

Artificial Intelligence and Humanity Education – Gumgang University

Artificial intelligence, government & the public interest

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Part I: Government and AI

AI & Government

- Definitions
- Benefits
- Challenges

Definitions

Artificial Intelligence in government

Survey of educators & practitioners

- Producing software that exhibits traits we find in humans
- Producing goal oriented agents
- Building sophisticated or complex systems
(26% practitioners, only)

Examples

1. Machine learning
2. Deep learning
3. Computer vision
4. Speech recognition
5. Robotics
6. Predictive analytics

EXAMPLES

- **Video AI to inspect infrastructure (e.g. water)**
- **Advanced analytics on complex data**
- **Virtual assistants for government forms**
- **Predicting machine & infrastructure failure**
- **Enforcing regulatory compliance or tax audits**
- **Policing data analysis & prediction**
- **AI enhanced transportation, medical devices etc**

BENEFITS

- 1. Efficient decision making**
- 2. Effective cyber security**
- 3. Faster processing times**
- 4. Automate routine human tasks**
- 5. Automate dangerous human tasks**
- 6. Regulatory enforcement**
- 7. Financial savings**

CHALLENGES

- 1. Loss of discretion in decision making**
- 2. Citizen privacy and security**
- 3. Replacement of human workers**
- 4. Discrimination**
- 5. Over reliance on bad data or flawed models**
- 6. Lack of human capital to manage AI**
- 7. Lack of capacity to regulate AI**

Part II: AI in the US government

**AI use and capacity
the US government is
fragmented.**

National AI Initiative Office in
the White House Office of
Science and Technology
Policy is responsible for
federal AI coordination.

45

percentage of federal agencies
that have explored using AI

33

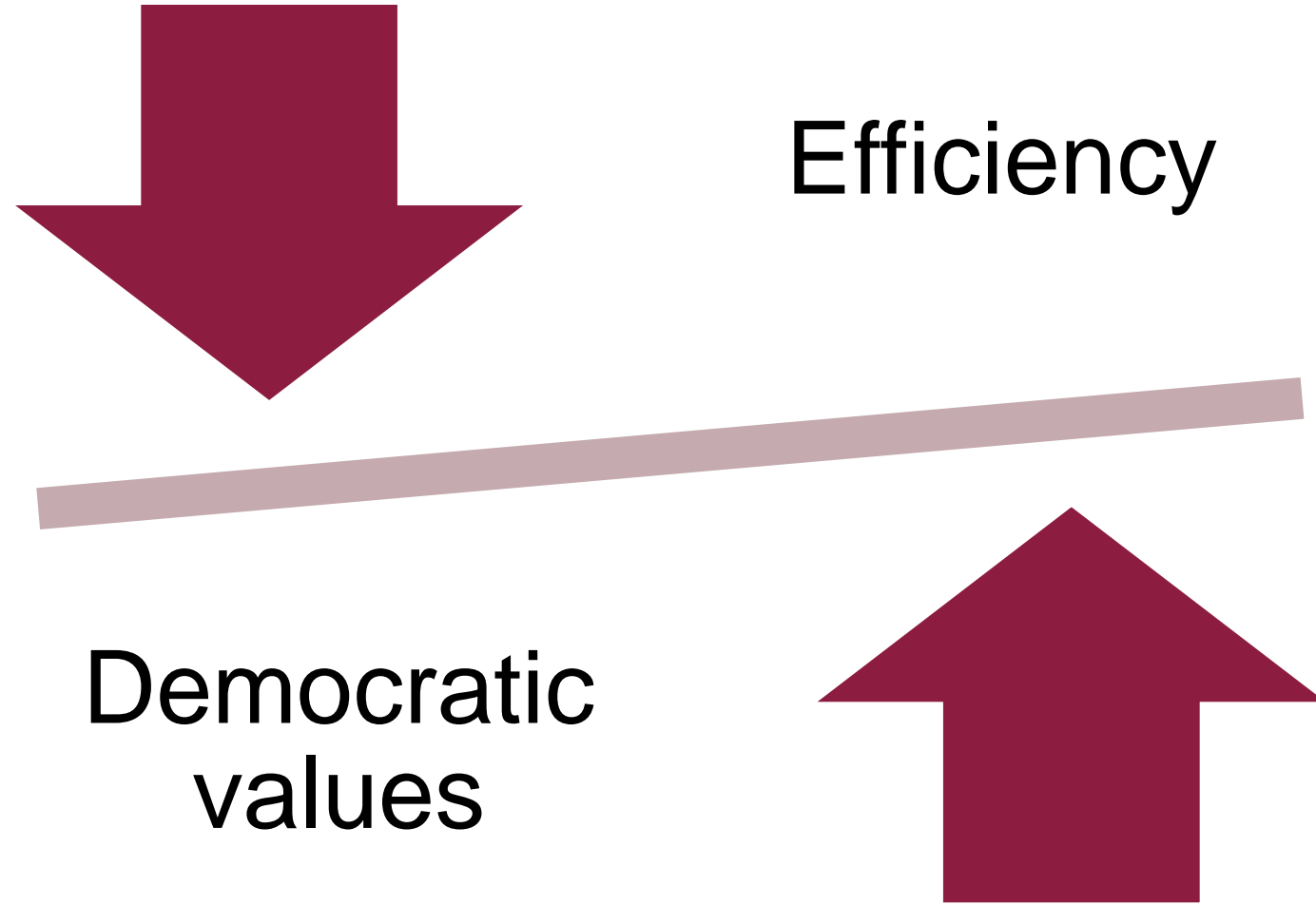
percentage of federal agency AI
systems that are built by external
contractors using proprietary software

Extent of **AI use in local government** (state, county, city) is **unknown**, but what exists is primarily outsourced to **private firms**

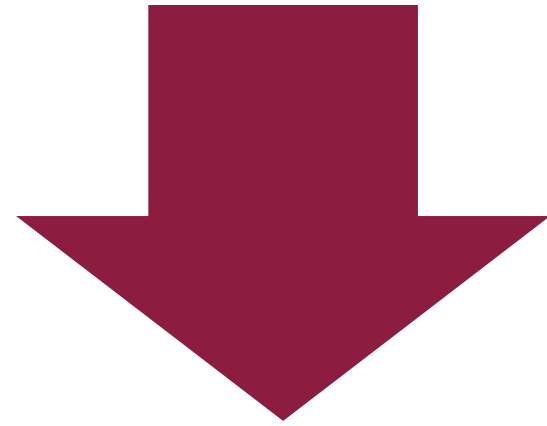
Part III: Public administration scholarship & government AI

Key components of public administration

- Decision making
- Accountability
- Transparency
- Public interest
- Trust



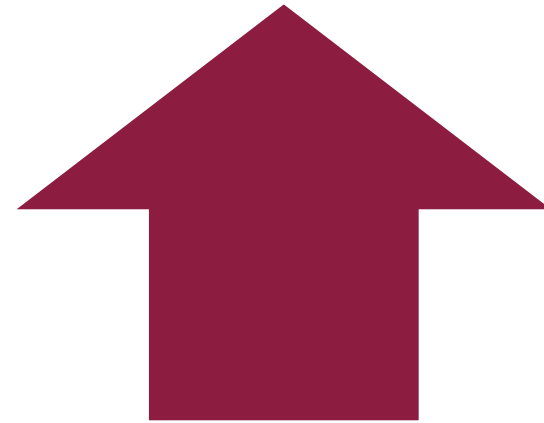
The primary challenge in US government decision-making



Automated
judgement



Human
judgement



**The primary challenge with AI and
government**

Automated decision-making systems present the possibility of judgement without responsibility

Malpas, J. 2020. The necessity of judgement AI & SOCIETY (2020) 35:1073–1074. <https://doi.org/10.1007/s00146-020-01021-y>

Who is accountable for

- the data
- the algorithm
- the outcome

Busuioc, M. 2020. Accountable artificial intelligence: Holding algorithms to account. *Public Administration Review*. 35:1073–1074. <https://doi.org/10.1007/s00146-020-01021-y>

ACCOUNTABILITY

- **What data are in the AI & who decides?**
- **Who owns & controls the data?**
- **Is there public access the data?**
- **Is the algorithm transparent?**

TRANSPARENCY

**What is the public
interest in balancing
fairness, equity, &
values with efficiency?**

PUBLIC INTEREST

- **Can AI be trusted?**
- **Can government be trusted with AI?**
- **Can governments trust private firms to manage AI systems?**

TRUST

**Recent scholarship
on AI in government
selects and focuses
on narrow AI threats**

**Many of the challenges of
managing AI in government
are perpetual challenges in
government**

New tools; Same challenges

Discussions of AI &
algorithms in govn't focus on
the technical, rather than
organizational challenges
and norms, culture &
interpretations

Meijer, A. et al. 2021. Algorithmization of Bureaucratic Organizations: Using a Practice Lens to Study How Context Shapes Predictive Policing Systems. *Public Administration Review*. <https://doi.org/10.1111/puar.13391>

Part IV: The real challenges for AI & government

Perpetual government challenges

- Public interest
- Human capital
- Privatization
- Fragmentation

**Many government
employees are
unprepared to
manage or interact
with AI**

Contracting out
threatens government's
ability to be accountable,
transparent & to protect
citizen data

**The fragmented US
bureaucracy prevents a clear
plan for data sharing,
access, or protection &
further complicates
achieving the public interest**

**Focus our research and
teaching efforts to effectively
address these perpetual
challenges and achieve the
public interest**

Thank you!

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