

**KnowBe4**  
Human error. Conquered.

## In the Hot Seat: Three Experts Tackle 10 Critical Security Awareness Issues



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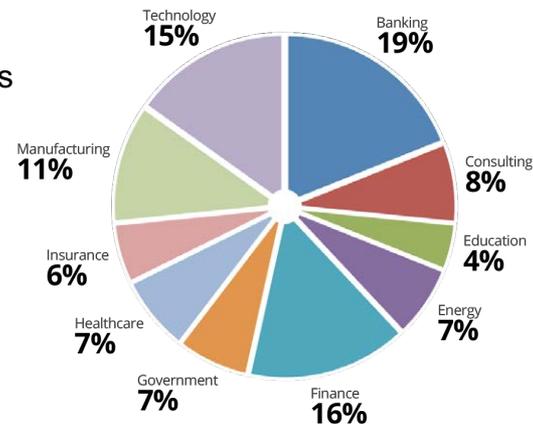
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# KnowBe4, Inc.

- The world's most popular integrated Security Awareness Training and Simulated Phishing platform
- Based in Tampa Bay, Florida, founded in 2010
- CEO & employees are ex-antivirus, IT Security pros
- 200% growth year over year
- We help tens of thousands of organizations manage the problem of social engineering



# Agenda

1. The Cost of Ignoring the Humans
2. Security Awareness & Training: A Fix or Plugging the Wrong Holes?
3. What Can Security Awareness Mean for Your Reputation?
4. Have We Nailed Security Communications?
5. How Do You Talk to Your Board About Cybersecurity? Why So Hard?

# Agenda

6. How Do You Measure The Benefit of Awareness, Behavior, & Culture Change?
7. Security Awareness & Training Content: Quality vs Quantity
8. Behavioral Science & Psychology
9. Culture & Social Influence
10. The Maze of Products

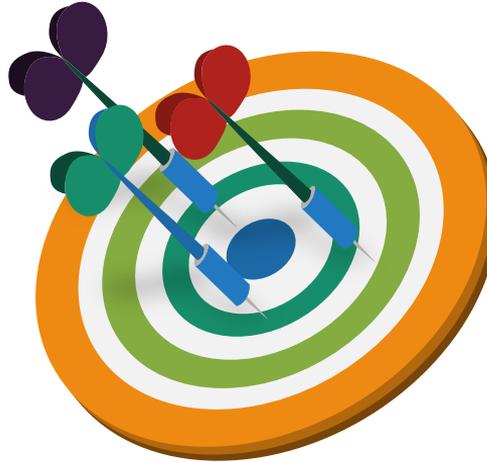
# 1. The Cost Of Ignoring The Humans

## Stolen Credentials

- Cybercriminals use stolen user credentials to carry out 31% of attacks
- Passwords are far from dead and people make their compromise easy

## Notifiable Data Breach Report

- 33% Related To “Human Error” and a majority of the rest of the “Cyber Incidents” related to compromise of credentials through human factor such as phishing and brute-force attacks



## BEC Costs \$5B

- The FBI estimates that between October 2013 and December 2016,
- BEC and associated scams accounted for losses of over \$5 billion.

## Priceless (Not In A Good Way)

- Security remaining in the basement

Source: "Business E-Mail Compromise: E-Mail Account Compromise The 5 Billion Dollar Scam," Federal Bureau of Investigation Public Service Announcement, May 4, 2017

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# Human Firewall Incidents

## HUMANS DAMAGING THEMSELVES AND THEIR COMPANY



2014

- Chairman Rory Cullinan sent selfies via Snapchat to daughter “Boring board meeting”
- Uploaded on Insta
- 3 weeks later, he exited the bank

Francesca Holdings

2015

- CFO tweeted from private account ‘Board meeting. Good numbers = happy board”
- Increase in Company’s share price
- Breached disclosure rules

State Supreme Court Judge

2017

- Email from claimed lawyer
- Asked to send money to an account.
- She wired \$1,057,500 to that account
- The money was then sent to Commerce Bank of China

## 2. Security Awareness & Training: A Fix, Or Plugging The Wrong Holes?



“It takes me forever to do, and I only do it so it’s out of the way.”

“Why is this robot talking at me?”

“It’s too hard to remember all that stuff!”

“These security people are weird.”

“Oof, I hate security!”

Source: Forrester Interviews

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*“Do I have to pay attention for the whole hour of this training, or can I just let it run in the background? ”*

- **Vice President & Marketing Director, Large Professional Services Organization**

### 3. What Can Security Awareness Mean For Your Reputation?



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## 4. Have We Nailed Security Communications?



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The background of the slide is a traditional Japanese ink wash painting (suiboku-ga) depicting a boat on a turbulent sea. The waves are rendered in vibrant blue and white, swirling around the boat. The boat is a traditional Japanese vessel, possibly a samurai boat, with a thatched roof and several figures on board. The figures are dressed in traditional attire, and one figure appears to be shouting or gesturing. The overall mood is one of struggle and adversity. The painting is signed with the characters '一三三三' and '田村' in the lower left corner.

# 5. How do You Talk To Your Board About Cybersecurity? Why So Hard?

1. Security Reporting Lines

3. Talking Security Vs. Risk

2. Lack Of Tech Expertise At Board

4. Techies Not Translators

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## 6. How Do You Measure The Benefit of Awareness, Behavior, And Culture Change?

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# Metrics To Assess The Benefits Of SA&T: Input Metrics



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# Metrics To Assess The Benefits Of SA&T: Alternative Metrics



# Metrics To Assess The Benefits Of SA&T: Security Visibility & Influence



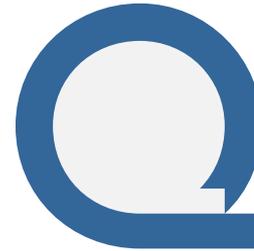
**CISO Board Presentations**



**Security Team Communication**



**CISO Involvement In M&A Decisions**



**CISO Involvement In Business Decisions**

# Metrics From Surveys: They Achieve So Much More Than Just Measurement

- Source: Forrester Report, [“The Business Case For Security Awareness And Training”](#)

Behavioral concept	Security-related behavioral aspect	Behavioral perspective	Potential measurement question
Motivation	Understanding of consequences	Personal	What could the consequences be of clicking on a malicious link in an email?
		Company	How could an information security breach such as a lost laptop or leaked company data affect the organization?
	Culture	Management	Does your line manager stress the importance of good information security practices?
		Colleagues	Do your colleagues follow security policies and practices at all times?
	Acceptability	In what circumstances may you or your colleagues ignore or bypass a security policy or process?	
Current state	Mood	What is the current morale level across the organization?	
Ability	Awareness	Awareness of risks	Please rate these five actions in order of risk to the company.
		Awareness of expectations	How aware do you feel of the policies that apply to you?
	Simplicity of desired behavior	Threat recognition	How easy is it recognize a potential information security risk?
		Time/routine	How much time does it take to evaluate and report a potential information security issue?
Triggers	Immediacy of triggers		The last time you reported a security risk, what triggered you to do so?

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Source: Forrester Research, Inc. Unauthorized reproduction, citation, or distribution prohibited.

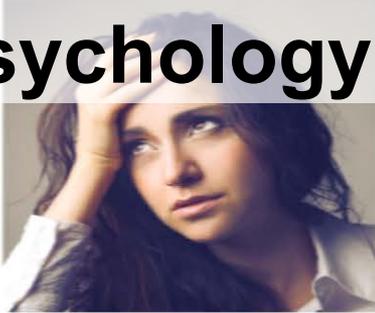
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# 7. Security Awareness and Training Content



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# 8. Behavioral Science & Psychology



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A photograph of two men playing chess on a public bench in a city park. The man on the left is older, with white hair and glasses, wearing a brown jacket. The man on the right is younger, with a beard and a bun, wearing a grey jacket. They are sitting on a concrete bench with a chessboard and pieces on it. The background shows a city street with cars, a tree, and other people. A semi-transparent dark grey box with white text is overlaid on the center of the image.

## 9. Culture And Social Influence

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# 10. The Maze Of Products

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# Thank You

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