Cyber Security and Privacy: An Optimist's Perspective

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Trinity University Computer Science Colloquium
No-Boundary Thinking

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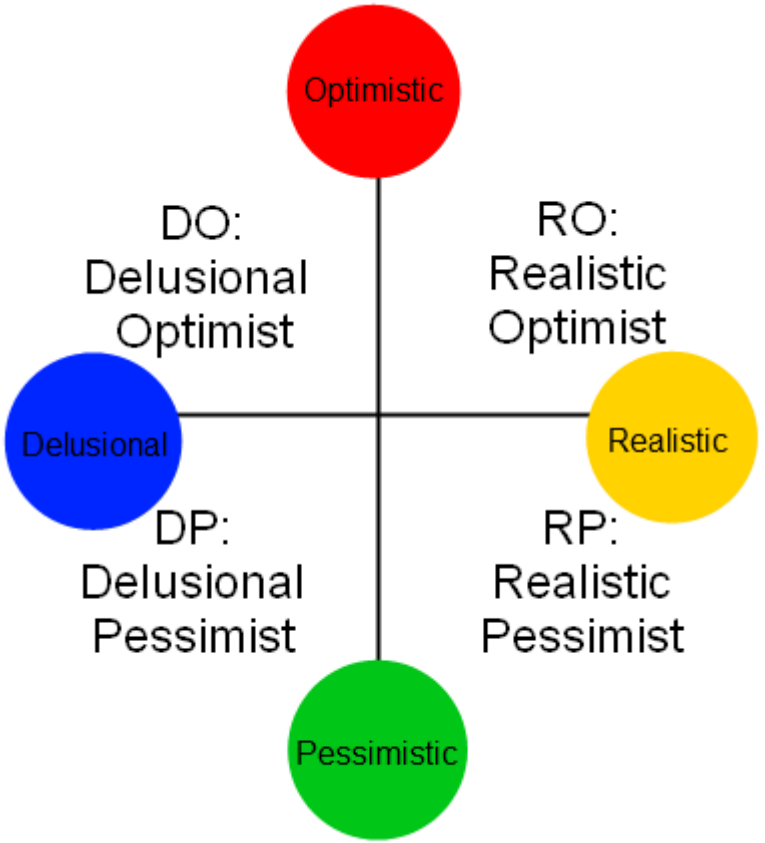
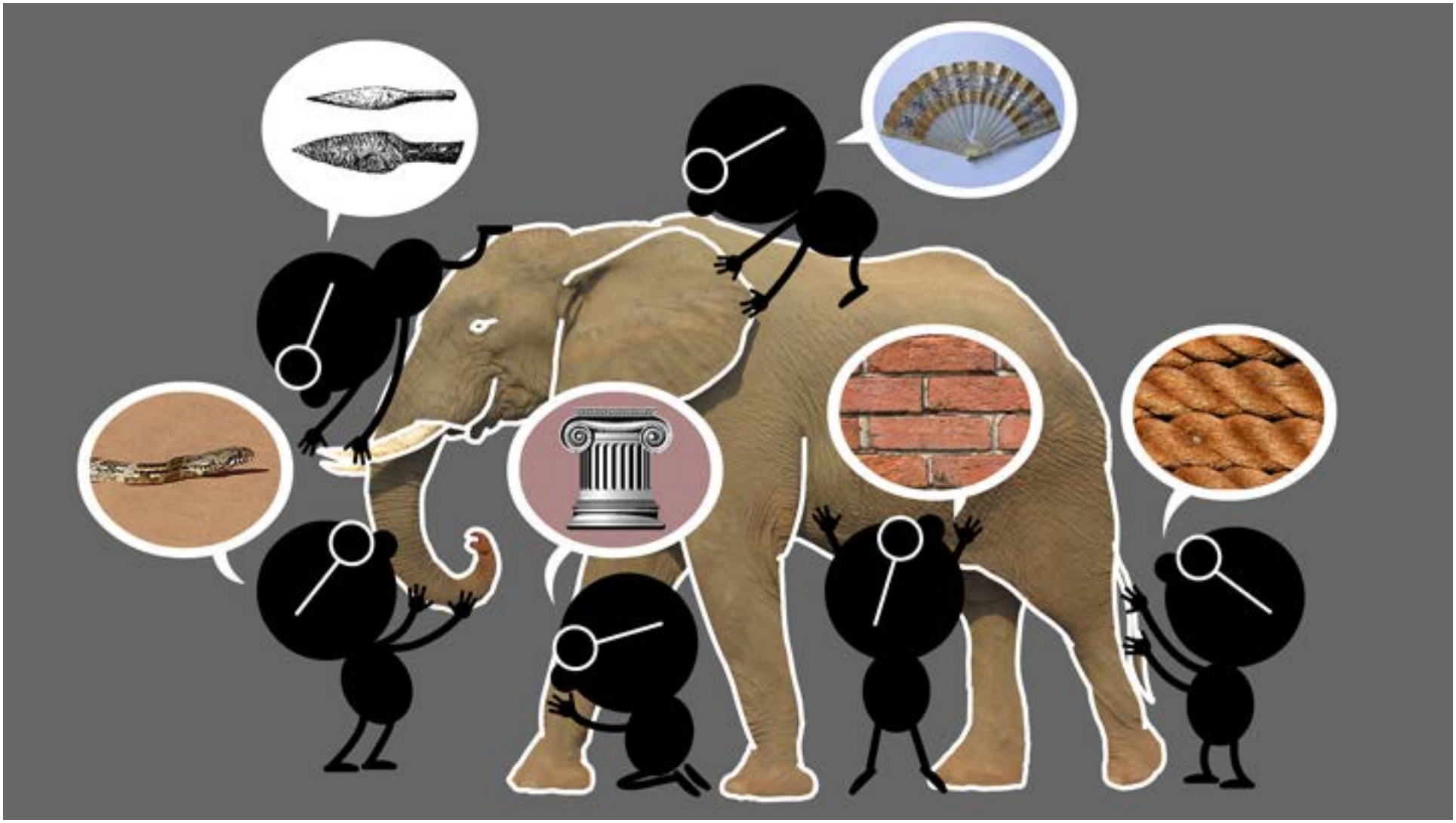
Pragmatic Optimist



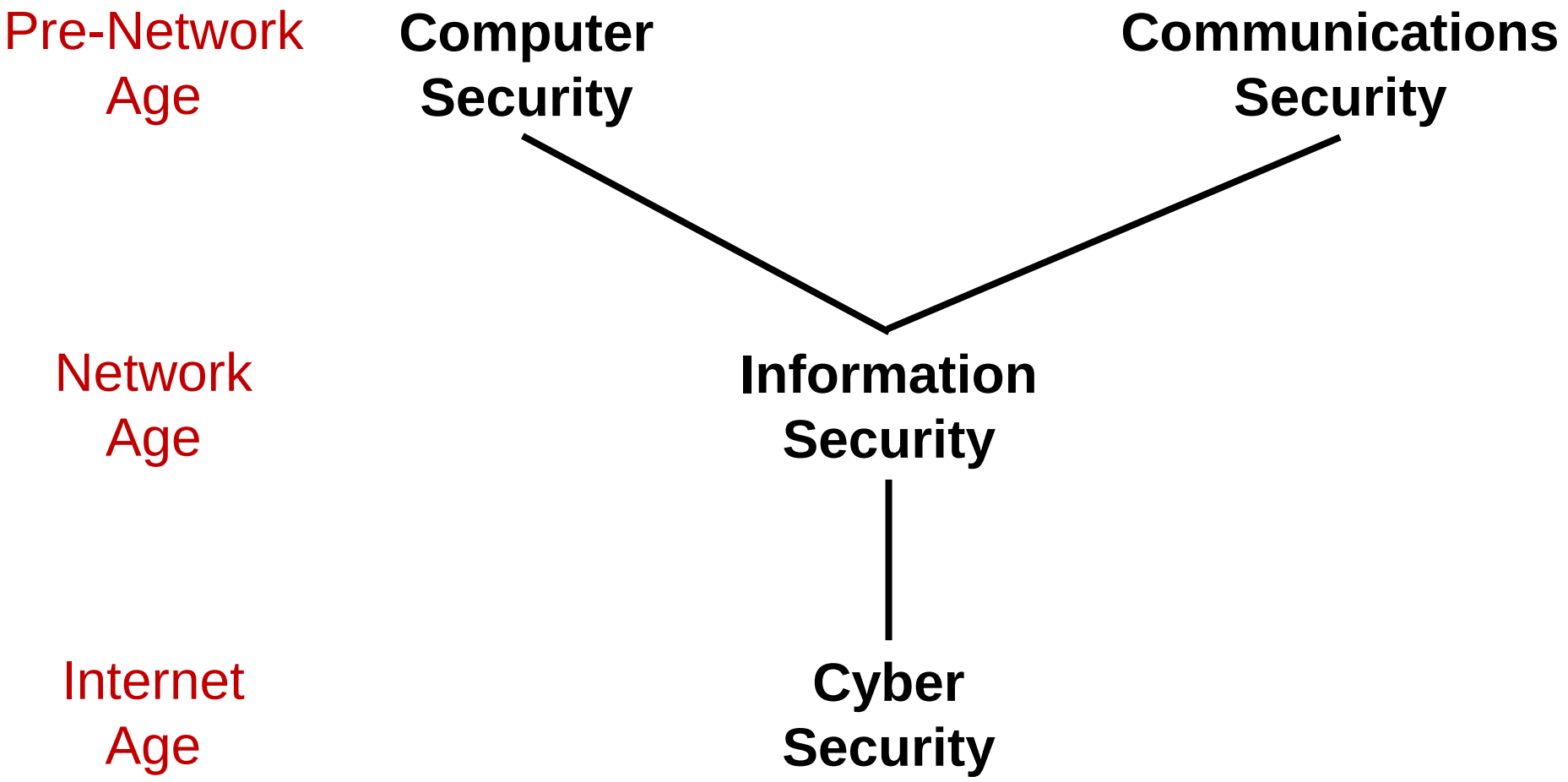
Pragmatic Optimist

Elephant Problem

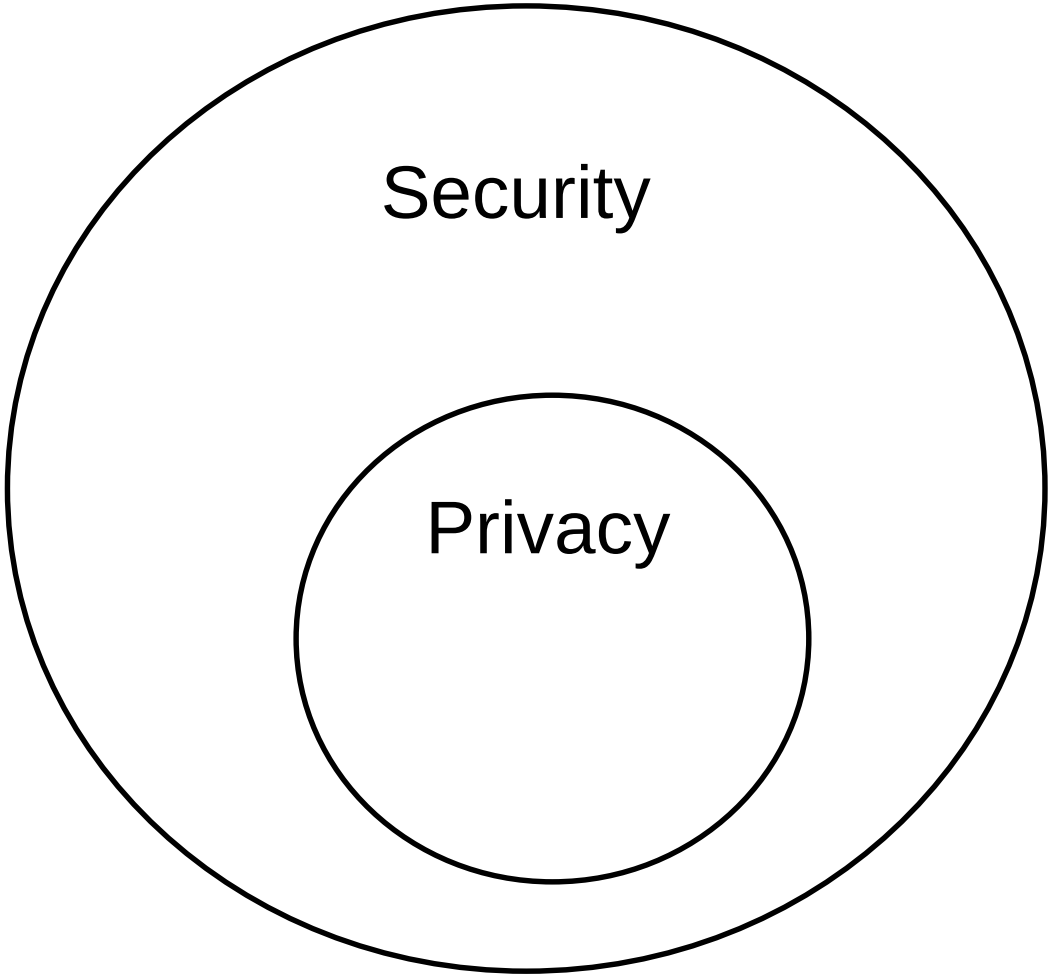


Cyber-Elephant Problem

What is Cyber?



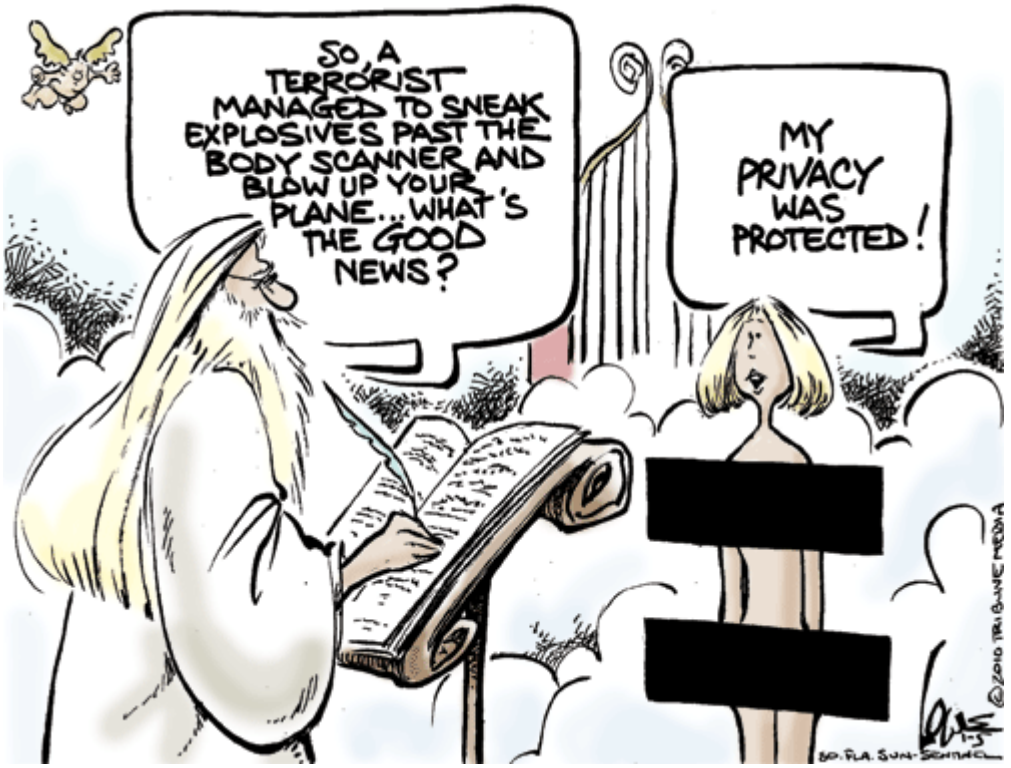
Security vis a vis Privacy



Security vis a vis Privacy

Cartoon Selected by SIRS Staff

Security vis a vis Privacy



Security vis a vis Privacy

Clipper Chip 1993

Clipper Chip: Key Escrow

Decrypted conversation

Escrow keys

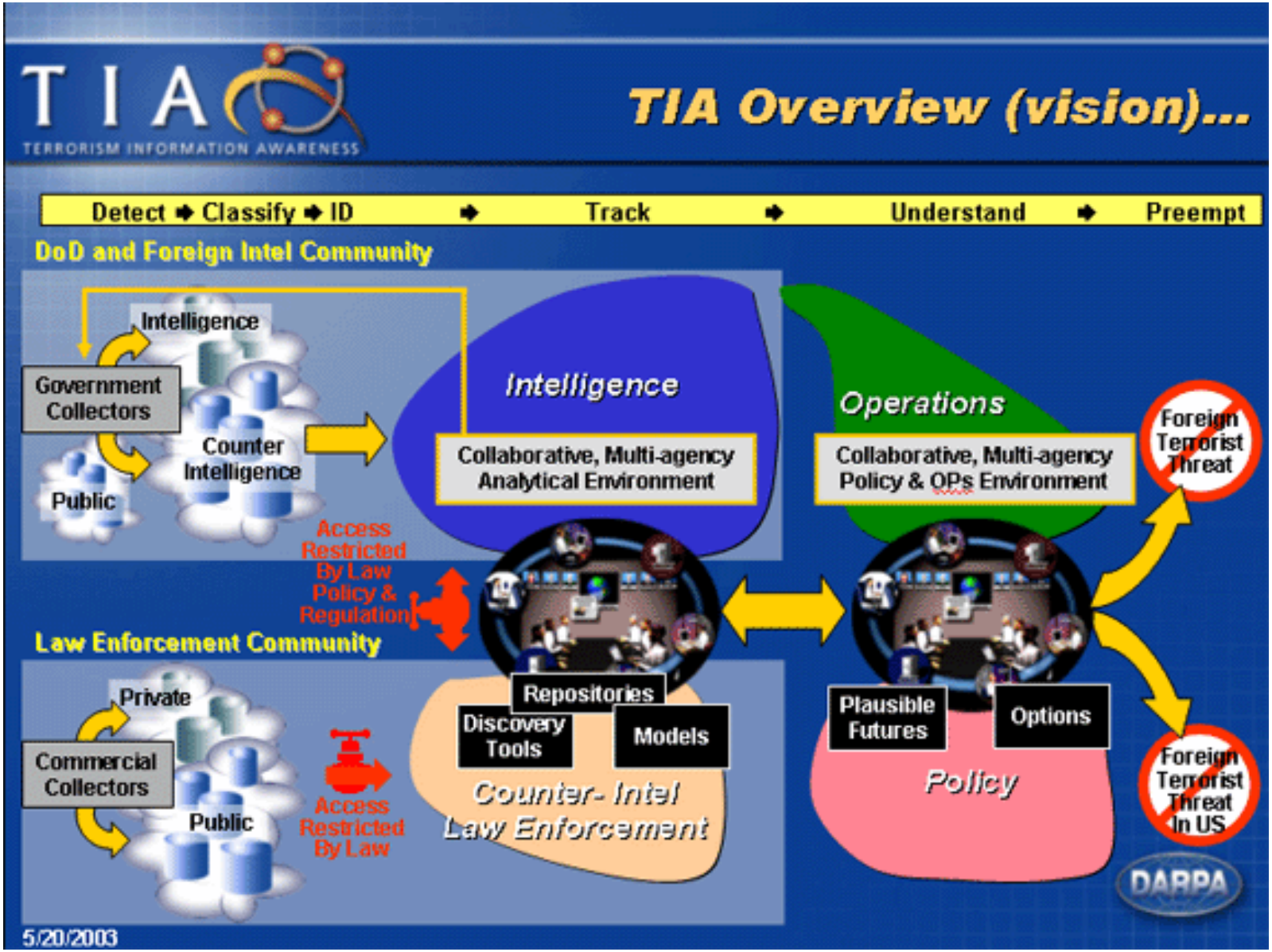
Judicial or government office

Intercept

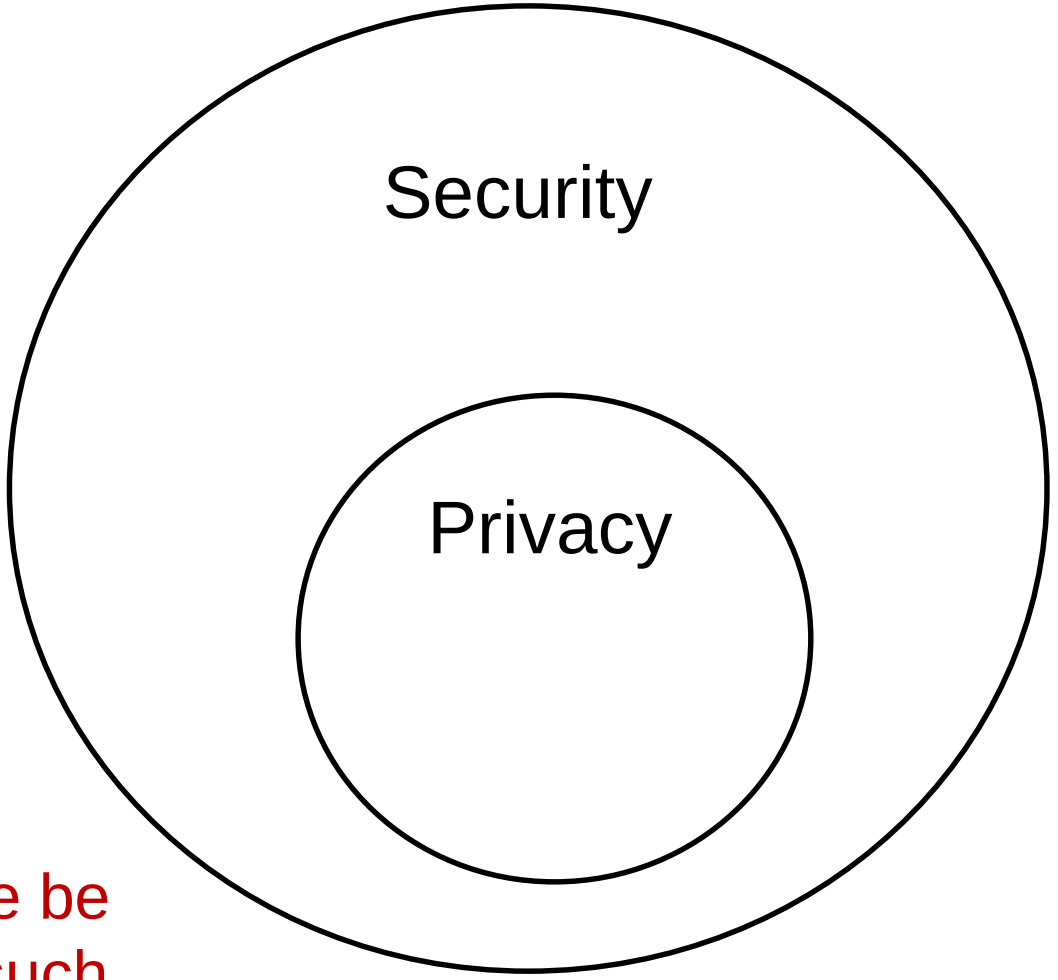
Encrypted conversation

Clipper chip in phones

Total Information Awareness 2003

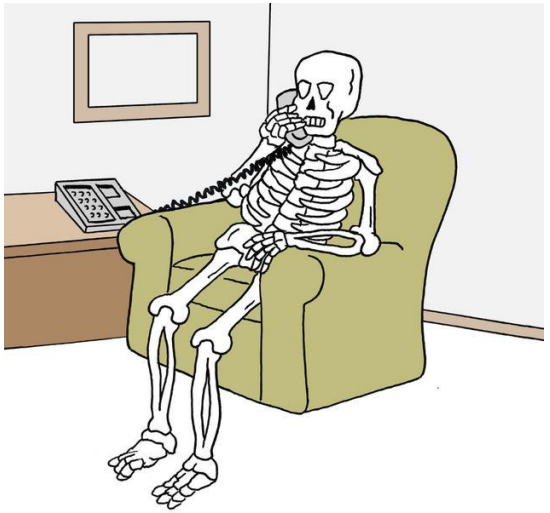


Security vis a vis Privacy



How can there be conflict from such a simple picture?

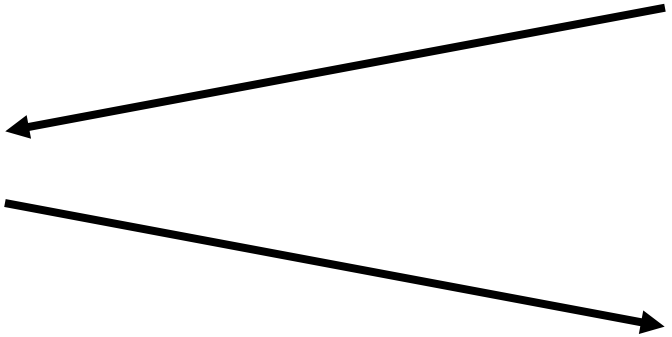
The Virtuous Cycle



The Virtuous Cycle

The Virtuous Cycle

Personal info

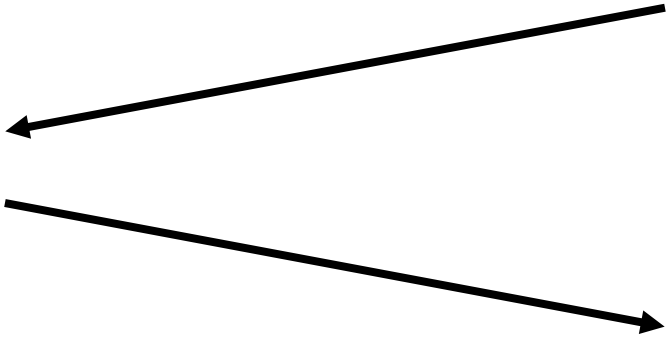


Delightful service

Aggregated
Analyzed
Modeled

The Virtuous Cycle

Personal info



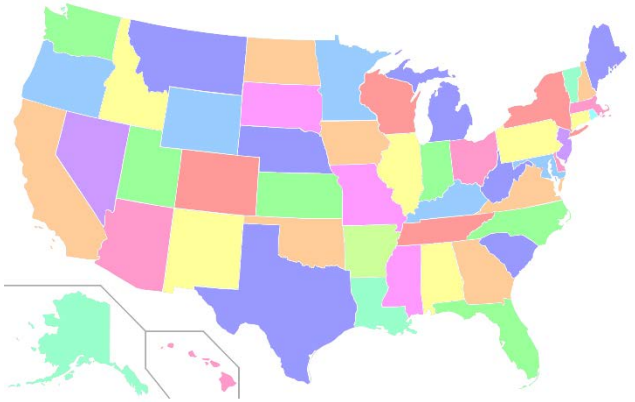
Delightful service

Aggregated
Analyzed
Modeled

Misused?

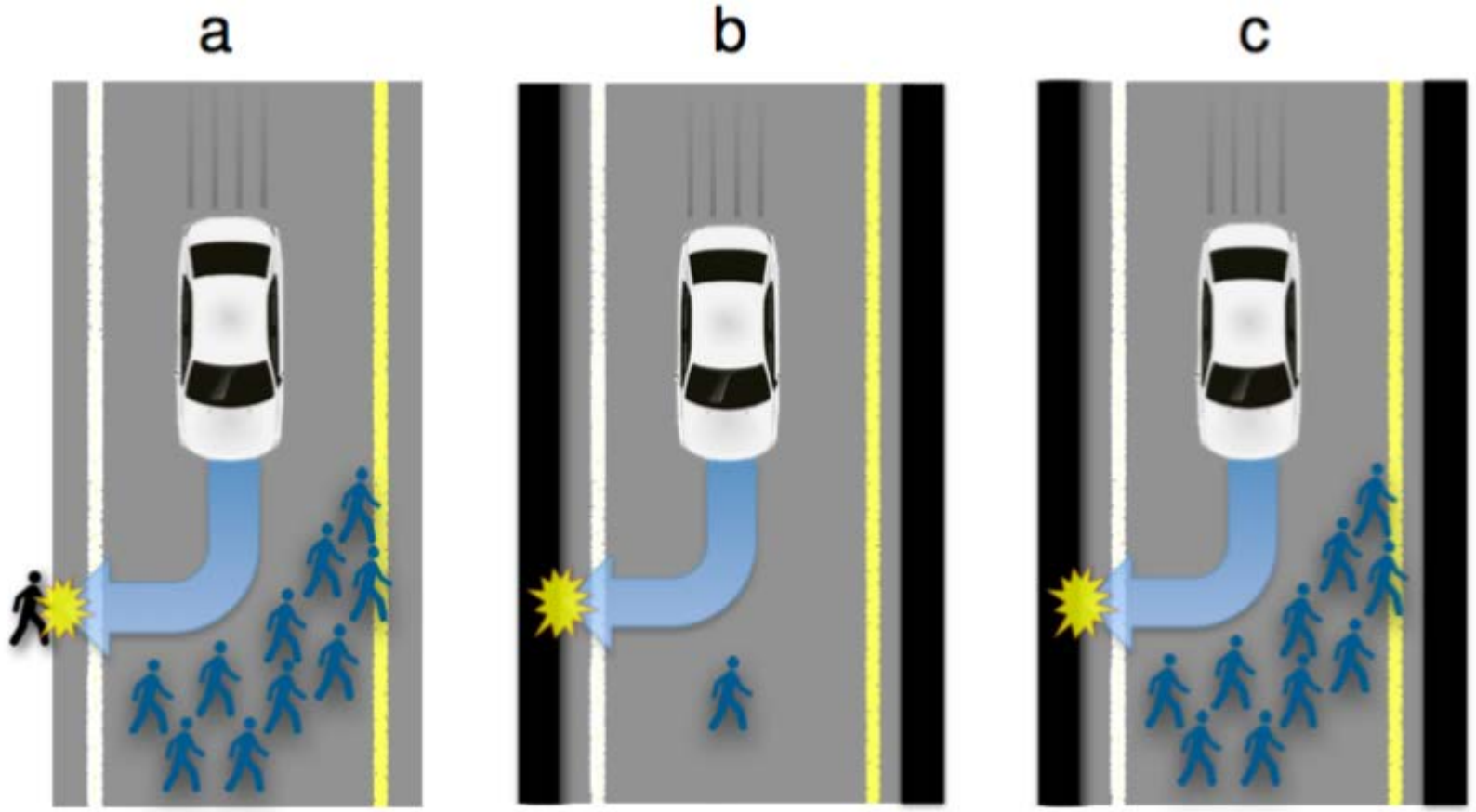
- **Malicious**
- **Negligent**
- **Coerced**

3 Ongoing Experiments



Money is the Easier Problem

Machine Ethics



On a Lighter Note