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The Psychology of Scams and Malware in Social Media

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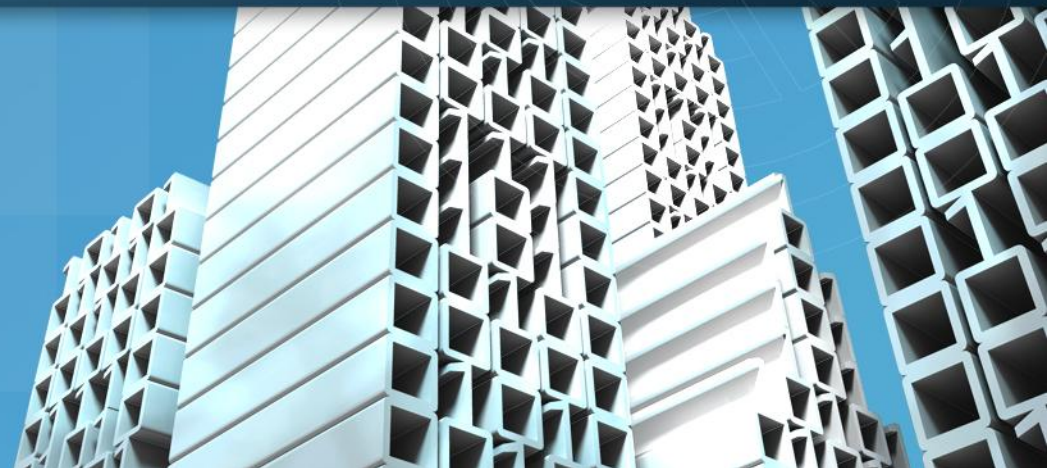
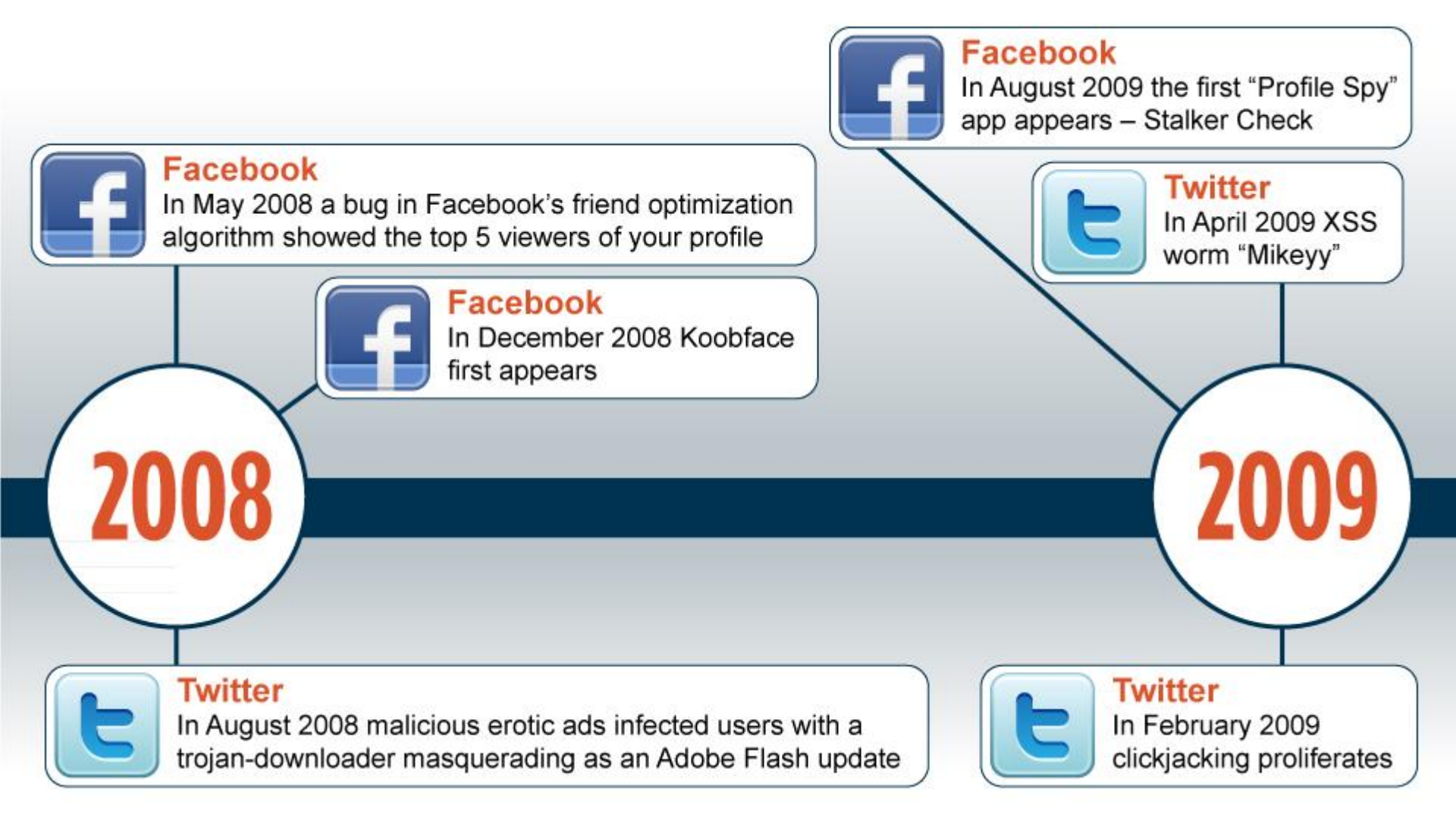
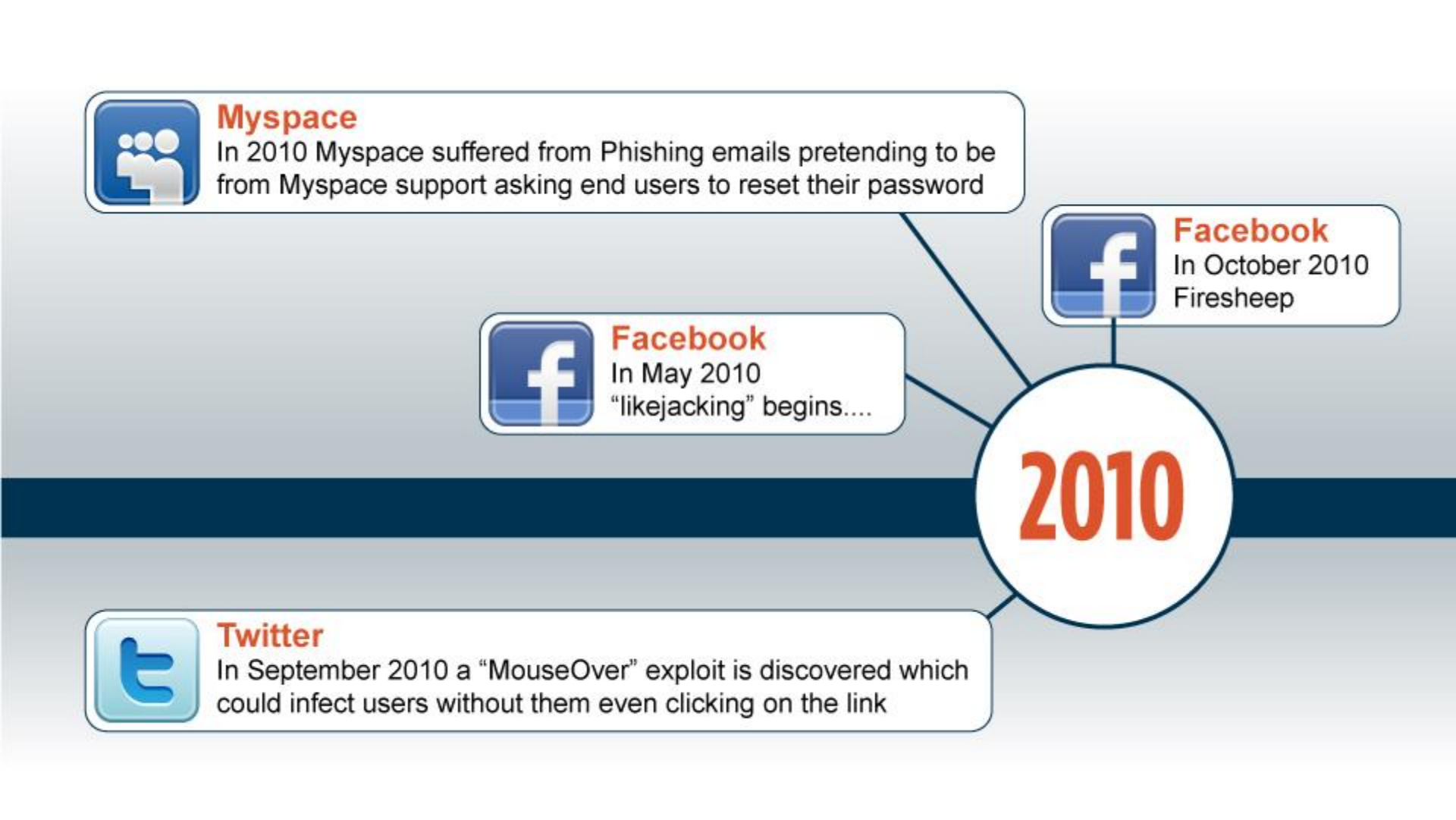
TRITON™
- Web security
- Email security
- Data security




Facebook
In May 2008 a bug in Facebook's friend optimization algorithm showed the top 5 viewers of your profile
Facebook
In December 2008 Koobface first appears
2008
Twitter
In August 2008 malicious erotic ads infected users with a trojan-downloader masquerading as an Adobe Flash update
Facebook
In August 2009 the first "Profile Spy" app appears – Stalker Check
Twitter
In April 2009 XSS worm "Mikeyy"
2009
Twitter
In February 2009 clickjacking proliferates


Myspace
In 2010 Myspace suffered from Phishing emails pretending to be from Myspace support asking end users to reset their password
Facebook
In October 2010 Firesheep
Facebook
In May 2010 "likejacking" begins....
2010
Twitter
In September 2010 a "MouseOver" exploit is discovered which could infect users without them even clicking on the link

What is a fraud or scam?

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- A fraud or a scam could also be defined as *an illegal marketing offer* (Fischer, Lea, & Evans, 2008)
- The four P's of the marketing mix apply (Product, Price, Place, Promotion) (McCarthy, 1960)
- To simplify – a scammer sells the *mark something* and they buy it.
- *Fraudem (Latin)* - deceit or injury (Simpson & Weiner, 2009)
- *Scam* – Probably first used by actor Steve McQueen in 1963 in a Time Magazine interview (Luce, 1963)

Why look at scams?

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- Money is being lost (£9.3 billion in 2009 in UK lost to 419 scams alone)
- Internet makes potential victims easily accessible (and plentiful)
- Micro-crime

What is interesting about scams?

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- Falling for a scam is an *error in judgment*
- It involves a *betrayal of trust*
- *Scammers seek to induce the errors of judgment.*
- Let's look at some methods next …

Visceral influences

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- **Individuals with unfulfilled visceral desires tend to focus on that aspect of themselves - *hungry people think exclusively about food, lonely people about companionship…***
- ***In the context of a scam:***
  - ***Scammers offer many incentives in hopes that one of them fulfils visceral desires (money, companionship, health, job security…)***

Failure of self-regulation

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- Self-regulation (or self-control, for the purpose of this presentation) weakens under prolonged exposure to stimuli
- In the context of a scam:
  - Repeated bombardment with scam offers (*sucker lists*).
  - Constant pressure ('*You need to respond now*')
  - Ties in nicely with *impatience* (*i.e.* need for instant gratification)

Authority

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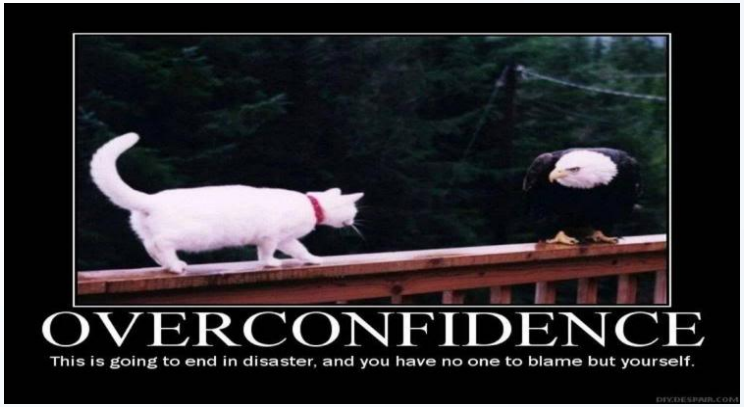
- People tend to comply to requests of authority figures
- *e.g.* Once potential falsehood of interpersonal communication is hard or impossible to determine, individuals decide mostly on the basis of perceived trustfulness and authority of the other party (Selin, 2006).
- *In the context of a scam*:
  - Fake antivirus companies

Overconfidence



- Research has shown, that many victims are overconfident when responding to fraudulent offers.

Recommendations

- *Note that these work in general and in the workplace!*

- **First of all: There is no such thing as a free lunch!**

Recommendations…

- Anyone faced with something that seems too good to be true should ask themselves:
  - Why me specifically?
  - How likely is this? (include human factors)
  - What are the hidden costs?
  - What is the *hook*?

Recommendations…

- Common way to fall for a scam is to read it and respond to it
  - Simplest recommendation we can give is to bear in mind previous recommendations and as soon as red flags are raised, delete the email or social post.

The End