multiplier' to detect and resolve ambiguity, uncertainty, etc.

The focus of Pirson and Turnbull (2010) is to move from bureaucratic, command-and-control models to humanistic approaches: "In the humanistic perspective it is sensible to include multiple stakeholders on the board for strategic advice, increased information access, and improved risk management. In addition, multiple boards are considered helpful as they allow for a system of checks and balance so that power abuse can be prevented" (p. 7).

The paper expands on the 'checks and balances' point by referencing Lawrence (2007) who "argues that checks and balance arrangements parallel the function of the prefrontal cortex in the human brain rather than hierarchical control" (p. 7).

The 'checks and balances' function is a valuable way that nodes can bring fresh, more 'clear-eyed' perspectives and perhaps un-considered (or under-considered) data points to bear.

As a mechanism for meaningful stakeholder participation in governance, and to support the democratisation of inputs into governance, polycentricity has much to commend itself, conceptually.

In conclusion, 'networked governance' as a term, appears to be in relatively wide usage in research, in the 'inter-organisational governance' sense, but not in the ways that this study conceives it (and will shortly argue it) as 'intra-organisational governance'. There is an opportunity and need to reframe networked governance from solely being a construct applied to associated enterprises, to one that can treat its own board committees, advisory boards, stakeholder panels, suppliers, etc. as nodes of its network. Therefore, this paper is proposing a *modified working definition*, namely:

Networked governance for an enterprise is an operating model (see Appendix) construct that draws on the best attributes of network theory, so as to improve the governance of larger or more complicated (or complex) enterprises in ways that:

- provide better sensing-mechanisms via nodes;
- support wider engagement via discussion and listening posts with stakeholder constituencies;
- move information around to where it is needed, in a frictionless way; and consequently;
- provide greater agility and responsiveness to emergence and volatility through more broadly delegated and shared decision-making rights.

3. RESEARCH METHODOLOGY

This paper is positioned as a *conceptual article* that draws on an existing body of network literature, but extrapolates it *abductively*, as a 'bridge' to link current thinking in network research:

- outwards and forwards from the observed limitations/challenges in the unitary governance model (the deductive part); and

- inwards and backwards from recognised future challenges and demands on governance, i.e., the 'future back' aspects (the inductive parts), to arrive at a justification for a new, conceptualised networked governance model.

Consequently, a mix of deductive, inductive and deductive approaches has been followed.

The prior Section 2 worked both inductively and deductively. It commenced *inductively*, i.e., by setting out the future challenges for boards, or the 'realities on the ground' that governance of the future will need to be able to deal with effectively. This has drawn on published primary research previously conducted with EY. By working inductively it has been possible to distil a set of high-level, key re-design imperatives for future boards.

The second part of the previous section worked *deductively* firstly by noting the deficiencies of a unitary, 'closed' governance model; and then examining relevant literature to show where the key gaps are in network theory, *apropos* board governance models. "In deductive inferences, what is inferred is necessarily true if the premises from which it is inferred are true; that is, the truth of the premises guarantees the truth of the conclusion" (Douven, 2021); or "induction is a method of reasoning involving an element of probability. In logic, induction refers specifically to 'inference of a generalized conclusion from particular instances'" (Merriam-Webster, n.d.).

The section that now follows (Section 4), continues with a *deductive approach* by considering the special 'super-powers' of network models, i.e., what network models are uniquely designed to accomplish and tend to do best; and consequently, deducing why they lend themselves so well to addressing the challenges faced by boards in the future.

Finally, in Section 5, *abductive reasoning* helps to form a conclusion (or to generate a working hypothesis) about how a networked governance model may adopt the best features and attributes of network theory.

"...it [abduction] refers to the place of explanatory reasoning in *generating* hypotheses, while in the sense in which it is used most frequently in the modern literature it refers to the place of explanatory reasoning in *justifying* hypotheses. In the latter sense, abduction is also often called "Inference to the Best Explanation" (Douven, 2021).

4. WHY ARE NETWORK THINKING AND NETWORK ORIENTATION RELEVANT TO A VUCA CONTEXT?

The intent is not to take a deep dive into the field networks and network thinking or their applicability to organisational design in particular. Each of these topics, and the literature surrounding them, spans a vast terrain. Rather, the intent here is to propose, based on its unique 'superpowers', 1) why network theory could and should be an applicable discipline for governance; and 2) how some of its core design and operating principles would pertain to a board model.

The power of networks lies in their nodes and specifically the number of nodes that are connected. To quantify power, in a technology network sense, we can turn to *Metcalf's Law* which is "...a concept used in computer networks and telecommunications to represent the value of a network. Metcalfe's Law states that a network's impact is the square of the number of nodes in the network. For example, if a network has 10 nodes, its inherent value is 100 (10 × 10). The end nodes can be computers, servers and/or connecting users" (Rouse, 2019). "The concept is similar to the business concept of a "network effect" in that the value of a network provides both additional value and a competitive advantage. For example, eBay may or may not have had the best auction website, but they clearly had the most users. Because this is so difficult to replicate, the power of the network drove out other competition" (Rouse, 2019).

Networks have some notable 'superpowers'. To cite just three:

First, networks are associated with greater levels of responsiveness/speed and agility, hence their suitability to a VUCA context. Provan and Kenis (2008) state that networks are often discussed as adaptable, flexible forms that are "light on their feet". The networks' flexibility gives them their advantage over hierarchies, which can be "cumbersome and bureaucratic". They add that these organizations can minimise or even cut off their current relationships and develop ties to others, due to the change of needs and tasks. "This flexibility allows networked organizations to respond quickly to competition and other environmental threats, as well as to opportunities" (Provan & Kenis, 2008, p. 244).

Second, is their ability to achieve the '1 + 1 = 3 effect', i.e., synergistic benefits. Provan and Kenis (2008) again note: "Through networks, organizations

can quickly and efficiently work with one another to achieve specific goals that require combined resources and expertise that hierarchies alone could not readily accomplish" (p. 244).

Third, is their ability to make sense of, and navigate through 'complexity'. Provan and Kenis (2008) recognise the importance of networks: "Networks have been widely recognized by both scholars and practitioners as an important form of multi-organizational governance. The advantages of network coordination in both public and private sectors are considerable, including enhanced learning, more efficient use of resources, increased capacity to plan for and address complex problems, greater competitiveness, and better services for clients and customers" (p. 229).

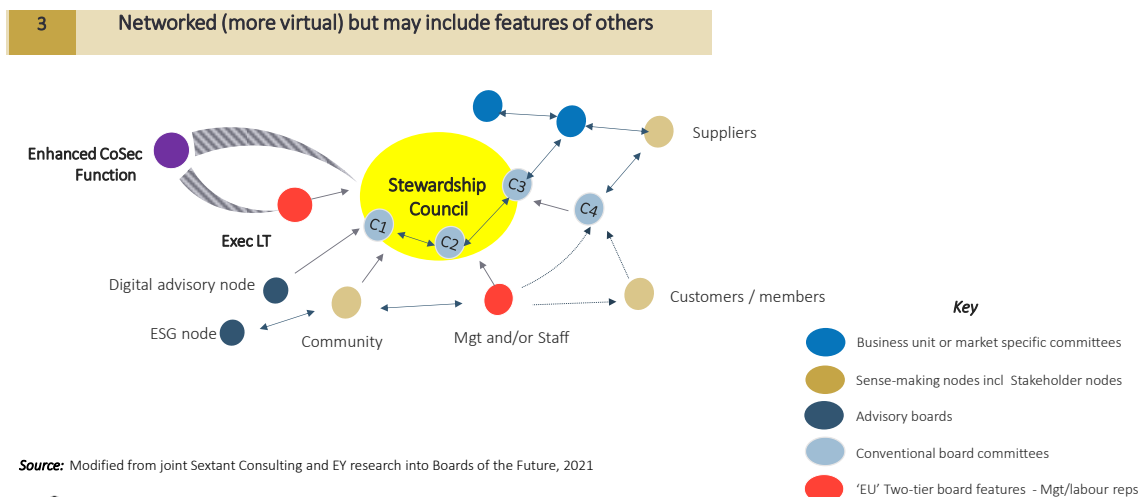
Having worked *first inductively and then deductively*, we can now dive deeper into the mechanisms of a networked model as a logical and potentially preferred option to deal with the changes required in governance capability. This has been termed *abductive* reasoning because it has generated a plausible conclusion without definitively verifying it (or eliminating all uncertainty or doubt).

"The abductive reasoning method is the logical process of making observations and seeking the hypothesis that would best fit or explain those observations. Simply put, a list of incomplete observations is analyzed to create the best prediction (hypothesis to explain the observation)" (Gordon, 2023).

5. WHAT MIGHT A NETWORKED BOARD LOOK LIKE AND HOW MIGHT IT OPERATE?

We now lay out the postulated structure, design features and workings of a networked governance model.

Figure 3. Overview of a networked governance model



Source: Modified from joint Sextant Consulting and EY research into Boards of the Future, 2021



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Source: Author's elaboration based on the joint EY research (2021).

The design logic and intent is that by networking together a set of contributing bodies, the board is able to achieve a force-multiplier effect. By creating and tapping into a constellation of

supporting bodies, networked together, these entities have a multiplicative effect as 'sensors' in detecting emergence, as forums that engage in two-way dialogue, as contributors that provide

particular expertise. In effect, this operates as an *augmented* board model.

The nodes are the sensors or feelers enabling the board to be more agile and responsive to emergence as context changes; attentive to weak signals and rapid developments.

A networked board enables sense-making and partly devolved decision-making, to occur closer to the action/edges. Nodes are a detection and transmission (information flow) mechanism, back and forth. “Emergence is the outcome of the synergies of the parts; it is about non-linearity and self-organization and we often use the term ‘emergence’ to describe the outcome of things interacting together” (Acaroglu, 2017).

Nodes can bring agility and the ability to improvise, if the shackles on decision-making are loosened a little. Ryle (1979, as cited in Leybourne, 2004) suggests that the vast majority of things that happen are unprecedented, unpredictable, and never to be repeated and adds that the things we say and do cannot be completely pre-arranged. To a partly novel situation, the response is necessarily partly novel, else it is not a response.

Unlike a conventional model, with a networked board, the whole is greater than the sum of its parts. As Russell Ackoff (as cited in Hunter, 2019) said: “A system is never the sum of its parts; it’s the product of their interaction”, which is along the same lines as Metcalf’s Law.

Six key design features have been identified which distinguish a networked board model and that also enable it to respond more effectively to a VUCA world:

Feature No. 1: Such a model would have nodes and feelers (‘listening posts’) that work together with different company insiders and outsiders, on particular governance tasks and/or on advisory tasks that tap broader expertise.

Such a governance ecosystem could enable the board to move with more fluidity and agility if it devolved some decision-making to particular ‘nodes’ on certain topics.

Feature No. 2: A networked board would see itself *not* as an all-seeing, all-knowing epicentre but more as a monitor and facilitator. Its aim would be to be more responsive to contextual changes via nodes; responding to emergence, i.e.:

- sense-making is distributed horizontally, outwards, not just vertically downwards; and
- some decision-making partly distributed, again horizontally, closer to the action/edges.

Feature No. 3: There would be a mix of different nodes serving different purposes. Some may be focused on engaging with specific constituencies on particular topics, e.g., changes/perspectives amongst customers or suppliers and supply chains; others focused on particular communities/catchments (geographic, socio-economic); others may be topic-specific, e.g., environmental, social, and governance (ESG).

Not all nodes are created equal. Some may have more devolved decision-making rights than others. Some may have more participants. Some may have features of conventional board committees; others may have purely advisory (non-binding) powers

(e.g., digital or artificial intelligence (AI) advice); and others may have borrowed features from European and Nordic two-tier board structures, like staff or management committees/groups.

Feature No. 4: The model would be enabled and supported by an expanded Company Secretary (CoSec) function, to help with ‘fact checking’ of data, analysis and ‘what-ifs’, scanning, listening and sense-making; provision of fact-checking and ‘bias-busting services’ (e.g., red team reviews). See point 9 below under ‘conditions for success’ for more details.

The CoSec function also acts as a ‘network administrator’ ensuring the necessary enablement for the nodes to operate seamlessly, and that node members know their roles and are acting appropriately.

Feature No. 5: The main ‘mother node’ is where most of the more material, legally-onerous decision-making rights lie — the retained/residual rights, after delegating other decisions to specific nodes as required.

As the nodes handle most of the sense-making and external detecting that influences boards’ stewardship (i.e., long-term decision-making), the “mother node” tends to deal more with the classic governance duties of oversight and compliance.

That does not mean that *none* of the oversight tasks happen in the nodes. For example, the customer-node or suppliers-nodes or community-nodes may be providing important feedback that external-facing compliance or other commitments (or brand promises), etc. are not being delivered/fulfilled; but generally, sense-checking and stewardship-guidance tasks prevail via the nodes.

Feature No. 6: Decision-making is devolved ‘outwards’ (and not downwards, as is usually the case) with delegations of authority (DOAs). A core design principle is to accelerate decision-making where needed by pushing that responsibility closer to the edges of the network, i.e., to the points of interaction with the nodes.

A recent McKinsey & Company’s (2023) study indicated that: “Leaders are growing increasingly frustrated with broken decision-making processes, slow deliberations, and uneven decision-making outcomes. Fewer than half of the 1,200 respondents of a McKinsey survey report that decisions are timely, and 61 percent say that at least half the time they spend making decisions is ineffective”.

6. CONDITIONS FOR SUCCESS

A case has been laid out above as to the features and merits of a networked board operating model. Conceptually appealing as this may be in certain circumstances, a networked model cannot operate without certain ‘conditions precedent’ being met.

What are the critical factors or elements that need to be in place and met, for a networked model to be efficient and effective? This study identifies nine main conditions for success, which are not in prioritised sequence:

Table 1. The meaning of the conditions of success

<i>Conditions for success</i>	<i>Meaning</i>	<i>Implications</i>
1. 'Hard centres and soft edges'.	This means that the nodes need to have a core set of responsibilities/mandates that are: well-defined, limited in their ambits, specific to each of them and to their specific sphere (or constituency).	Away from their core responsibilities, at the edges of each node, there is more scope to pick up, identify, 'share and flag'; other topics that may not precisely fit their remit — and redirect these as needed to the most appropriate node/s.
2. Clarity of focus and clear DOAs that are widely delegated horizontally, not just vertically (down to management).	For each node, there are DOAs in place to deal with decisions in their bailiwick. Where issues fall at the edges, in 'the grey areas', the expectations are that the information is rapidly shared, flagged and resolved, as is deemed necessary.	This will necessitate a fundamental shift in the levels of trust and shared accountability between nodes. Releasing some control is essential to achieve speed in and agility (and localisation) of response. Directors need to be willing to accept this trade-off. This is not a mechanism that will work for 'control freaks'.
3. The board is willing to see its role differently and adopt a different mindset about what a system of controls means.	The board needs to see itself <i>not</i> as the 'chief comptroller' and orchestrator; but as an integrator and synthesiser. This means an expanded view of governance that goes beyond "Corporate governance is the system by which companies are directed and controlled" (Committee on the Financial Aspects of Corporate Governance, 1992, p. 14). In an increasingly unpredictable, uncertain world the board's role is not simply making or approving decisions but creating conditions in which good decisions get made and implemented (Marlow, 2023).	The board also needs to see its role as a facilitator of effective strategic decisions and monitor of actions taken, to safeguard against the disconnects between decision-making and action-taking (refer again to this paper's alternative definition of governance). Non-executive directors, therefore, should be concerned that the machinery of decision-making and action-taking operates smoothly across the organisation, vertically and horizontally — and they have suitable optics on both aspects.
4. Regulation and governance codes are not used as the primary excuse for not considering or adopting a networked board model.	Following governance 'codes of best practice' that require a 'comply or explain' approach (such as the <i>Corporate Governance Principles and Recommendations</i> , ASX, 2019) means it is easier to default to the common/expected norms; or pointing to Corporations' Law or common law precedent that could expose those in the nodes to director or officer liabilities.	Boards need to have the courage to break out of the herd and say why and where their governance model is idiosyncratic.
5. Levels of trust, therefore, also need to be high and worked on continuously, even more so than in a unitary board.	Transparency is the facilitator and expeditor of trust. Provan and Kenis (2008) say: "For understanding network-level interactions, however, it is the distribution of trust that is critical and whether or not it is reciprocated among network members" (p. 238).	Trust cannot be simply banded around as a value — it needs to be actively defined, worked on managed as a behaviour.
6. Sophisticated capabilities in stakeholder or 'constituency' management and alignment.	This requires processes, virtual or physical form, technology and systems, attitudes and behaviours that support a two-way dialogue. This goes well beyond social media usage to establishing mechanisms that enable an effective two-way dialogue and reliable decoding of stakeholder messages.	As one interviewee in the study by Blomson (2021) put it: "There may be a need for a new type of role on boards, a sort of "ecosystem manager". This role would help identify people/constituencies whose voice needs to be heard at the board level, before cultivating these relationships" (p. 23).
7. Smooth flow of information.	Communication is the 'grease' of networks and mechanisms/enablers need to be in place to ensure information flows fast, reliably and efficiently (seamlessly) to where it is needed.	This is achieved both via technology and by 'behavioural' factors — but it would also be expedited by a beefed-up CoSec function (see below).
8. Technology and data-powered. Necessary investments will need to be made and willingness by the board to embrace AI inside for its own deliberations/activities.	Data-driven decision-support and sensitivity/scenario testing will be prevalent, as the speed of analysis becomes imperative. In terms of <i>sense-making</i> support, AI will also allow the faster sharing of 'actionable intelligence' and new insights between nodes. NEDs will rely on actionable insights, not raw analysis. Here is where board 4.0 makes its impact in terms of enablement and 'augmented intelligence' applied to decision-making. Technology will reduce: <ul style="list-style-type: none"> • non-value-adding reading and checking by boards (as a capacity-liberator); • the procedural checking burden and will also be a significant support for <i>sense-checking</i>, a key function for boards. 	AI will be a "NED force-multiplier" and an accepted 'brain in the boardroom', providing real-time analysis of results, trends and patterns; and fact-checking. AI will supplement NEDs, not substitute them. Hence the web 4.0 moniker. To achieve these ends, AI systems will be independently governed and vetted, elevating trust.
9. Establishment and leverage of an expanded or augmented CoSec function and team with technology to assist (call it the "governance intelligence team" to convey its true design intent and role).	Depending on organisational size, a more muscular function should include not just corporate lawyers but data scientists and analysts, modellers, scenario planners, sociologists, behavioural economists and scientists. They would provide the cross-disciplinary thinking and analytical grunt to stress-test the complex or multi-faceted decisions coming to the executive and board. The team reduces the board's unhealthy reliance on management for insights and intelligence; for example, where all customer, supplier and staff feedback is gathered and curated by the executive.	The intent would be to infuse greater impartiality, rather than relying solely on management's views which may be biased/myopic.

7. CONCLUSION

Boards are caught between the outside (external environment) pace of change and the inside rate of adaptation by management and organisations. Both external and internal environments are moving faster than boards in the main can (or choose to) respond. This is best summarised by the much-quoted observation from Jack Welch (as cited in Allison, 2014): “If the rate of change on the outside exceeds the rate of change on the inside, the end is near”.

Far more efficient and effective ‘force multipliers’ are required to enable beleaguered non-executive directors to respond more effectively to a VUCA world. Incremental change and tinkering with a broken model that has passed (or is fast approaching) its use-by-date, is not a sufficient response.

Boards, however, have not shown willingness to deviate from traditional structures; and governance researchers (despite considering networked governance over *multiple* enterprises) have not adequately considered network models as a way to govern over a *single* enterprise.

Why is this? What is holding them back? And why could a networked board be a potential answer to a business environment where dispersion and business ecosystems prevail?

Companies are using organisational models in the form of networks quite extensively to design and structure their internal and external value-creation activities. Why not too with governance systems?

A potential solution lies right in front of us, hiding in plain sight. Network thinking is a powerful way of responding to the ‘complicatedness’ and oftentimes complexity that enterprises and their boards are dealing with.

This paper is important to *future research* in that it has positioned ‘networked governance’ or ‘networked boards’ as a potentially viable option for boards to consider. Naturally, this requires further research and consideration. It has also created a distinction in the terminology (of ‘networked governance’), away from the prevailing application/intent of ‘inter-organisational’ governance to ‘intra-organisational’ governance. It has provided a new working definition for this concept; and has developed an illustrative version of the elements and working mechanisms of the model; and has laid out the features that make such a model distinctive from — and potentially more efficient and effective than — a unitary board (along with several ‘provocations’ about dispersing decision-making, creating a ‘governance intelligence function’, etc.)

Future research has an opportunity to examine any and all aspects of these ‘advances’ made in the working hypothesis/model; for example by testing: why it may be a more efficient and effective model; what benefits or impacts it could have; how it may work; what aspects needed to be added or removed; or why it may work better (or more poorly) than the *status quo*, in certain circumstances (or any number of more targeted questions).

This *intent* behind this paper was to create a ‘call to action’ for directors who are critical thinkers, governance specialist practitioners, governance ‘peak bodies’ and governance academics:

Firstly, consciously consider whether the prevailing board governance model, with all its components and the human element, is still suitable. That may not be a uniform ‘yes’ or ‘no’ type answer.

Secondly, to resist the tendency to approach the topic of governance improvements incrementally, spurred by crises as they come along: in that we add a change to a code of conduct here; improve reporting there; recommend new metrics somewhere else, etc. board models may need a reset or a complete overhaul.

Thirdly, with regards to future thinking, to recognise and be prepared for future realities: that a rapidly changing world will potentially require a very different set of sensing- and responding-mechanisms. These changes are coming faster and more dramatically than governance institutions are recognising. Academics need to be on the front foot in leading the debate, not poring over what has already happened. “We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten”, said Microsoft founder, Bill Gates (as cited in Grasshoff et al., 2019).

Fourthly, adopt a different, ‘design thinking’ mindset to consider a networked governance model, as with other types of innovative thinking:

- *not* through the prism of “show me how this works and where it works — I want to see the evidence”; but rather
- “how might this work?”; and
- “what would it require for this to be successful?”.

This means being prepared to ask: *In what ways will a networked governance model better respond to the changed circumstances — and better address the challenges and demands — that boards of tomorrow are going to have to confront?*

This is not an easy mental or investigative shift for many academics to make, not to say also for risk-averse regulators, members of the legal fraternity, etc. that rely heavily on precedent. If we want to achieve breakthroughs to seemingly intractable challenges, we have to remember that doing the same old things often leads to the same results.

Fifthly and finally, to catalyse and provoke debate and get ahead of the curve, so we can pre-empt not react, and come up with better solutions than the classic approaches we have followed, sometimes slavishly. We cannot simply ‘admire the problem’ or build a better mousetrap.

As this article is conceptual, there are some *limitations* to the research (which are additive to those in the prequel article):

1. Governance choices can/should be affected by a range of actors that are intrinsic to each board and those that are external to the board itself. Governance models will vary by enterprise, across many if not all of the operating model elements. This study does not consider those elements ‘forensically’ or in any depth.

Contexts will vary from enterprise to enterprise in terms of operating environments (how stable or fast-changing), pressures from stakeholders other than staff, levels of regulatory oversight, etc.

A range of other unique contextual factors could play a role, e.g., industry dynamics, the age of the company, the shareholder register and

concentration of ownership, etc. This study does not consider how these external factors may influence the applicability of a networked board model.

2. How organisational network thinking translates, i.e., its direct applicability to enterprise governance and board models. As indicated, these are largely uncharted waters and there could be many factors that may hinder the practical deployment of a networked governance model, even if a board was willing to consider it.

3. Empirical data is absent relating to the efficacy of networked governance of multiple associated entities (and even more so, in application to a single board version); and one can, at this stage, only hypothesise as to potential benefits and impacts.

4. To call this an emergent theory (as opposed to a conceptual paper) would be an overstatement and misrepresentation of both intent and reality.

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APPENDIX. DEFINING KEY TERMS

The article by Blomson (2021) looked at governance changes through the prism of *board operating models*, in particular considering six elements: 1) board structures; 2) key governance processes; 3) management systems and frameworks, e.g., board charters; 4) technology/systems; 5) participants and skills; and 6) ways of working or behaviours.

Operating model parlance is common in management and organisational theory but is not usually applied to governance models, which is an unfortunate omission. It should be emphasised that 'operating model' is not shorthand for structures; structures are, however, a subset of an operating model.

This sequel paper continues with the use of the governance 'operating model' construct as its main frame of reference.

Governance is defined here in *non-traditional terms*, too. Classically, corporate governance has been defined as "... the system by which companies are directed and controlled" (Committee on the Financial Aspects of Corporate Governance, 1992, p. 14).

Slightly more expansive definitions exist, for example: "The framework of rules, relationships, systems and processes within and by which authority is exercised and controlled within corporations. It encompasses the mechanisms by which companies and those in control are held to account" (Bergin, 2021, p. 324). Other variations on the definitional theme abound across jurisdictions, although most are not markedly different.

The heavy emphasis on control is understandable; but for a variety of reasons (argued in Blomson, 2021) control needs to be wielded differently when dealing with a VUCA world. Volatility, ambiguity, complexity and uncertainty require (sometimes, significantly) different approaches to control. Control "within organisations" fails to recognise the virtual nature of value creation, the dispersion of participants across ecosystems, etc.

Additionally, most definitions emphasise inputs or enablers (rules, processes, structures, etc.). No widely accepted definitions adopt an outcomes' mindset, i.e., a primary focus on results, not enablers; in that 'good governance' is where expected or promised stakeholder outcomes are achieved, effectively and efficiently.

For these reasons, this paper prefers to use an *unconventional definition*, namely:

Governance is the system by which a board and/or executive assure (or gain justifiable and defensible confidence) that 'the enterprise' is consciously:

- making the right decisions, by checking that decisions are defensible, commercially, legally and ethically; and/or
- taking the right actions, by checking that it is doing the right things in the right way (i.e., acting effectively, efficiently and ethically); and,
- doing so (i.e., either deciding and/or actioning),
 - at the right time (i.e., not too early, not too late),
 - at the right level and by the right people,
 - on the right things/topics,
 - with the right information

so as to achieve the right outcomes for the right constituents over the right timeframe.

As will be noted in due course, this definition, with an emphasis on reliable decision-making and action-taking, is *more about outcomes than inputs or enablers*. The ultimate litmus test is whether more effective decisions and appropriate/agreed actions take place so that expected results will occur (not unpleasant surprises). This is particularly important in a less predictable or controlled world where following processes and procedures are not a guarantor of success (form should not triumph over substance).

Additionally, as indicated, this paper considers *network theory* as a guiding construct to support the logic behind a networked board.

"By definition a network is nothing other than a collection of points linked in pairs by lines, no matter how large or complicated it is. Networks capture only the very basic relational patterns among the individual components of a whole system, and little else. Nodes and edges in some networks may contain additional information, such as attributes of individual nodes or the direction, strength, or frequency of their interaction... Nonetheless, thinking of complex systems as networks provides valuable insights into understanding the underlying structure and mechanisms of the systems as well as their effects on the behavior of individual components. For this reason, network theory and models have been applied and developed in a wide range of disciplines including computer science, physics, chemistry, biology, and the social sciences, to name a few" (Oh & Monge, 2016, pp. 1-2).

As a discipline, "network thinking" can be "useful and important for the study of complex human social and collective phenomena, in particular, human communication" (Oh & Monge, 2016, p. 2).

Borgatti and Foster (2003) provide a functional definition: "A network is a set of actors connected by a set of ties. The actors (often called "nodes") can be persons, teams, organizations, concepts, etc. Ties connect pairs of actors and can be directed (i.e., potentially one-directional, as in giving advice to someone) or undirected (as in being physically proximate) and can be dichotomous (present or absent, as in whether two people are friends or not) or valued (measured on a scale, as in strength of friendship)" (p. 992).