

Countermeasures & Consequences

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Focus: Cybercriminology

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Cybercrime Prevention

When focused on a specific *incident*:

1. Detect
2. Deny
3. Disrupt
4. Degrade
5. Deceive

For an offender in general, we can use the justice system (e.g., fines, arrests). But there are also some other approaches to stop offenders. . .

Situational Warning Messages

Stop crime by... asking criminals to stop committing crime.

Mass Media Messaging

Stop crime by...telling everyone how crime is bad.

Workshops & Diversions

Stop crime by . . . giving potential offenders something else to do.

Unintended Consequences

Typically, security research focuses on suggesting interventions.

Quite often, security interventions go wrong.

Sometimes they don't work.

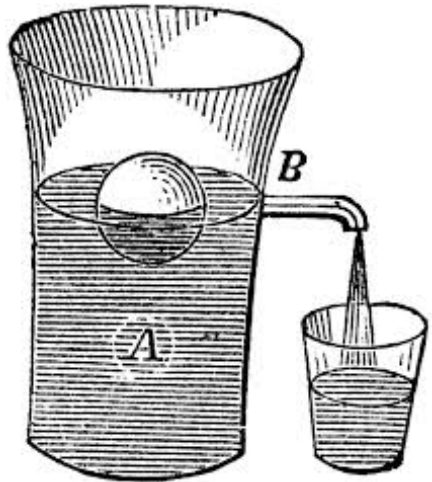
Sometimes they make things *worse*

Category: Displacement

You can 'move on' crime or misbehaviour.

This then becomes a problem for others, or could make it harder to tackle more effectively.

- Gab & Telegram
- Silk Road closure



Category: Insecure Norms



Many security countermeasures can become harmful through *over-reliance* and *dependence*, or foster other insecure behaviour (e.g., giving out identity details to websites that ask for it).

Category: Additional costs

- Financial costs (time & resources).
- Emotional & psychological burden.
- Security 'compliance budget'



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¹Beautement, Adam, M. Angela Sasse, and Mike Wonham. "The compliance budget: managing security behaviour in organisations." In Proceedings of the 2008 New Security Paradigms Workshop, pp. 47-58. ACM, 2009.

Category: Misuse of Countermeasures



Countermeasures can be misused by mal-actors to cause harm.

- Reporting tools
- Victim advice
- Open classifiers

Category: False Positives



Most security decisions allocate people or behaviour into good/bad categories. Most classification systems have error. What happens to the mislabelled people?

Category: Amplification

Sometimes an intervention can cause a reaction that amplifies the thing it was attempting to prevent or discourage.

The most famous version of this is the **Streisand effect**.

Also occurs in e.g., domestic abuse.



Category: Disrupting Other Countermeasures

- Removing harmful content from social media sites interferes with prosecution.
- Contradictory advice can confuse people into doing nothing.
- Forcing identification vs. managing your identity disclosure.

