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## Chapter 2

# Untangling Agile Government: On the Dual Necessities of Structure and Agility

**Keegan McBride**, Postdoctoral Researcher, Centre for Digital Governance, Hertie School in Berlin, Germany.

Maximilian Kupi, PhD Researcher, Centre for Digital Governance, Hertie School in Berlin, Germany.

Joanna Bryson, Professor of Ethics and Technology, Centre for Digital Governance, Hertie School in Berlin, Germany.

### 2.1 The Fallacy of Agility: Current Discourse on Government Transformation and Agile Government

*Agility* has become a common term when it comes to today's discourse on digitalization and government transformation. There is a widely held view that governmental bureaucracy with its laws, regulations, institutions, and 'red tape' is unable to keep up with a rapidly changing and digitizing society. It is now often claimed that the solution is for governments to become agile. Along these lines, the resulting discourse on 'agile government' posits that government is not agile now, but it could be, and if it *were* agile then government would be more effective, adaptive, and, thus, normatively better. We argue that while agility can represent a useful paradigm in some contexts, it is often applied inappropriately in the governmental context due to a lack of understanding about what 'agile' is, and what it is not.

This misunderstanding is primarily due to a conflation of government, governance, and service delivery; an overarching air of importance being given to the last of these. However, governments are not first and foremost service providers and treating them as such is a miscalculation. Rather, it is the purpose of a government "to make, implement and administer policy decisions on behalf of the community for which it has responsibility".<sup>1</sup> In other words, governments govern. One aspect of this *is* service delivery, but it is not their major role or function. Thus, the primary motivation for this chapter is to increase awareness of what we call the 'fallacy of agility'. We highlight the areas where agile may be best applied in the government, such as software development and service delivery. We

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<sup>1</sup> Waller, P. and Weerakkody, V. (2016). Digital Government: overcoming the systemic failure of transformation. Working Paper 2. London: Brunel University.

also draw attention to potential downsides and misapplication of ‘agile’ philosophy to governmental or governance reform initiatives, such as the potential destruction of valuable public sector capacities.

To begin with, we approach ‘discourse’ in the tradition of Fairclough: When exploring the discourse of ‘agile government’ we view it (the discourse) as an “imaginary”, or a “*representation of how things might or could or should be*”.<sup>2</sup> Through the continued usage and spread of this discourse it may, over time, operationalize (become measurable) and actualize (have function). By talking about the importance of ‘agile government’ it is possible to turn it from something hypothetical and imaginary into something tangible. We are currently seeing the initial stages of the actualization of the ‘agile government’ discourse—for example, through conferences, consultancies, targeted research, and governmental working groups. The normative assumptions associated with this discourse seem clear: that government is currently not agile, and that increased levels of agility can be associated with increased government effectiveness.

In this chapter, we offer three critical observations with respect to these assumptions:

1. structure, stability, and organization, often viewed as the antithesis of agility, are in fact necessary for both agility and governance;
2. government organizations are, in a sense, agile by default; and
3. while there may be benefits to increased levels of agility in some areas, there are several risks and drawbacks that must be considered for the concept of ‘agile government’ overall.

We visit each of these in turn.

We begin with definitions. In the current debate, three terms are often used interchangeably: agility, flexibility, and adaptivity. However, while all three terms are related, they are not synonymous, and should not be so used. *Flexibility* has been defined as an organization’s ability to “create change, or proactively, reactively, or inherently embrace change in a timely manner, through its internal components and relationships with its environment.”<sup>3</sup> *Agility* builds on the idea of flexibility but additionally assumes change to be continuous and to some degree dependent on or interconnected with user values. Organizations following this “fundamental management philosophy” must thus exhibit a collective, organizational alignment with these values.<sup>4</sup> *Adaptivity*, finally, is again similar to flexibility, but rather systemic and focused on learning and maintaining a “fit with the environment”; clearly locating the mainly descriptive concept’s origins within evolutionary

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<sup>2</sup> Fairclough, N. (2001). The dialectics of discourse. *Textus*, 14(2), 231-242. Quote from p. 233.

<sup>3</sup> Conboy, K. (2009). Agility from first principles: Reconstructing the concept of agility in information systems development. *Information Systems Research*, 20(3), 329-354. Quote from p. 340.

<sup>4</sup> Ibid. Quote from p. 338.

theory.<sup>5</sup> In this chapter, when the term ‘agility’ is used, it is understood as *the ability to quickly and continuously understand and adapt to changing user values*.

We therefore view agility as a modifier to government, i.e., government exhibits the trait of agility. This leads to a less normative or prescriptive binary understanding of ‘agile government’ as ‘a government that is agile’, and stands in contrast to many other writers and speakers, who view agile as a tangible *thing* or *process*. The agile-as-process viewpoint is heavily associated with the concept of agile software development, which is a process for solving specific problems—in particular, delivering a new software product or maintaining an old one. The current ‘agile government’ discourse, unfortunately, often confounds the characteristic of agility at the organizational level with a type of process for a singular product being developed. However, there is a fundamental difference between *being* agile and *doing* agile. The use of agile software development or the adoption of agile techniques does not necessarily indicate that the organization itself is agile.

## 2.2 Historical Underpinnings of Agile Government: Learning from Industry

The logical question that then follows is: What is agile software development, and why has it played such an influential role in driving the current push for ‘agile government’? The most common starting point to answer this question is the Agile Manifesto, a highly normative document for “better” software development written collaboratively by a number of industry experts that had been leading a revolution in the application of systems engineering to software and software-enabled businesses in the very late twentieth century.<sup>6</sup> It includes mantra-like values and principles such as the following concerning development priorities:

*“Individuals and interactions over processes and tools[,] [w]orking software over comprehensive documentation[,] [c]ustomer collaboration over contract negotiation[, and] [r]esponding to change over following a plan”.*<sup>7</sup>

While the Agile Manifesto proclaims a clear foundation for agile development, it is not, on its own, a methodology, which is why teams turn to software development methods such as Scrum or workflow management frameworks such as Kanban. Scrum was first outlined by Takeuchi and Nonaka in 1986 and emerges from the Japanese manufacturing industry’s search for increased efficiency.<sup>8</sup> Since this initial conceptualization, Scrum has developed into a full methodology for iterative and incremental software development with clearly

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<sup>5</sup> E.g., Janssen, M., & van der Voort, H. (2020). Agile and adaptive governance in crisis response: Lessons from the COVID-19 pandemic. *International Journal of Information Management*, 55, 102180.

<sup>6</sup> Beck, K., Beedle, M., Van Bennekum, A., Cockburn, A., Cunningham, W., Fowler, M., ... & Kern, J. (2001). *The Agile Manifesto*. <https://agilemanifesto.org/> [Accessed 20 December, 2020].

<sup>7</sup> Ibid.

<sup>8</sup> Takeuchi, H., & Nonaka, I. (1986). The new product development game. *Harvard Business Review*, 64(1), 137-146. Quote from p. 138.

defined structures, rules, and team roles.<sup>9</sup> Scrum “rather than provid[ing] people with detailed instructions [...] guide[s] their relationships and interactions”.<sup>10</sup> Similar to Scrum, Kanban also finds its roots in Japanese manufacturing. Originating from Toyota, Kanban introduces the notion of “just-in-time” delivery, and aims to maximize product development efficiency through the reduction of waste and the increase of employee effectiveness.<sup>11</sup> Kanban is also associated with the increasingly popular notion of ‘lean’ development, and is often used to manage Scrum methodology’s ‘product backlog’—an “emergent, ordered list of what is needed to improve the product”.<sup>12</sup> While both methodologies have evolved over the years, they continue to increase in popularity and usage for software development projects, be it for startups or in government.

Under closer examination of the history and nature of these agile methodologies, a number of interesting findings materialize. First, agility as a strategy has emerged within large organizations, such as Toyota. In other words, structure, stability, and regulation come *first*, agility second. Agility responds to, refines, but also depends on established organizational structure. Second, agile methods themselves all have inbuilt routines and structures. Therefore, the introduction of these methodologies will not free government organizations from bureaucratic structures, but will only add to or, in the better but rarer case, replace existing ones. Third, agile as a method is almost entirely oriented towards product or service development requiring clearly defined teams, and is thus focused on solving specific problems. With the exception of some recent attempts—mainly in the software industry—to foster “agile at scale”<sup>13</sup>, these frameworks are hence not developed to change entire organizations, and are likely to be rather unsuited to such an intent. While agile methods were pioneered primarily by larger organizations, they have also grown popular among the startup community, where there is a focus on building working products quickly and in such a way that pivots based on changes in customer ‘values’ (really, requirements) are possible.<sup>14</sup> This is particularly interesting as some of the founders of the agile movement in business were quite clear that, in their opinion, the time for large corporations (institutions) had passed.<sup>15</sup>

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<sup>9</sup> Schwaber, K. (1997). SCRUM Development Process. In Sutherland, J., Patel, D., Casanave, C., Miller, J., & Hollowell, G. (Eds.), *Business Object Design and Implementation* (pp. 117-134). Springer, London.

<sup>10</sup> Schwaber, K., & Sutherland, J. (2020). *The Scrum Guide: The Definitive Guide to Scrum: The Rules of the Game*. Available: <https://scrumguides.org> [Accessed 1 January, 2021]. Quote from p. 3.

<sup>11</sup> Sugimori, Y., Kusunoki, K., Cho, F., & Uchikawa, S. (1977). Toyota production system and Kanban system materialization of just-in-time and respect-for-human system. *The International Journal of Production Research*, 15(6), 553-564.

<sup>12</sup> Schwaber, K., & Sutherland, J. (2020). *The Scrum Guide: The Definitive Guide to Scrum: The Rules of the Game*. Available: <https://scrumguides.org> [Accessed 1 January, 2021]. Quote from p. 10.

<sup>13</sup> Rigby, D. K., Sutherland, J., & Noble, A. (2018). Agile at Scale. *Harvard Business Review*.

<sup>14</sup> Ries, E. (2011). *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. New York: Currency.

<sup>15</sup> Hammer, M. (1990). Reengineering work: don't automate, obliterate. *Harvard Business Review*, 68(4), 104-112.

A large part of the original motivation for agile techniques in software development was the simple fact that customers or other stakeholders cannot possibly envision the new context that occurs when new software—or indeed, any business innovation—is introduced.<sup>16</sup> Changing specifications of requirements for projects were originally seen as miscommunications between the different cultures of users and developers. The late twentieth century brought the recognition that the problem is both larger and more exciting than that, and requires a solution that involves both:

1. *iterative* project schedules that expect constant testing of outputs and re-scoping of goals, and also
2. *co-creation*<sup>17</sup>, where all relevant stakeholders are involved to better understand the costs, benefits, and potentials of the project, so new requirements can be captured and integrated as early and at as low a cost as possible.

Note too that software is a relatively concrete deliverable: There is a clear endpoint to (or at least, a milestone within) a software development project, where a software product has passed its designated tests and is released for use. For public service deliverables on the other hand, these cut-off points are oftentimes harder to define. Hence, while it might make sense for governments to adopt agile software development practices for their digital services, whether it could, or even should, proceed further than that remains debatable and depends on the nature of the problem at hand and whether that problem allows for an iterative, co-creative development process with clear cut-off points for evaluation.

### **2.3 The Private Sector Model of Agile Governance**

For governments, along with the celebration of agility, there is an increasingly common message that the government itself should act more like a startup. The argument made here is that startups are light, flexible, agile, and deliver innovative services cheaply and effectively. However, governments are not startups, nor businesses, and delivering services cheaply is not their primary goal. One concern here is that describing government in this way, i.e., only as a digital service provider or platform, misses out on other longer-term-oriented core functions and values of government. These include ensuring a safe and healthy population, and a stable, secure, and just economic environment that enables society—including commerce—to thrive.

It is true that startups, at the beginning, may be more decentralized and flexible than most government. But it has also been shown that as startups grow—*if they grow*—‘successful’ startups trend away from flat decentralized structures towards more hierarchical and organized structures with increasingly developed rules, regulations, and processes.<sup>18</sup> Of

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<sup>16</sup> Hammer, M., & Champy, J. (1993). Reengineering the corporation: A manifesto for business revolution. *Business Horizons*, 36(5), 90-91.

<sup>17</sup> McBride, K. (2020). *Open Government Data Co-Created Public Services*. Doctoral Thesis. Tallinn University of Technology. Tallinn, Estonia.

<sup>18</sup> Colombo, M. G., & Grilli, L. (2013). The creation of a middle-management level by entrepreneurial ventures: Testing economic theories of organizational design. *Journal of Economics & Management Strategy*, 22(2), 390-422.

course, the vast majority of startups do not grow. It is not even clear that we should see the limited life cycle of the average startup as any form of failure. Many produce a product for a while, but then disband when the market for that product disappears or diffuses as the economy changes. For those that do grow, the goal is frequently the ‘exit’ or the acquisition, often by larger companies such as Facebook or Google, thus joining an already established organization.

So while startups may provide a welcomed form of agility for an economy—by supporting exploratory experimentation with risky and/or short-lived business concepts—not even every business product can be produced or sustained in this context. It is certainly clear that national health care or state security should not be treated as such products. Indeed, national governments do not have the luxury of being able to fail or to exit<sup>19</sup>; they are expected to function permanently, and even more so during times of crisis or hardship, which is precisely the time that many startups close down. When one learns that the common agile motto of startups is to “fail fast, fail often”, the prospect of an agile health sector, an agile national defense, or even a completely ‘agile government’ becomes increasingly worrisome.

Along these lines, there are further, primarily-ontological differences between private sector organizations and governments. In the private sector, the adoption of agile methods and agile approaches is first and foremost driven by a desire to increase efficiency, maximize profit, and expand the customer base. However, a government’s citizens are not customers. Citizens are linked by geographic necessity; one government represents them all at any fixed moment. The goal of government is therefore maximizing public value for all, not increasing profits for some. For the most part, governments also suffer no desire to increase their user base. Private sector customers are retained or captured through continuous change and innovation, and this constant need to provide new and interesting services calls for agile development approaches. In contrast to this, citizens and corporations expect stability from their governments. Unnecessary change, especially when it comes to commonly-used services, could rapidly decrease satisfaction and even well-being by increasing uncertainty and basic maintenance costs across all sectors, public and private.

Despite these differences, governmental organizations are similar to large business corporations in the sense that agile methods likely work only for a *limited and specific part* of their processes, e.g., the development of software and other novel services, rather than in their day-to-day organizational operations. Governments and medium-to-large businesses are also similar in their approach of prioritizing the building of structure, stability, and consistency, before experimenting with agility. This reliance on hierarchical structures—as discussed, also observed amongst maturing startups—is logical, as hierarchy is a natural and common way to maintain stability and existence when facing a highly complex

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<sup>19</sup> The collapse of East Germany and its subsequent acquisition by the former West Germany being a highly unusual exception in very special circumstances.

environment.<sup>20,21</sup> It should not be a surprise, then, that governments, organizations, and indeed almost all social systems tend to evolve into hierarchical systems.<sup>22</sup>

#### **2.4 Weber, NPM, and the Necessity of Structure, Stability, and Regulation for Agility**

In the context of public administration, one of the clearest starting points for such a governmental organization is Weber, who conceptualized bureaucracy as a hierarchical system with bureaucrats sitting in offices driven by their administrative duty and motivated by their ability to climb the proverbial ladder.<sup>23</sup> Weberian public administration is characterized by rules, regulation, and, most importantly for this chapter, *stability and structure*. Having a stable administration makes it possible to build-up internal knowledge and capacity, thereby leading to a more effective and efficient functioning of the state. Similar to Weber, Mintzberg has elucidated a number of different organizational structures, which all touch on the importance of structure for the maintenance of stability in complex environments.<sup>24</sup> Hierarchy and bureaucracy exist because they are *the* optimal structure for dealing with complexity.

However, for many, the terms 'bureaucracy' and 'hierarchy' may leave a bad taste in one's mouth; they have become taboo. This has led to extensive theorising about how to reform and make organizations better as there is a belief that "our changing world requires an alternative to hierarchical organization".<sup>25</sup> In the context of public administration, the most commonly known reform is New Public Management (NPM). NPM, which runs in opposition to the concept of Weberian public administration, emerged in the 1980, and argued that governments should try to mimic the private sector to become more efficient. NPM focused on shrinking the size of government, decentralizing decision making, outsourcing and contracting out service development, as well as attempting to mimic innovative organizational structures from the private sector.<sup>26</sup> In NPM-style organizations, emphasis is placed on private sector values such as efficiency and cost-savings, and on viewing citizens as customers, both in the hope that this should lead to an increase in governmental efficiency and effectiveness.

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<sup>20</sup> Simon, H. A. (1991). The architecture of complexity. In *Facets Of Systems Science* (pp. 457-476). Springer, Boston, MA.

<sup>21</sup> Bryson J.J. (2012) Structuring Intelligence: The Role of Hierarchy, Modularity and Learning in Generating Intelligent Behaviour. In: McFarland D., Stenning K., & McGonigle-Chalmers M. (eds). *The Complex Mind*. (pp. 126-143) Palgrave Macmillan, London.

<sup>22</sup> Zhou, W-X., Didier Sornette, Russell A. Hill, & Robin IM Dunbar. (2005). Discrete hierarchical organization of social group sizes. *Proceedings of the Royal Society B: Biological Sciences* 272, no. 1561, 439-444.

<sup>23</sup> Drechsler, W. (2020). Good Bureaucracy: Max Weber and Public Administration Today. *Max Weber Studies*, 20(2), 219-224.

<sup>24</sup> Mintzberg, H. (1980). Structure in 5's: A Synthesis of the Research on Organization Design. *Management Science*, 26(3), 322-341. Here the focus is rather on private sector organizations, but his theory is also applicable in the public sector context.

<sup>25</sup> Jacques, E. (1990). In Praise of Hierarchy. *Harvard Business Review*, 127-133. Quote from p. 127.

<sup>26</sup> Pollitt, C., Van Thiel, S., & Homburg, V. (Eds.). (2007). *New public management in Europe*. Basingstoke: Palgrave Macmillan.

NPM-based organization thus represents an early attempt to create an ‘agile government’ by focusing on removing bureaucratic regulations and norms, thereby reducing stability and structure. In contrast, Weberian administrations attempt to foster structure and bureaucratic specialization. What has been empirically seen in recent years, and especially during the COVID-19 crisis, is that Weberian-like administrations, i.e., strong and stable organizations perform better *and with more agility* than NPM-type organizations, which have faltered.<sup>27</sup> This is a clear demonstration of how stability, structure, and regulation, core features for good governance, can contribute to the development of governmental capacities such as agility. To state this core proposition of this chapter more succinctly: *Agility is dependent on stability, structure, and regulation.*<sup>28</sup> Adequate levels of all of these enable organizations to be more successful and act in a more agile manner. While it may be true that one could find some examples of bureaucratic governments that are brittle or unstable, for example due to corruption or incompetence, this does not imply that bureaucracy and hierarchy is bad.

## 2.5 Agile Government, Agile Development, and Complex Adaptive Systems

Returning to consider ‘agile government’, we can start from the assumption that government is a complex adaptive system, and as such exhibits traits associated with such systems. One such trait is the ‘edge of chaos’.<sup>29</sup> The edge of chaos is an empirically-demonstrated phenomenon where complex systems naturally hold themselves somewhere between structure and chaos.<sup>30</sup> If a system is not chaotic (agile) enough, i.e., its structure is too rigid, it will not respond adequately to an environmental shock and fail; but similarly, if it is *not* structured and stable enough, a system may overreact to an environmental shock and fail. Consequently, it must be the case that governments have some inherent level of agility, as without this, they would routinely fail. Therefore, to claim government is not agile—which is implied by asking “*should government be agile?*”—is to start from the wrong foundation. Rather, the questions should be:

- Is government agile enough?
- How agile should government be?, or even
- Does our government have enough structure to support increased agility?

There are many other challenges associated with a switch towards ‘agile government’ that we have not covered here, such as adapting procurement strategies, breaking down

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<sup>27</sup> Mazzucato, M., & Kattel, R. (2020). COVID-19 and public-sector capacity. *Oxford Review of Economic Policy*, 36(Supplement\_1), S256-S269.

<sup>28</sup> A similar argument was first advanced in: Drechsler, W., & Kattel, R. (2020). Debate: The developed civil servant—providing agility and stability at the same time. *Public Money & Management*, 1-2.

<sup>29</sup> McBride, K., & Draheim, D. (2020). On Complex Adaptive Systems and Electronic Government: A Proposed Theoretical Approach for Electronic Government Studies. *Electronic Journal of e-Government*, 18(1).

<sup>30</sup> Kauffman, S. A., & Johnsen, S. (1991). Coevolution to the edge of chaos: coupled fitness landscapes, poised states, and coevolutionary avalanches. *Journal Of Theoretical Biology*, 149(4), 467-505.

institutional barriers, adopting new technological toolsets into the decision making process, drafting new legislation, and the loss of managerial and organizational dynamic capabilities.<sup>31,32</sup> Nevertheless, we hope we have communicated our main point, that a ‘fully agile’ government is implausible, very likely undesirable, and at any rate not an outcome necessarily derived by applying agile development techniques.

While agility is desirable in many contexts, including some of those involved in governance, there is presently significant incoherence and misconceptions associated with the term ‘agile government’. Much of its discourse is driven by success stories in the private sector, overlooking that in the private sector there are also many more failures that would be very costly if visited on an entire government—not just economically, but with real tangible negative consequences for the health and well-being of its citizens. Further, many agile businesses are small, transient entities that, while providing employment to a number of people and chances for innovation, simply bear little resemblance to the problems or processes of government.

It is true that agile development is an excellent systems-engineering strategy for some specific types of projects, notably those based around software, but it may well also be useful for the (co)development of novel services or processes even where these are not primarily software or digital based. However, beyond this, the usefulness of agile development methodologies in government is not clear. Similarly, it may indeed prove true that, using agile approaches, core governmental services could be adjusted or even fully re-engineered, providing care is taken to identify and retain key organizational structures and assets. Governments need to be able to respond not only to crises but also to opportunities, and should enable the same for the people they serve. Nonetheless, reliable capacities—including the capacities to respond—also require the stability arising from well-known (or highly-transparent) structures.

## **2.6 Conclusion: Agile Processes versus Agile Entities**

To conclude, in order to avoid the fallacy of agility we cannot rethink or re-imagine government as a completely agile organization without the relevant and necessary stability, structure, and regulations in place. Governments must be agile and maintain the capacity of agility, but these capacities can only be fully realized in tandem with the development, presence, and maintenance of structure and stability. This finding appears to be in opposition with many core fundamental beliefs propagated about ‘agile government’, which argue that traditional bureaucratic hierarchies are not suitable for an increasingly complex environment. However, broad criticisms against hierarchical structures—which have been, continue to be, and most probably will remain optimal structures for large organizations—is rather putting old wine into new bottles. For example, already in 1990 Elliott Jaques noted that:

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<sup>31</sup> Seo, D., & La Paz, A. I. (2008). Exploring the dark side of IS in achieving organizational agility. *Communications of the ACM*, 51(11), 136-139.

<sup>32</sup> Mergel, I., Gong, Y., & Bertot, J. (2018). Agile government: Systematic literature review and future research. *Government Information Quarterly*, 35(2), 291-298.

*“It has become fashionable to call for a new kind of organization to put in place of managerial hierarchy, an organization that will better meet the requirements of what is variously called the Information Age [...]” and that “[...] Thirty-five years of research have convinced me that managerial hierarchy is the most efficient, the hardiest, and in fact the most natural structure ever devised for large organizations.”<sup>33</sup>*

Blanket calls for ‘agile government’, then, are similar to other previously-propagated managerial and organizational reforms and may well similarly under perform when compared to the existing hierarchical structures and strategies in place. Hence, the discussion should not primarily be about replacing, restructuring, or dismantling bureaucracies and hierarchy, but rather about enabling them to perform better. Governance is in this, as in many other things, a balancing act. If ‘agile’ is to become a new paradigm for governing, then at a minimum scholars and practitioners must address its relationship with structure and stability, and resolve the potential mismatch of values between agile management methods and those based around long-term provision of public goods and services such as justice, equity, and a predictable regulatory framework. Most importantly, we must clearly define and theorize on the differences between engaging in agile practices within an organization and the organization being an agile entity in itself.

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<sup>33</sup> Jacques, E. (1990). In Praise of Hierarchy. Harvard Business Review, 127-133. Quote from p. 127.