

Protecting yourself from Cybercrime

Arran Ostridge
Cyber Prevent and Protect officer



**Kent
Police**



**EASTERN REGION
CYBER PROTECT**

What is Cyber Protect and Cyber Prevent?

Cyber Protect

Aim: To improve knowledge and therefore strengthen protection against cyber-attacks.

Provide advice to help individuals and businesses change their cyber behaviours



Cyber Prevent

Aim: To deter young people from becoming involved in cybercrime.

Make people aware of the Computer Misuse Act 1990 and encourage positive legal use of skills and interests.



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What is the attraction for criminals to Cybercrime and Fraud?

Traditional Crime

- **Offender required to be present at crime scene**
- **One offence at a time**
- **Evidence/ Forensics/ CCTV**
- **Witnesses**
- **HIGH RISK/ LOW REWARD**



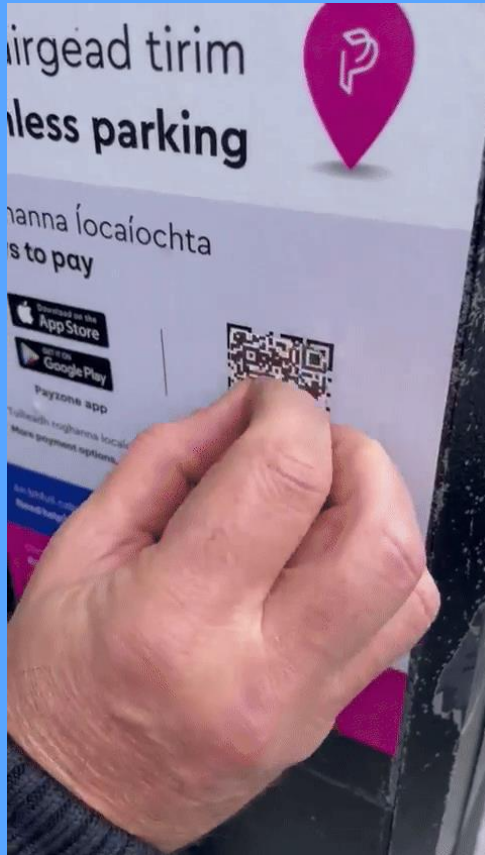
Fraud & Cybercrime

- **Not present at the scene**
- **Multiple offences at the same time**
- **Commit offences from anywhere in the world**
- **Co-operation required between law enforcement internationally**
- **LOW RISK/ HIGH REWARD**



The 4 ways how criminals can scam you

- Aiming to make you click a bad link, open an attachment and/or disclose sensitive information



Phishing



Smishing

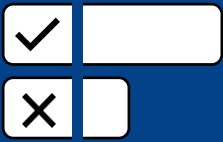


Vishing



Quishing





Genuine **or** Phish



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Genuine? or Phishing?

REMITTANCE ADVICE, Payment 0110947

1

AD

ACCOUNTING DEPT <info@johnnywas.com>

Tue 01/02/2022 16:00

To:

Cc:



SUP12142021.html

378 KB



Payment ID: 9050548

Vendor ID : B3KUUNI

Your payment has now been made, and attached is the payment details with a full payment summary.

Please allow 3 working days from the payment date stated on the remittance advice for the funds to clear your account.

If you have any questions regarding your payment, please direct all enquiries to your local payments team whose contact details are stated on the attached payment advice.

Thank you, your business is important to us!



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Phishing!

Recipient is targeted

- Attempting to look "official"
- Attempting to provoke a sense of urgency and an emotional response

REMITTANCE ADVICE, Payment 0110947



ACCOUNTING DEPT <info@johnnywas.com>

Suspicious email address

Tue 01/02/2022 16:00

To:

Cc:

 SUP12142021.html
378 KB

Suspicious attachment

(Name, size and format not atypical of a financial document)
(possibly contains malicious software)

Payment ID: 9050548

Vendor ID : B3KUUNI

Your payment has now been made, and attached is the payment details with a full payment summary.

Please allow 3 working days from the payment date stated on the remittance advice for the funds to clear your account.

If you have any questions regarding your payment, please direct all enquiries to your local payments team whose contact details are stated on the attached payment advice.

Thank you, your business is important to us!

Wants you to open the attachment



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Genuine? or Phishing?

From: TV Licensing <donotreply@tvlicensing.co.uk>

Sent: Wednesday, July 24, 2024 12:03:37 PM

To: [REDACTED]

Subject: Please do not ignore: we have opened an investigation.

Expect a visit from our Enforcement Team.

So you know this email is genuine, we've included part of your postcode, **** 3RA.

For more information, please refer to [your security](#) at the bottom of this email.



Dear [REDACTED]

**Our Enforcement Officers have been
authorised to visit **** 3RA.**

INVESTIGATION OPEN

Your details have now been handed over to the Enforcement Team for your area and a formal investigation has begun. It means Enforcement Officers could visit your home to check you're not breaking the law. They can arrive daytime or evenings, even at the weekend, so please expect a visit.

Get licensed now



**Kent
Police**

Genuine!

From: TV Licensing <donotreply@tvlicensing.co.uk>
Sent: Wednesday, July 24, 2024 12:03:37 PM
To: [REDACTED]
Subject: Please do not ignore: we have opened an investigation.

Genuine Tv Licensing
email address

Expect a visit from our Enforcement Team.
So you know this email is genuine, we've included part of your postcode, **** 3RA.
For more information, please refer to [your security](#) at the bottom of this email.



Addressed by name

Dear [REDACTED]
**Our Enforcement Officers have been
authorised to visit **** 3RA.**

Shows partial postcode
to confirm it is genuine

INVESTIGATION OPEN

Redirects you to the
genuine Tv Licensing
website

Your details have now been handed over to the
Enforcement Team for your area and a formal investigation
has begun. It means Enforcement Officers could visit your
home to check you're not breaking the law. They can
arrive daytime or evenings, even at the weekend, so
please expect a visit.

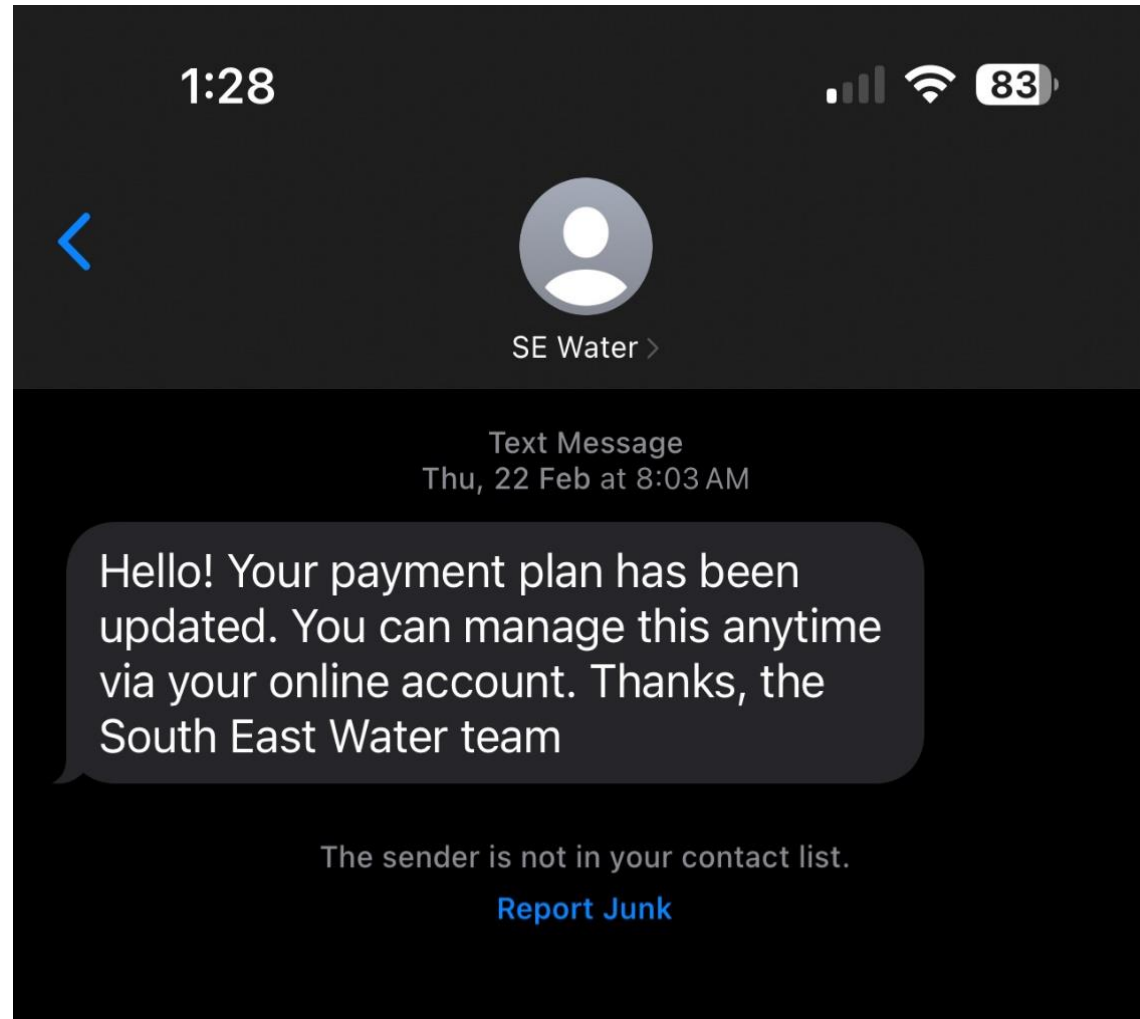
Get licensed now

If still unsure about
clicking the link, search
for the website on
google.



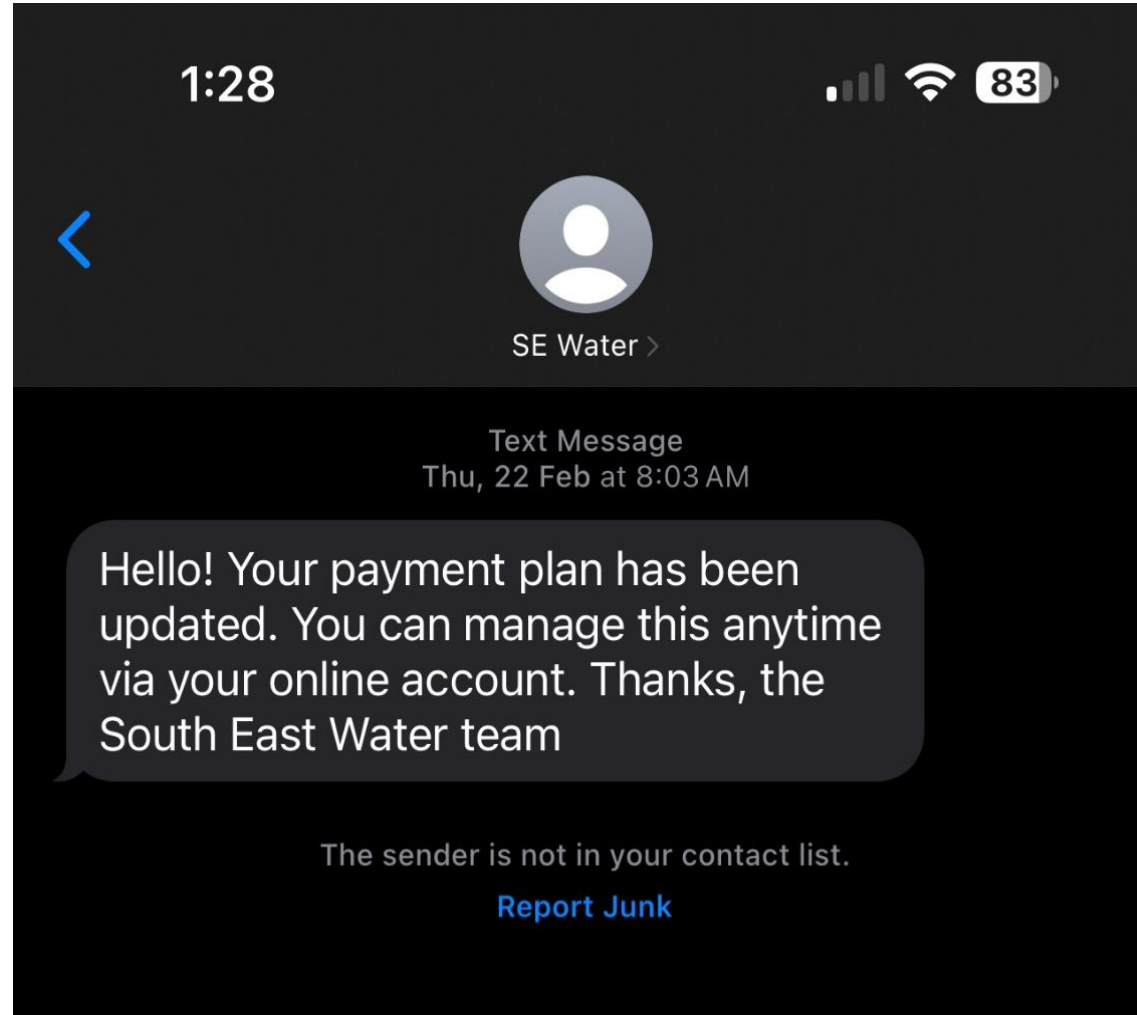
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Police**

Genuine? or Phishing?



Genuine!

Although the receiver of the text isn't addressed by name, the sender does not ask for you to click on a link



Genuine? or Phishing?

Text Message
Today 19:19

HMRC Refund: You have an outstanding Tax refund of £276.74 from 2020 to 2021. Follow instructions to claim your Tax refund at: <https://gov-tax.refundpr.com/>



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Phishing!

Text Message
Today 19:19

HMRC Refund: You have an outstanding Tax refund of £276.74 from 2020 to 2021. Follow instructions to claim your Tax refund at: <https://gov-tax.refundpr.com/>

HMRC will NEVER contact you via text message. They will usually send you a letter or email asking you to visit the HMRC portal

Link is not the legitimate website



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Genuine? or Phishing?

GOV.UK CORONAVIRUS ALERT
New rules in force now: you
must stay at home. More info &
exemptions at [gov.uk/
coronavirus](https://www.gov.uk/coronavirus) Stay at home.
Protect the NHS. Save lives.

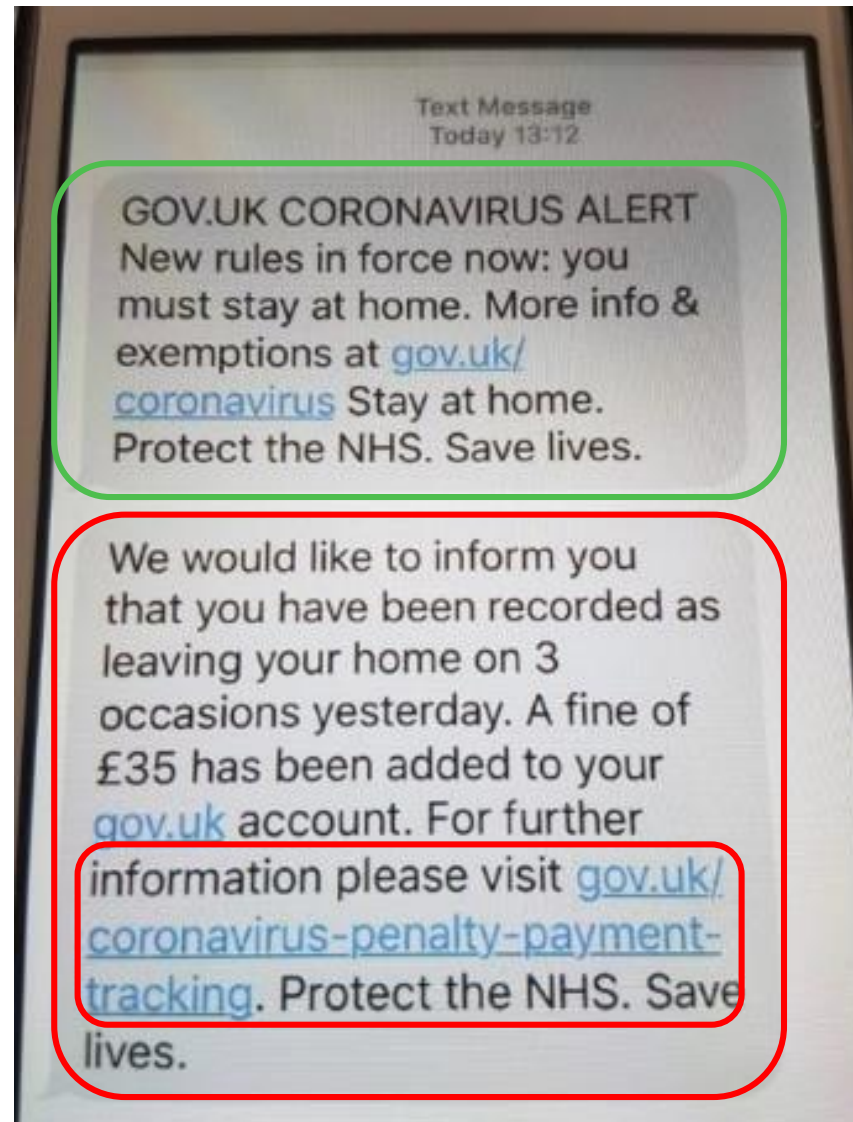
We would like to inform you
that you have been recorded as
leaving your home on 3
occasions yesterday. A fine of
£35 has been added to your
[gov.uk](https://www.gov.uk) account. For further
information please visit [gov.uk/
coronavirus-penalty-payment-
tracking](https://www.gov.uk/coronavirus-penalty-payment-tracking). Protect the NHS. Save
lives.



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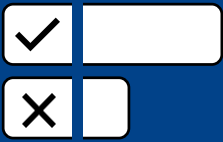
Phishing

Spoofed COVID short code
so appears in same thread
as genuine message

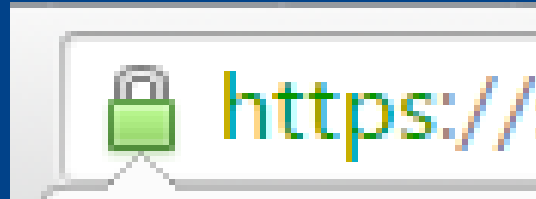


Genuine SMS

Spoofed link



Does an icon of a padlock next to a website address mean it's trustworthy?



secure.accountinforming.com ×
Your connection to this site is private.

Permissions **Connection**

 The identity of this website has been verified by GeoTrust DV SSL CA - G4. No Certificate Transparency information was supplied by the server.
[Certificate information](#)

 Your connection to secure.accountinforming.com is encrypted using a modern cipher suite.

The connection uses TLS 1.2.

The connection is encrypted and authenticated using AES_128_GCM and uses ECDHE_RSA as the key exchange mechanism.

 **Site information**
You have never visited this site before today.

[What do these mean?](#)



Fake URL (not legitimate PayPal!)

Log in to your account

Email address

Password

Log In

[Forgot your email address or password?](#)

Sign Up for Free

All in one pay.

Pick a card, any card, or bank account. It's your money, you choose how to spend it.

Simple. And no hidden costs.

It's free to sign up for a PayPal account, and we don't charge you a transaction fee when you buy something, no matter how you choose to pay.

Phishing



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Phishing - Tips for users

As of January 2026, the number of reports received stand at more than 35 million with the removal of more than 213,000 scams and 425,649 malicious URLs.



Scam messaging typically:

1. are from an authority / organisation / person you have heard of.
2. appeal to your emotions.
3. have a sense of urgency.
4. offers something that is in short supply / FOMO.
5. are topical / current events.

Forward to the Suspicious Email Reporting Service –
report@phishing.gov.uk

Text messages can be reported by forwarding to **7726**

Use **159** to contact your bank



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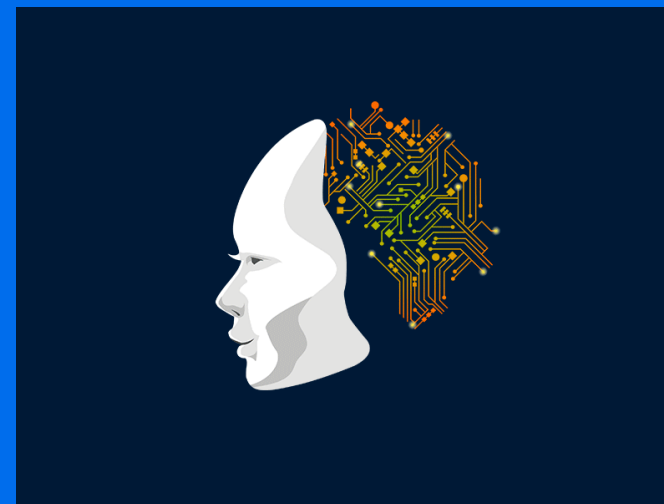
What is AI? (Artificial Intelligence)

Any computer system that can perform tasks usually requiring human intelligence. This could include visual perception, text generation, speech recognition or translation between languages.

([NCSC 2024](#))

AI (Artificial Intelligence) is an emerging tool. It is being used in a range of applications, from generative AI (the creation of media) to data-based AI which can be used to handle large amounts of data.

While the concept of AI has been around since the 1940s, it became more popular in recent years with the release of ChatGPT by OpenAI in 2022



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Generative AI

Generative AI refers to AI tools that 'generate' text, images and other content, usually in response to prompts.

Most of this software is free and accessible to anyone with a computer and internet connection, because it's also used for legitimate purposes. However, its increased accessibility has led to a surge in scams that use AI.



How far has AI come since then?

March 2023



January 2026



News stories regarding AI

Tory MP reports deepfake defection video to police

Matthew McConaughey and Michael Caine slammed for 'selling their souls to the devil'

ChatGPT accused of acting as 'suicide coach' in series of US lawsuits

Artist sneaks AI-generated print into museum gallery



The portrait was titled Empty Plate and put in a custom-made frame

Sadiq Khan says fake AI audio of him nearly led to serious disorder

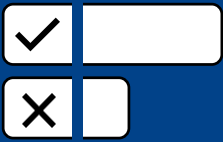
'Absolutely terrifying': Martin Lewis issues warning after deep fake video of him appears online

Government demands Musk's X deals with 'appalling' Grok AI deepfakes

OpenAI stops 'disrespectful' Martin Luther King Jr deepfakes

AI Brad Pitt dupes French woman out of €830,000

AI chatbot 'encouraged' man who planned to kill queen, court told



Can you tell the difference?



AI Edition



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☒

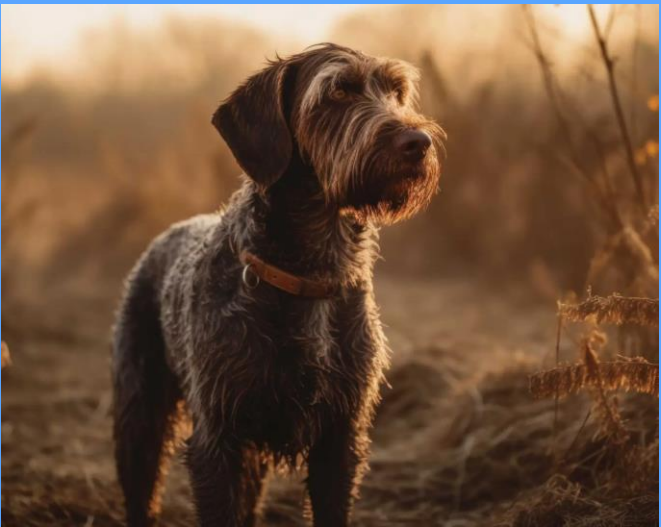
☐

☐

☒

Which image of a dog has been AI generated?

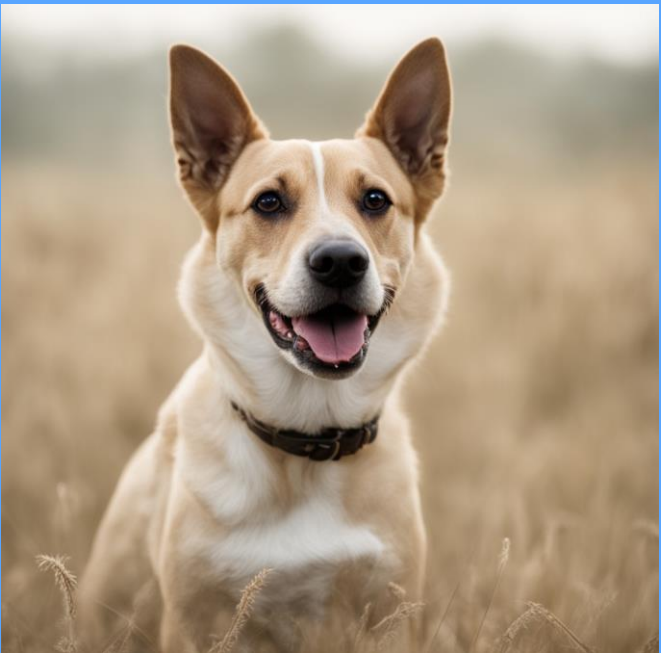
A.



B.



C.



C!

D.



✓	
✗	

Which image IS the real image?

A.

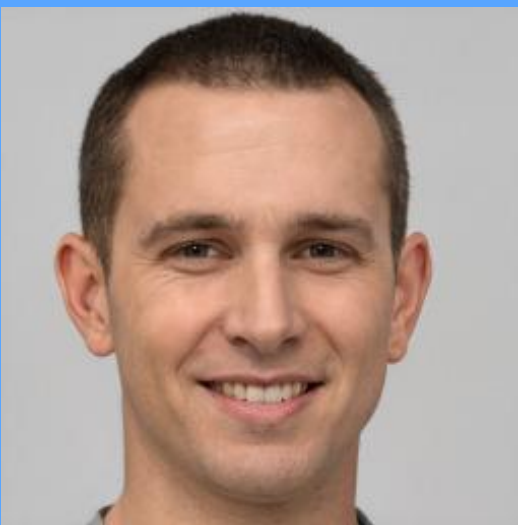


B.



B!

C.



D.



✓	
✗	

Which image has been AI generated?

A.



B.



C.



D.



These are
all AI
generated!

☒

☐

☒

☐

Real Or AI?

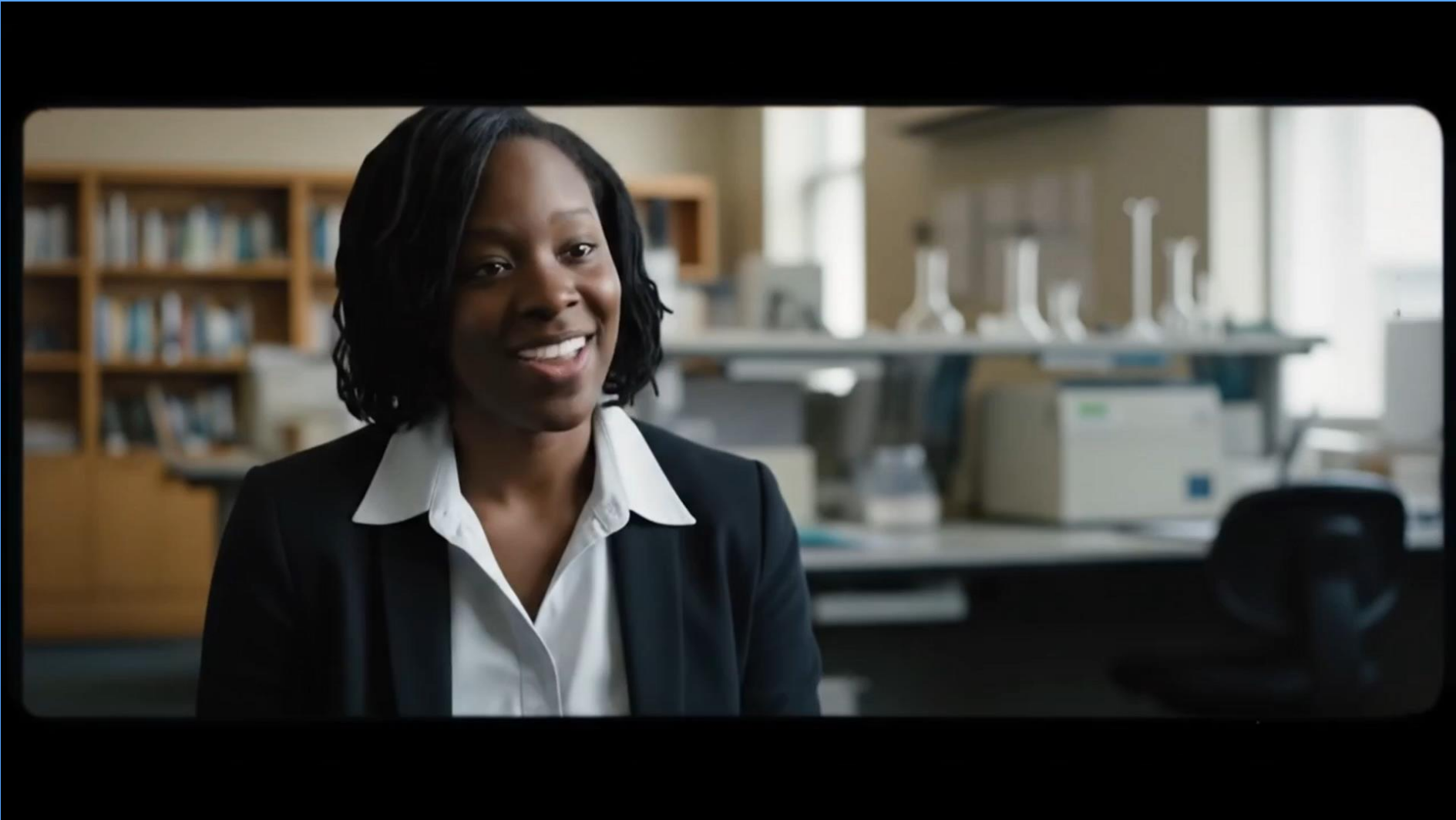


AI!

☒

☐

Real Or AI?



AI!

☒

☐

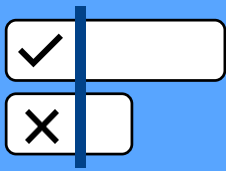
☐

☐

Real Or AI?



AI!



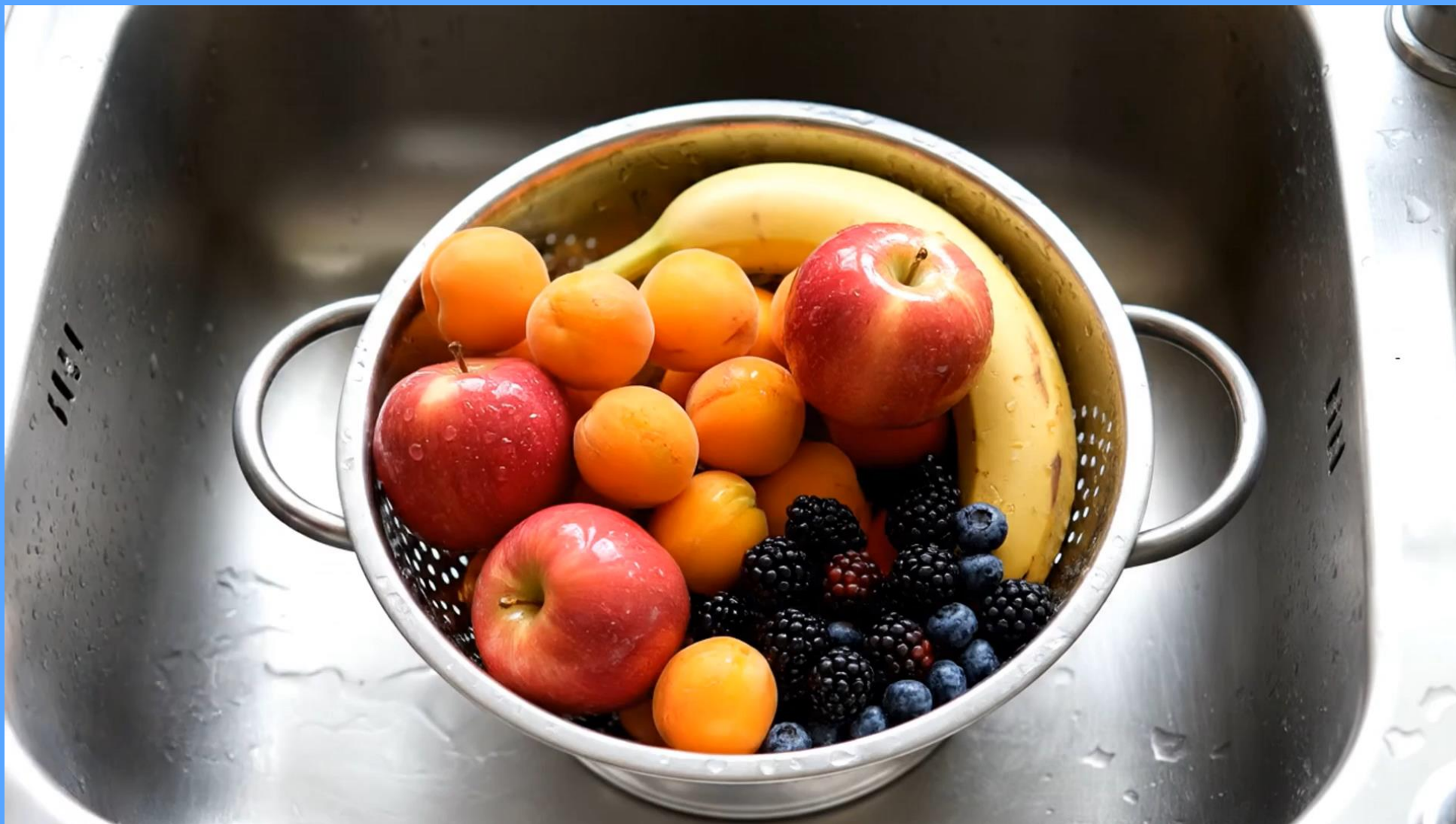
Real Or AI?



Real!

✓	
✗	

Real Or AI?



AI!

The way AI can be used to commit Cybercrime & Fraud

Deepfakes:

A deepfake is where the person in the photo/video has been digitally altered to appear as a different person.

Deepfakes can also be used to steal people's identities or to pass verification checks and access victims' accounts as well as to create images of completely non-existent people.

Voice Cloning:

Voice cloning is when a person's voice is recorded and then used to create audio content of that person speaking. Criminals can use a voice recording of someone to make them say anything that they want them to.

Man faces jail over AI-generated child abuse images



Man jailed for using AI to create deepfake porn



An estimated 95% of cyber-attacks succeed due to human error. [IBM](#)

90% of cyber data breaches were caused by human error. [Cybsafe, ICO](#)

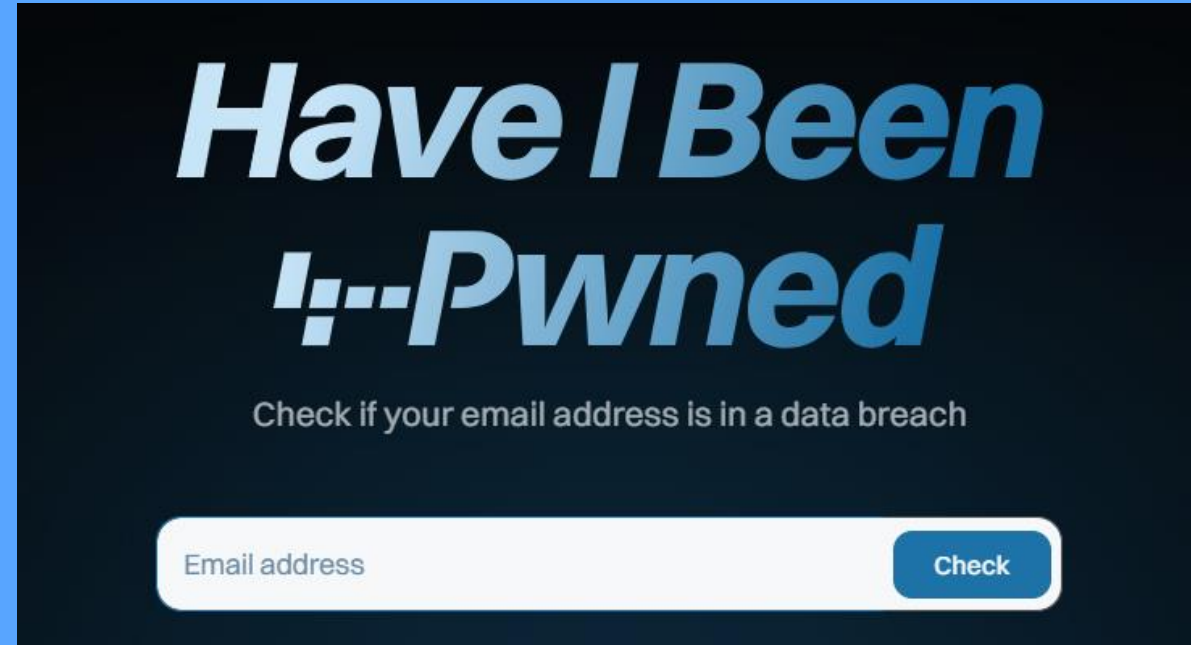
80% of all Cybercrime is easily preventable by adopting basic measures.





Have your details
ever been in a data
breach?

www.haveibeenpwned.com



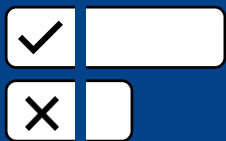
***Have I Been
Pwned***

Check if your email address is in a data breach

Email address

Check

*65% of people reuse passwords
across multiple sites.*
([Google 2019](#))



What is not a strong password?

superman

password1

123456

football

111111

1q2w3e4r5t

abc123

password

monkey

qwerty

qwerty1234

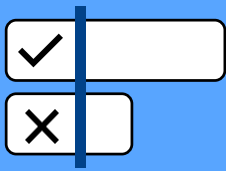
qwerty123

liverpool



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Does it include relatable Information? Siblings, street address, birthplace, DoB, hobbies, pets name



Which of these passwords is the strongest?

1. **Qwerty123**

2. **Pa55w0rd**

3. **EpicCamelMountain35%**

4. **oe4D!3£**

It would take a computer about

42 quintillion years

to crack your password

It would take a computer about

6 minutes

to crack your password

(<https://www.security.org/how-secure-is-my-password>)



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So, what makes a strong password?

► **Take a memory and reduce it to three words**

The **tree** fell down, **smashed** the fence and the dog **escaped**.

► **Combine them into a random order**
Smashedescapedtree

► **Add upper case letters**
SMASHEDescapedTREE

► **Add special characters and numbers**
SM4SH3DescapedTR33

Time it takes a hacker to brute force your password in 2025

Hardware: 12 x RTX 5090 | Password hash: bcrypt (10)

Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	Instantly	Instantly	Instantly
5	Instantly	Instantly	57 minutes	2 hours	4 hours
6	Instantly	46 minutes	2 days	6 days	2 weeks
7	Instantly	20 hours	4 months	1 year	2 years
8	Instantly	3 weeks	15 years	62 years	164 years
9	2 hours	2 years	791 years	3k years	11k years
10	1 day	40 years	41k years	238k years	803k years
11	1 weeks	1k years	2m years	14m years	56m years
12	3 months	27k years	111m years	917m years	3bn years
13	3 years	705k years	5bn years	56bn years	275bn years
14	28 years	18m years	300bn years	3tn years	19tn years
15	284 years	477m years	15tn years	218tn years	1qd years
16	2k years	12bn years	812tn years	13qd years	94qd years
17	28k years	322bn years	42qd years	840qd years	6qn years
18	284k years	8tn years	2qn years	52qn years	463qn years



Hive Systems

Read more and download at
hivesystems.com/password

13% of people use the same password for all their accounts. (Google 2019)

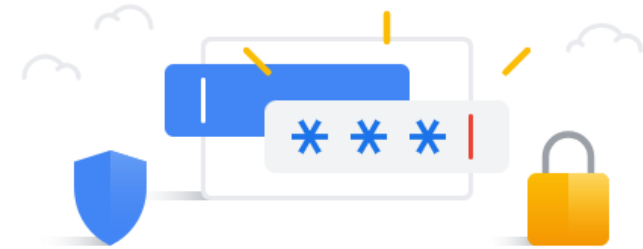


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I won't be able to remember all these passwords!

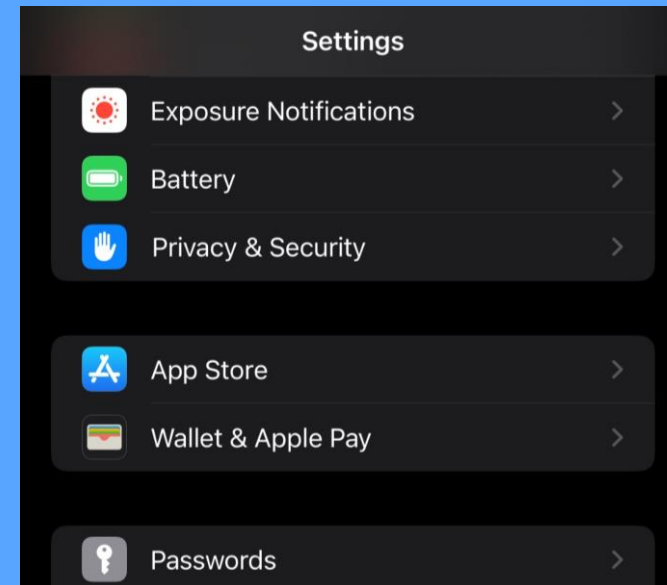
Storing your passwords safely means you won't have to remember them.

- It's OK to write down your passwords, but keep them somewhere safe, and out of sight.
- Most web browsers will offer to save your passwords for you. It's safe for you to do this (unless you're using a shared computer outside your home, for instance at college or a library).
- Password manager apps are a safe way to store passwords.



Welcome to your Password Manager

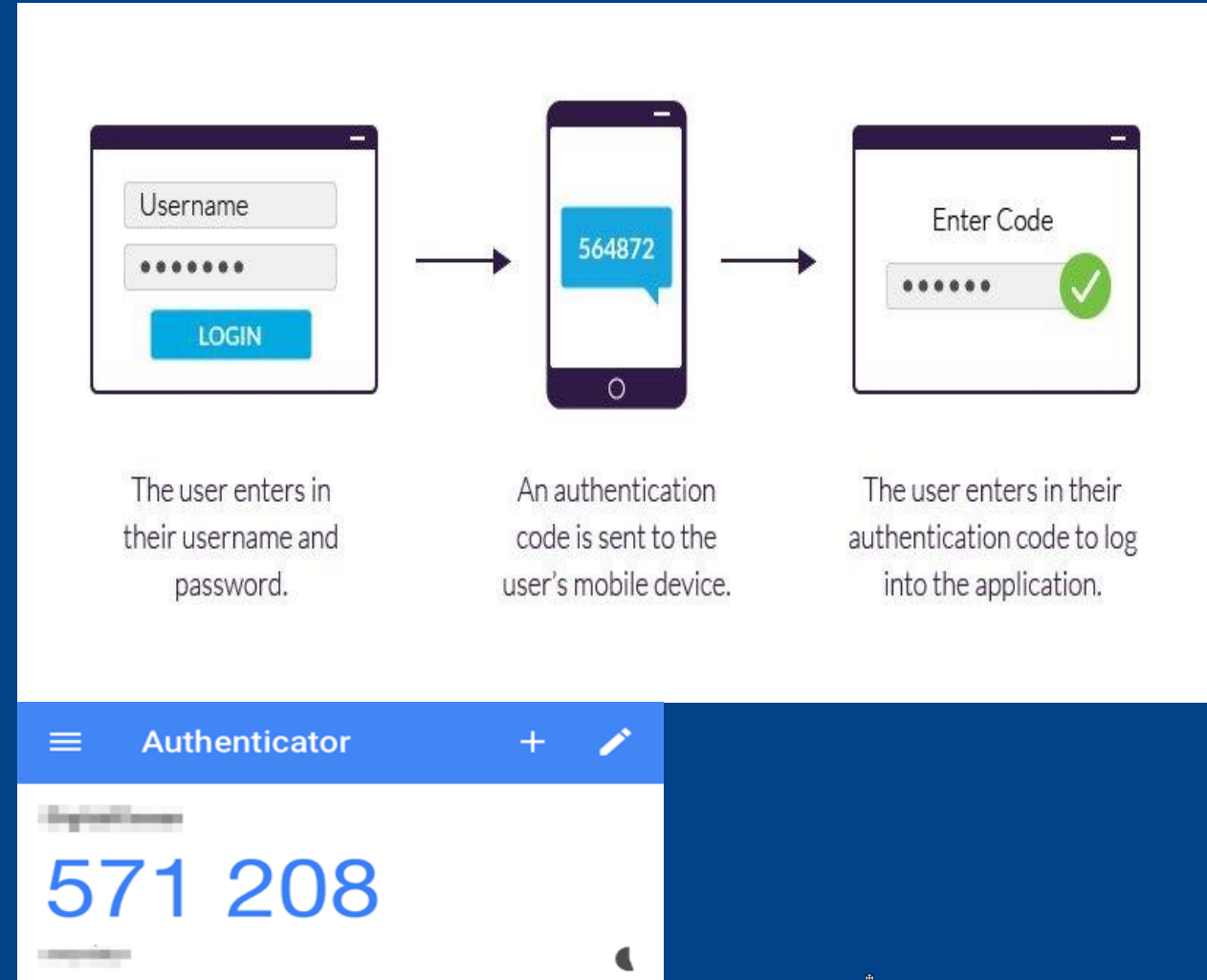
Manage your saved passwords in Android or Chrome. They're securely stored in your Google Account and available across all your devices.



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2 Factor authentication / 2 Step verification

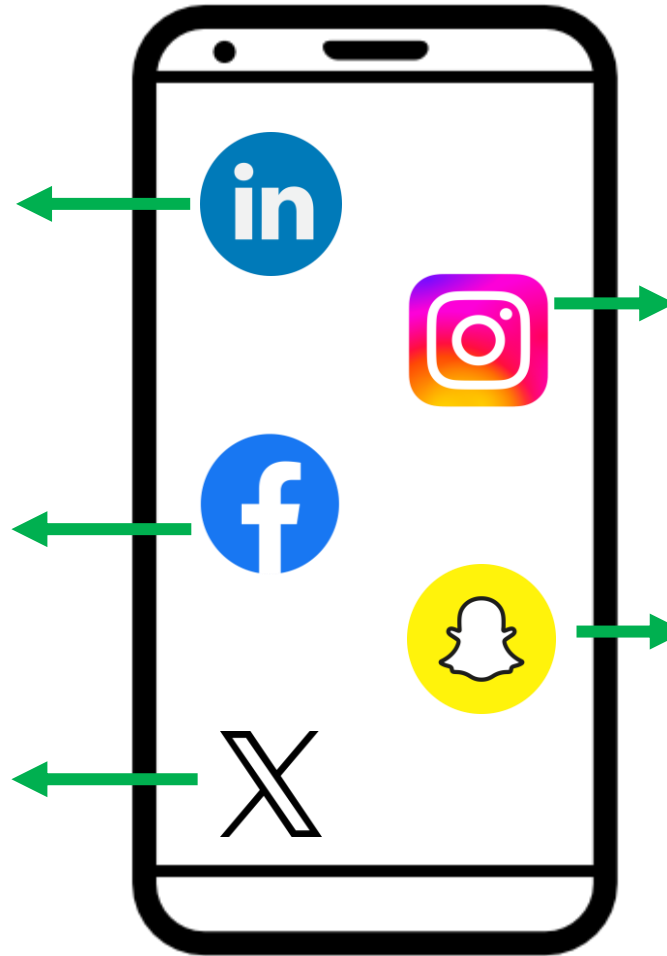
- 2FA adds an extra step when you log in, usually by giving you a code to enter from an app or SMS.
- It means even if a criminal knows your password, they won't be able to access your accounts
- Gives you the opportunity to confirm if the user is you.
- You should set it up on all your important accounts (email, social media, etc), even if you have a strong password.



Tips for Social Media

- ✓ Enable 2SV
- ✓ Turn off activity broadcasts
- ✓ Check who can see your connections

- ✓ Review profile “about” settings – education, work, relationships, family, life events etc.
- ✓ Limit past posts
- ✓ Check who can see your friends and followers
- ✓ Check who can view your photos



- ✓ Make account private
- ✓ Disable activity status and location

- ✓ Turn on “ghost mode” to hide your location
- ✓ Disable quick-add
- ✓ Stop sending data usage

Tips for Wi-Fi



Don't use public Wi-Fi for sensitive transactions



Use 3G, 4G, 5G where you can – this is always encrypted



Use a Virtual Private Network (VPN) if connecting to free Wi-Fi



Turn off Wi-Fi when you're not using it





Tell the police about cyber crime and fraud
Call 0300 123 2040



reportfraud.police.uk



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Police**

Why should I bother reporting this to Report Fraud?

- Assistance in getting hacked accounts shut down or potentially repatriated
- Build a bigger picture of Fraud and Cyber crime happening within the UK and where resources should be focused.
- Forward scam websites or websites posing to be something they are not with a potential of getting them shutdown to prevent any further victims.
- If you are a victim of Fraud or Cyber crime, you will have bespoke advice on what to look out for and how to keep your online accounts safe.



Resources



National Cyber
Security Centre
a part of GCHQ

ncsc.gov.uk



cyberaware.gov.uk



Call 0300 123 2040
reportfraud.police.uk

To report fraud and cyber crime

*Have I Been
Pwned*

haveibeenpwned.com

STOP!
THINK FRAUD

stopthinkfraud.campaign.gov.uk



friendsagainstscams.org.uk



**Kent
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Thank you for listening.

Any questions?



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**EASTERN REGION
CYBER PROTECT**