



Stop. Think.  
Click.



Kieren Ni colas Lovell

IM Implementation Manager

University Information

Services



## Aim

To inform users on the threats to the University of Cambridge, to introduce users on Information Security, and to the threat of Social Engineering

Stop. Think. Click.

# Objectives

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Introduction



Threats to Cambridge IT

A brief summary of IT threats to the University of Cambridge



Social Engineering & Case Studies

An example into how Social Engineering is conducted, & University of Cambridge case studies



What can you do to help  
...& how we can help you

Stop. Think. Click.

# Kieren Ni colas Lovell

Joined Royal Navy  
in 2002



Joined  
MARBATSTAFF on  
HMS INVINCIBLE  
as a  
Communications  
Security  
Specialist.

Communications  
Specialist in Mine  
Warfare Warships

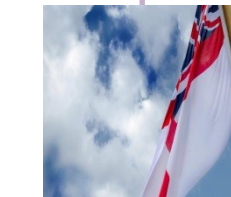


Headhunted to  
Norway as the  
SME

Civilian Instructor for  
the Royal Norwegian  
Navy in Warfare,  
Communications & IM



Joined Nuclear  
Weapon, HMS  
Vengeance in  
2003



Awarded Herbert  
Lott Award for  
Services to  
Information  
Security

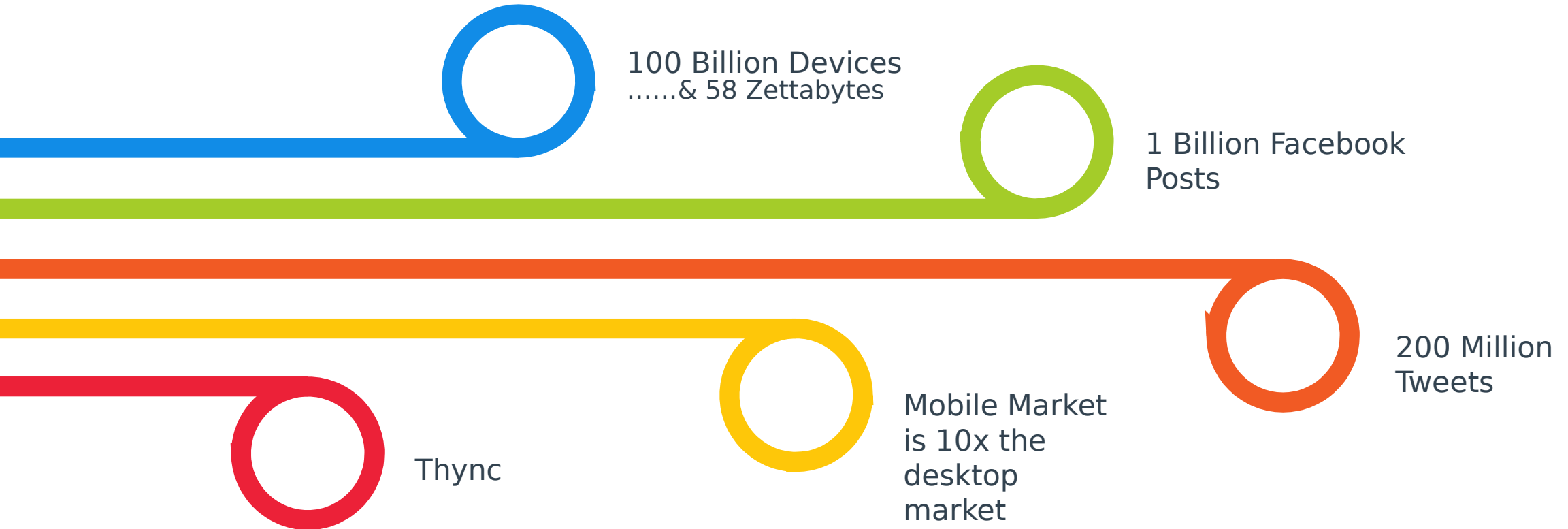




Commissioned in the Royal Norwegian Navy, as a LT CDR, providing Shipping Protection against the Pirate Threat in Somalia, working with over 50 Nations, and responsible for five warships.

Stop. Think. Click.

## Aim: Metrics Snapshot: 2020





Stop. Think. Click.

## Aim: Metrics Snapshot

The screenshot shows a web browser window with the URL www.thync.com. The page features a video player with a play button in the center. The video content includes a woman in a white shirt and a hat sitting at an outdoor table, and a close-up of a woman's head wearing a white Thync device. Text overlays on the video include a testimonial: "AFTER TWO WEEKS, I WAS WAY LESS ANXIOUS, GENERALLY HAPPY, AND SLEPT LIKE A BABY." attributed to Jessica P. - Amazon 2016, and a slogan: "Energize or relax without drinks or pills." The browser's taskbar at the bottom shows various application icons and the system clock indicating 07:51 on 05/04/2016.

Thync

Stop. Think. Click.

# Threats to Cambridge

Accident Leakage



Deliberate Leakage



Simulate Leakage



Denial of Service



Corruption of Information



Spoofing







## Social Engineering

The easiest, and most successful way, to gaining access to information, money, or reputational damage



### Not New

One of the first recorded scams was in the 15<sup>th</sup> Century, all that has changed is that we now have computers.



### Easy & Effective

Low cost of resources, time and effort are all that is required.

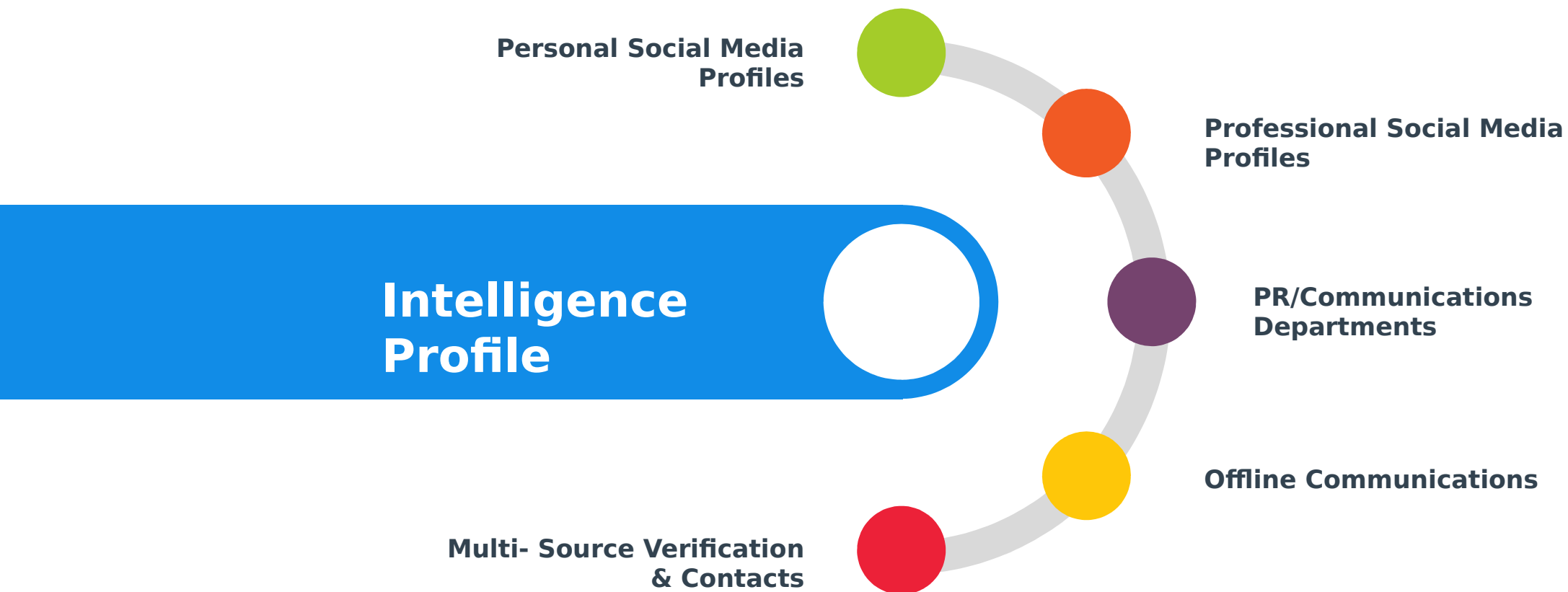


### Hard to spot

Can sometimes be months, even years, when spotted

Stop. Think. Click.

# Attack Vectors

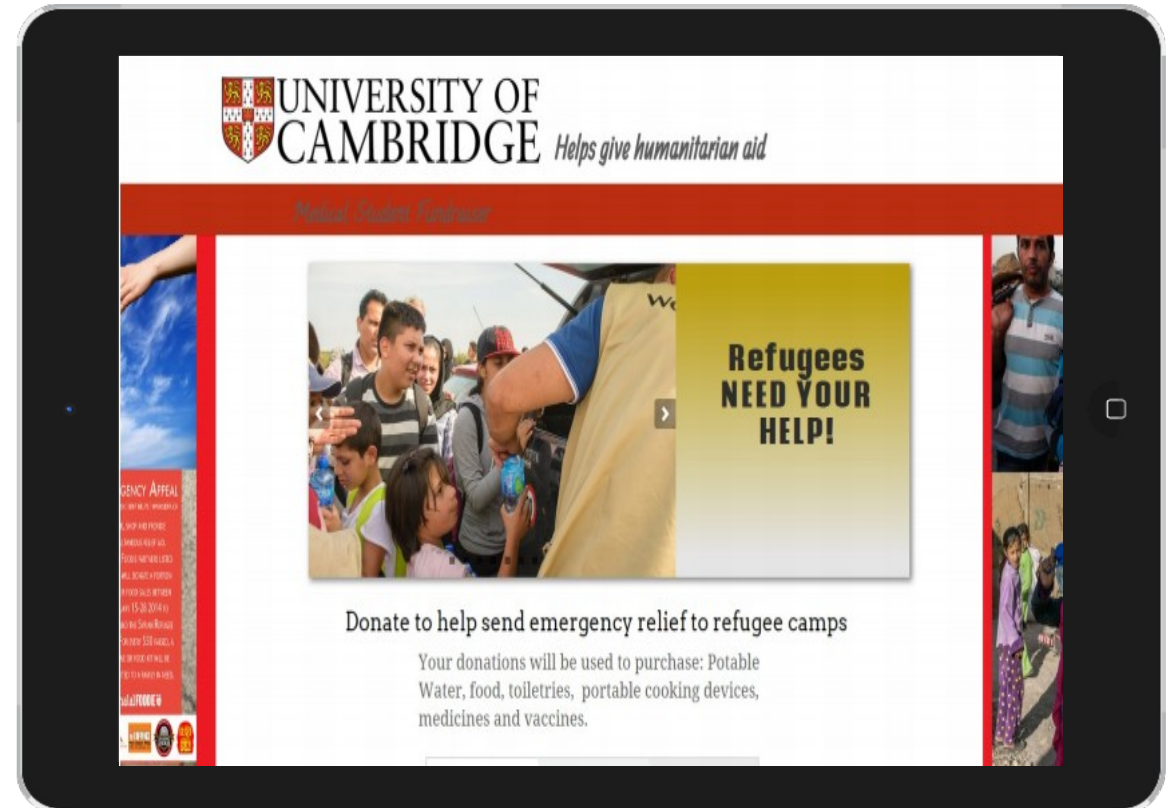


Stop. Think. Click.

# Somalia Refugee Crisis

This email was sent to 12,000 people

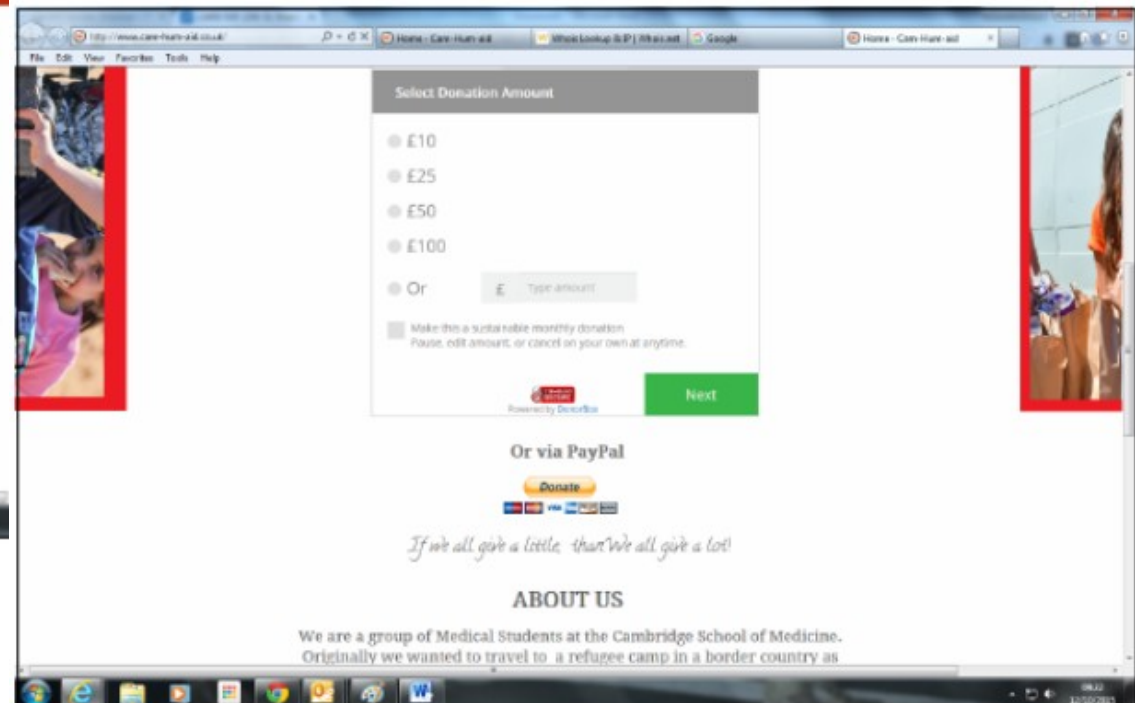
```
>----- Original Message -----  
>From: Alex [REDACTED]  
>Sent: 9 October 2015 20:36:05 BST  
>To: [REDACTED]  
>Subject: Cambridge Helps! Donate to support Syrian Refugees  
>  
>Dear Cambridge Community,  
>  
>We are a group of Medical Students at the Cambridge School of Medicine.  
>We have initiated this fundraiser to help provide support and  
>humanitarian aid for Syrian Refugees. We are facing the biggest migrant  
>crisis in Europe since World War II. Whilst our leaders have a sobering  
>debate about how to come up with a solution to the current crisis,  
>let's not forget that these are real people who are in need of real  
>humanitarian aid .  
>  
>Nearly 12 million Syrians have been forced from their homes by the  
>fighting. Refugees need food, clothing, health assistance, shelter, and  
>basic household and hygiene items. They need reliable supplies of clean  
>water, as well as sanitation facilities. They'll need warm clothing,  
>heaters, and heating fuel to get through the coming winter months. The  
>World Food Program recently had to cut food assistance to one-third of  
>the Syrian refugees in the region, including 229,000 living outside of  
>camps in Jordan.  
>  
>Help us raise money to provide this assistance!  
>Visit our fundraising website to donate now, and give your support!  
>With a small donation of even 1£ or 5£, You can make a difference.  
>Help Give Humanitarian aid to Syrian Refugees (  
>http://www.cam-hum-aid.co.uk )  
>(  
>http://cam-hum-aid.co.uk )
```





Stop. Think. Click.

# Somalia Refugee Crisis



Stop. Think. Click.

# Somalia Refugee Crisis



My name is Alex and I ask PLEASE READ this short description!

I am a Lebanese student and I am in my last year of Medical school. I won a scholarship to study Medicine abroad in my country for my work promoting health and prevention programs in rural areas of Guatemala. I am on a student visa and I am not eligible for any aid. My country, however, decided to stop giving scholarships for people to study abroad after my first year of Medical School, and I was devastated. Most of my friends on this scholarship were forced to drop out of school. I have been fighting to finish school, and pay my tuition every year completely out of my own pocket. I am determined to finish Medical School and return to Central America to offer quality medical care to low income families in rural areas. I have done everything you can imagine, and many weeks I live off a budget of 10 dollars. What I was doing before was "distance education" in my country. While studying medicine here, I was going to an online school in Lebanon to be able to collect government aid. I would also spend my summers working in labs back home, do paid research studies as a guinea pig, etc etc... but as of last year, I can no longer get aid through distance education, which is where the bulk of my money came from. Over the years I have taken out loans, hounded family and friends for help, written letters to the Dean and government. I have nowhere else to turn now. I have only one year left!! And I desperately need help! It is very challenging, and difficult to study something like medicine, which the constant stress of how you will pay tuition, and finally once you can pay tuition, worrying about if you will have enough



Alex

Share (0)

Invite Friends

View Images (6)

Organized by:



4 months ago

Miranda Wagner donated **\$15.00**

0 Likes • 0 Comments • 0 Shares

Like

Comment

Share

4 months ago

Margit Blekfeld-Sztraky donated **\$100.00**

0 Likes • 0 Comments • 0 Shares

Like

Comment

Share

4 months ago

Charlee N Bowman donated **\$50.00**

0 Likes • 0 Comments • 0 Shares

Like

Comment

Share

Over £300 was reported.... Online, the crowdfunding was into the thousands



Stop. Think. Click.

## Research Phishing Attempt

From: [REDACTED]  
Sent: 03 August 2015 03:03  
To: [REDACTED]  
Subject: Re:

Hi

Dear Dr. [REDACTED]

I recently read your last article and it was very useful in my field of research.  
I wonder, if possible, to send me these articles to use in my current research:

1- <http://raven.cam.iac-uk.in/idp/Authn/userpassword.php?http://www.sciencedirect.com/science/article/pii/S1383762115000144>

2- <http://www.sciencedirect.com/science/article/pii/S2212683X14000723>

Thanks for you Cooperation in Advance.

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## Successful Campaigns



## Phishing

Targeted, well researched.

## Anti-Virus

Largely ineffective against a targeted account

## Personal/Private

The divide is no longer there

## Online/Offline

Targeted campaigns use both worlds

## Spoofing

The most common vector successful attacks

## Attitude

It needs to change.....





“ There are only two types of companies:  
those that **have been hacked**  
and those that **will be hacked.**”

Robert S. Mueller, III  
Director, FBI



Report it, & we don't  
report you.



One step behind, is better  
than ten



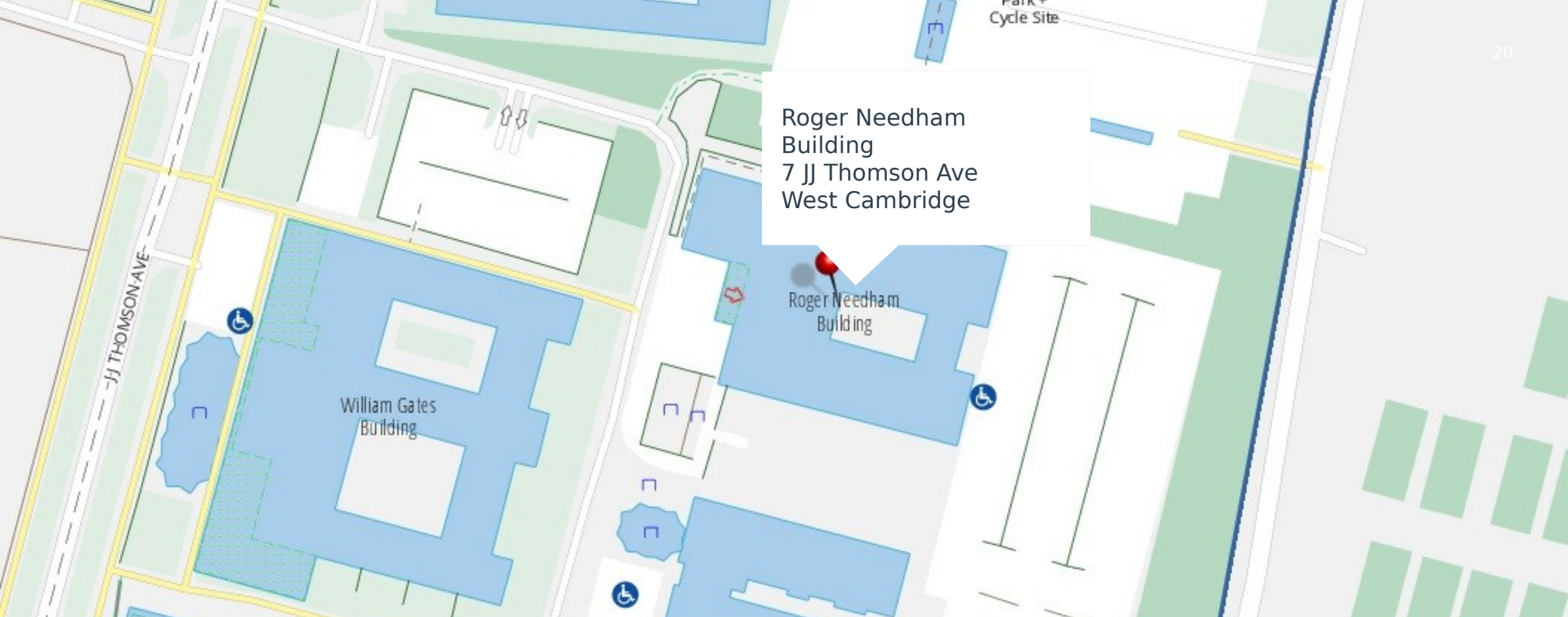
Policies & Procedures that  
work in Real life

Stop. Think. **Click.**

## Even the best get it wrong.....

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Roger Needham Building  
 7 JJ Thomson Ave  
 West Cambridge



[informationmanagement@uis.cam.ac.uk](mailto:informationmanagement@uis.cam.ac.uk) (Advice)  
[cert@cam.ac.uk](mailto:cert@cam.ac.uk) (Computer Security Emergency Response)



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