

Systems Leadership Rapid Review

conducted for the National Leadership Centre of the UK Cabinet Office

by Harry Begg

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- **High-level review of academic and grey literature on concept of systems leadership.**
- **Helps define terms and associated concepts like complex systems.**
- **Identifies systems leader capabilities and behaviours.**
- **Discusses what systems leader training could look like.**
- **Explains what systems thinking approaches might involve in organisations.**
- **Elaborates using case studies of successful systems approaches from the literature.**
- **Evidence supported by two expert interviews.**

Introduction and Background

This is a rapid review of the literature on the concept of systems leadership conducted for the National Leadership Centre in January 2020. The project has been delivered on an aggressive timeline and is not intended as a full systematic review of scholarly and other relevant literature. Instead, it is a scoping of the literature which uses a combination of academic databases and qualitative scholarly initiative to understand how scholars and practitioners are answering the following questions:

- What is systems leadership and how is it defined in relation to other approaches to leadership?
- What are the conditions of success and failure observed in public service delivery where systems approaches are used?
- What behaviours and practices do effective leaders and organisations exhibit when they are tackling systemic issues?
- How might these behaviours and practices be learned, encouraged and institutionalised? And how can factors leading to failure be limited?

This review is organised as follows:

- Section 1 covers definitions.
- Section 2 is about existing debates in social science literature that are pertinent when considering *systems leaders* and *systems leadership*.
- Section 3 is about what behaviours and capabilities systems leaders are thought to exhibit and possible ways of categorising those qualities.
- Section 4 is about how organisations can use systems thinking to respond to issues facing them.
- Section 5 provides a high-level assessment on the state of existing research and recommendations for the NLC going forward.
- Appendix 1 contains Google Trends analysis about use of the term “systems leadership” and other relevant concepts.
- Appendix 2 contains a select list of useful resources and institutions and journals conducting high calibre research for those seeking further reading.

Research Methodology:

As stated, this is not a systematic review of the literature. Rather it is a bespoke and qualitative high-level review. It used a very large academic library database to conduct the search as well as more intuition-derived “snowballing” techniques, such as surveying the citations in particularly good articles. A brief overview of the approach taken is set out below.

- Following agreement of the search terms with the NLC, the University of Oxford’s academic database Searching Oxford Libraries Online (SOLO) was used for searching for citations. This is one of the world’s most comprehensive library databases.¹

¹ More information about SOLO as a search and discovery tool can be found here: <https://libguides.bodleian.ox.ac.uk/solo#coverage>.

- The databases of several renowned business journals were also used, most notably the Harvard Business Review and the MIT Sloan Management Review, entries in which are less likely to appear in SOLO searches.
- In the initial scoping exercise, the search terms “systems leadership,” “public sector systems” and “complex systems” were used. These articles were reviewed before employing a “snowballing” method (pursuing references of references and using citation-tracking software) to find further relevant literature.
- The search of the literature was generally restricted to articles published since 2008 in English. Since the number of articles yielded from searches is far greater than the number that are either relevant to the research and/or possible to review in a constrained time frame, a degree of discretion was required in choosing which articles to review.
- Choices about which articles to focus on were based on publication type and reputation (e.g. *Leadership Quarterly* is a well-known journal with research output highly pertinent to this project) and subject or discipline area. Similarly, dictionary terms or very short newspaper articles identified through the database search were also excluded.
- Literature from social science disciplines (e.g. sociology) and professional journals (e.g. business school research) was also deemed more useful to this research project than, for example, applied science journals.
- Existing knowledge of the leadership studies field was also a factor in decisions of inclusion and exclusion of articles. For example, the work of the Harvard Kennedy School Center for Public Leadership is well-regarded, and its webpages were consulted for useful resources and references.
- Searches made yielded many thousands of database entries of varying relevance to the review. In total, 148 items were identified for inclusion in the rapid review.
- In addition, advice was sought from several experts from inside and outside academia, several of whom are quoted in this review, and who provided further scholarly direction
- In sum, this rapid review is not comprehensive. Experience and scholarly instincts were used to focus in on what is likely to matter most to those studying systems leadership in policy contexts.

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What is systems leadership?

- Definitions drawn from literature and possible ambiguities/different uses of term in the literature.
- Relation to other terms in the literature - especially “complex systems” and “distributed leadership”.
- Recent trend in use of term (see also Appendix 2).

This section reviews some definitions of systems leadership from the academic literature. It considers ancillary terms and concepts relevant to that definition, related to both “systems” and “leadership.” Similar terms in the academic literature include “complex systems” and “distributed leadership.” The section ends with a brief assessment of the current salience and popularity of the term “systems leadership” in the academic literature and the leader development industry.

The most systematic review of systems leadership encountered was that of Welbourn et al. They define a system as “an interconnected and interdependent series of entities, where decisions and actions in one entity are consequential in other neighbouring entities” (Welbourn, Ghate, and Lewis 2013, 6). They distinguish a system from an organisation, which is a self-contained entity. If leaders operate in systems rather than organisations, as the term “systems leadership” implies, this has profound consequences for what leadership does and looks like in different contexts. Welbourn et al. argue that systems leadership involves:

- Extending beyond traditional boundaries.
- A dynamic, adaptive, learning approach capable of navigating through ambiguity.
- New relationships built on shared vision and shared responsibilities embedded throughout the system. (Welbourn, Ghate, and Lewis 2013, 9).

Scholars working on systems leadership often believe that the “VUCA” of the twenty-first century (that is, the Volatility, Uncertainty, Complexity and Ambiguity) means that traditional leadership models, such as those assuming more organisational rather than systems-based contexts, are not sufficient to effect positive change.

Some scholarship engages with how to define systems leadership. There is a debate to be had as to whether precise definitions are necessary, especially in applied policy contexts. Even influential literature on systems leadership does not always define the term in an exact fashion, instead focusing on the *capabilities* of systems leaders and the *outcomes* we hope to observe under their helm. For example, Senge et al. write that systems leaders “shift the conditions through which others—especially those who have a problem—can learn collectively to make progress against it” (Senge, Hamilton, and Kania 2015, 3). They further elaborate that systems leaders have three core capabilities: they have the ability to see the larger system of which they are a part; they foster more reflection and generative conversations; and they shift the collective focus from reactive problem-solving to co-creating the future.

Ways of defining and talking about systems leadership abound, and this report does not come down firmly on a favoured definition. For many purposes a metaphorical definition might suffice, especially in contexts such as leadership development programming. For example, the celebrated leadership scholar Ronald Heifetz regularly uses the powerful metaphor of the leader standing on a balcony to oversee the variety of acts and actors in order to understand the system she is a part of (Heifetz, Grashow, and Linsky 2009).

A more difficult point of contention is that there is a plethora of similar sounding terms which speak to very similar ideas that scholars of systems leadership write on. Welbourn et al. lament the state of writing on systems leadership: “similar concepts are given widely differing terminology,” there is a “lack of clear definition,” “jargon ... to mask the weakness of the underlying work,” and they opine that “the body of knowledge about leadership of systems has only loose connection to genuine systems thought required” (Welbourn, Ghatge, and Lewis 2013, 4).

The *quality* of the work on systems leadership is not one that the present review assesses. It is clear, however, that there is an array of concepts that speak to quite similar ideas and issues, often using different terminology. Heifetz’s scholarship mainly employs the term “adaptive leadership,” but it is clearly steeped in systems thinking. Scholars also write of complexity leadership (Uhl-Bien, Marion, and McKelvey 2007); relational leadership (Uhl-Bien 2006); shared leadership (Pearce and Conger 2003); collective leadership (Denis and Lamothe 2011); and distributed leadership (Bolden 2011), to name just a few popular concepts.

In itself, this multitude of terms is not a problem. Leadership studies is a saturated field, and leader development is a highly commercialised industry where for-profit incentives are strong (Kellerman 2012). However, an expert interview conducted as part of this review suggests that systems leadership is not often used as a model for learning in leadership development programming; and that complexity frameworks are much more prevalent (e.g. Snowden and Boone 2007).²

Of course, complexity is in itself related to systems: complexity science is the study of systems with interdependent parts, in which “we cannot identify the system behaviour by just considering each of the parts and combining them. Instead we must consider how the relationships between the parts affect the behaviour of the whole” (Bar-Yam n.d.). Clearly, as this review shows, systems leadership is a term used by scholars and practitioners, but Dr Lyons’ observation and the Google Trends report on its usage (Appendix 2) provides a preliminary observation that it may have been somewhat eclipsed and/or not be the most suitable framework.

All this said, this review proceeds by offering up Welbourn et al. as a particularly thorough analysis of how the term systems leadership is being used in the literature. This review has sourced and refers to literature that speaks of similar concepts, such as distributed leadership, because they are clearly so related to systems approaches.

² Interview with Oscar Lyons, Director of Oxford Leadership Programmes (<https://www.oxfordleaders.co.uk>).

What does social science literature tell us about the potential for leadership and leader development to instil positive change for complex policy problems?

- Considers “the system leader” and “systems-based approaches” as debate between the individual and the system.
- Provides background of some current debates in leadership literature.
- Considers difference between private and public sector approaches to leadership.
- Comments on methods of evaluating leadership development.

There is a persistent debate within social science about the role that individuals and small groups can have in activating change in the context of structural or institutional-level realities and constraints. To over-simplify this argument, one can think of the different approaches of a business school professor compared with a political scientist. The business school professor tells us that effective leadership activates an innovative organisational culture and that this environment can produce positive outcomes, and possibly even radical change. The political scientist, meanwhile, looks to more distal causes of change: individuals are ultimately cogs in a system, changes to which are the product of institutional and societal factors that individuals can do little, at least without conducive systems, to alter.

A micro-level version of this debate is at work in two of the concepts this review deals with: there is significant difference in emphasis between *systems leaders* and *systems-based approaches*. Dealing first with scholarly approaches to individual leadership, in general it is notable that top leadership scholars have cast serious doubts about the entire philosophy of leadership embedded within orthodox and commercial approaches (e.g. Kellerman 2012; Pfeffer 2015). This literature shows serious scepticism about how society trains its leaders. This is not a trivial issue: the global leadership development industry is estimated at \$366bn annually (Westfall 2019). Scholars offer this critique for a number of reasons: perhaps most telling is that a lot of leadership theory as it is taught ignores the context or the system in which leaders are fundamentally embedded, and the “followers” whom they depend on (Bolden and Gosling 2006; Kellerman 2008, 2012; McChrystal, Eggers, and Mangone 2018).

“Systems leadership” as a concept is in itself an attempt to shift towards this more group-based model of addressing how to activate change. Attention should be paid to the fact that most of the leadership industry is based around individual-level parameters of development and impact. An expert interviewee for this review remarked that there is remarkably poor rigor when it comes to assessing the effectiveness of leader development programmes (and see Lyons et al. 2018).³ Only very recent scholarship is addressing how to gauge the impact of programmes on organisations and systems (Geerts, Goodall, and Agius 2020; Stoller, Goodall, and Baker 2016). Most leader development evaluation involves asking parties if they found a session productive or whether it will help them do their job better—from which we can derive little.

³ Interview with Oscar Lyons.

Dr Lyons also observed that most public sector organisations are decades behind their private sector equivalents in terms of how they deal with leadership development and allocation of resources for improving leadership. This is not to say that the public sector cannot build its own innovative approaches to leadership and systems change (Mazzucato 2018), but there are certain structural conditions in government bureaucracies, which bring their own challenges (Lindon 2010). This also raises the question of what might be unique about public sector leaders compared to private sector counterparts, on which topic there is quite a rich literature. For example, one quantitative study explores how public sector workers are more intrinsically and less extrinsically motivated, and so posits that performance-related rewards for leaders may be detrimental or at least have a more muted impact (Georgellis, Iossa, and Tabvuma 2011). (See also Hansen and Villadsen 2010; Orr and Bennett 2017; Trottier, Van Wart, and Wang 2008).

In sum, it is simply unavoidable that we proceed on the basis that well-trained individuals can effect positive change. However, in light of the shift towards more group and system-based approaches to leadership and organisational management, we must take a dose of scepticism from political science and recognise that many positive outcomes for government are ultimately only going to be achieved through organisational and institutional-level buy-in, support and resources. Since much leader development is still based around the individualistic approach to enhancing performance, leader development programmes based around systems leadership should pay clear attention to the content of such programmes and how impact is evaluated in terms of *system* impact. At this stage much leader development is not built around how individuals interoperate with systems, and programme design is often not met with suitable evaluation mechanisms.

The next two sections deal first with *systems leaders* and then *systems-based approaches*, since despite the above much literature and thinking is still divided along these lines.

What behaviours and capabilities do effective leaders and organisations exhibit when they are tackling systemic issues?

- Use of several case study examples focusing on *individual* or *interpersonal* leadership to solve systemic issues.
- Covers leader traits, behaviours, capabilities and practices.
- Discusses ways of categorising systems leader capabilities.
- Analysis of expert leaders as benefiting systems.
- Discussion of potential of bottom-up and local leadership.
- How systems leaders need to deal with ambiguity.
- Mentions one approach that categorises different leadership types.
- Assesses what role case studies of individual leaders can play in teaching systems change.

As a society, we continue to be obsessed with the question of whether leaders are “born” or “made.” This is an outdated type of question from a pre-modern era when it was thought that effective leaders could be studied in order to distil which “traits” led to their success. Underpinning this was the assumption that these traits are heritable and distinguish leaders from non-leaders. Trait-based theories have by and large fallen out of fashion. Popular still are methods of categorising leader *behaviours*, *capabilities* and *practices* (though you will still see “traits” referred to in some scholarly literature) (Hoffman et al. 2011; Kaiser, LeBreton, and Hogan 2015). Nonetheless, caution should be had about using outdated or inappropriate terminology like “traits” or “the leader” since while they are deep-rooted in common perceptions about what leadership is, they can be quite undemocratic and exclusionary in their implications (McChrystal, Eggers, and Mangone 2018). Nonetheless, per the *systems leader/systems-based approach* dichotomy, attention still has to be paid to what role individuals can play in improving systems, and clearly some behaviours and practices are more conducive to success than others. A lot, though, comes down to highly localised and case-specific context and it would be difficult to replicate the effectiveness of one leadership style in another situation. There can be no silver bullet or general theory of effective leadership (Goethals and Sorenson 2008).

The existing literature provides countless ways of categorising leader behaviours, practices and states. For the purpose of this review, focus is on those that have been discussed in relation to systems leadership. One strand of work on systems leadership pursues the egalitarian line of thought that everyone in a system has the capacity and potential to be a leader. For example, Laszlo writes about “evolutionary leadership” and sees leaders as those who embrace a “mind-set,” “skill-set” and “heart-set” (Laszlo 2012) The mind-set concerns the “know-why,” the skill-set the “know-how” and the heart-set the “care-why.” We can here see considerable emphasis on the importance of combining ethical and philosophical values with the practical skills of achieving results in accordance with those values. This returns us to the point that systems leadership is not about setting an organisation’s agenda or key performance indicators but about asking what kind of future might be co-created. Laszlo calls this “Systems Being,” and this kind of thinking comes out of the “post-Great Man” or “post-heroic” conception of what leadership is. Underlying this perspective is the

principle that individuals' behaviours feed into the health of a wider system, but that the individual top leader alone is not the key causal factor in outcomes. In that line, one study discusses the causes of the financial crisis as being too much hubris, hypocrisy and hostility, and not enough honour, honesty and humility (Falk and Blaylock 2012) from individuals operating in the financial system.

A different approach is taken by scholars of "expert" leadership. Unlike the more philosophical literature mentioned above, the focus here does err towards top leaders as facilitators of positive organisational outcomes. This literature is sceptical of the value of abstracted leadership qualities like charisma and vision, especially when these are not considered in the context of the system that senior leaders are operating in. This school of thought would generally be critical of the "generalist CEO" or "celebrity CEO" phenomenon, which sees high-profile general managers being helicoptered in to resolve systems and institutions in crisis or to spearhead new strategies. Dr Amanda Goodall, a scholar interviewed as part of this review, has conducted considerable and empirically rich research which identifies the technical competence of senior leaders as a powerful predictor of whether an organisation will succeed.⁴ Goodall's research focuses in particular on senior academics in higher education and top physicians in healthcare leadership. In the case of hospital leadership, it is observed that having doctors in senior leadership positions enhances credibility with physician peers and important external stakeholders; and this kind of leadership is found at some of the world's top hospitals (Goodall 2011; Stoller, Goodall, and Baker 2016). These findings have been replicated in other sectors. For example, one comprehensive study finds that having a boss who worked their way to the top of an organisation or who could do the job of a supervisee brought the largest positive influence on employee satisfaction (Artz, Goodall, and Oswald 2017). Again, the finding is that the technical competence of leaders matters a lot in building effective systems. Two important implications of this research for this review are that i) distilling what makes an effective leader (or system) into a high-level conceptual framework is not sufficient to explain why a system works well and ii) that leadership development programming may work better if it is tailored for an expert domain like "leadership in healthcare" rather than building a generalist training programme for "systems leaders."

This research also accords with more "bottom-up" leadership studies. To give one example, the "street-level diplomacy" skills of front-line workers were found to be a key variable in the success of a decentralised network-driven NHS initiative for engaging patients who were at high risk of cardiovascular disease (Gale et al. 2017). Successful front-line workers had been employed from each local area covered by the initiative. They provided their own kind of "expertise" on how a national initiative should be adapted to on-the-ground realities; and it was found that their credibility with patients stemmed from grounding in local knowledge and practices. This grassroots leadership was not responsible for the conceptualisation, leadership or overall maintenance of the programme, but it showcases how effective systems are often those where leaders are given the space to show initiative and adapt centralised programmes to sectoral specifics and local needs. In this case study, these skills were not learned via a central training programme, but more often on the job and close to

⁴ Amanda Goodall, Senior Lecturer, Cass Business School (<http://www.amandagoodall.com>)

the action. This approach might be summarised as: “Allow players across the system to test what doing a good job looks like for them.”

Leaders’ responsiveness to local and contextual specificity in managing large-scale change was a recurrent theme in the literature. That network-driven engagement requires a leader taking an iterative approach, in that it presumes ready-made solutions are not available. This is core to systems thinking. Allowing space for that iterative approach requires accepting a degree of uncertainty and embracing complexity. Tolerance of ambiguity, as Welbourn et al. note, is an important capability of a systems leader. This is an observation also backed up by quantitative studies (White and Shullman 2010). A lot of organisational thinking in traditional bureaucracies goes into building a system that removes ambiguity. In complex thinking, meanwhile, helping leaders deal effectively with ambiguity is likely not going to involve creating more targets and indicators to define what an improved system would look like. Such a framework or model assumes a static set of variables and an approach to resolution which is probably not going to be found in complex systems.

There are many colourful ways of categorising types of leader. Such categorisations should always be treated with a pinch of salt (Emre 2018). They may not be helpful nor based on sound science. That said, there is important work which can be drawn on, so long as such categorisations are not used rigidly nor in ways that compromise individuals’ potential to contribute to systems change. To give one example, one study categorises leaders through a series of “action logics,” which are: Opportunist, Diplomat, Expert, Achiever, Individualist, Strategist, Alchemist. The last two of these are thought to be the most effective action logics for organizational leadership, and yet cumulatively account for just 5% of the authors’ sample profiling of thousands of leaders. The implication would be that systems change requires cultivating more “strategist’ and “alchemist”-type strengths and characteristics (Rooke & Torbert 2005). While as stated there are countless models for assessing leadership potential and characteristics, the need to formally train leaders (experts or generalists) for transforming systems is something that most leadership scholars would probably agree on (on this, see section 5 below).

Finally, a note on limitations in the literature studying individuals for systems change. Leadership academics will often either draw abstract principles from case studies and consider the implications for theory; or aggregate data via surveys and similar quantitative techniques to try to generalise what makes effective leadership. Close and sustained analysis of individual leaders in case studies tends to be left to non-fiction biography. Yet clearly people are inspired by biographical portraits of standout success and the unique historical context that brought that. There is limited material on individual leaders *qua* individual leaders in academic literature. Yet teaching using portraits of leadership at work can be an effective pedagogical tool (on which, see McChrystal, Eggers, and Mangone 2018).

What does the literature tell us about the conditions of success and failure where systems-based approaches are used?

- Discussion of how leaders can use systems thinking in their organisations.
- Begins with structural conditions for cooperation which involves “knowing the system” of which you are a part.
- Moves onto how leaders design systems change, which requires “knowing what will have an impact”.
- Concludes with questions of impact and evaluation - i.e., how to know that systems change has made a difference. This concerns implementing systems change and “how to evaluate impact”.

This section is divided into three sub-sections. Where the previous section discussed systems leaders at an individual level, this section focuses on what we might call the more structural, systemic and distal conditions required for individuals to enact systems change.

Structural Conditions for Cooperation in Systems

“Knowing your system”

Prior to establishing the conditions of systems change, it is of course essential to be able to understand the system of which you are a part as an individual or organisation. This is easier said than done. It involves more than merely building perceptions of a “problem to be solved” or a “target to be achieved.” This kind of approach has been labelled “deliverology” by some scholars critical of the rise of numerical targeting practices, notably in healthcare (Guilfoyle 2012; Seddon and O’Donovan 2013). For example, a recent generalist book on decision-making divides a systems approach into four stages of action: Collect Evidence, Connect the Dots, Craft the Approach, and Complete the Mission. “Chapter zero” of the study is about defining what the problem is in the first place, and offers the following checklist:

- Remember that framing a problem is always an active task
- Ask who has an interest in solving it and who has no interest in it being solved
- Think about the second-order effects of solving a problem
- Prioritise your problems with the Eisenhower matrix [a technique for prioritising tasks]
- Ask what would happen in the absence of you solving it⁵

The entire first chapter on Collecting Evidence is about helping individuals piece together a system and how the data being used to map it influences our perceptions about the nature and extent of the intervention being made (Mueller and Dhar 2019).

⁵ Drawn from *The Decision-Maker’s Playbook* by courtesy of the authors.

Academic literature on how individuals define and conceptualise the systems they are part of is voluminous. It covers anything from the inbuilt human biology of how humans create in-groups and out-groups (Sapolsky 2018) to how a country's institutions structure the conditions for interaction, cooperation and conflict in the economy (Culpepper 2003). Most relevant for policymaking purposes is the latter strand of literature. For example, a review on how different countries build cooperation between different actors to improve skills training systems notes that labour markets tend to “balkanise” different actors in a way that consistently prevents cooperation. These divisions are: the individual preferences of workers, the individual preferences of firms; the actions of communities of workers, the community of employers, and the government. Developing a systems approach for building an effective skill formation system, according to this study, requires first mapping the linkages between these different actors, which then allows change leaders to recognise plausible avenues for cooperation where in usual circumstances it might be assumed that the preferences are incompatible (Emmenegger, Graf, and Trampusch 2019).

The literature stresses how key it is to consider the environment into which a systems change approach is being used. One useful (pre-2000s) study of reforming the Dutch prison system after crisis events in the penal system offers important insight. The authors point out that crisis events often provide a window for substantive reform efforts, but that too often this can involve inappropriate centralized initiatives which do not respect on-the-ground nuances and authority structures. They conclude that “In a system normally characterized by a high degree of field autonomy, top-down crisis management approaches are unlikely to be effective and may have perverse effects” (Boin and Otten 1996, 159). This consideration has implications well beyond crisis management and asserts how systems change often needs to pay respect to “established” systems even if it is hoped that those systems will eventually be transformed. One broad study of family services provision similarly comments that there is always an “invisible infrastructure” that policymakers and funders too often fail to anticipate (Ghate 2016a, 815). There are likewise many business studies volumes about how to overcome institutional barriers to change (e.g. Kegan and Lahey 2009).

This stage of defining systems is referred to as the *structural conditions for cooperation*, and it does the foundational work of mapping the actors in a system and working out their first and second-order mission, priorities and relationships with other actors. It is prior to defining what change is sought or settling on a theory of change. Importantly, scholars point to greater structural barriers to cooperation in modern society, for example due to digitalisation, globalisation, migration and demographic change, which makes the study of systems and institutional design as a necessary prior to programming even more important (McChrystal et al. 2015; Murphy et al. 2017; Thelen 2014).

Designing Systems Change

“Knowing what will have impact”

Another powerful insight from Mueller and Dhar (2019) in their roadmap to systems change is the principle that after a problem has been properly defined through the evidence collected about it, individuals tend to form an imperfect and static story about the system.

The process of building that story can often involve simplifications, stereotyping and biases that too quickly close down that system into something more manageable—but potentially unhelpful—for individuals and their organisations to deal with (Mueller and Dhar 2019, 30–40). Proposed solutions after that conceptual work are therefore going to be incomplete and/or misguided. This returns us to the previous section of this review, where it was identified that systems leaders need to be able to deal with ambiguity and anxiety, which are perhaps an inevitable consequence of an approach to change where uncertainty is considered elemental.

A project for improving business sustainability in private corporations is explored in a useful article that covers the early stages of understanding and engaging with a systemic issue (Senge et al. 2007). This involved twelve organisations, from Nike to Harley Davidson, which co-established the Society for Organizational Learning Sustainability Consortium. Consortium members observed that sustainability was a highly relevant issue for them, but they were confused by the proliferation of so many frameworks and tools for sustainability and did not understand what their role could be nor how to develop a response. The process of understanding that, according to Senge et al., involved three different kinds of work: conceptual (e.g. “what is sustainability and why is it relevant to me?”); relational (e.g. “who are relevant partners in the system and how can I learn from them?”); and action-driven (e.g. “with this collaborative approach in mind, how can we build an initiative that recognises and builds off our interdependencies?”).

The authors point out that dividing up different stages of collaborative work for systems change in this way is useful for analytic purposes, but stress that the stages overlap in multiple ways. The study concludes: “True systemic change means enacting new ways of thinking, creating new formal structures and, ultimately, transforming relationships” (Senge et al. 2007, 51). They offer up this sustainability initiative as a showcase of this process, showing the scale and ambition of pre-implementation multi-partner work needed to achieve systems change.

Implementing Systems Change

“How to evaluate impact”

Some scholars identify a tension between the adaptive and flexible systems-based approach and the more “scientific” and purportedly rigid techniques often associated with monitoring and evaluation, which are derived from economic science (notably randomised control trials) (Ghate 2016a; Puttick 2011). The literature on monitoring and evaluation of public policy is considerable, and this review just touches the surface to cover some aspects that speak to systems leadership and approaches to evaluating what systems change looks like. Evaluation methods for systems change remains a key challenge, both because the literature suggests there is still a lot of uncertainty among scholars as to how best to facilitate this, and because expert interviewees expressed that leadership development often fails to address the question of impact on wider systems (as opposed to individuals).

There is an emerging field of study called Implementation Science and Practice (ISP), which tries to triangulate between the scientific rigor brought by the best evidence-based

evaluation techniques and the innovative scaling and transformational potential of systems change. ISP aims to address the “science-to-service” or “research-to-practice” gap by understanding how (or if) sound policy ideas for change can best be implemented at a systems (as opposed to individual context) level. This is highly pertinent to systems leadership more broadly because one implication of ISP would be that there is a need for more flexible organisational leaders who give themselves and others the space to try out new approaches to implementation as programmes are rolled out and scaled. Also, ISP literature helps us understand how leaders can effectively scale smaller local initiatives across a system.

ISP would call on institutions to change the question from “how do I implement my evidence-based programme with the highest fidelity?” to “how can my evidence-based programme be implemented in a way that brings about systems change?” ISP takes a more open and iterative approach to what the terms of success and failure should be when implementing policy initiatives. In that sense this way of approaching implementation itself draws on systems thinking. Sceptics of systems-based approaches will ask for hard evidence to show that they are having the kinds of impact promised. ISP and other innovative literature in the monitoring and evaluation area provides some useful tools that could be developed into more holistic frameworks.

Durlak and DuPre (2008) provide a high-level quantitative survey that analyses what contextual factors influence the rate and quality of implementation. This is not strictly ISP or systems thinking literature, but it still provides some useful insights and context to debates about what effective implementation looks like. For example, the authors explore how:

- Programmes are never going to have 100% take-up rates, and lower success rates should not always be regarded as a sign of failure.
- Adaptation of programmes during implementation is desirable and even essential.
- Assessing each community’s readiness for programme implementation is key.
- One-on-one coaching and other active forms of learning with end-service users are some of the most effective methods of not only facilitating but also truly understanding how a program is being implemented.

Note that Fixsen et al. (2005) provide an even more systematic review of evidence for programme implementation, although this is now slightly dated.

Deborah Ghate and the work of The Colebrooke Centre for Evidence and Implementation (London) is particularly relevant and exciting for systems approaches. Their case studies tend to focus on family services. Ghate calls for a more “hands-on, co-constructed support for implementation at the policy and practice front lines for more sustained effectiveness” and points out the need for “*whole system improvement*, not just ... increasing the availability and uptake of isolated programmes for specific populations and specific issues” (Ghate 2016b, 813–14). This work offers a useful framework for how to conceptualise and assess the different stages of an implementation process and also suggests what should be considered key implementation drivers (“Leadership Drivers, Organization Drivers and Competency Drivers”) (Ghate 2016b, 819).

As Ghate notes, ISP is an especially tricky area for scholars because there are so many complex methodological considerations. The literature on what translates effective systems thinking into effective systems change is therefore limited. High-level surveys can often be a bit too broad to be helpful, for example, one study highlights the importance of “opinion leaders,” “organisational champions,” “boundary spanners” and formal dissemination programmes (Greenhalgh et al. 2004). This kind of assessment may provide some ways of framing the issue, but the question of how to evaluate, ex-ante and ex-post, systems change programmes is likely to be especially challenging, but essential.

State of existing research and recommendations for future work

- Provides a summary of the existing literature and its usefulness to NLC work.
- Gives recommendations, for example further work the NLC might be interested in or look to participate in as part of its programming and thought leadership.

The challenge of writing a rapid review on systems leadership has been that academic literature fast becomes too specialist and answers the wrong kinds of question to be particularly helpful for practitioners and policymakers to digest and apply in real world situations. For example, the New England Complex Systems Institute, which does some excellent research and has renowned leader development programming in the United States, releases papers regularly on applied complex systems work; a recent representative example is on “Power and Leadership: a complex systems science approach” (Bar-Yam 2018). But as a quick review of the content of this paper will illustrate, too often this type of literature has been written by specialists and for specialists from particular disciplines and schools of thought. The “sweet spot” areas that would appear most relevant and helpful for public policymaking institutions are studies from management and leadership journals, and from policy reviews in grey literature. Sometimes, though, this research has the opposite problem of being too broad and offering fairly intuitive recommendations; and the management and leadership fields also have a bias towards study of the private sector.

There is something useful to be drawn from this frustration. Dave Snowden, the management consultant and systems thinking pioneer who developed the Cynefin framework for leader decision-making, divides different operating contexts into the quadrants of simple, complicated, chaotic and complex (Snowdon and Boone 2007). Snowden identifies that in a complex environment “instead of attempting to impose a course of action, leaders must patiently allow the path forward to reveal itself. They need to probe first, then sense, and then respond” (Snowdon and Boone 2007, 11). In that sense, what can be learned from the literature which often feels too specialist and theoretical to be relevant is that there are usually no simple solutions for leaders operating in complex environments. Addressing systemic issues properly will usually require deep and sustained insight from specialists and experts. The implication of this is that leaders must be taught how to carry their organisations forward with the tension that no simple answer is going to emerge to offer a direct route forward. Offering simple solutions or “silver bullets” is not going to help anyone, but explaining this fact to organisations that have mission statements to get the job done in the name of the public interest requires talent and nerve. Learning to recognise what a complex environment looks like in the first place is therefore an important capability for all leaders. A lot can follow from that in terms of adopting the mindset and organisational approach needed. In public institutions, that also requires being able to explain inputs, outputs, expectations and uncertainties to constituencies (i.e. the public) likely to be affected.

One area of study that came up particularly short was in relation to evidence of the convening power of systems leaders. That is, what alchemy is required to get different parts of a leadership network to come together in the first place to try to solve an issue? Several

search terms were used and the experts interviewed for this research were asked to provide pointers. Here it is difficult to find relevant literature. Again, there is the problem of the research being too structuralist or academic to be approachable for practitioners (e.g. Culpepper 2003 is a representative example.) There is a strand of work on how leadership “emerges” in human groups, but this is deeply entrenched in game theory-type approaches and difficult to apply in a practical context (e.g. Nakayama et al. 2019 is a representative example). Understanding what happens at the very beginning of a causal chain that eventually leads to systems change is something that further research on public services could usefully address.

Additionally, there is a rich area of research into what are the causes of leadership failure and how that can lead to what might be called systems failure. This includes assessment of concepts like “narcissistic leadership” (Kaiser, LeBreton and Hogan 2015). Causes of failure did not however seem to be dealt with very thoroughly in the work on systems leadership specifically. This is likely something of a bias in the literature because “systems leadership” is often pointed to as a solution and not a problem to outcomes. However, understanding the causes of failure is extremely important, because as pointed out in relation to the work of Amanda Goodall above, having a particular framework of leadership rooted in an organisation is not going to give us all the answers as to why success or failure was later met. Effective leadership is one but far from the only answer to achieving positive outcomes.

Out of this rapid review of literature comes several recommendations:

Recommendations

1. The NLC should conduct a critical assessment of the pros and cons of adopting systems leadership as its favoured term and lens of thinking in its work. The purpose of this review is not to provide such an assessment, but it is evident that systems leadership is but one of many terms that could be pertinent to NLC programming, and there are indications from this review that it may not currently be in vogue compared to other terms like complexity.
2. The NLC should consider facilitating external assessment of government programmes to understand the nature and further possibilities for inter-departmental and inter-agency collaboration that we might call systems leadership. Academics at business and public policy schools are often interested in providing these kinds of assessment.
3. This rapid review has shown that much of the literature on systems thinking is too theoretical or too focused on the private sector to be relevant to NLC programming. In view of this, the NLC should look to commission case study-style research which is designed specifically to showcase examples of systems leadership at work in the public sector. This could aid learning and critical thinking across government departments, and help celebrate success stories.
4. Leadership development programmes rarely evaluate impact at the systems level (as opposed to impact on individuals). If the NLC is building its own leadership development programme, it should work with partners to build impact evaluation techniques which cover influence on systems change. This is vital to demonstrate

evidence of impact and would allow the NLC to stand apart from the standard of most existing work in this space across the world. Such programming should also be tailored specifically to the public sector and perhaps even be prepared bespoke at the sector or organisational level (e.g. “systems leadership in healthcare” or “systems approaches to solving rough sleeping in central London”).⁶

5. The NLC should develop its thinking and even represent its work at relevant public-facing events, for example conferences on improving government collaboration that are often held at universities and research institutes.

⁶ Emily Jones, Associate Professor in Public Policy at the Blavatnik School, has provided negotiation strategy and skills teaching in executive education programmes for public policymakers who specialise in international trade. This kind of leadership development is prepared bespoke for the public sector and specifically for trade officials, but also addresses cross-cutting issues like building inter-departmental cooperation (personal interview).

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Appendix 1

- Google Trends analysis

This appendix provides a very preliminary assessment of interest in the term “systems leadership” and ancillary concepts over time via Google Trends analyses. Numbers on the x-axis represent search interest relevant to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means there was not enough data for this term.

Please note that this is not meant to be a rigorous review of the popularity of different terminology and that to undertake this would involve using a number of quantitative techniques which are beyond the scope of this review.

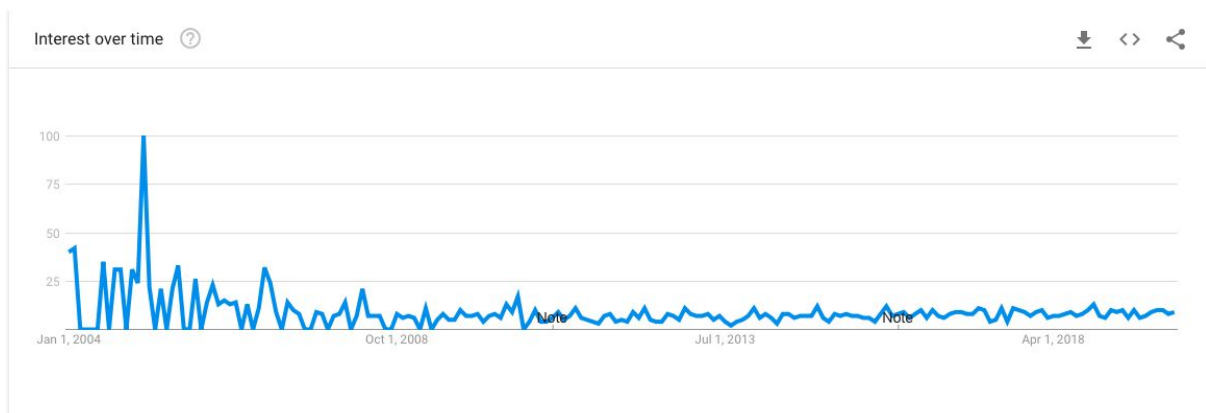


Figure 1: Search terms "systems leadership" in region United Kingdom

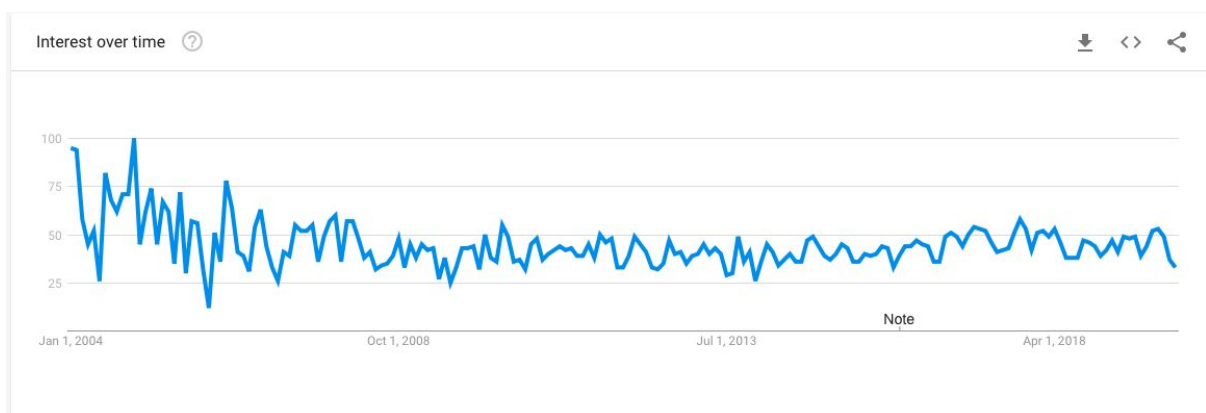


Figure 2: Search terms "systems leadership" in region "worldwide"

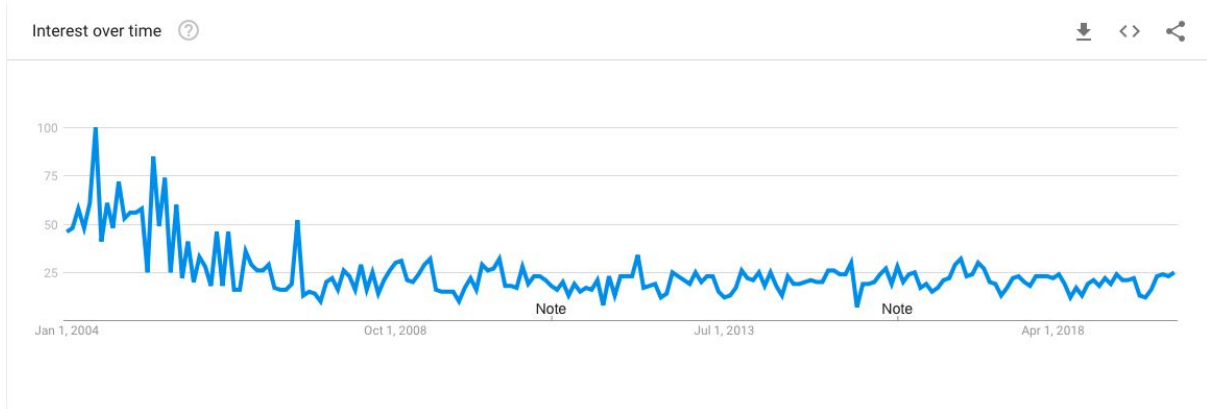


Figure 3: Search terms "complex system" in region United Kingdom

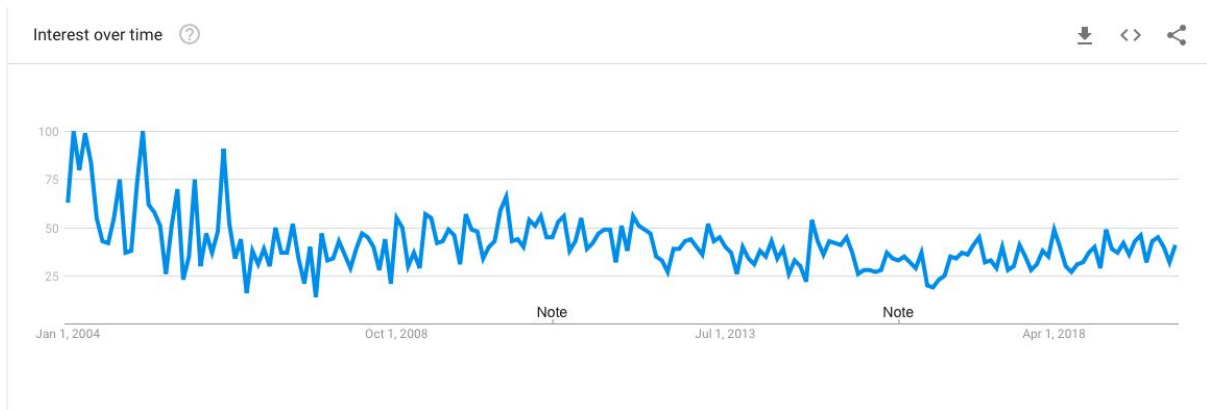


Figure 4: Search terms "systems thinking" in region United Kingdom

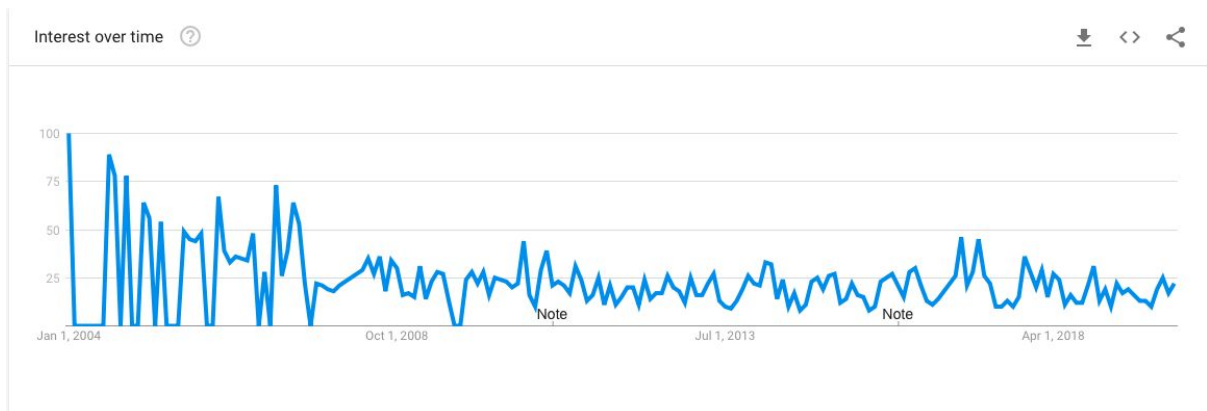


Figure 5: Search terms "distributed leadership " in region United Kingdom

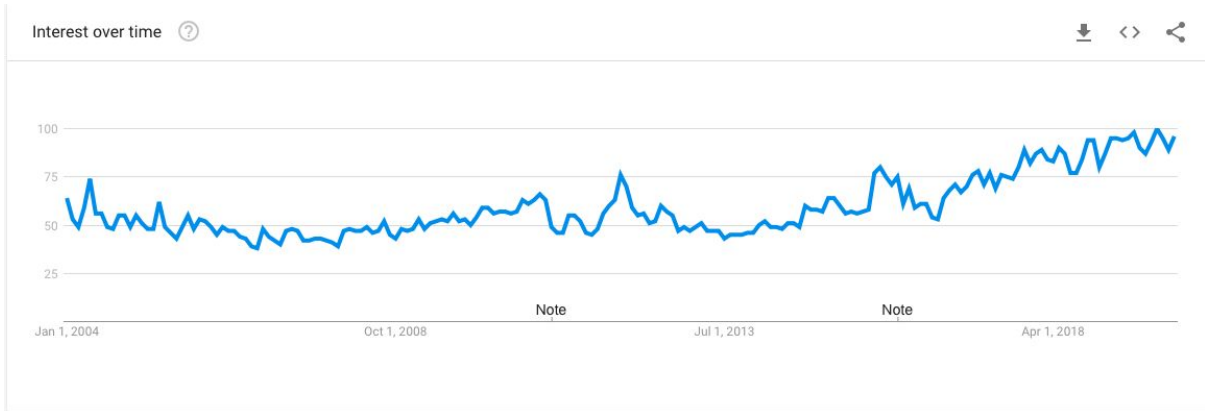


Figure 6: Search terms "AI" in region United Kingdom (for illustrative purposes)

Appendix 2

- Provides a select list of useful resources for further consultation.

Resource	Resource Type
Academy for Systems Change	Institute
Centre for Public Leadership, Harvard John F. Kennedy School of Government	Institute
Colebrooke Centre for Evidence and Implementation	Institute
Implementation Science	Journal
Leadership Quarterly	Journal
National Implementation Research Network, University of North Carolina	Institute
People in Government Lab, Blavatnik School of Government	Institute
Presenting Institute	Institute
Social Science and Medicine	Journal
Society of Organizational Learning	Institute
Systemic Practice and Action Research	Journal
Systems Leaders Fieldbook of the Academy for Systems Change	Resource ⁷

⁷ Available at <https://www.systemsfieldbook.org/building-organizational-capacity/>.