

How to develop secure human behaviour?

Closing the gap between knowing and doing

11:30 uur - Amsterdam '72



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About BeOne Development



Founded in
1999 as
InfoSecure



Information Security
&
Privacy



Creating a
positive security
culture

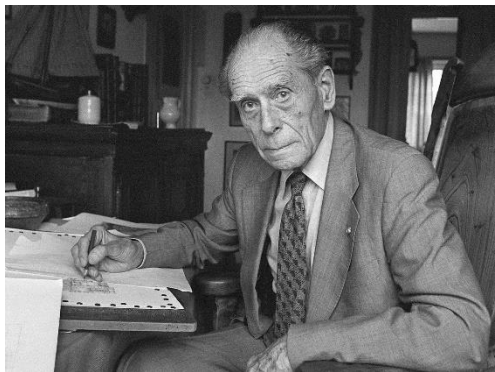
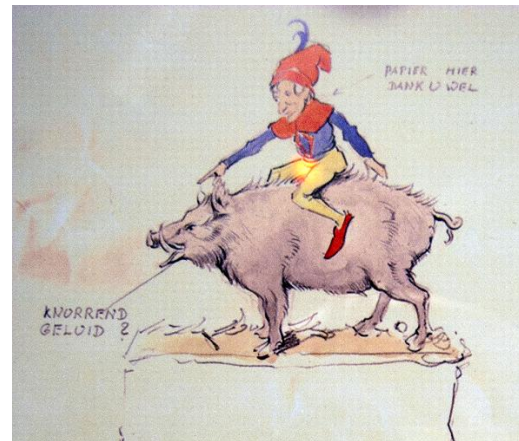
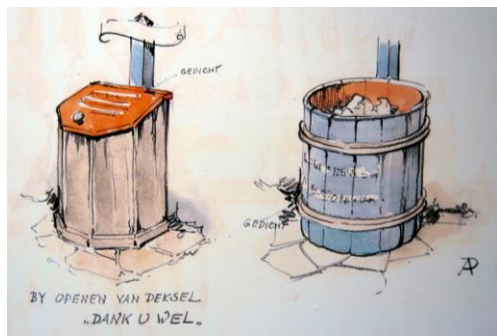
An introduction













Holle Bolle Gijs eats 460.000 kilos of paper a year.
Holle Bolle Gijs has eaten a total of more than 25 million kilos of paper.

Technology, organisation and humans

Almost 90% of Cyber Attacks are Caused by Human Error or Behavior

By Ross Kelly - March 3, 2017



Few store managers would respond to revelations that a junior assistant had been stealing from the cash register by investing thousands of dollars in new security cameras. It could be far cheaper for them to instill hiring practices that vet employees and keep the bad ones out.

But all too often CEOs confronted with cyber attacks tend to do the opposite: they fret about possible weaknesses in their technology defenses, rather than taking a hard look at the people in their organization.

The human factor is hot ...



.... but often ineffective



Research from **Information Security Forum (ISF)**, International top 500 companies
www.securityforum.org/research/from-promoting-awareness-to-embedding-behaviours/

- Insufficient management commitment
- Not the right skills
- Approach not risk driven
- Ad hoc approach
- Only a tick in a box
- Approach based on FUD
- Effectivity is not measured
- Change is not secured



Security Awareness in the past

Why we know, but don't do



Source: Tali Sharot, 'The optimism bias'

Security awareness is a process

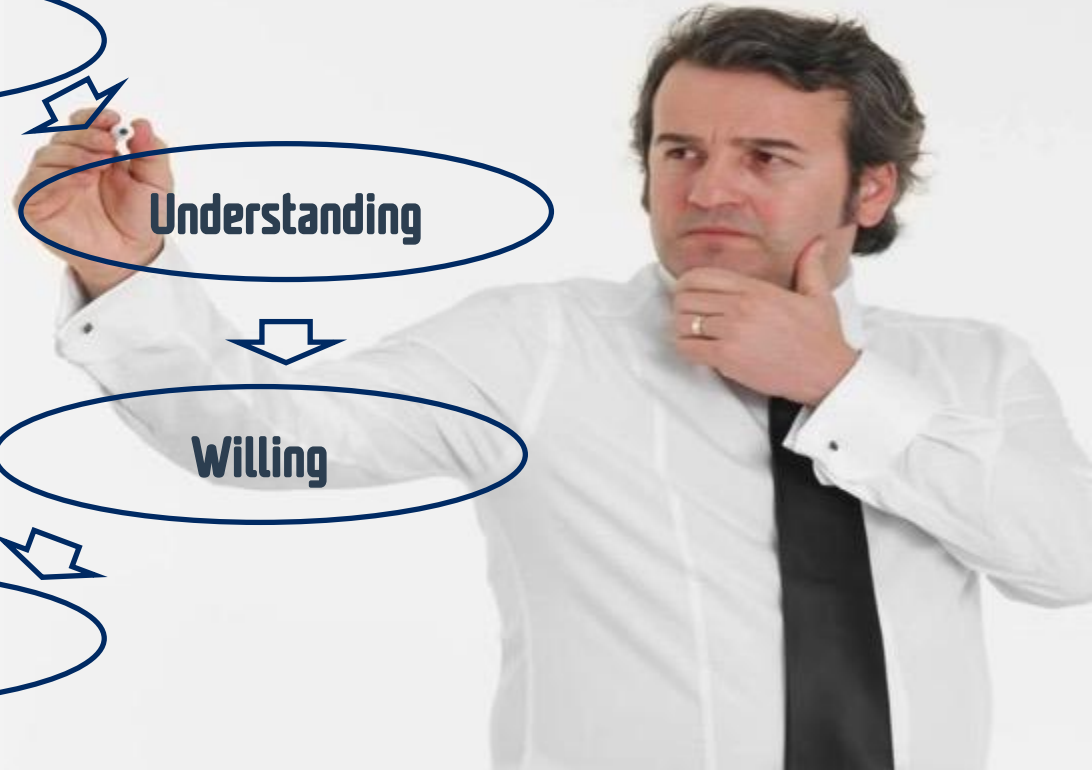
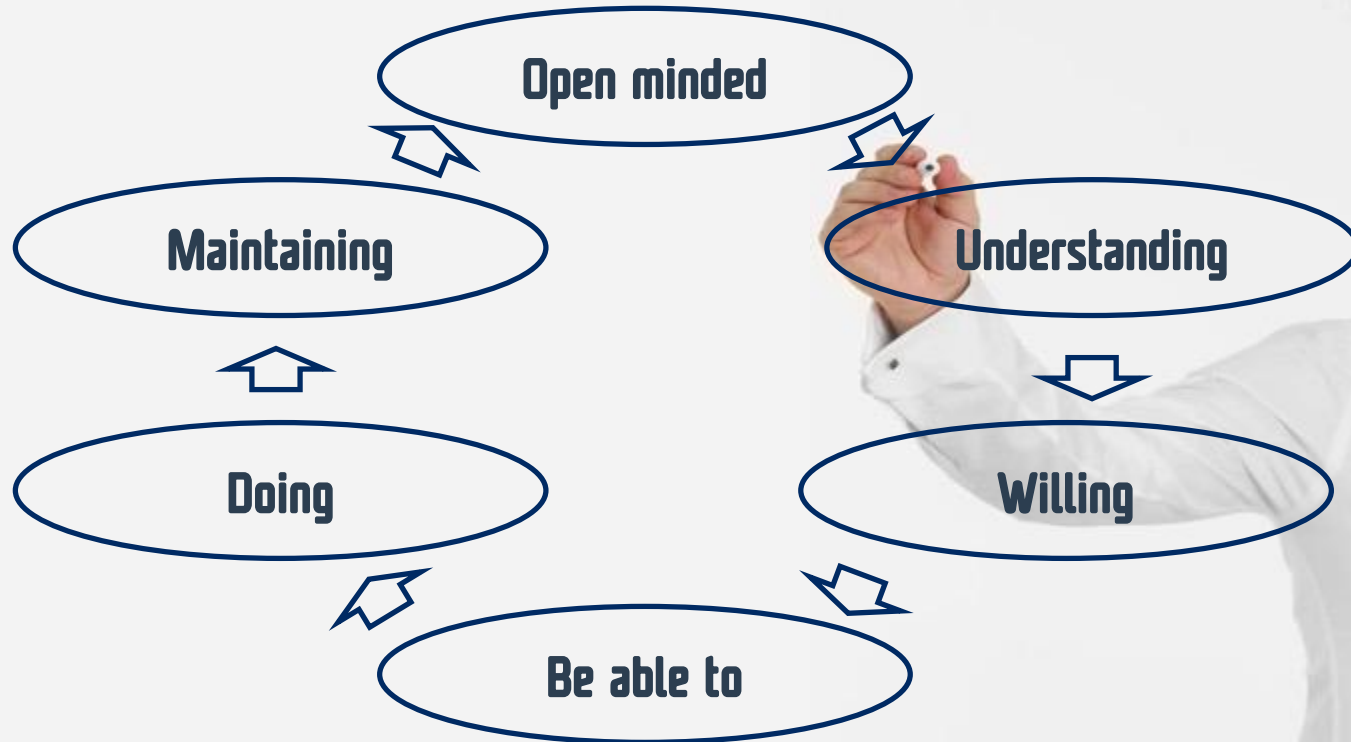


- ✓ **Involve management**
- ✓ **Organise the right project team**
- ✓ **On-boarding for new employees**
- ✓ **Information security fundamentals**



Is broadcasting knowledge sufficient?

Behavioural change



Source: M.F.K. Balm, 'Behavioural change model'

A close-up photograph of a white ceramic cup filled with dark coffee. Wisps of white steam are rising from the surface of the coffee. The cup is nestled within a thick, textured grey knit blanket, which is draped around it. The lighting is soft and focused on the cup, creating a warm and cozy atmosphere.

Confrontation by testing

**Moving with pleasure
and
freezing with fear**



Start with making an
emotional connection

Port of
Amsterdam



188 0943



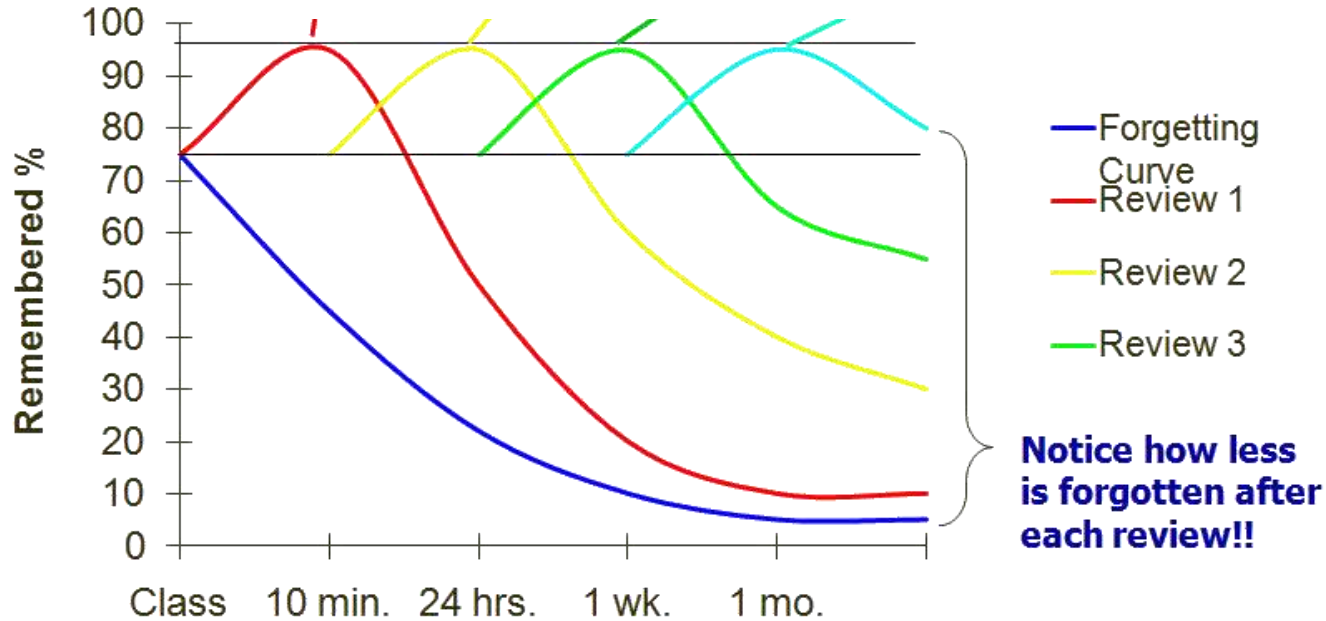
ESCAPEROOMMOBIEL

ESCAPEROOM
Cyber Security
BeOne Infosecure

ESCAPEROOMMOBIEL

ESC2

Ebbinghaus forgetting curve



Learning pyramid & retentive



Using a blend of approaches results in a substantial increase in knowledge retention

Is warning sufficient?





Add confrontation and immediate feedback

From knowing to doing

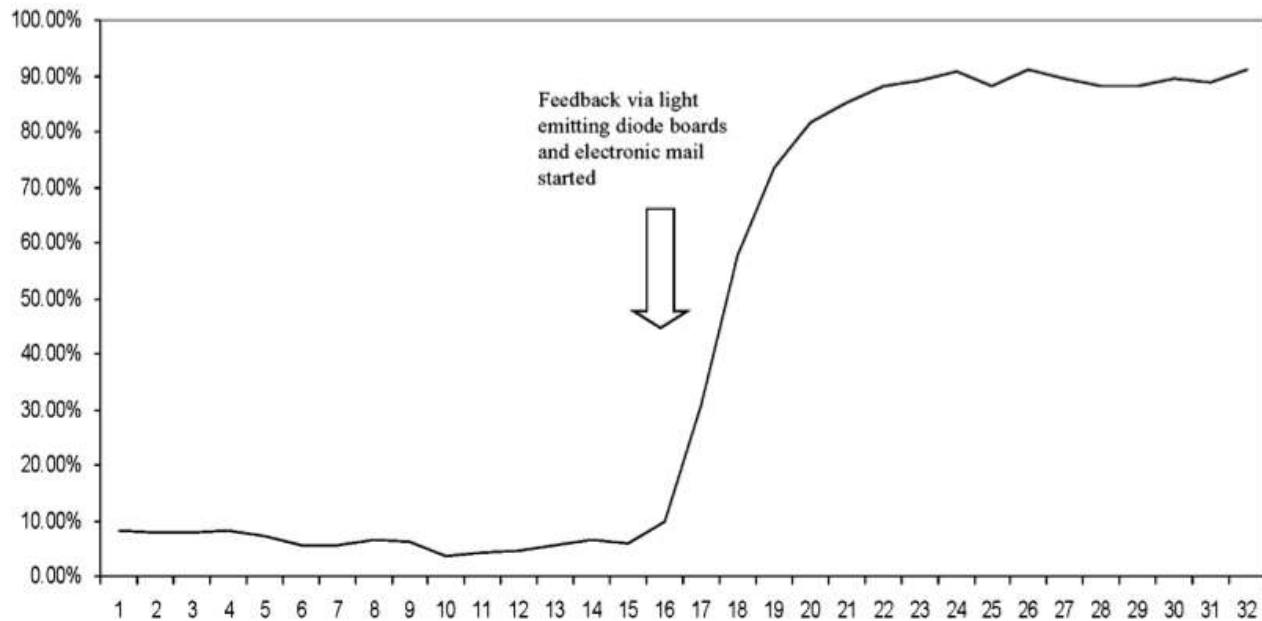


Figure 3. Hand hygiene compliance by week during impact period following feedback.

Normative beliefs

Please reuse your towels to save money 15%

Help save the environment.

You can show your respect for nature and help save the environment by reusing your towels during your stay 30%

75% of the hotel guests reused the towels 45%

75% of the guests who also stayed in this room reused the towels 50%



Normative beliefs

9 out of 10 people in Britain paid their tax on time +5%

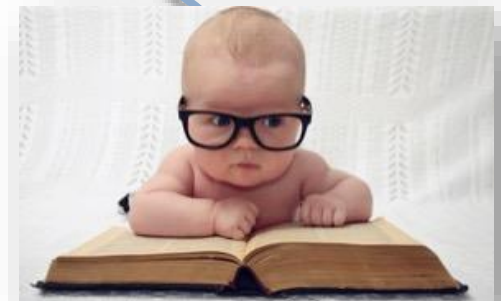
9 out of 10 people in your town paid their tax on time +12%

9 out of 10 people in your town paid their tax on time
and you are one of the few people who have not paid yet +16%

PDCA approach: immediate feedback with awareness dashboard



Simulate & test



Knowledge & skills



Report compliance and offer feedback



Monitor

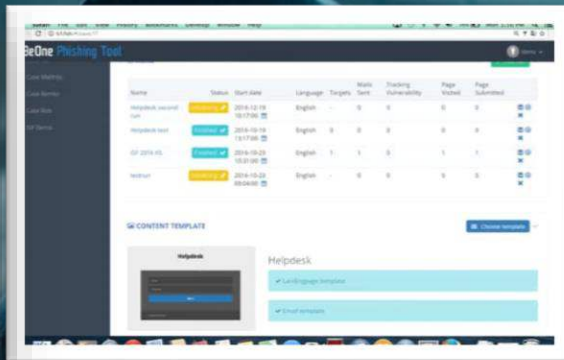
Use a risk based approach



Theme: phishing



Knowledge



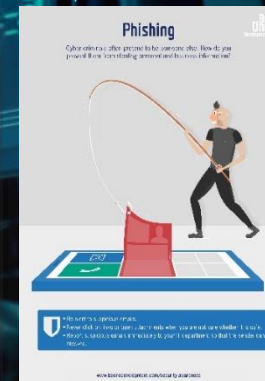
Test



Skills



Feedback



Repeat

Theme: strong passwords

Use of passwords

- How do you make a strong password?
- What is a simple way to remember your passwords?
- What are the risks of having a weak password?

Crack the Password

e a e m e

Enter a letter.

Enter a letter

Guess a letter

One Minute Security Flash Strong Passwords



Strong passwords

How do you make strong passwords that are easy for you to remember, but difficult for others to guess?

Check out our report on **Engagement Score** and **Net Promoter Score** to see how we are doing and how you can improve.

Get all the reports you need in one place. [View Reports](#)

Get all the reports you need in one place. [View Reports](#)

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Theme: social engineering



Theme: USB sticks



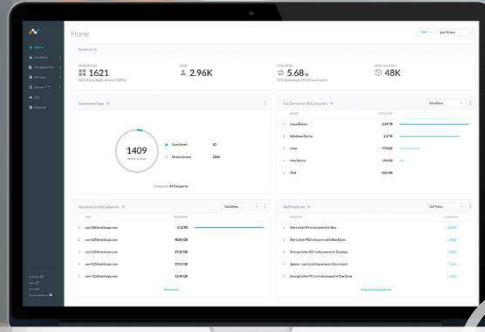
Theme: cloud services

Working in the cloud

Welcome to the training Working in the cloud!

In this training you will learn about the pros and cons of different cloud services.

At the end of this training, you will know how to work safely in the cloud.



Social media & Working in the cloud

In this security flash you will learn:

- what types of information are safe to share via social media;
- what risks are involved in the sharing of information via a cloud service;
- how you can prevent these risks.

This security flash consists of a video and 3 questions. You will need to answer 2 of the 3 questions correctly in order to pass.

Good luck!



Social media & working in the cloud

Who can see this photo after the share is over? How do you prevent social media content from being shared?



Who can see this photo after the share is over? How do you prevent social media content from being shared?

Develop a continuous multi channel communication program



Strong Passwords



The New Way of Working



Use of Passwords



Work Securely Outside the Office



Working in Public Places



Working in the Cloud



Test & confrontation

Inform, knowledge & skills

Report compliance

Take aways to create a positive security culture



1. Develop a long term communication program
2. Measure behaviour & confrontation
3. Train knowledge & skills continuously
4. Give direct feedback & show behavioural compliance



Questions?



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