Cloud Computing Lecture #6
Information Policy

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What is policy?
Why is policy important?

What is information policy?
Why is information policy important?

Cloud Computing: Public Perception

- "Use of Cloud Computing Applications and Services"
  - Study conducted by the Pew Research Center
  - April-May, 2008: sample of 1,553 Internet Users
- Users may not know the term, but it's already here…

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Cloud computing activities
Percent of Internet users who do the following…

	All	18-29
User webmail services	56%	77%
Store personal photos online	34%	50%
Use online applications	29%	39%
Store personal videos online	7%	14%
Pay to store computer files online	5%	9%
Back up hard drive to an online site	5%	7%

Reasons people use cloud applications

	Major	Minor	Not
Easy and convenient	51%	23%	23%
Ubiquitous access	41%	25%	32%
Easily shared	39%	28%	29%
Won't lose information	34%	23%	23%

Attitudes about policy of services
How concerned would you be if a company…

	Very	Somewhat	Not too	Not at all
Sold your files to others	90%	5%	2%	3%
Used your information in marketing campaigns	80%	10%	3%	6%
Analyzed your information to display custom ads	68%	19%	6%	7%
Kept a copy of your deleted files	63%	20%	8%	8%
Gave law enforcement files when asked	49%	15%	11%	22%

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Pew Study: Key Issues Identified

- Trust
- Control
- Reliability
- Security

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Cloud Computing Issues

- Reliability

- Security, Privacy, and Anonymity

- Access and Usage

Reliability

- Accuracy of results?

- Consequences of failure?

- Who bears the risks?

- Liability for losses?

- Corruption of data?

Security, Privacy, Anonymity

- Need for protection, particularly sensitive information
  - Personal (SSNs, photos, etc.)
  - Corporate (client accounts, internal memos, etc.)
  - Scientific (experimental data, results, etc.)
- Technology isn't enough!

Security, Privacy, Anonymity

- Spying by other users of the cloud service
- Monitoring by the cloud provider
  - Quality control
  - Data mining
- Government surveillance
  - Cross-national issues

Access and Usage

- Intellectual Property
- Licenses
- Export and data sharing prohibitions

Who's driving policy today?

- Telecommunications policy and law
  - What is a cloud provider (legally speaking)?
    … closest to a teleco
- Contractual law
  - Often unilaterally dictated by the cloud provider

"you acknowledge that you bear sole responsibility for adequate security, protection and backup of Your Content."

Possible Futures

- Governmental regulations?
  - Laws do not keep pace with technology
- Let the market handle it?
  - Service differentiation
  - Danger of monopolies
- Combination of the two?