

Work Place Surveillance

CERIAS Research Project -
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Problem

- Surveillance growing FAST
 - Mostly for InfoSec
 - Some for “quality” or quantity
- No one knows WHAT effects
- No one knows HOW it effects
- Few users consider these

Today's Task

1. Understand surveillance as practiced.
 2. Summarize 10+ year program.
 3. CERIAS support and next two phases.
 - A. Survey project.
 - B. Experimental project.
 - C. Decision models.
 - i. IR policy
 - ii. InfoSec policy
 - iii. Public policy
- } *Your discussion today.*

<http://www.cerias.purdue.edu>

Surveillance Grows

- Large AMA firms only
 - 1997 = **63.4%** used some surveillance
 - 1999 = **67.3%** used some surveillance
 - 2001 = **77.1%** used some surveillance
82.2% with internet surveillance
- Some forms increasing
- Some forms stagnant

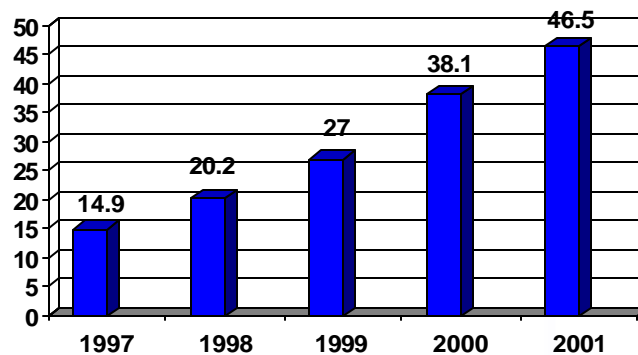
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1997-2001 Store & Review

Active Surveillance	1997	1999	2001
Record & Review Phone Conversations	10.4%	10.6%	11.9%
Store & Retrieve Voice Mails	5.3%	5.8%	7.8%
Store & Retrieve Comp. Files	13.7%	21.4%	36.1%
Store & Review E-Mails	14.9%	27.2%	46.5%
Video Record Employee Performance	15.7%	16.1%	15.2%
Monitor Internet Connections	N/A	N/A	62.8%
Total One or More Active Forms	35%	45.1%	77.7%

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E-mail Storage and Retrieval Tripled in Five Years



Large Employer % - Source: Amer. Mgmt. Assoc.

<http://www.cerias.purdue.edu>

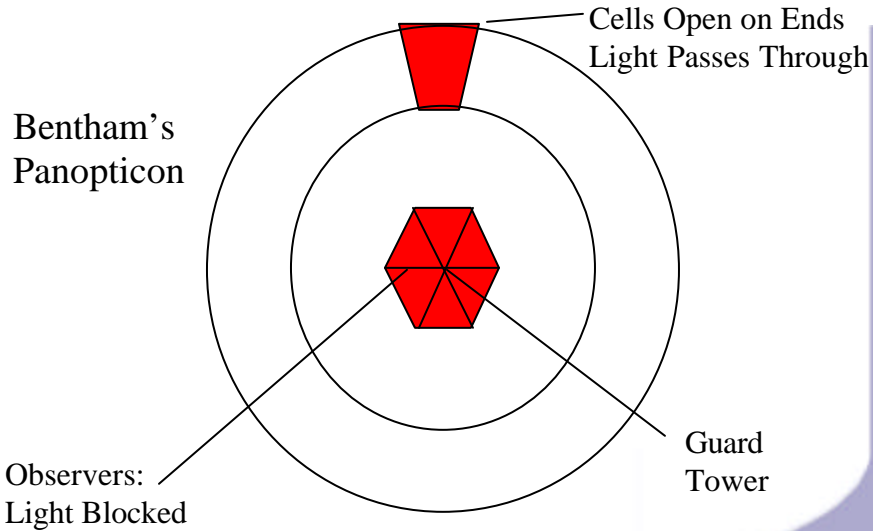
E-mail Surveillance Programs

- SuperScout from SurfCONTROL can show the top 10 senders and receivers AND 10 who send biggest messages
- xVmail from xVault lets users view and search e-mail text
- A GFI fax and voice can quarantine e-mails and attachments for review before sending

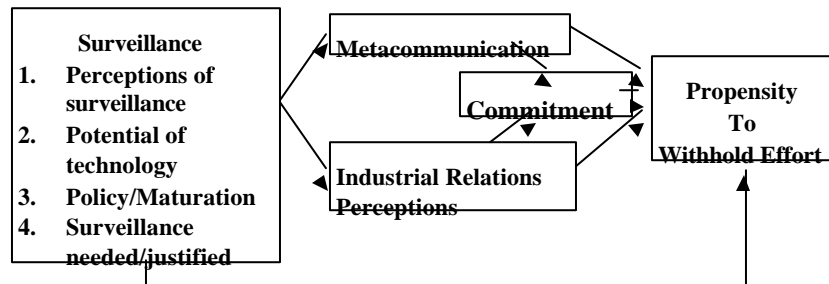
Source: Indianapolis star

The Electronic Panopticon

- Theoretic guide
- Visibility – invisibility and power relationship
- Communicative isolation
- Moral and ethical implications
- Business implications
- Public policy implications
- Expected & unexpected panoptic effects



Panoptic Effects Model



Panoptic Effects Found

- Compared more surveilled to less so
 - Lost privacy (F=14.98, <.001)
 - Uncertainty (F=30.36, <.001)
 - Less communication (F=14.07, <.001)
 - Reduced motivation for quantity (F=15.79, <.001)

More Panoptic Effects

- Reduced loyalty (F=4.09, <.044)
- Increased stress (F=7.26, <.007)
- Reduced enthusiasm (F=9.91, <.002)
- Reduced motivation for quality of work (F=9.23, <.002)
- Perception organization values quantity OVER quality (F=11.53, <.001)

MetaCommunication

- Act of surveilling is communication
 - Communicates distrust?
 - Communicates value of quantity?
 - Fundamental attribution error?

The Path Ahead

- Survey project
- Experimental project
- Decision models
- InfoSec policy
- Corporate policy
- Public policy debate

Survey Project

- No-one knows
 - How many Americans are surveilled?
 - How they are surveilled?
 - How do they feel about it?
- NSF application pending
 - National random sample survey
 - Focus groups

Experimental Component

- No actual causal data established surveillance – panoptic effect link
- Application currently under development
 - Experimental scenario study
 - Effect of surveillance on
 - Communication
 - Resistance/PWE
 - Organizational commitment