BUILDING THE FOUNDATIONS FOR AI
WHAT DOES THIS PIVOTAL MOMENT MEAN IN THE AGE OF AI?

"A Pivotal Moment for Philanthropy … " (attached) captures the lessons learned from more than a decade of bringing tech talent into government to help improve the delivery of government services to the American people. This work has never been more critical as governments begin to wrestle with where, how and when to apply emerging technologies like Artificial Intelligence (AI) to pressing delivery and policy problems—and where, how and when to regulate these technologies effectively. This will only be possible if government has people with the relevant skills and the internal expertise to:

- Make informed policy decisions about AI;
- Regulate AI effectively;
- Evaluate the risks and benefits of AI products;
- Implement new technologies that center the needs of the communities using services.

Federal, state and local government leaders are looking to lead in AI.

The interest is clear: Advances in AI may help people navigate complex government processes, accelerate case-processing for government staff, and allow data teams to quickly identify trends and patterns to improve service delivery. Advances can ease stress in understaffed and resource-constrained agencies—e.g., enforcing regulations, adjudicating claims, and performing administrative activities for government agencies.

However, using AI can lead to significant problems if not managed properly.

AI RISKS AND OPPORTUNITIES

At this moment, governments at all levels are struggling with how to deal with the risks and opportunities associated with AI. Although the field of AI started in 1956, we are now at an important inflection point with applications such as GPT-4 leading the private sector to make massive investments in compute, talent, data, and new algorithms.

According to OSTP Director, Arati Prabhakar:

> "As with every powerful technology, each of AI's applications will have bright and dark sides. AI that generates text, images, audio, and video holds the promise of personalized learning and expanded creativity and productivity — and will also undermine information integrity and exacerbate deepfakes. AI that generates code will mean faster, more effective software programs — and faster, more effective cyberattacks. And AI that generates biological designs can accelerate treatments for cancers — and could lower the barrier for bad actors to create biothreats."

Examples of AI risks might include:

- The development of sophisticated AI-driven cyberattacks (so-called "zero day exploits") to disrupt the power grid, communications networks, and financial markets.

- The reinforcing of existing societal biases in high-stakes decisions facilitated by AI, such as hiring, allocation of small business loans, parole, and access to preventative health care services.

Examples of potential opportunities include:

- Expanding access to benefits such as SNAP, WIC, and Medicaid through easy-to-use AI conversational interfaces.

- Using AI for early detection of diseases such as cancer, which makes them easier to treat.

GOVERNMENT CANNOT CONTRACT FOR ACCOUNTABILITY.

It needs the internal expertise to evaluate the quality and accuracy of data and the risk of bias, while also providing transparent and explainable processes. Government must play a leadership role in not only introducing these technologies responsibly, but also overseeing their use to ensure groups are not systematically being discriminated against. Without the right expertise, it is difficult for government to evaluate the tools being marketed to them, leaving leaders with no framework to guide purchasing and partnership decisions.

One thing that is clear is that governments will not be able to play a constructive role in the governance and use of AI without a large increase in people with the relevant expertise, able to help make and implement decisions like:

- How should regulators leverage their existing authorities to develop and enforce regulations that further cover AI activities in the marketplace?

- What third-party audits, evaluations, and "red teams" should inform decisions about the responsibility and liability that AI companies should face for harms to people?

- What investments should governments make to expand access to compute (e.g. large GPU clusters) for university researchers and small businesses so AI development is not dominated by a small number of firms?

We need more people with expertise in both AI and other topics — such as biosecurity, cybersecurity, regulation, civil liberties, privacy, disinformation, national security, global competition, and critical applications in health, education, workforce development, science, climate change, and access to government benefits.

It is also important to have independent sources of expertise in universities, civil society organizations, and think tanks, so that large AI companies do not dominate the public discourse. **More than 300,000 layoffs in the tech industry since 2022 and soul searching among technologists are creating a powerful moment for governments to build state-of-the-art foundations for AI.**

Governments are poised like never before to build:

- **AI leadership teams** with highly qualified chief information officers, chief data officers, chief technology officers, chief information security officers, chief customer experience officers and AI advisors; and

- **AI delivery capacity,** such as digital services teams and training existing program and data leaders to understand AI.

- **AI governance teams,** such as technology offices in regulatory entities and teams within agencies that include civil rights officers, privacy officers, and AI leads.

RECOMMENDATIONS

As the attached report describes, the stakes for our democracy could not be higher. Philanthropy is uniquely positioned to invest in organizations that help close widening gaps, build government's technical capacity to deliver, and identify the benefits of AI, while understanding and managing the risks. In order to do this, governments need people with relevant skills to make and implement decisions related to AI governance, investment in R&D, promotion of a more diverse workforce, and government use of AI in an operational context. In the absence of this capacity, governments will not be able to ensure that the development and adoption of AI is consistent with our core values, such as democracy, civil liberties, and economic mobility.

To take advantage of this moment, we must align real resources, knowledge and networks to build a foundation for AI in government. We must engage and support tech talent and leadership at the federal, state and local level. Based on insights shared by dozens of experts and experiences over the last decade, funders might focus on five key areas:

1. Support Nonprofits Building Technical Capacity

Help governments recruit and hire professionals with the skills and willingness to work in government. Technical people who have never served in government may need training to be more likely to succeed in a public sector environment. Governments need to strengthen their own capacity for recruiting, hiring and retention. They need to actively recruit, reduce the time from interview to offer letter, and foster an environment that supports people with technical skills. Ultimately, government needs help communicating the enormous role that public servants will play in determining whether the 21st century goes well or poorly.

Multiple nonprofits are already working effectively to shore up government's digital capacity, including AI. But they aren't doing the work at scale. Funders can provide multiyear support

to expand programs matching technologists with public service roles, modernizing archaic systems and training civil servants. Long-term general operating grants give nonprofits the flexibility to meet rapidly evolving needs.

2. Invest in Modern Tools and Training

Upgrade the knowledge and skillset of public sector workers through executive education and trainings by resourcing programs that effectively develop technical tools, trainings and educational exchanges tailored to government's needs. Resources could build data and AI expertise across agencies (i.e., in service delivery, regulation and research), develop interfaces improving constituent experience, and build capacity to regulate technologies. Sharing solutions between agencies and sectors can promote efficient progress.

3. Back Independent Research on Effective Governing in the Digital Age, and AI

First, support research on governing in the digital age to elevate awareness and spread promising models. Studies could cover hiring, human-centered policymaking, equitable service delivery, technology regulation, and other key issues at the intersection of tech and the public good. In terms of AI, strengthen the capacity of universities, think tanks, and civil society organizations to conduct independent research and analysis, and generate concrete policy recommendations. Invest in institutions that develop "bilingual" people (e.g. at the intersection of AI and issues like cybersecurity, biosecurity, and civil liberties) through multidisciplinary graduate programs, postdocs, fellowship programs, and executive education.

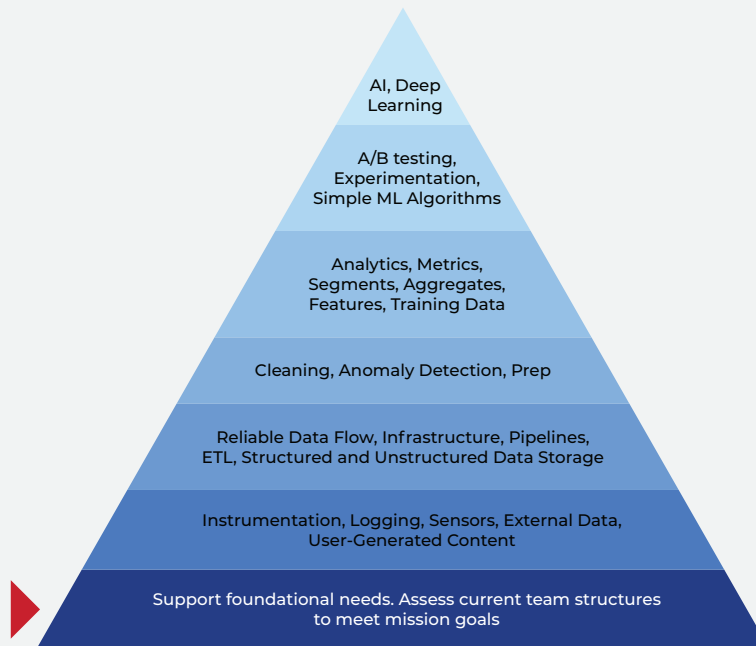## 4. Sponsor Tech Policy Fellowships

Sponsoring fellows with the technology expertise to advise Congress and federal agencies fosters direct exchange of expertise where it is lacking. Fellows gain policy experience while bringing technical expertise into government, leading to the creation of concrete policy recommendations. Intergovernmental Personnel Act placements also allow temporary staff sharing among nonprofits, academia and governments.

5. Raise Public Awareness

Raising public awareness is essential to driving change. Funders can spotlight gaps in effective governing through storytelling—media campaigns, documentaries and investigative journalism. Op-eds, events and pop culture partnerships are other avenues for engaging diverse constituencies on the urgency of the pacing crisis.

If all stakeholders—philanthropists, government and nonprofits—align around inclusive solutions, we can empower government to effectively serve the public interest in the 21st century. There is no time to lose.

THE DATA SCIENCE HIERARCHY OF NEEDS

AI, Deep
Learning

A/B testing,
Experimentation,
Simple ML Algorithms

Analytics, Metrics,
Segments, Aggregates,
Features, Training Data

Cleaning, Anomaly Detection, Prep

Reliable Data Flow, Infrastructure, Pipelines,
ETL, Structured and Unstructured Data Storage

Instrumentation, Logging, Sensors, External Data,
User-Generated Content

Support foundational needs. Assess current team structures
to meet mission goals

(Most agencies are here)

Original pyramid by Monica Rogati *The AI Hierarchy of Needs*

TECH TALENT PROJECT

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