

Cloud Computing and Information Policy: Computing in a Policy Cloud?



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The Washington Post

Tech Firms Seek to Get Agencies on Board With Cloud Computing

By Kim Hart
Washington Post Staff Writer
Tuesday, March 31, 2009; A13

...

"The government may be outsourcing functions to contractors now, but this takes it to a whole new level," said Jimmy Lin, assistant professor of information studies at the University of Maryland, which has received funding from Google and IBM to research cloud computing.

"And what happens if Google gets hacked by a third party?" he said. "The answer is, nobody knows."

...

What is policy?
Why is policy important?

What is **information** policy?
Why is **information** policy important?

Perception vs. Reality

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...

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%	8%	7%
Kept a copy of your deleted files	63%	20%	8%	8%
Gave law enforcement files when asked	49%	15%	11%	22%

Pew Study: Key Issues Identified

- Trust
- Control
- Reliability
- Security

Cloud Computing Issues

- Reliability
- Security, Privacy, and Anonymity
- Access and Usage
- Control and Monopolization

Reliability

- Accuracy of results?
- Consequences of failure?
- Who bears the risks?
- Liability for losses?
- Corruption of data?

And you thought it was safe?

http://wiki.cloudcommunity.org/wiki/CloudComputing:Incidents_Database

EPIC filed a complaint with the FTC seeking an investigation of Google Docs, in light of the company's data breach reported on March 7, 2009...

The Google Docs Data Breach reported earlier this month highlights the hazards of cloud computing conjoined with inadequate security practices. The complaint seeks that the FTC's provide a remedies for consumers that includes greater transparency, security, and privacy rights for Google Cloud Computing users.

Press Release
EPIC (Electronic Privacy Information Center)
March 17, 2009

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

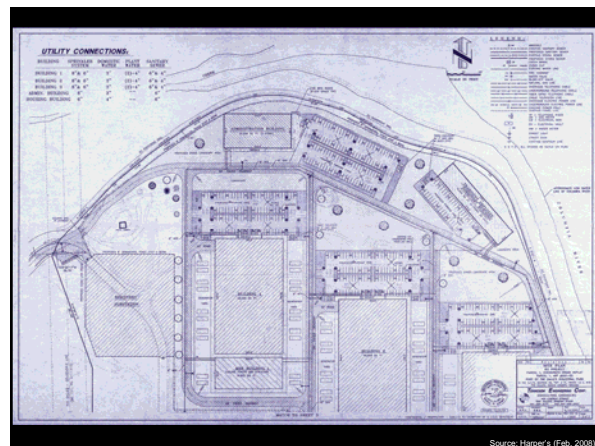
- Spying by other users of the cloud service
- Monitoring by the cloud provider
 - Quality control
 - Data mining
- Government surveillance
 - Cross-national issues

Existing Regulations

- HIPPA for medical records
- Sarbanes-Oxley for corporations
- ...

Access and Usage

- Intellectual Property
- Licenses
- Export and data sharing prohibitions



**“I think there is a world market
for maybe five computers”**

Quote often (mistakenly) attributed to Thomas J. Watson, former president of IBM



Standards?

Location, Location, Location

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?