

Security for humans

Robin Laurén - Reaktor @ [MacAD.uk](https://www.macad.uk) 2022

Common Ground -rules

How to be kind to the presenter

- If you agree, nod
- If you are impressed, nod
- If you hear something you already know, nod
- If you disagree, do so quietly

Human?

Human behaviour

(hum to Björk if you want)



IT Security is
(also)
about people

Hi! I'm Robin!

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Happy 😊

Ingredients for a happy human

Measures vary, list probably incomplete

- Physical safety
- Emotional safety
- Trust
- Meaningful work
- Connection, belonging
- Expression
- Agency and autonomy
- Appreciation and self-worth
- Capability
- Self-improvement, learning

Humans are weird.

“Humans! My favourite species!” -Lt. Cmdr Data

**Humans are weird.
And complex.**

“Humans! My favourite species!” -Lt. Cmdr Data

**YOU
ARE
NOT
SO
SMART**

Thinking,

fast and slow

**We can be
scammed**

because we're human

Urgency, scarcity, fear

We are easily fooled by our emotions

The Seven Levers of Persuasion

Robert Cialdini

Reciprocity

Scarcity

Authority

Consistency

Liking

Social proof

Unity



The Box

Listen

 with both ears 

Listening levels

Otto Scharmer, MIT

Level 0 - **Automatic listening** (“cosmetic listening”)

Level 1 - **Selective listening** (validate, acknowledge)

Level 2 - **Factual listening** (receive new information)

Level 3 - **Empathic listening** (take the other’s perspective)

Level 4 - **Co-creative listening** (generate new understanding)

**If you try to work against human nature,
you will fail.**

Perry Carpenter's first maxim on security design

**To succeed with security,
you must design it to be
compatible with humans.**

Robin Laurén's positive spin on Perry Carpenter's first maxim

Security is a curious thing

Security Awareness

Security Awareness

Choose your adventure

- Compliance
- Informed
- Secure behaviour
- Secure culture

**Just because I'm aware
doesn't mean I care.**

**Perry Carpenter's second maxim on security design.
Sorry, no positive spin on this one.**

**Why is this
important?**

Your reasons must resonate with the recipient

**Given the right reasons,
people will care**

Basics of storytelling:

Threat 🙌 **Solution** 🙌 **Strength**

**Enable and empower
with responsibility and agency**

The Security Guidelines

According to Reaktor

1. Use your common sense and good judgement
2. Be diligent and careful
3. Ask if you don't know

The Security Guidelines

Explained

1. We trust you. You are an adult.
2. With great power comes great responsibility. Also, think System 2.
3. You are allowed not to know everything. Asking for help and advice are Good Things, especially if your common sense or spider sense is unsure.

Essential ingredients

for a good security environment

- No “stupid users”
- No shame
- No reprimand for good intent (first time violators only)
- Everyone is a part of the security fabric
- Easy and stress-free to report anomalies
- Compassionate empathy, both before and after a breach
- Make it easy to do the right thing

Intention \neq action

The Knowledge - Intention - Behaviour gap

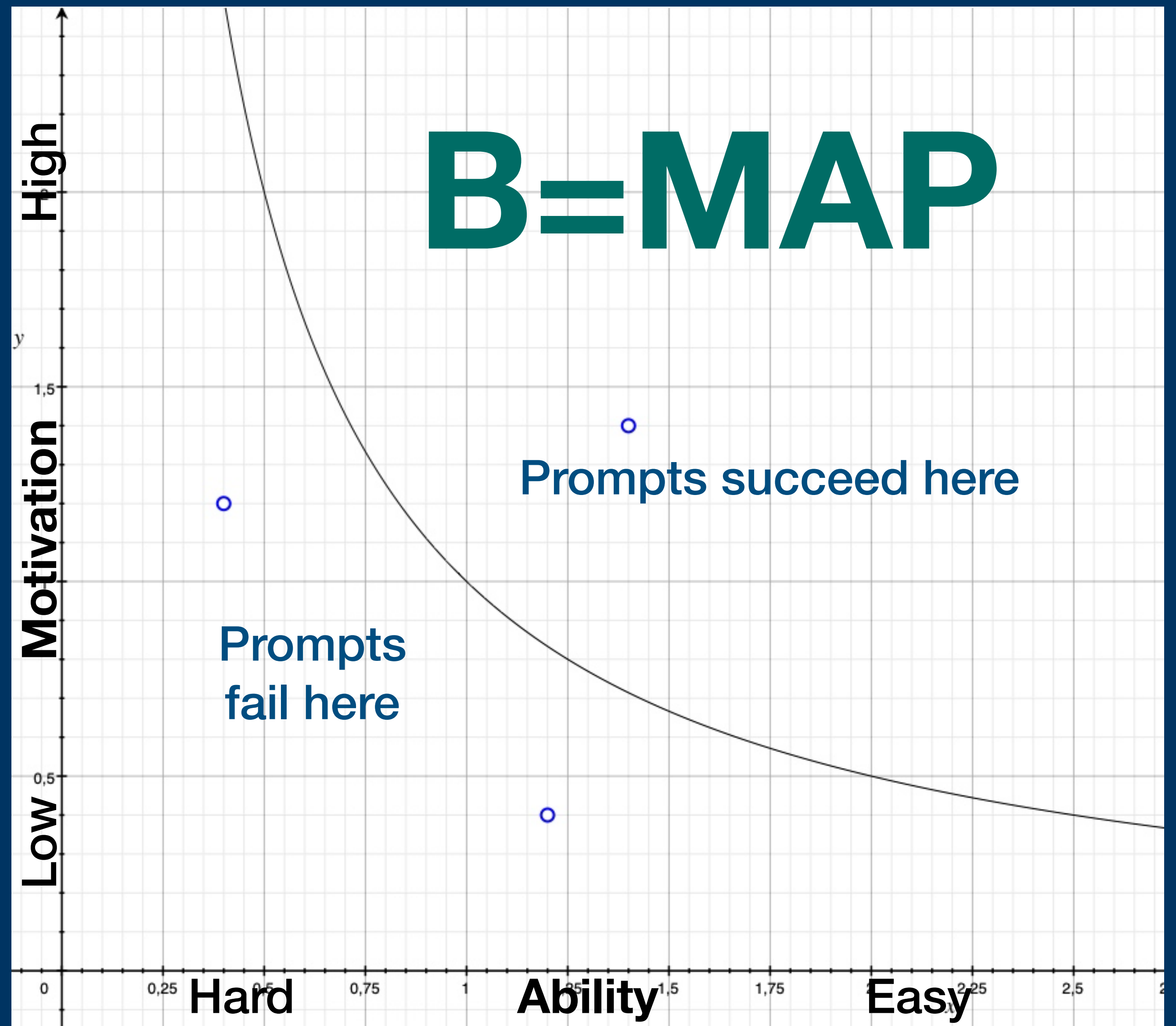
**What your employees know
is less important than what they do**

Perry Carpenter's third maxim on security design

The Fogg Behaviour Model

Caveat emptor: BJ Fogg is a behavioural scientist, not a mathematician :D

Please see behaviormodel.com for a way prettier graph



' %n@%m %~ %# '

Waiting for a prompt

B=MAP

Brian J Fogg, Stanford

- Behaviour = the action you take
- Motivation = how much you care
- Ability = your capability to do something (time, money, effort)
- Prompt causes action if $M \cdot P$ falls above the curve
- Let your workmates create their own prompts
- If a prompt becomes intrinsic/automatic, the behaviour becomes a habit

Let's recap

Security for humans in a nutshell

- IT security is not just about IT, and humans are weird (but adorable)
- Humans respond to emotions by clouding their judgement
- Compassion is vital for security
- Security must be designed for humans
- Knowing \neq caring \neq doing
- Use persuasion and prompts to get from intention to action

The end?

Entropy and atrophy

In a closed system, entropy will not decrease. -Sir Isaac Newton

**Left to themselves,
things tend to go
from bad to worse**

**Go forth and
make the world secure!**

Questions?

Thank you!



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