Oxford Commission on AI & Good Governance

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Practical Lessons for Government AI Projects

Evidence from Four Smart City Initiatives

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April 2021

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EXECUTIVE SUMMARY

Governments around the world are launching projects that embed artificial intelligence (AI) in the delivery of public services. How can government officials navigate the complexities of AI projects and deliver successful outcomes? Using a review of the existing literature and interviews with senior government officials from Hong Kong, Malaysia, and Singapore who have worked on Smart City and similar AI-driven projects, this briefing note seeks to demonstrate the diversity of government AI projects and identify practical lessons that help safeguard public interest.

Emerging evidence shows that government AI projects vary in terms of context and constraints. Based on the literature review, we can classify government AI projects based on their level of importance to government functions and the level of organisational resources available to them. These two dimensions result in four types of AI projects, each with its own risks and appropriate strategies:

- Reformer (high resource, high project importance)
- Steward (high resource, relatively low importance)
- Aspirant (low resource, high importance)
- Adventurer (low resource, relatively low importance)

The evidence yields five general lessons learned, relevant to AI projects in any field. The report cites specific measures and provides recommendations appropriate to the aforementioned project types. In summary, the five practical lessons enjoin government officials to:

- Determine appropriate solutions by critically assessing whether and how AI can help governance challenges.
- Include a multi-step assessment process that includes feasibility studies, pilots, milestones for quality control, and post-implementation monitoring.
- Strengthen the government's bargaining position with technology vendors and external partners.
- Ensure sustainability of AI projects in terms of human talent, as well as financial and political support.
- Manage data, cybersecurity, and confidentiality in ways that protect national interest and individual privacy, and also win public trust.

These findings underline that government AI projects involve more complexity and novelty than others. To meet these challenges, governments need to take certain considerations and frames of thinking into account, which are specific to AI projects. In this study, this briefing note demonstrates a method for classifying AI projects, and offers five detailed practical lessons that also include strategies specific to the varying types of AI projects.

1 INTRODUCTION

Governments around the world are launching projects that embed AI in the delivery of public services. These range from AI-driven management of internal systems to Smart City solutions for urban problems, and the government sponsored introduction of AI in key sectors such as manufacturing, agriculture, and defence, among others. These AI projects not only require governments to internally mobilise organisational, human, and financial resources, but also to collaborate with technology companies to obtain software, hardware, and technical expertise. However, a recent survey finds a failure rate of almost one third of AI-related projects reported by nearly half of the government managers surveyed.[1]

The possibility of failure is unsurprising, as AI projects can be more complex than conventional ones. First, AI projects require government officials to be competent in technical subjects and data management—skills which conventional civil service training and career experience may not provide. Second, the large-scale deployment of AI in government functions is still relatively new. Consequently, expectations on AI projects can be unrealistic, commercial ecosystems needed to sustain competitive AI solutions are not always mature, and proven AI solutions across diverse fields have not yet been established.

Clearly, government officials will benefit from a succinct framework that helps them navigate the complexities of AI projects, avoid pitfalls, and uphold the public good. This briefing note develops a set of practical lessons by looking at lessons from Smart City projects—a nascent yet increasingly widespread type of government AI project leveraging artificial intelligence and algorithmic technologies to manage urban life.[2–4]

2 METHODOLOGY

This study employed a sequential qualitative study design, with multiple rounds of literature review and in-depth semi-structured interviews with senior policy practitioners. The first step was made in conducting an exploratory review of literature to understand the Smart City landscape and map the diversity of AI-driven projects. This found that these projects can be classified based on level of importance and organisational resources for AI. The combination of these dimensions created four distinct project types, which will be detailed subsequently. Building on this knowledge, a second round of literature review focussed on existing empirical cases to determine general best practices, and sought to identify strategies relevant to the various types of AI projects. Particular attention was paid to Asia, a region where countries vary in terms of income levels, human capital, and infrastructural development. Thus, Asia reflects the variety of circumstances facing governments around the world as they implement AI projects.

Following these two stages of literature review, semi-structured interviews were used to gather new data from practitioners (except in one instance where government respondents preferred to answer via email). The selection criteria sought to identify administrations with a known history of deploying and operating Smart City initiatives and similar data-driven initiatives, while at the same time having experience with diverse kinds of AI-driven projects. Experienced senior officials from Hong Kong's Office of the Government Chief Information Officer (OGCIO), the Malaysia Digital Economy Corporation (MDEC), and Singapore's Government Technology Agency (GovTech) gave valuable insights and strategies regarding projects that involve AI, data, information technology, and algorithmic solutions. After many years of delivering technology solutions to complex governance problems, these senior officials have formed practical strategies and effective ways of undertaking AI projects in diverse situations.

These methods aim to capture the diversity of AI projects and glean lessons from them. As the first round of literature review revealed, AI projects can be classified based on organisational resourcing for AI, and level of importance. The first factor, *organisational resources for AI*, refers to the ability of a government agency to allocate three resources:

- Financial resources
- Human resource, in the form of officials with competence in data and AI technologies
- Organisational cohesion that ensures continuity despite changes within the government

High-income governments do not necessarily score highly in organisational resources, and low-income governments do not necessarily score poorly. After all, financial resources and in-house expertise vary even between government agencies in the same country. Moreover, the same government may assign different levels of resources depending on the project.

The second factor, *level of importance,* refers to whether failure to deliver the project will derail a fundamental government function, or impede a critical national interest.

Rather than a binary, this is a spectrum. AI projects range from important ones such as using real-time traffic command centres to alleviate extreme traffic congestion, to arguably less urgent ones such as replacing conventional street lighting with "smart" streetlights. As a caveat, it is difficult for external observers like researchers to assess where a project lies in this spectrum since it is the government itself which can determine how important the project is to the national interest and public service.

The combination of these two dimensions creates four distinct project types shown in Figure 1: reformer, steward, aspirant and adventurer—which are discussed below with some stylised examples.

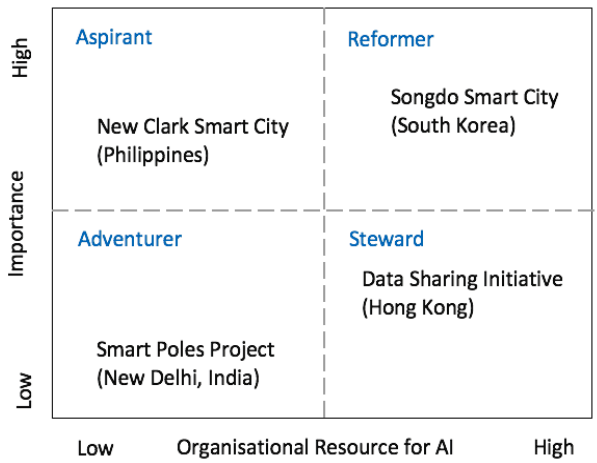

Figure 1. Types of AI projects

Reformer Projects

Reformer projects have high organisational resources and involve a core interest, enabling the project to bring about important changes. An example is the transformation of South Korea's Songdo City from empty reclaimed land into a 600-hectare Smart City into which the local and national government poured significant financial and technical resources.[5] Songdo can be considered a core interest because it was intended to attract foreign firms to house their Asian operations in Korea.[6]

These projects possess several advantages. The considerable organisational resources allow thorough planning and implementation. Internal experts can scrutinise agreements with technology companies on technical matters, lessening the risk of approving disadvantageous contract terms. However, reformer AI projects also present some risks. They could become too big to fail. Due to the large investments already committed, the costly undertaking is maintained even as the original reasons motivating the project are no longer valid. For example, Songdo Smart City has seen continuous massive funding since 2003, despite disappointing rates of occupancy.[7] The underwhelming outcome is largely due to external changes in the global economy. China joined the World Trade Organisation in 2001 and attracted massive foreign investment, weakening the prior assumptions of Korean planners about the relative attractiveness of Korea as a foreign investment destination compared to China.[8]

Steward Projects

Steward projects have high organisational resources committed to a project that is not critical to government service provision. In such projects, government officials need to implement a project which may or may not bring excellent results, while ensuring that, at the very least, the project does not harm the government's core interests. One example of this type is Hong Kong's initiative of providing constantly updated data on city activities—such as data sets on urban mobility—to the private sector in hopes of spurring a digitally savvy, entrepreneurial class.[9] The government makes sure that the data is anonymised through their in-house data expertise, and that it is then used responsibly by the private sector to protect the public interest.

Aspirant Projects

Aspirant projects receive insufficient organisational resources, yet the project serves a core interest. An example would be the planned New Clark Smart City in the Philippines, which is meant to stimulate regional economies, ease the demographic pressure in the overcrowded capital, and provide an alternative base for the national government in case of disasters and emergencies.[10] The government acknowledges that it does not have the expertise and financial resources to accomplish this and will have to rely on external consultancy for technical expertise, and tap private funders for at least 60% of the cost.[11] Aspirant projects have limited means to purse their envisioned AI goals. Since the government needs to partner with external partners or private funders, it becomes harder for officials to defend against private interests. Aspirant projects face additional risks such as moral hazards, conflict of interest, and adverse selection long observed in private–public funding models.[12,13]

These projects also face difficulties in problem formulation, planning, negotiation with technology companies, and

execution. Due to possible lack of in-house expertise, officials may find it harder to determine appropriate solutions. To save costs, governments may agree to off-the-shelf solutions offered by technology companies, but the lack of customisation may result in sub-optimal outcomes for citizens.[14]

Adventurer Projects

Adventurer projects have low organisational resources and tackle a non-core project, exploring AI possibilities without any intention to commit enormous resources. An example would be the installation of smart street lights in New Delhi, India. While these poles automatically dim to save energy, have air sensors, and make the city "look futuristic at the same time,"[15] the added value when compared to normal street lights is arguably not essential to New Delhi's citizens.

The Smart City project proposed for Bilaspur, India, in 2016 is another example. The national government ordered city planners that "no costs on infrastructure should be incurred" and that only information technology solutions will be approved. Hence, the proposed Smart City for Bilaspur involved, city-wide, a digital operating system for electricity, water, healthcare, birth and death records, credit card data, traffic licensing, and penalties. Consequently, Bilaspur's municipal commissioner deemed the vague slogans and IT-centric city blueprint as irrelevant to Bilaspur's real urban problems, such as the lack of conventional transport infrastructure and basic services.[16] The lack of resources to solve root problems and the incoherence among municipal and national levels of government signify that Bilaspur's Smart City proposals have low organisational resources. This example indicates that adventurer projects run the risk of using AI and digital technologies to solve deep governance problems, without addressing root causes such as infrastructural deficiencies and lack of investment.

However, it is conceivably less likely for the government to be held accountable if the adventurer project fails, since it is not a very important project and may receive less public and administrative scrutiny. As an upside, since adventurer projects do not serve a core interest, the social impact of failure is not likely to be as significant as in aspirant projects.

Given the breadth of possible AI project types, the literature reviews and interviews aimed not only to yield general best practices, but also provide insights on how to manage these varying types of AI projects where possible.

3 FINDINGS

Analysis of the literature, and the interviews with senior policy practitioners provide the following five practical lessons.

Determine Appropriate Solutions

The literature and the interviews suggest that AI and the costly data infrastructure involved are not always the optimal solution to governance problems.[17] Governments must carefully assess whether creative, non-AI solutions will meet the set objectives with less complexity and cost. Interviews indicate that the need to consider creative, relatively low-cost technology solutions can potentially trump expensive AI solutions. For example, in an effort to predict areas affected by floods, Jakarta did not install expensive AI sensor systems.[18] Instead, the Jakarta government adopted a free, open-source geosocial software that modelled flood impact based on Twitter data. The government and the non-government group maintaining the model gather sufficient data by encouraging Jakarta's citizens to tweet about the severity of flooding in their locales.[17] Their system now produces accurate flood maps which help the government deploy rapid disaster responses and plan future flood-control priorities. This creative and inexpensive approach is especially helpful to aspirant and adventurer project types, which are both characterised by limited investment of resources and capital.

Several sources underline that the perspectives and specific needs of target end users—whether citizens or internal government stakeholders—are important.[18,19] Whenever possible, officials should gather opinion and perspectives through public consultation, workshops with stakeholders, or meetings with other government agencies that are involved.[19] These consultations should genuinely seek to gather views, rather than be used simply to legitimate technologies that were developed and chosen beforehand.[16] An official from Hong Kong shares some best practices: "In formulating the Smart City Blueprint for Hong Kong, the government conducted a series of engagement activities, including round-table meetings and a town hall meeting, to collect views from various industry and business sectors. … In the course of formulating Blueprint 2.0, we have organised and participated in focus discussion groups and industry engagement meetings, to better gauge opinions and the latest technological developments for enhancing smart city initiatives and strategies."[19]

To better serve the emerging needs and problems of citizens and target users, governments must keep abreast of technological solutions in the market—and the pros and cons of these technologies. Otherwise, they cannot effectively conceptualise how certain governance problems can be addressed by available technologies. Interviewees say this can be done through regular high-level meetings with representatives from the technology industry, and by assigning certain officials to regularly survey emerging technologies offered by the market.[18,19]

If there are no cost-efficient solutions on the market to a unique problem, experience suggests that governments can tap in-house expertise to consider whether readily available hardware and software can be combined and configured to provide bespoke solutions. Exemplifying this agile approach, the Singaporean official from GovTech recounts: "We took an off-the-shelf camera with depth perception from Company A, we took the thermal capability chip from Company B, and then we docked a circuit board that allows us to connect these two, and we 3D-printed the other parts. And then, using deep learning, we were able to create a thermal camera with the capabilities that we want." This helped them rapidly implement intelligent thermal sensing capabilities to use against COVID-19.[18]

Interviewees reiterate that aside from impacting the target policy area, AI may have positive spillover effects such as jump-starting new local industries, enriching the entrepreneurial ecosystem, transferring technology from international vendors to local companies, cultivating homegrown talent, and introducing solutions that may pave the way for creative solutions in other policy areas. For example, the Malaysian government's expertise in AI-related projects and pre-existing relations with the technology industry have helped the MDEC expand from Smart City and digital economy projects to smart agriculture and aquaculture.[20]

Governments will have to consider whether to buy or build solutions. As a general principle, it makes sense to buy off-the-shelf AI solutions if they are cost-effective. If there is sufficient in-house expertise, governments may consider building the solution themselves since this has the advantage of generating intellectual property and avoiding licensing fees and security issues that arise when vendors are involved.[18] If hardware is heavily involved in an AI solution, it may be better to buy off the shelf rather than burden the government with manufacturing hardware, unless it is strategic to national interest, such as assets for internal security and the military.[18]

Include a Multi-Step Assessment Process

Interviewees widely agree that a detailed feasibility study of any proposed AI solution must be undertaken by in-house experts who can make assessments with minimal reliance on external expertise, which might not always provide objective advice. According to a senior official from Hong Kong, "An important factor is to maintain an adequate resource of in-house expertise with sufficient knowledge in big data analytics and AI, and who closely tap the latest development the IT market." These in-house experts need to assess the costs, the resources, the tangible and intangible benefits, and the spillover effects, as well as the magnitude and severity of potential risks.[18,19] This should be just the start of multiple checks on progress to ensure that the project meets the government's expectations and upholds the public good.

After proper feasibility studies are done, tenders must be crafted with carefully considered and transparent specifications. Governments may wish to consider a pro-innovation procurement process which encourages competition, minimises entry barriers, and gives innovative start-ups and small-to-medium enterprises a better chance of competing.[19] Tender submissions from vendors should be considered final and binding. Technology companies acting as vendors should not be allowed to change quality specifications later on, except for extremely compelling reasons.[18,19]

The literature and interviews emphasise the utmost importance of conducting a pilot study to test the feasibility of the AI solution. To fund the pilot, it makes sense for the government, vendors, and other partners to reach a cost-sharing arrangement that protects the public interest.[20] Greenlighting the project must depend on satisfactory pilot outcomes. Following conventional best practice in project management, it is helpful to break down the project into project milestones or work packages. After vendors deliver each work package, governments should conduct systematic quality assurance checks to ensure the quality of the vendor's products and services, and promptly flag problems and risks at different checkpoints.[18,20] Once the project deliverables become operational, post-implementation assessment is useful in ensuring the desired outcomes are met.

The literature warns against flawed assessment criteria. The target outcomes must revolve around specific improvements of citizens' lives or internal government processes, rather than on merely technical indicators with little relevance to real governance problems.[16] The assessment process should also consider whether the algorithm or the hardware have flaws that may lead to discrimination or negative social impact.[21] For example, facial recognition software used in surveillance and crime prevention has been reported to unfairly discriminate against minorities,[22] since the AI has not been optimised to account for racial differences. Governments can look at previous deployments of the AI solution in question to assess the risks involved.

Strengthen the Government's Bargaining Position

AI projects almost always require governments to strike deals with external partners and vendors of AI technologies. Governments must strengthen their bargaining position to better uphold the public interest.

At any stage of the project, from initial scoping to eventual operation, government representatives may find it challenging to interface with technology company representatives who are very technically knowledgeable. Even highly skilled government officials experienced in conventional infrastructure projects may unknowingly miss the implications of data risk and the social impact of AI. Hence, interviewees indicate that governments must look for ways to equip their representatives with appropriate skills.[18–20] Knowledge and awareness of the latest technology developments and deep expertise in the advantages and disadvantages of these technologies provide leverage to governments.[19] These also protect governments from unrealistic claims by technology companies.

Experience underlines the need to stipulate in the contract that technology companies must use systems that are interoperable with other solutions in the market, or use standard technologies, rather than rely heavily on obscure or proprietary ones. Otherwise, heavy dependence on a technology company's proprietary technology will result in "lock-in". This refers to the use of proprietary or obscure software and hardware that are not interoperable to systems used by other technologies, thus tying the project to that company even if the project outcomes are sub-par or better solutions appear. If lock-in happens, the government's leverage will weaken, and it will be costlier to shift to a superior provider in the future.[23] Among all the project types, aspirant projects are most at risk of lock-in. Without expertise on technical matters and the capability to build in-house AI infrastructure, aspirant projects risk handing excessive control of data to technology companies, or approving terms that will tie the project to that company for the foreseeable future.[23] In any case, all projects must consider scale and modularity when structuring deals with vendors. Does the current agreement allow the government to seamlessly and affordably scale up or down the technology in the future?

As can be expected, a government's leverage increases when it already possesses the data infrastructure and relevant datasets, and has strong, ongoing relations with technology vendors.[20] Since these foundations are already in place, the government reduces the leverage of new vendors offering novel AI solutions. Following this principle, if reformer projects (high importance, high organisational resources for AI) have the in-house ability to generate and analyse data related to the project, their leverage against technology companies increases further. However, reformer projects must exhaust means to implement the project with minimal transfer of data to the technology company, unless the balance between risk and reward is highly favourable. If the reformer project has low data competence, then it may make sense to use its formidable resources to own some key data-related steps such as data sensing, data generation, or data analysis, as a way of decreasing the vendors' control of data.

Government officials managing steward projects (high organisational resources, low importance) must take advantage of their high leverage with technology companies. Technology companies are likely to give fair terms, since they know their government counterparts are capable. When technology companies act in ways that rile the government or flout agreed terms, the government may cancel the project since it does not serve a core interest anyway, presenting a loss of income to the technology company. If the steward project has low in-house competence and the technology company harvests data, this creates some risk for the project. In which case, its planners need to determine whether the potential reward accompanying this risk is acceptable. Alternatively, the government units can consider using their resources to build-in house capabilities to perform some aspects of data capture and analysis themselves.[18–20]

The interviews reveal several other steps that most government officials can undertake to increase leverage. Governments can create a blacklist of technology companies found to violate agreements or provide inferior AI solutions. All government agencies can report underperforming

technology vendors and partners in an intra-government bulletin.[18] The possibility of being precluded from bidding and calls for tenders across all government agencies can discourage corporate behaviours that harm the public interest. A senior official from Singapore also stated that it helps to aggregate the technological and AI-related needs from all branches of government, to enable the issuance of bulk tenders, which allow governments to angle for reasonable discounts and other concessions from vendors. To this end, government agencies need to coordinate with each other to determine bulk demand.[18]

Ensure Sustainability

Existing empirical examples and the interviews emphasise that governments should cultivate homegrown talent in AI. Many of the recommendations outlined here are founded on governments and their respective countries having the talent and expertise in AI, data science, computer science, and other highly technical subjects. Without a sufficient stream of home-grown talent, government-led AI projects are not sustainable. Having technical experts allows governments to properly assess the feasibility of technological solutions and competently negotiate with technology companies.[20] The country's talent pool supplies the human capital needed to operate, troubleshoot, and maintain the data-intensive and high-skilled tasks in AI-driven government services.

So important is the cultivation of this talent that the Malaysian government implemented policies to exponentially increase Malaysia's pool of data scientists from less than 100 in 2014, to about 14,000 in 2020. Emphasising the Malaysian government's proactive efforts to foster homegrown talent, the Malaysian expert adds: "Before we started this [drive to foster talent], five years ago, there were zero universities offering a Masters in Data Science. Right now, we have 12 universities that do." Likewise, the Singaporean government, whose Smart Nation Initiative is considered world-leading,[24] recruits highly qualified experts in AI and computer science. GovTech, the Singaporean government's technology unit that implements its Smart Nation Initiative, runs five capability centres that focus on various specialised areas of AI and data. A significant percentage of Singapore's Smart Nation team have a masters degree or a PhD in a technical subject.[18]

Emerging trends suggest that due to their complexity and novelty, AI projects encounter various risks that may undermine their continuation and sustainability after project delivery. Hence, officials must pre-emptively plan for these contingencies. One such risk stems from the use of AI to replace non-technological means of delivering government functions. Planners should be aware that if the AI project falters yet the prior solution has already been dismantled, government services to citizens will suffer. Due to this risk, Malaysia's MDEC takes extra caution with technological solutions that replace existing systems, opting for extensive pilots and piecemeal deployment to avoid prematurely replacing prior systems.[20] The Malaysian official warns: "I think it's risky to replace an existing system … the reason why we have to do all these pilots is because we want to make sure that this system is clear and there's no error." This consideration is especially relevant to reformer and aspirant projects, which involve important government goals or core public services.

The literature reveals another risk, which is that the assumptions motivating the AI project no longer hold after considerable investments have been sunk into it. This risk is especially pronounced in reformer projects, where projects could become "too big to fail".[5,6] To counter the risk of snowballing investment in an apparently flawed idea, planners must prepare contingency plans regarding when and how to cut losses. Officials can also design AI projects to generate several positive spillover effects; such that if the primary objectives cannot be met due to changed external conditions, society still gains some benefit from the costly project.

On consultation, experienced officials express their belief that visible commitment from the highest levels of government matters. It weakens bureaucratic inertia and compels internal government actors and external partners to prioritise the AI project and find ways around difficulties.[18,20] In practice, seeing AI projects to fruition may rely on an official who champions the AI project at higher levels of government. However, a high-level AI champion may leave government or be replaced due to changes in politics, thus leading to the premature discontinuation of promising AI projects. To decrease the risk of losing high-level support, it helps to have *several* high-level officials who are well-versed in the merits of AI and therefore could continuously champion AI projects that have passed stringent feasibility assessments.

Known studies on Smart City and AI projects indicate that these are long-term endeavours. The benefit of government AI projects is not immediate, but instead is cumulative and reliant on several AI projects synergising to have their presence felt by citizens.[18] Hence, there should be

organisational, financial, and political support for long-term implementation. This becomes more likely if the government has set out a clear, long-term AI strategy.[18]

However, AI projects can incur schedule and budget overruns.[25] Due to changes in politics or short-term priorities, AI projects may be discontinued before their true benefits become clear. Officials must consider: Will the resources allocated to the AI project survive different administrations? What will happen to sunk costs and half-finished investments? Is there a way to repurpose them to somehow recoup returns for citizens? Has there been sufficient attention to the resources needed for an AI system's upkeep after project delivery, such as maintenance expertise and upkeep expenses? While applicable to all project types, these considerations are especially relevant to low-resource projects types, such as aspirant and adventurer projects.

Manage Data, Cybersecurity, and Confidentiality

The literature and interviews stress that governments must mitigate the risk of inadvertently leaking confidential information. This includes not only the government's intellectual property and the personal information of citizens, but also the government's strategic intentions, information with relevance to national security, and confidential management techniques.[18] To this end, some important steps include the anonymisation of data, removal of any personal identifiers, encryption, and hardening of data infrastructure against hacking and theft.[26] The level of data and types of use allowed to each party must also be made clear to external parties who own the data.[27] While it may not necessarily be productive for governments to require visibility into the algorithms used by vendors, the latter must be asked to justify the need for the data they will collect and feed into their AI models.[18]

Governments must also manage public trust in their handling of data and security. When the public does not trust the government with data derived from their activities, then it becomes difficult to deploy AI in public services. Governments can protect public trust by transparently declaring the government's methods of handling data and cybersecurity, and having the ability and disposition to explain how an AI solution works when the public asks for clarification.[28,29]

4 CONCLUSIONS

In this study, multiple rounds of literature review and interviews with senior government officials were employed to understand the diversity of emerging AI government projects, and glean best practices. AI projects often vary in terms of their importance and the allocation of resources specifically to AI. These two dimensions result in four types of AI projects:

- Reformer (high resource, high project importance)
- Steward (high resource, relatively low importance)
- Aspirant (low resource, high importance)
- Adventurer (low resource, relatively low importance)

Each of these types of project has its own set of opportunities, risks, and appropriate strategies.

This briefing note proposes five practical lessons that will help governments manage diverse types of AI projects while minimising risks and upholding the public interest. These practical lessons need to be tailored according to the context of the project and its project type. Hence, this paper has also shown how certain practical lessons can be deployed to mitigate the risks or pursue the advantages inherent in each project type.

By elaborating these practical lessons, this paper hopes to contribute to a future where government-led AI projects indeed serve the public good.

5 RECOMMENDATIONS

Government officials should identify which of the four AI project types is relevant to their specific project. In doing this, they can benefit from a greater awareness of the risks, opportunities, and strategies suitable for their specific project.

The four AI project types are:

- Reformer (high resource, high importance)
- Steward (high resource, low importance)
- Aspirant (low resource, high importance)
- Adventurer (low resource, low importance)

This briefing note proposes the following five recommendations that can be implemented once the project type is identified:

1. Officials must determine appropriate solutions to their governance challenges and critically assess whether and how AI can help. Most especially, officials of low-resource project types (aspirant and adventurer projects) need to look for creative, affordable solutions before embarking on expensive AI solutions.

2. Officials must institute a multi-step assessment process that includes feasibility studies, pilots, milestones for quality control, and post-implementation monitoring. For projects with high importance (reformer and aspirant projects) that replace pre-existing systems, piecemeal deployment is especially important. This prevents pre-existing solutions from being dismantled before the new AI solution is proven to be reliable.

3. Governments must strengthen their bargaining position with technology vendors and external partners through measures such as equipping government negotiators with competence in AI, instituting blacklists, and issuing bulk tenders to get discounts. High-resource projects (reformer and steward projects) must leverage their position of strength and consider developing in-house capabilities where sensible, to minimise reliance on external vendors.

4. Officials must pay attention to the sustainability of AI projects in terms of human talent, and financial and political support. Project planners must anticipate threats to sustainability and prepare measures to minimise impact to the public interest. In addition, high-resource projects—especially reformer projects—must prepare against the risk of being too big to fail.

5. Officials must manage data, cybersecurity, and confidentiality in ways that protect the national interest and individual privacy, and also win public trust.

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ACKNOWLEDGEMENTS

For supporting our Oxford Commission on AI & Good Governance, we are grateful to the Ford Foundation and the Open Society Foundations. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the Commission and do not necessarily reflect the views of the University of Oxford, our founders, or individual commissioners. This research received ethics approval from the Central University Research Ethics Committee of the University of Oxford. The CUREC number for this research is SSH_OII_CIA_20_73.

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The mission of the Oxford Commission on AI and Good Governance (OxCAIGG) is to investigate the artificial intelligence implementation challenges faced by governments around the world, identify best practices for evaluating and managing risks and benefits, and recommend strategies for taking full advantage of technical capacities while mitigating potential harms of AI-enabled public policy. Drawing from input from experts across a wide range of geographic regions and areas of expertise, including stakeholders from government, industry, and technical and civil society, OxCAIGG will bring forward applicable and relevant recommendations for the use of AI for good governance.

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Oxford Commission on AI & Good Governance.
Written & researched by Godofredo Ramizo Jr (2021).
Practical Lessons for Government AI Projects. Working paper 2021.1, Oxford, UK: Oxford Commission on AI & Good Governance. 14pp.

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