

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

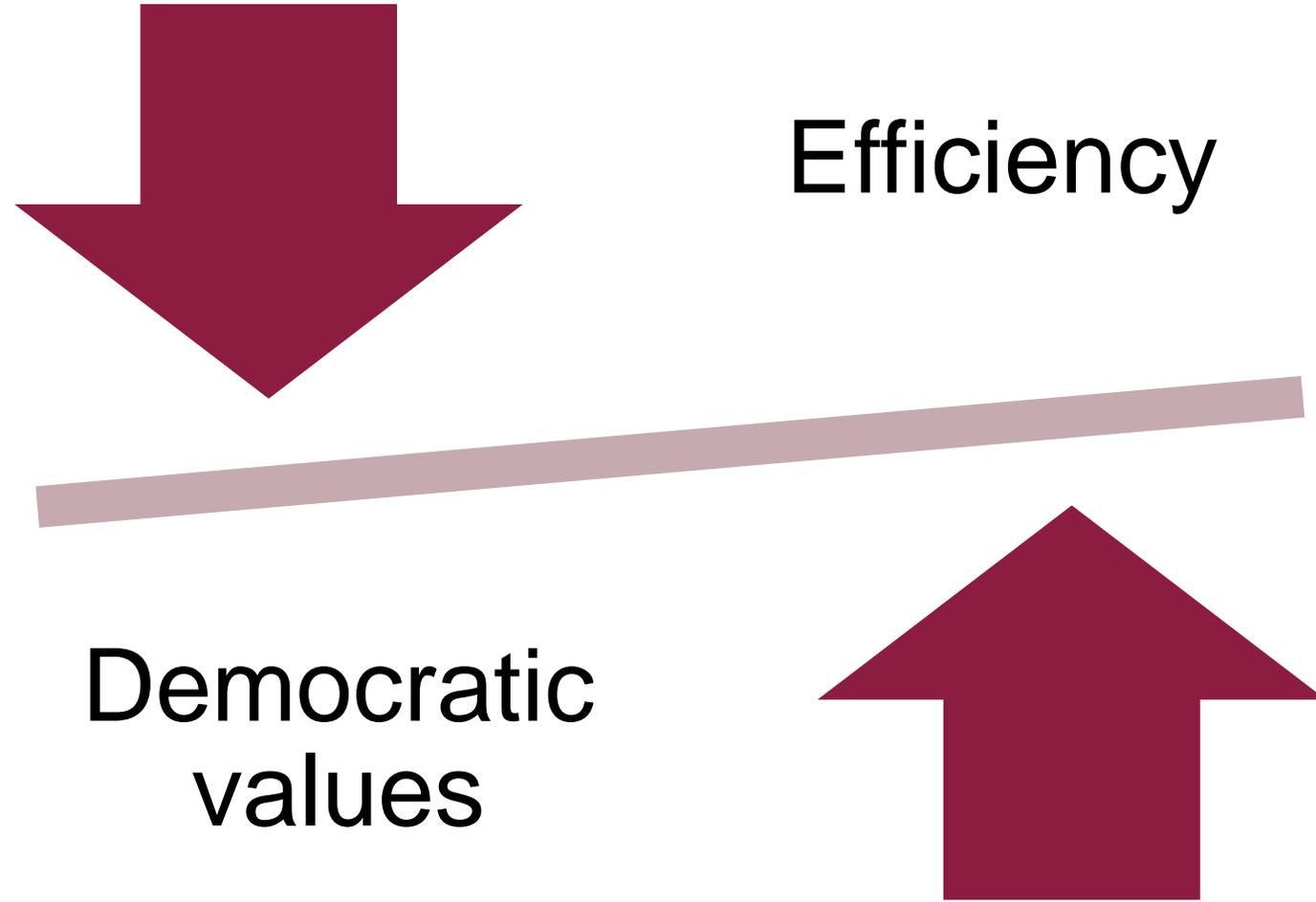
percentage of federal agency AI
systems that are built by external
contractors using proprietary software

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

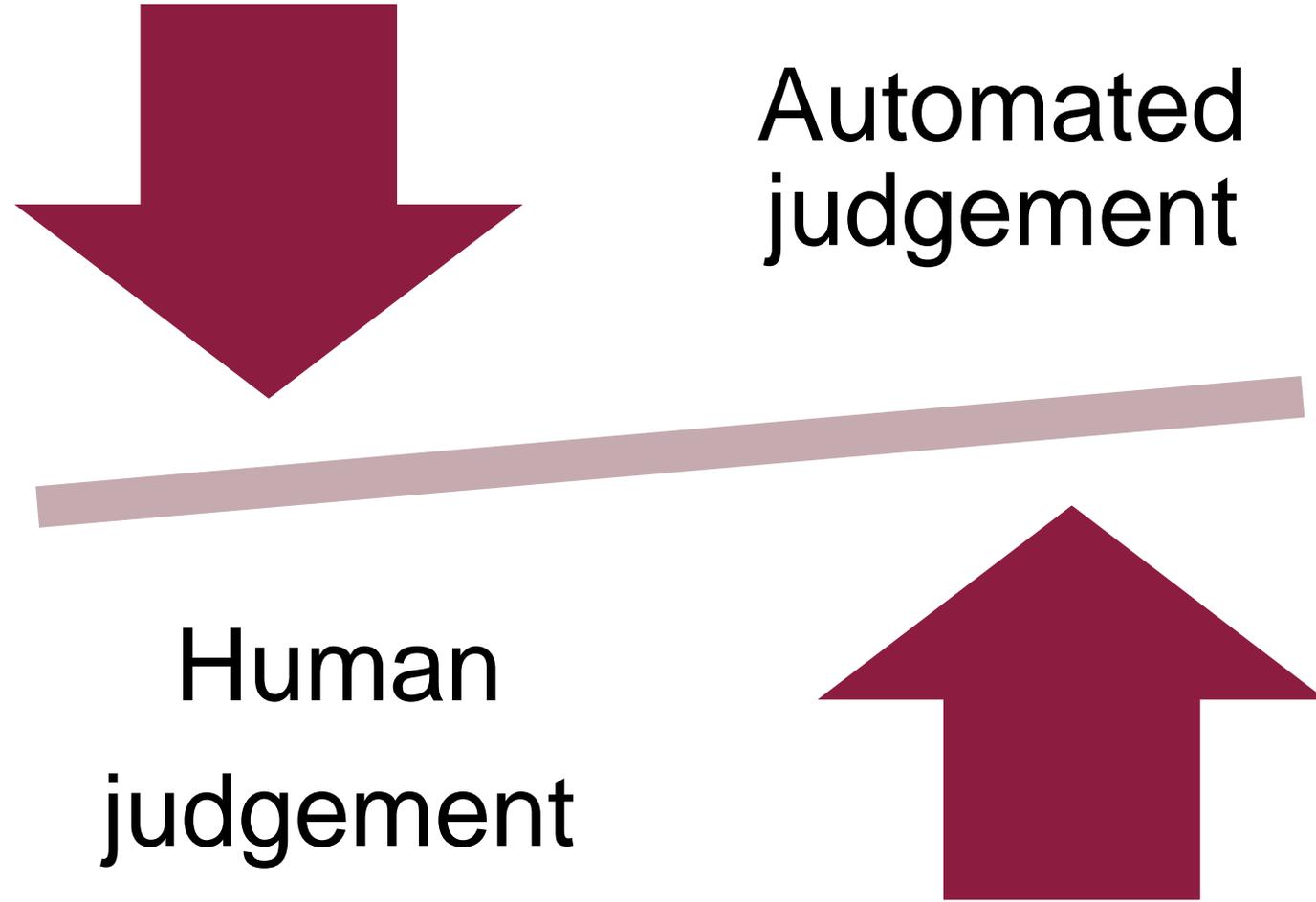
**Part III: Public
administration scholarship
& government AI**

Key components of public administration

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



The primary challenge in US government decision-making



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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