



Technology for Government Accountability: Dangers & Opportunities

Dinsha Mistree

January 25, 2006

17.918

MIT



Class Outline

12:15-1:00 IT in Government Lecture

1:15-1:45 Assignment 2 discussion

1:45-2:00 Class Feedback

MIT

2



Agenda

- ICTs' effects on governments and how they affect IR
- Technology Leapfrogging
- Digital Divide

MIT

3

Information and Communications Technology (ICT)



- From business to communities to social interactions, changes in ICT are revolutionizing the world.
- Government is not exempt.
- Most government work is information processing (Hood, *Tools of Government*, 1983).
- As a result, almost every government has been involved in some form of eGovernance.

MIT

4

ICTs are Changing Several Arenas of Governance



- **Corruption Reduction**
- **Government Service Efficiency**
- **Democracy**
 - Evoting
 - Policy Feedback
- **Bureaucratic Decision-Making**
- **Also affects politics through changing media structures**

MIT

5

ICTs for Corruption Reduction



- **Especially important for international institutions, ICTs may be a valuable tool for reducing corruption:**
 - Provides easy access to government statistics
 - Replace humans with computers
- **Benefits:**
 - May reduce corruption
 - May guarantee better distribution of government services
- **Danger:**
 - Corruption will always exist, it will just take different forms, and ICT-enabled corruption may be harder to identify/catch.

MIT

6

ICTs for Government Efficiency



- **Technology can produce better government services**
 - The “Online Driver’s License” example: Can get a license online rather than waiting in long lines
 - Better procurement of materials
- **Benefits:**
 - Saves money, increases production
- **Dangers:**
 - May have security dangers
 - May exclude certain people

MIT

7

ICTs for Democracy: eVoting



- **Two types of eVoting**
 - Computer-based voting (U.S., Brazil)
 - Internet-based voting (Switzerland)
- **Benefits:**
 - Cheaper
 - Fewer intentional human errors
- **Dangers:**
 - Question of legitimacy (need paper trails)
 - Access

MIT

8



ICTs for Democracy: Policy Feedback

- **Better People-to-Government feedback**
 - South African Environmental Regulations
 - “Email your senator” campaigns
 - Whistleblower Protection
- **Benefits:**
 - Government responds to the people
- **Dangers:**
 - Elites can dominate
 - Can a government become too democratic?

MIT

9



eDemocracy: Consequences for IR

- Lack of legitimacy can cause a threat to state sovereignty
- Internet-based voting/policy discussion attracts younger audience
- May also disproportionately attract elites
- Decreased power for policy specialists and the decline of the meritocracy

MIT

10



ICTs for Policy-Making

- **Past: Weberian Decision-Making in a Bureaucracy**
 - Vertical, singular voice makes decisions
- **Present/Future: Increased “Government Bargaining Model”**
 - More people are involved
 - More branches are involved
 - More governments are involved
 - The rise of the interest group...

MIT

11



Changes in Policy-Making Affect IR

IR can be broken into security studies (SS) and political economy (PE)

- **Decisions made by many rather than a few**
 - The decline of groupthink (Iran-Contra example)
- **Increased cooperation between governments**
 - Decline of international institutions as countries can resolve issues and increasingly communicate between themselves
- **Better information available...**
 - How does this affect SS? “Know thy enemy and know thyself.” –Sun Tzu
 - PE?

MIT

12



Technology Leapfrogging

ICTs might be a tool for countries to overcome development challenges and modernize more quickly

- Development challenges include:
 - ◆ Geographic limitations
 - ◆ Poor economies
 - ◆ Inequality
- Solutions include:
 - ◆ Government initiatives
 - ◆ Private initiatives: \$100 laptop, optical fiber lines

MIT

13



Leapfrogging Technology

Ex: In a developing country with basic telephone infrastructure may experience “leapfrogging” as cellular phones or optical fiber lines may become more prevalent.

Countries can skip previous technology trajectories

- Better environmental policies
- More efficient technologies

MIT

14



The Digital Divide

- The term “*digital divide*” describes the perceived increasing gap between those who have the ability to use ICT and those who do not.
- Why do these divides form? Why are they becoming exacerbated?

MIT

15



The Digital Divide

Is the uneven advancement of technology inevitable?

Image removed due to copyright restrictions

From Yook, Soon-Hyung, Hawoong Jeong and Albert-Laslo Barabasi, “Modeling The Internet’s Large-Scale Topology,” (July, 2001). Available online:
<http://arxiv.org/abs/cond-mat/0107417>

MIT

16

The Dangers of a Growing Digital Divide



- **Inequality within countries**

- Inequality reduces stability and encourages war
- Gurr's Theory of Relative Deprivation
- War is contagious

- **Inequality between countries**

- Animosity or strained relations between countries
- North vs. South, West vs. the Rest, us vs. them mentality

MIT

17

Combating the Digital Divide



- **International organizations are involved:**

- 2005 WSIS in Tunis; UNESCO; to some extent World Bank and WTO

- **Private organizations are involved:**

- NGOs, Bill/Melinda Gates & Bono

- **Multi-national corporations are involved:**

- IBM, Coca-Cola...Anyone who outsources

- **Academia is involved:**

- MIT Poverty Action Lab
- MIT D-Lab

MIT

18

Competing Theories of New-Power Politics



Q: How do ICTs shift power in decision-making?

Between countries:

- (1) Diffusion of power
- (2) Concentration of power (hegemony)

Within countries:

- (1) eDemocracy
- (2) Elite dominance

MIT

19

Conclusions



- The diffusion of technology and the incorporation of ICTs into government is inevitable
- There are many possible ways in which ICTs can change government structures and therefore government decisions
- ICTs also have the capability of disenfranchising, and we must be wary
- This can have dramatic IR consequences

MIT

20