The impact of technology on innovative auditing
Marc Vael

Thursday 5th of October 2017

Internal Audit Service Conference 2017
"Innovation and creativity in internal audit: myth or reality?"

@marcvael
The best way to predict the future is to create it.

Peter Drucker
We are drowning in information, but starved for knowledge and insights.

(John Naisbitt)
OUR DEPENDENCE ON TECHNOLOGICAL PROGRESS
ARTIFICIAL INTELLIGENCE
JUST LIKE US. BUT BETTER.
Analytics

Data

Descriptive
What happened?

Diagnostic
Why did it happen?

Predictive
What will happen?

Prescriptive
What should I do?

Human Input

Decision

Decision Support

Decision Automation

Action

Gartner, 2013
Facebook AI Research (FAIR)

https://research.fb.com/category/facebook-ai-research-fair/

Google.ai

Bringing the benefits of AI to everyone

https://ai.google/

AI and Cognitive Computing
Explore the future of AI with IBM Research

http://research.ibm.com/cognitive-computing/

Apple Machine Learning Journal

https://machinelearning.apple.com/
NEVER

ASS U ME
In this corner, we have firewalls, encryption, antivirus software, etc. And in this corner, we have Dave!!
INSIDER THREATS

- Social engineering
- Physical theft
- Privilege abuse
- Copying or offloading sensitive data to personal accounts / drives
- Unintentional data leaks or loss of company property

METHODOLOGY

- In 2016, “abuse” or “malicious intent” made up 35% of all “internal incidents” that caused a breach.

OUTSIDER THREATS

- Social engineering
- Hacking
- Malware
- Denial of Service Attacks
- Malicious USB drops
- Physical theft

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ARE INSIDERS OR OUTSIDERS A BIGGER THREAT TO YOUR BUSINESS?

TRICK QUESTION

BOTH!

THE MOST LIKELY ROOT CAUSES OF DATA BREACHES

- Careless Insider: 1.67
- Malicious or criminal insider: 2.45
- External attacker: 2.89
- Combined insider and external attackers: 3.49

MOST BREACHES INVOLVE BOTH INSIDER AND OUTSIDER THREATS

2016 PwC Institute, The Cybersecurity Risk to Knowledge Assets
The Heartbleed Bug attacking over 60% of websites Today.

The bug has the potential to affect the security of all your online accounts and in fact it has had 2 yrs to gather your personal information.

Solutions: Change all your passwords today.
Always

Value

Add
1 - Initial
Process is unpredictable, poorly controlled and reactive

2 - Repeatable
Processes are characterized for specific projects and organization is often reactive

3 - Defined
Projects tailor their processes from the organizations development methodology

4 - Managed
Processes are measured and controlled

5 - Optimizing
Focus on process improvement

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