# Cyber-Security Issues in International Development

## DOT-COM/InterAction

Washington, DC
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GIPI
Global Internet Policy Initiative

INTERNEWS

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# Building Trust in Cyberspace

- Data and communications privacy
- E-commerce framework
- Intellectual property
- Consumer protection
- Cybersecurity
  - Network reliability
  - Cybercrime

*Don't forget offline environment. Examples:*

- *Enforcement of contracts*
- *Credit card fraud*

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# Security - A Shared Responsibility

- Many communications networks and other critical infrastructures are privately owned
- Cybersecurity is shared responsibility of gov't, service providers, software and hardware makers, and users (large and small).
- Cybersecurity strategy has many components:
  - industry standards and best practices
  - information sharing (CERTs)
  - awareness, education
  - R&D
  - obligations under civil law
  - criminal law

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# IT Security Guidelines - Models

- OECD Guidelines for Security of Information Systems and Networks
- APEC Strategy and Statement on the Security of Info and Communications Infrastructure
- EU
- OAS
- E-Japan Priority Policy Program (cybersecurity incorporated)
- Australia E-Security National Agenda
- US National Strategy to Secure Cyberspace & E-Government Act (cybersecurity included)

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# Common Themes

- Public-Private Partnerships
- Public Awareness
- Best Practices, Guidelines, International Standards
- Information Sharing
- Training and Education
- Respect for Privacy
- Vulnerability Assessment, Warning and Response
- International Cooperation

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# Gov't Must Get Its Own House In Order

US E-Gov Act - Title III - FISMA:

- Periodic assessment of risk
- Adoption of policies and procedures
- Chief Security Officer for every agency
- Security awareness training
- Detecting and responding to attacks
- Annual reports on progress
- Independent security evaluation
- OMB authority

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# Cybercrime

- Cybercrime law protects privacy by making interception and unauthorized access illegal
- To investigate cybercrime and crimes facilitated by computer, law enforcement agencies need access to
  - content of communications;
  - transactional (or traffic) data;
  - stored data;
  - data identifying subscriber (e.g., name)




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# OECD Cybersecurity Guidelines

Principle 5:

"Security should be implemented in a manner consistent with the values recognised by democratic societies including the freedom to exchange thoughts and ideas, the free flow of information, the confidentiality of information and communication, the appropriate protection of personal information, openness and transparency."

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# COE Cybercrime Treaty - Art. 15

- "Each party shall ensure that the establishment, implementation and application of the powers and procedures provided for in this section are subject to conditions and safeguards provided for under its domestic law, which shall provide for adequate protection of human rights and liberties … .
- "Such conditions and safeguards shall, as appropriate in view of the nature of the procedure or power concerned, *inter alia,* include judicial or other independent supervision, grounds justifying application, and limitation of the scope and the duration of such power or procedure."

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# Surveillance Standards

- Standards specified in legislation
- Independent approval (preferably judicial)
- Limited to serious crimes
- Strong factual basis
- Exhaustion of other approaches
- Surveillance limited scope and duration
- Minimization - evidence of wrongdoing
- Use limitation - criminal justice aand national security
- Notice to target
- Redress

European Court of Human Rights
http://www.internetpolicy.net/practices/#13



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# Encryption

- On balance, strong encryption contributes to security and prevention of crime more than it facilitates crime.
- 1997 OECD Guidelines and 1998 EC report supported availability of encryption.
- US, Canada, Germany, Ireland, France, Belgium, among others have eliminated or loosened restrictions on encryption.
- “The use of encryption technologies … [is] becoming indispensable, particularly with the growth in wireless access.” EC Communication, Creating a Safer Info Society, 2001.

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# Anonymity

- In order to … enhance the free expression of information and ideas, member sates should respect the will of users not to disclose their identity." COE Declaration, 2003.
- "An increasing variety of authentication mechanisms is required to meet our different needs in the environments in which we interact. In some environments, we may need or wish to remain anonymous." EC Communication, 2001.

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# Internet "Governance"

- International bodies
  - ITU, UN, WSIS
  - OECD
  - EU, COE, APEC, OAS
- National governments
- Non-governmental standards bodies
  - ICANN
  - W3C
  - IETF
- Cooperative arrangements
- Private Decisions

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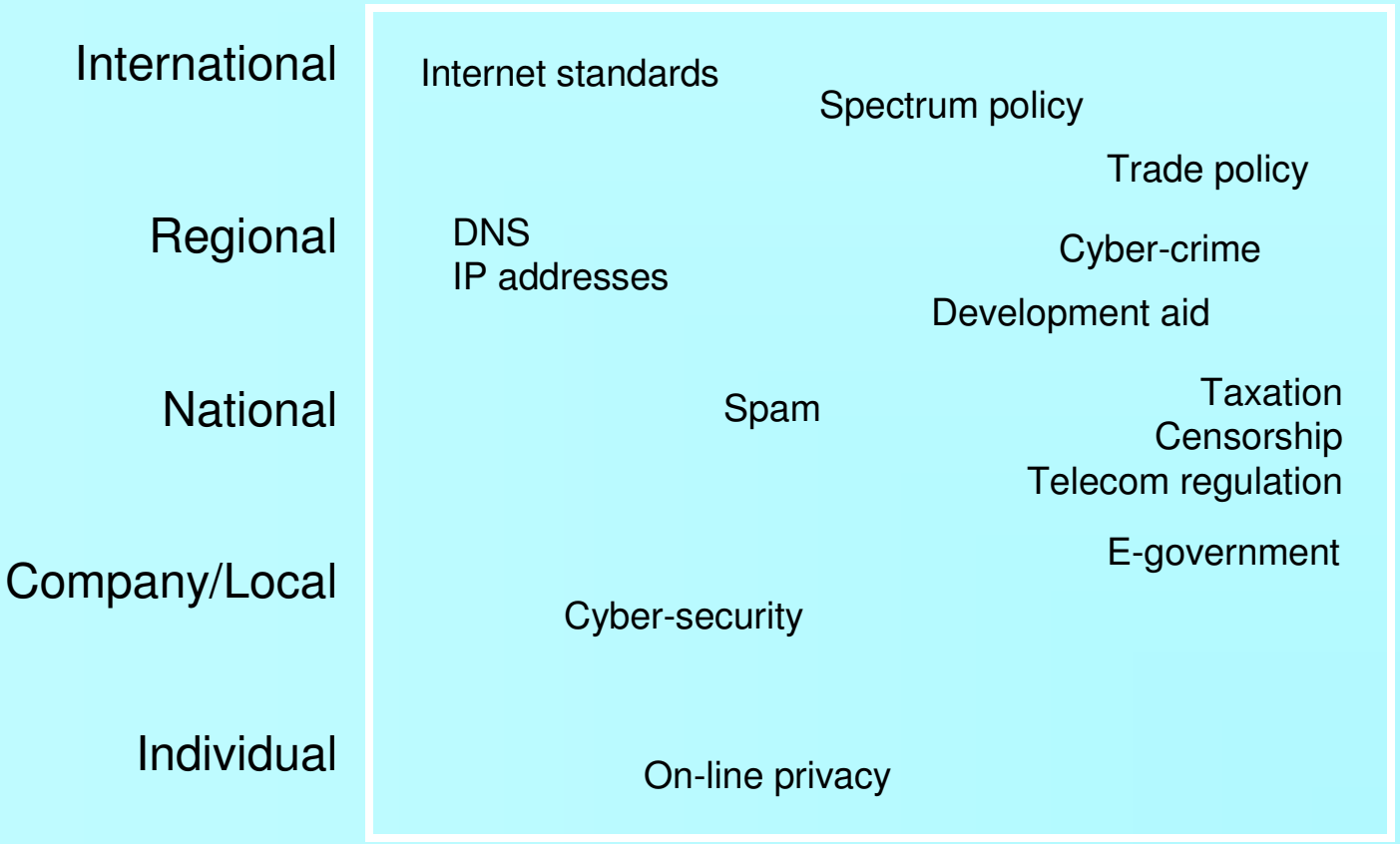
# Locus of Decision-making

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# Summary

- Network security is the shared responsibility of the gov't and the private sector.
- Gov't protects its own networks, contributes to awareness, info sharing, and R&D.
- A lot of work has been done and more needs to be done by the private sector.
- International consensus on strategy elements.
- Cybercrime legislation is one key component of cybersecurity.
- Privacy and security are two sides of the same coin.
- Don't forget the basics of law reform and the enabling environment.

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# More Information

**Global Internet Policy Initiative (GIPI)**

http://www.internetpolicy.net

**Center for Democracy and Technology(CDT)**

http://www.cdt.org

**Information Technology Security Handbook**

infoDev project, World Bank (Dec. 2003)

http://www.infodev-security.net/handbook/

**International Guide to Combatting Cybercrime**

American Bar Association (2003)

http://www.abanet.org/abapubs/books/5450030l/

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