

Essay

Educational Leaders Making Sense of and Leading Through Turbulent Times

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Abstract

This essay describes a leadership domains and capabilities framework and a futures thinking framework that educational leaders can use to help them navigate successfully through turbulent times. The leadership framework includes seven stable domains, and 37 associated capabilities. For this essay, the focus is on the domains associated with setting directions and understanding contexts (sensemaking). The futures framework uses past, current, best and next practices, and prediction pathways, to consider near and distant futures. The use of these frameworks is illustrated through consideration of three pressing issues facing educational leaders across the world: improving student feedback, developing future-ready capabilities, and adopting artificial intelligence (AI). Educational leaders are encouraged to have a view of leadership and futures, so they are better able to set direction and act as sense makers for their organisations, and ultimately lead a more successful organisation.

Keywords: educational leadership; setting direction; sensemaking; turbulent times; futures thinking; artificial intelligence; feedback; capabilities

1. Introduction: Setting the Scene

Educational leaders are faced with many pressures as the nature of education becomes more complex (OECD, 2020; UNESCO, 2024). Adding to these pressures are broader changes like work intensification, social disruption, increased movement of people, geopolitical instability, and new developments in technology (Aiyar et al., 2023; Brown et al., 2023; Creagh et al., 2025; Syamsir et al., 2025). To help understand leadership in turbulent times, the influential leadership educator Stephen Covey often used the metaphor of having to navigate the turbulence and chaos of the whitewater of rapids (Covey et al., 1994), and in this essay we explore some ideas that we believe will help educational leaders navigate more easily and effectively the whitewater of this complex time in education (Netolicky & Duignan, 2024).

From our extensive research in educational leadership we focus on successful school leadership and futures thinking (Drysedale & Gurr, 2017; Goode et al., 2023; Gurr, 2022; Gurr et al., 2025) to describe two conceptual frameworks to improve educational leadership practice. The first is a leadership domains and capabilities framework that we and our colleagues have been developing for several years, and which provides a unique combination of seven key leadership practice domains based on trustworthy research evidence.



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The initial impetus for this framework was thinking about leadership for uncertain times (Drysedale & Gurr, 2017), then leadership during the COVID-19 pandemic (Gurr & Drysdale, 2020) and, more recently, leadership in a time of permacrisis (Drysedale et al., in press). For this paper we focus on the domains associated with setting directions and understanding contexts (sensemaking) because these are especially relevant to navigating through turbulent times. The second conceptual framework is a futures thinking framework (Gurr, 2022; Gurr et al., 2025; Jarni & Gurr et al., 2024) which provides a unique combination of past, present, best and next practice thinking, and which encourages near and far futures thinking. We illustrate how these two frameworks can be used by educational leaders through considering responses to three pressing issues in education: improving student feedback, developing future-ready capabilities, and adopting artificial intelligence (AI). We believe that the combination of the leadership and futures frameworks, and illustrating their use in the three examples, makes a worthwhile contribution to the special journal issue focused on the challenges and opportunities for educational leadership.

2. Educational Leadership Domains and Capabilities Framework

Leithwood and Riehl (2003, 2005) provided an important review of successful school leadership that has led to a view that includes four domains of practice: setting direction, developing people, redesigning the organisation, and improving the instructional programme (Leithwood, 2012). These domains have been included in transformational (Leithwood & Sun, 2012), integrated (instructional and transformational) (Printy et al., 2009), successful school leadership (Leithwood et al., 2020) and general leadership (Leithwood, 2012) views. Drysdale and Gurr (2017) used these four domains of leadership practice as the basis for a seven-domain educational leadership view that added influence, self-development and understanding context. We next explain why these three domains were added.

Influence was added because, as Leithwood and Riehl (2003, 2005) noted, influence is central to all leadership views. For context, there is considerable research on how context is important for understanding leadership practice (Sun et al., 2026), and our own research in the International Successful School Principalship Project (ISSPP) has shown that successful principals understand and are responsive to the many contexts impacting their schools, and, in some cases, they try to manipulate them in a reciprocal context and leadership process (Day, 2005; Gurr, 2023). Importantly, school leaders have shown that they are not ‘...confined by the contexts in which they work’ (Day, 2005, p. 581) and can adapt, use, and influence context to foster success. Self-development was added because past research (e.g., Daniels et al., 2019; Pont et al., 2008; UNESCO, 2024), and the research of the ISSPP and the International Leadership Development Network (ISLDN), have reinforced the importance of leadership development to educational leadership (Barnett & Woods, 2021; Day et al., 2014, 2024; Day & Leithwood, 2007; Goode et al., 2023; Gurr & Liu, 2025; Hardie et al., 2024; Liu & Gurr, 2025; Murakami et al., 2019; Ylimaki & Jacobson, 2011).

Taking these seven domains of leadership practice, Drysdale and Gurr (2017) used education and non-education research to develop a leadership domains and capabilities framework (LDCF). This has an updated (Gurr et al., 2025) to focus on improving wellbeing as well as learning, and outcomes have been expanded from a student only focus to also include student and organisational outcomes. Figure 1 shows our updated version of the LDCF.

More recently, Drysdale et al. (in press) have added further capabilities that they argue are better suited to current times. Table 1 lists the two sets of capabilities for each domain, as we believe that both sets are important. The 2025 listing adds to, rather than replaces, the 2017 listing. In total there are now 37 capabilities described. We do not have space to fully illustrate the rationale for the 2017 and 2025 capabilities, but for this paper, as we noted

above, we will explore the setting direction domain and the sensemaking capability of the understanding context domain, and illustrate these through consideration of three examples of reforms from the improving learning and wellbeing domain—feedback, future-ready capabilities and adoption of AI.

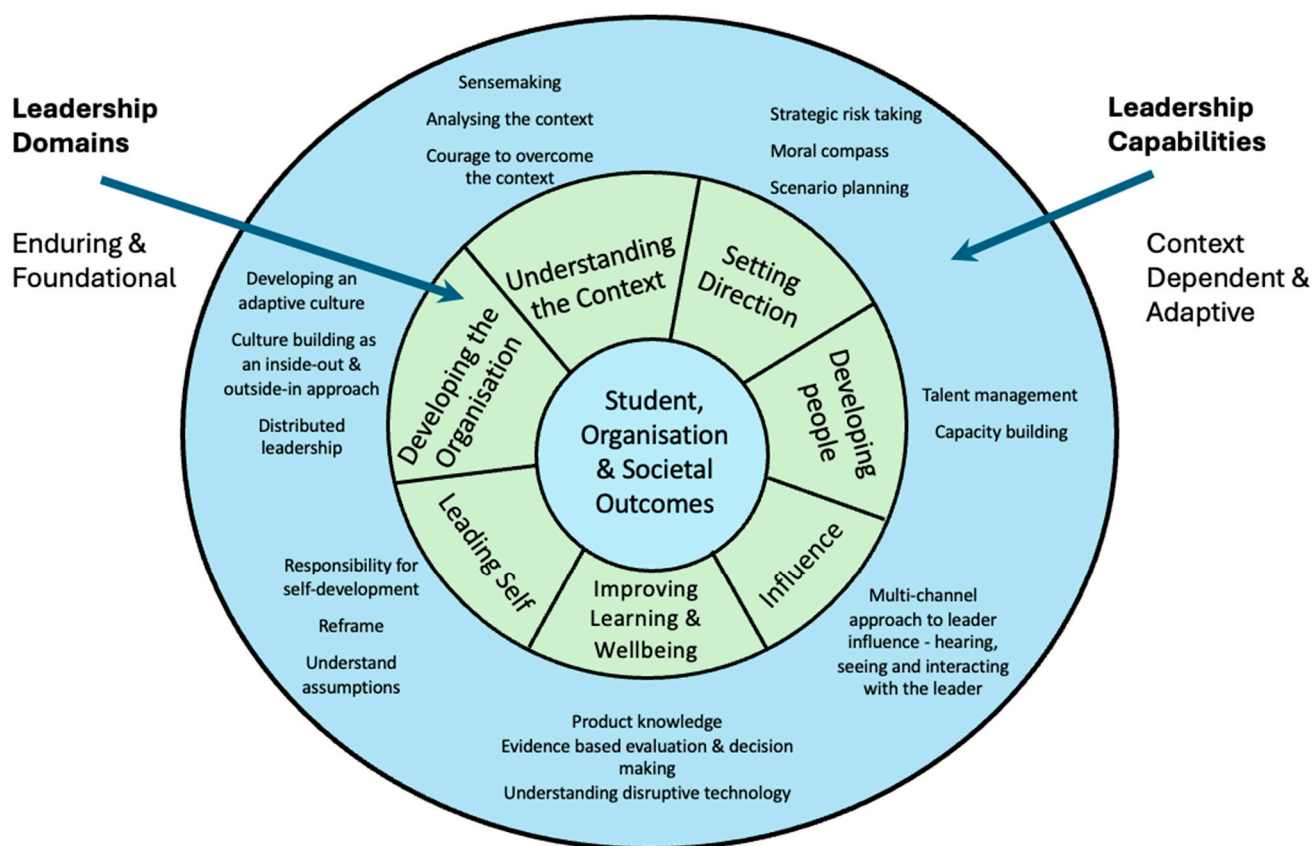


Figure 1. A modified version of the LDCF (adapted from Drysdale & Gurr, 2017, p. 136). Author generated.

Table 1. Leadership capabilities across seven leadership domains: 2017 to 2025.

Domain	2017 Capabilities	2025 Capabilities
Influence	Multi-channel approach to leader influence—hearing, seeing and interacting with the leader	Tailored leadership strategies Leading beyond the traditional scope of the role of leader Lead with vision and adaptability
Leading self	Responsibility for self-development Reframing Understand assumptions	Adaptive mindset Holistic system thinking Continuous improvement—inner agility
Setting Direction	Strategic risk taking Moral compass Scenario planning	Strategic foresight Prioritising competing values Scenario planning for multiple futures
Developing People	Talent management Capacity building	Building resilience and adaptability in the workforce Capacity building: empower individuals and teams
Developing the Organisation	Developing an adaptive culture Culture building as an inside-out and outside-in approach Distributed leadership	Developing a change ready culture Adaptability and agility Collaboration and inclusivity
Leading teaching, learning and wellbeing	Product knowledge Evidence based evaluation and decision making Understanding disruptive technology	Curriculum relevance Adapting and implementing AI
Understanding context	Sensemaking Analysing the context Courage to overcome the context	Insight Synthesise multiple layers of context Navigate ambiguity

3. Setting Direction and Sensemaking as Core Practices of Contemporary Educational Leaders

Whilst Leithwood and Riehl (2003, 2005) noted that an essential element of any view of leadership was influence, the other essential element they described was setting direction. Leithwood and Riehl's (2003, 2005) work was the foundation for various research pathways that have established that setting direction is one of four core areas of educational leadership practice that work in most contexts with the other three areas being developing people, developing the organisation, and improving teaching and learning (Leithwood, 2012; Leithwood et al., 2017, 2020; Leithwood & Sun, 2012). It has been shown that direction setting is important as it directly and positively influences the other three areas of practice (Day et al., 2016; Gu et al., 2026; Sun et al., 2026).

Sun and Leithwood (2015) described how setting direction comprises a set of direction-setting leadership practices (DSLPs) that identify and articulate organisational goals, visions and missions. They argued that these worked through four organisational pathways (rational, organisational, emotional and family) to indirectly influence student and school outcomes. In their meta-analytic and narrative review of 110 studies (Sun & Leithwood, 2015) they found that DSLPs:

- Were '...effective in shaping a positive working environment and culture, achieving shared understanding of school goals among staff, and fostering shared decision-making in schools' (p. 10).
- Had a moderate positive effect on teacher outcomes such as 'feelings of empowerment and both individual and collective sense of efficacy, as well as on such teacher practices as organizational citizenship [behaviour]' (p. 18).
- Had a moderate positive effect on school outcomes such as 'the [favourableness] of the work environment, nature of school culture, and sense of mission' (p. 18).
- Did not have statistically significant direct effects on student outcomes.
- Had impact on rational and organisational path variables more than on emotional path variables (the family pathway was not included in the review due to insufficient evidence).

Overall, there was good evidence that direction setting was an important area of leadership work.

Drysdale and Gurr (2017, p. 137) argued that sensemaking was also an important leadership capability and one that enhances setting direction:

'The challenge for school leaders is to make sense of complex contexts and changing environments... With all the forces impacting on schools, leaders need to decide what is important, and to know what trends are fundamentally reshaping education.'

For Drysdale and Gurr (2017), sensemaking was about understanding the many contexts around and within educational organisations, responding to these and changing them if possible. Importantly sensemaking combined with setting direction, helps to articulate the stories behind organisational paths and enhance organisational alignment with the directions set. By combining direction setting and sensemaking, educational leaders can work with others to describe compelling goals, visions and missions, and through sensemaking, tell the story about why these make sense and how they will help the organisation to have positive change.

4. Future Focused Educational Leadership Framework

An important way to enhance sensemaking and setting direction is to have a futures orientation. For example, futures thinking enables educational leaders to reimagine today's

evidence-based practices by refining them to stay relevant, effective, and transformative for the learners of tomorrow. Futures thinking is being encouraged by governments, with, for example, the Australian government actively supporting the systematic exploration of futures thinking to support decision making (Department of the Prime Minister and Cabinet, 2024). We believe that educational leaders can enhance their leadership work by adopting futures thinking. Figure 2 presents a Futures Thinking Framework (FTF) we have developed over the past few years (Gurr, 2022; Gurr et al., 2024; Jarni & Gurr et al., 2024) by drawing on the futures work of Leithwood (2008), Hannon (Hannon, 2007, 2008; Hannon & Mackay, 2021; Hannon & Temperley, 2022) and Couture and Murgatroyd (2025), and our research as part of the ISSPP (Hudson & Gurr, 2025; Goode et al., 2023).

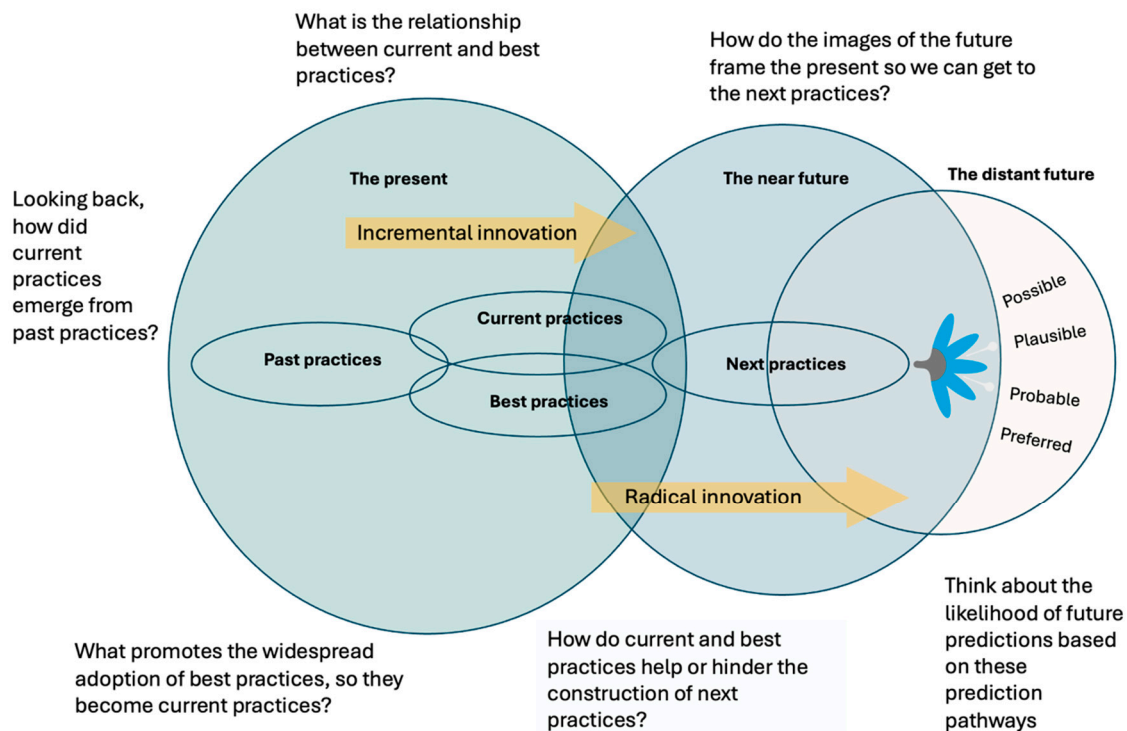


Figure 2. Futures Thinking Framework (author generated).

The present circle includes past, current and best practices. Past practices often influence our current work. For example, in a conservative educational organisation that is steeped in history and tradition, change can be difficult because the organisation may always be looking back and not wanting to undo things that have always been part of what it does. Change in this case will be slower and require careful leadership. Current practice reflects what goes on in an organisation, but how well this works may not be well understood and often educators do not fully understand how effective the organisation is for everyone—students, staff and others associated with it. Best practice is about seeking improvement on what currently happens through searching for what is working elsewhere and seeing if these practices can be used to improve the organisation. In an ideal scenario, best practices will have evidence that they are, or seem to be, better than current practices. However, the evidence base may not always be strong, and the best practices may be contextually sensitive, and so caution is needed in adopting them. Curriculum programmes imported from other countries are examples of this. The interplay between current and next practice can be thought of as incremental innovation in which products or processes are improved but still familiar (Greve & Seidel, 2025); this is shown by the arrow in Figure 2. In the next circle, the near future is considered, and this is where next practices are located. These are a break from what is currently known or practiced and can be thought of as

radical innovation (Greve & Seidel, 2025). They might be genuinely new (such as many of the recent applications of AI), or they might be an innovative reconfiguring of existing ideas and practices to create something new (such as how UBER reconfigured taxi services). We can be more deliberate in thinking about next practices and in the distant future circle, there are different types of prediction pathways that hint at the next practices. Voros (2017) defined several types of futures in his taxonomy of futures, with the four foundational ideas used in Figure 1: possible, what we think might happen based on limited knowledge; plausible, what we think could happen based on current practices; probable, what we think will most likely happen based on current trends; preferable, what we think should happen based on normative value judgements.

Using a futures framework like this promotes the need to fully understand current effectiveness and to plan for near and far futures by thinking about best and next practices and using the prediction pathways to judge the likelihood of different futures. Combined with setting direction and sensemaking to understand the context from the LDCF, educational leaders have powerful tools to ensure any change is improvement-focused and part of a longer-term future vision for the organisation. We now consider some three topical areas to show how this might work.

5. Illustrations of Practice

As noted previously there are major disruptors, such as AI, that are rapidly impacting on the educational landscape and indeed filtering into all aspects of our lives. This is compelling proactive educational leaders to respond to two key questions:

1. What do these changes mean for students in our educational community in the short term?
2. How do we prepare for dynamically evolving technologies, and social and political issues and changes that will impact on students in the future?

In other words, how do we ensure that what we privilege today will be of value to students in the future, while maintaining the things that matter. For leaders, having a sense of clarity and being able to be meaning makers during turbulent times means having tools in their educational toolkit to support this reflective process, such as direction setting, sensemaking and a futures focus. To explore these ideas we consider the important areas of student feedback, student capabilities for the future, and the adoption of AI in education.

5.1. Student Feedback Example

Student feedback is a mechanism widely recognised for its role in improving learning (Hattie & Timperley, 2007; Henderson et al., 2019; Nieminen & Carless, 2023; Wisniewski et al., 2020). Sensemaking conversations around this topic are particularly important as educational leaders seek to improve learning and teaching at a time when traditional teacher feedback is increasingly, and perhaps controversially, being supplemented or replaced by AI (Durak & Onan, 2025) and chatbots (Yin et al., 2024) that provide personalised, instantaneous responses to student prompts and questions. The following example uses the FTF to explore ways for educational leaders to engage in dialogue that fosters systematic reflection and addresses uncertainty and change in the teaching and learning domain.

Educational leaders can begin their continuous improvement conversations working with their leadership teams and staff by exploring the present circle of the FTF. Past, current and best practice considerations are increasingly aspirational and they also intersect with transitions that are fluid. This means that within any educational organisation, individual teachers may be simultaneously engaged in past, current, and best practices.

Empowering staff to engage in collaborative sensemaking begins with establishing a baseline discussion about the past through unpacking underlying assumptions, identifying

patterns, and exploring how particular ideas, strategies, or practices emerged and why they succeeded or failed. This reflection helps mitigate future pitfalls. Past feedback practices typically positioned the teacher as the sole source of feedback, and who was often evaluative and judgemental (e.g., 'good' or 'bad'), underpinned by the assumption that the teacher was the unquestioned content expert. Moving to the next reference point focused on current practices, leaders examine what is presently effective or ineffective, drawing on established evidence and norms that are often treated as givens. In feedback terms, this usually means teachers providing students with constructive, specific, and timely responses. Whilst this can be useful, it is still largely one-directional and corrective, focusing on what the student did wrong. Overlapping with this are best practice considerations informed by newer evidence and requiring leaders to support staff through ongoing professional learning and opportunities to rehearse and refine approaches. Adoption can be uneven, as these practices are often aspirational. Current best practice in feedback emphasises guiding students toward improvement and fostering self-regulation (Brooks et al., 2019), particularly through feedforward, which provides information to enhance future performance and metacognitive skills (Reimann et al., 2019). This shift repositions the teacher as a designer of learning experiences that promote student agency, self-regulation, and the development of evaluative judgement (Reimann et al., 2019).

The next circle, the near future, introduces next practice approaches that depart significantly from traditional methods, often shaped by emerging knowledge, theories, or experimental technologies. Principals and other educational leaders can build capacity by leading future-focused conversations and encouraging their teams to explore futures through strategies such as scanning current research, engaging in digital explorations, visiting other schools, and leveraging collaborative spaces to test new ideas. As schools move toward these next practices, innovation often becomes more radical, less anchored in established evidence, and informed by theories that may be contested or only partially tested. The emergent feedback literature in this space emphasises the importance of 'feedback-literacy', teaching students to seek, interpret, and apply feedback meaningfully (Boud & Molloy, 2013; Dawson et al., 2023; Henderson et al., 2019; Nieminen & Carless, 2023). Whilst the logic presented by these scholars is sound, noting that such competencies are necessary for real-world learning, it would be difficult to make the claim that these are actively present in practice in classrooms, or that there is sufficient empirical evidence to draw on to describe what it looks like when done well.

Looking further ahead, the final circle—the distant future—invites speculative forecasting. Exploring possible, plausible, probable, and preferred futures enables leaders to assess current realities and stress-test strategies using multi-scenario approaches, generating adaptive plans and actionable insights. This speculative forecasting equips educational leaders to pivot more effectively during periods of turbulence. Moreover, as sense makers, they strengthen community trust by demonstrating that decisions are grounded in futures thinking, reinforcing credibility and confidence that these choices represent the best paths forward. Writing about feedback from the distant future perspective is a challenging task. Anecdotally, educators are already using AIs in a variety of ways to provide feedback, and the reality is that by the time of publication of this essay, the examples provided will already be superseded. For example, at the three universities of the authors, we have access to embedded chatbots in our subjects that can provide students with individualised feedback in real time. The question is, if we claim to value educational organisations as places of belonging and community, places of socialisation, then we must ask: should feedback for students come exclusively from AI enabled sources? A preferred future, in our view, needs to be grounded in values and would offer self, peer, teacher and AI feedback so that learners encounter multiple perspectives, interpretations, and realities. This feedback diversity

would enable students to critically evaluate feedback and make informed decisions about how to improve.

5.2. Future-Ready Capabilities Example

Although different perspectives exist on the kind of capabilities our students will need in the future, they converge on some common themes. The [World Economic Forum \(2023\)](#) identified analytical thinking, active learning, complex problem-solving, critical analysis, and creativity as essential for rapidly changing job markets. Whilst these are important capabilities, this utilitarian view falls short of an education that aspires to broader goals, such as justice, equity, and compassion. A more holistic approach—such as [Hannon and Temperley's \(2022\)](#) design-thinking framework, informed by research across 23 futures-oriented organisations—organises education around three clusters of principles: values (purpose-driven, equity-focused, identity-promoting, strength-based, relevant), operational philosophy (learning-focused, flexible, technology-enhanced, ecosystemic), and learner experience (personalised, integrated, inclusive, relational, empowering). This aligns with the [OECD's \(2024a\)](#) future perspectives on education which emphasises preparing learners to create new value, and which ranks critical skills across innovation domains, consistently highlighting idea generation, questioning, effective communication, opportunity recognition, analytical thinking, knowledge acquisition, coordination, and digital fluency.

There is convergence from varied sources (e.g., [Osborne, 2014](#); [Google, 2022](#); [OECD, 2024a](#)), that transferable capabilities that enable adaptive, proactive, lifelong learners are important. [Schleicher \(2012\)](#) described versatilists who have the capabilities to cognitively, socially, and emotionally navigate uncharted futures. Creativity and critical thinking take centre stage in the digitised and AI-driven era ([Vincent-Lancrin et al., 2019](#); [OECD, 2024a](#)), fostering flexible, multi-perspectival problem framing, imaginative solution-making, and reasoned judgement for civic life amid wicked problems such as climate change, sustainability, and resource inequality ([OECD, 2024b](#)). While these sources predominately emphasise skills, [Holdsworth and Thomas \(2021\)](#) argued that a preferred future for schooling should prioritise broader capabilities. We concur with this and suggest the following six capabilities: student agency, interdisciplinary learning, relational and cultural learning, social-emotional and resilience, social justice, and ethical and responsibility. These capabilities, long valued by educators, have become newly urgent in a digitally ubiquitous world. We provide brief explorations of each capability.

5.2.1. Student Agency

Students will be expected to take charge of their learning and develop practices that they will use throughout their lives to control their learning so they can achieve their goals. According to [Leadbeater \(2017, 2022\)](#), student agency operates across personal, collaborative and collective levels and includes moral, creative, economic and citizen agency. Personalised learning is vital to support student agency as it empowers students to take ownership of their learning and develop persistence, creativity, and critical thinking ([Zhao, 2023](#)). To make personalisation meaningful, three priorities emerge: first, embedding self-directed learning strategies like goal setting, progress tracking, pacing, and milestone planning into curricula; second, leveraging AI and digital tools to reduce administrative burdens and enhance feedback through progress monitoring and analytics; third, using agentic capability (see below) to make discerning choices about ongoing learning experiences crafted by the individual, rather than in the form of preset courses.

5.2.2. Interdisciplinarity Capability

Similarly, the future world of work will demand the ability of individuals to tackle complex, multi-faceted problems across disciplines and ethical lenses, requiring students to

engage in authentic inquiries that explore contemporary issues and teach them to manage uncertainty (OECD, 2024a). Unlike personalised learning, which is largely self-directed, interdisciplinarity relies heavily on collaboration (and perhaps through technology-mediated tools like Miro—miro.com). Genuine collaboration involves more than just idea-sharing as it requires interpersonal competencies such as negotiation, turn-taking, respectful disagreement, listening, and questioning assumptions, which are all essential skills for leading innovation (OECD, 2024a).

5.2.3. Relational and Cultural Capability

Relational and cultural capability extends collaboration beyond shared tasks to actively fostering empathy and respectful coexistence in a world of shifting cultural and geopolitical boundaries (World Economic Forum, 2023). Key dimensions include recognising and valuing first peoples (Hannon & Temperley, 2022), developing intercultural understanding to counter stereotypes (Conti, 2024), nurturing community and creating belonging in physical and digital spaces, strengthening collaboration skills (OECD, 2021), and promoting healthy digital behaviours (OECD, 2024b).

5.2.4. Resilience, Social and Emotional Well-Being Capability

Life-long learning requires more than academic competence because students need to develop capacities such as resilience, persistence, self-control, and self-efficacy. Many schools already prioritise this through well-being programmes, aligning with OECD findings that social–emotional skills drive academic success, life satisfaction, healthier choices, and aspirational goals (OECD, 2024b). Data from the Programme for International Student Assessment reinforces this, showing that curious and persistent students outperform peers by up to 11 points in maths, and that high levels of emotional regulation adds six points (OECD, 2024b, p. 19). Teachers are known for fostering supportive environments and relationships, but today’s uncertainty demands expanding resilience beyond the individual to navigating rapid technological, social, and environmental change—perhaps even teaching “managing change” as a distinct area of study.

5.2.5. Social Justice Capability

Although student agency is important, in a future-ready view it extends to seeing oneself as a change agent (OECD, 2024a). Hannon and Temperley (2022) illustrate how students can influence their environments, and the OECD (2024a) describes examples such as youth engagement with climate action. Agency, framed as empowerment, requires students to feel hopeful and recognise the values, purposes, and skills they bring to a task. For this to happen, teachers must have the freedom to model agency and create authentic learning experiences where students make meaningful choices.

5.2.6. Ethical and Responsibility Capability

Ethics and responsible citizenship are central to education for a just and equitable world (OECD, 2019). In an interconnected society, technological capability or resource advantage does not guarantee actions are right or without consequences (Leadbeater, 2017). Students need to learn to critically reflect on situations, analyse unintended outcomes, and consider diverse perspectives, aligning these with their own biases. This involves judging whether actions serve the common good and generating alternative solutions to complex problems. Such thinking requires a systems-oriented mindset that surfaces tensions, accommodates conflicting ideas, and embraces iterative solutions.

5.3. Artificial Intelligence Example

The debate surrounding the role and purpose of AI in education has recently escalated from theoretical possibilities to inevitability, and perhaps necessity (Ginsberg & Zhao, 2025). This move has been driven by two forces: the first was the global pivot to online learning in 2020 and 2021 necessitated by the COVID-19 pandemic, and the second is the proliferation of generative AI technologies (e.g., ChatGPT and DALL-E) which has unleashed what García-Peñalvo (2023, p. 1) termed a ‘tsunami effect’ across the education sector. These technologies are now so widespread that AI is no longer an optional tool for use in schools, and the use of these technologies is now a central feature of modern educational discourse (Fullan et al., 2024). As with many technological innovations, the reaction of many in the early stages of adoption has been one of caution, with some wanting to ban or control the implementation (Carey, 2023; Fullan et al., 2024; García-Peñalvo, 2023; Wang et al., 2024; Williamson, 2024). However, this is a futile response as these technologies will only evolve into more and different proliferations, and so it is better to understand, integrate and manage what is considered to be a disruptive innovation (Duggan, 2025; Ginsberg & Zhao, 2025; Zhao, 2024).

There is an expanding body of literature dedicated to mapping the possibilities and limits of AI in schools. An extensive bibliometric analysis by Wang et al. (2024), uncovered over 2200 papers on the topic and detailed how current research interests cover AI as a means for developing systems and structures for personalised tutoring, adaptive learning systems, and the reduction in workload for teachers. Whilst some of these future capabilities are exciting, there also exists some complexities that warrant attention. Wang et al. (2024) described persistent concerns regarding the practical implementation, legal frameworks, and ethical use of AI, particularly concerning equity (who benefits from these technologies and who is left behind?). This is where an educational leader’s sensemaking ability comes to the fore as they will need to decide what, when, and how to use AI technologies in a way that better outcomes for their students and communities in an equitable manner. The introduction of these technologies will also inevitably redefine both the conception and execution of leadership work (Fullan et al., 2024). To effectively and fairly integrate AI technologies, now and in the future, educational leaders must be able to make sense of the technologies and how they may benefit or hinder their communities. To do this they must continuously stay abreast of the AI technologies that emerge, evolve, and disappear. This will be an evolving understanding, and it will require educational leaders to cut through the noise circulating around what to use now (current practice), what is purposefully contributing to school and student outcomes elsewhere (best practice), and how to take these technologies into the future so that a probable and preferred future is secured (next practice).

One such way to do this would be to speculate on what is known and what is not through sensemaking models, such as the one proposed by Luft and Ingham (1955) and which Drysdale and Gurr (2017) used to describe sensemaking in their paper. Luft and Ingham (1955) proposed that we have aspects of ourselves which are known and unknown in relation to self and others. Educational leaders might use this framework to understand what current practices the school is using in relation to AI technology use (known known), how others are using AI technologies in their schools (unknown known), what ideas staff have about AI technology use in schools (known unknown), and whether there might be more or different AI technologies that could impact the school for better or for worse (unknown unknown).

This will be important work because research focused specifically on the intersection of AI and educational leadership is significantly underdeveloped and lagging the rapid pace of AI innovation (Adams & Thompson, 2025; Fullan et al., 2024). A systematic review

of literature about AI in education by [Arar et al. \(2025\)](#), revealed that whilst, prior to 2017, scholarship on this topic was extremely limited, a sharp surge in publications has been observed since 2018, indicating the growing interest placed on understanding the connection between educational leadership and AI ([Adams & Thompson, 2025](#)).

[Sposato \(2025\)](#) recently introduced a comprehensive taxonomy based on a systemic analysis of post-2017 literature, a timeframe chosen to capture the impact of Large Language Models, which are advanced AI systems trained on large text datasets to understand, generate, and process human language for tasks like answering questions and summarising information. [Sposato's \(2025\)](#) framework demonstrates the potential for AI to be strategically applied across a broad spectrum of leadership duties, organising these tools into ten distinct domains. These ten domains range from AI for administrative efficiency and AI for personalised learning, to highly strategic areas like ethical AI leadership and governance and AI for diversity, equity, and inclusion purposes. While an exhaustive analysis of these ten points is beyond the scope of this essay, they can serve as a framework for educational leaders to use as they make sense of how and when to use AI technologies.

The essence of educational leadership remains human-centric as shown in the LDCF. Educational leadership involves balancing diverse stakeholder interests and navigating day-to-day complexities, and it is a role that will always revolve around fostering relationships and creating and nurturing human connections for learning. It is difficult to foresee AI ever replacing this core leadership function; having said this, it is both possible and plausible with the development path of emerging technologies, and some may even see it as probable, but we suggest it is not the preferred pathway. AI technologies might be used to further align people with the an organisation's vision and values, but this will require skills in sensemaking and a clear vision to begin with—you cannot align what you do not have, or what you are not sure of. The danger lies in allowing the boundary between human judgement and computational assistance through AI to become blurred. [Dai et al. \(2025, p. 1482\)](#) emphasised the necessity of leaders finding a way to “coexist with AI by integrating AI's capabilities into the decision-making process.” Yet, caution must be exercised to prevent over-reliance on AI, which could introduce new and unforeseen problems in the future (both a plausible future and unknown unknowns). The most valuable future perspectives will document the ways in which AI and educational leaders achieve a harmonious coexistence, with the success of this relationship ultimately measured by the positive, context-specific outcomes achieved for students' learning and wellbeing. As AI continues to advance, we argue that principals will need to remain agile sense makers, demonstrating discernment in adoption ([Dai et al., 2025](#); [Fullan et al., 2024](#)).

6. Conclusions

We believe that viewing educational leadership through domains and capabilities as illustrated in [Figure 1](#), can enhance leadership practice. The seven domains are connected to extensive research evidence and provide seven trustworthy practice domains that are useful for educational leaders in all educational organisations and in most contexts across the world. A leader can use the LDCF as a reframing tool and reflect on the extent to which they operate in some or all domains, and how they want to develop their leadership. A leader who tends to operate in a few domains can reflect on this and consider whether this is sufficient, or whether other domains need to be added. This is what [Bolman and Deal \(2021\)](#) did so well over their seven issues of their book on leadership frames and their challenge to leaders to ensure they worked across all four frames of their leadership model. For each domain of the LDCF, the capabilities a leader needs to operate can be many and varied and [Table 1](#) provided many examples. Importantly, the capabilities can be added to as circumstances change; hence the updating of the framework shown in [Table 1](#). In

this essay we focused on direction setting and sensemaking from the LDCF as these are particularly important when considering leadership responses to turbulent contexts.

We also argued that in this time of uncertainty, turbulence and opportunity, a futures perspective is needed. The FTF provides a research-supported and simple yet powerful way to think about organisational change and improvement. It also operates as a framing tool, as it asks leaders to think deliberately about the present and how the organisation got to its current practices, how effective these current practices are, and what needs to be improved. Improvement comes from actively thinking about best and next practices and adopting a futures prediction orientation to articulate near and distant organisational futures.

The areas we chose to illustrate the application of these ideas were areas that most educational leaders are working with, or will in the future. Feedback is central to student learning and empowerment; future-ready capabilities allow students to be confident in their readiness for the future; and, adopting AI is an imperative to make sure the AI is serving the needs of students and educational organisations. Our coverage of the three areas was, of necessity, brief and insufficient, but we hope that three varied choices allowed readers to connect with the leadership and futures ideas in their sphere of interest.

We are not suggesting that our frameworks are prescriptions for readers to adopt without careful consideration. Indeed, readers will need to be careful to ensure the ideas work within their contexts and adapt them as needed. We do know that the core leadership ideas have wide applicability (Sun et al., 2026), and work well even in low resource contexts (Torres-Arcadia & Flores-Kastanis, 2014; Wasonga, 2014). The futures framework does have a best and next practice orientation that not all readers will ascribe to, but beyond this, the central ideas of judging performance and making improvements for near and more distant futures, are features of successful leaders across varied contexts (Bryk et al., 2015; Sun et al., 2026) and something worth incorporating into leadership practice.

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