

Topic 7: Using ICT

Online Profiles

DO NOT use personal information
DO NOT 'friend' somebody you do not personally know
DO NOT tag someone in a photo without asking their permission
DO stay SAFE
DO check your security settings OFTEN
IF you see something which makes you feel unsafe, scared or uncomfortable, REPORT IT

Passwords

Vary the symbols, letters, numbers
Memorable but NOT obvious
At least 8 characters

Online Payments

Look for the padlock
Look for HTTPS ... 'S' means SECURE



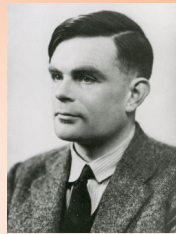
Online Forms

Choose a secure password

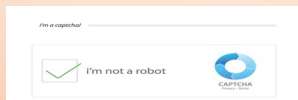
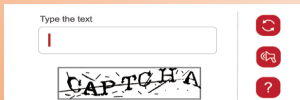
CAPTCHA

Completely Automated Public

Turing test to tell Computers and Humans Apart



Alan Turing
(1912-1954)
Widely considered to be the father of theoretical computer science and artificial intelligence



Caesar Cipher

Named after Emperor Julius Caesar who used this method of ENCRYPTION to send coded messages to his generals

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Shifted **RIGHT 3** places, eg: 'hello' is encoded to become 'ebiil'

x	y	z	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

You choose the DIRECTION and the NUMBER of spaces to shift the alphabet

WARNING

Grooming: DO NOT arrange to meet people online, REPORT IT
Sexting: NEVER send photos that are inappropriate, REPORT IT
Cyberbullying: REPORT IT, take SCREEN SHOTS as evidence

Cookies

Cookies are NOT programs. They don't do anything at all. They are simple 'text files' which typically contain two pieces of information: a site name and unique user ID.

When you visit a site that uses cookies for the first time, a cookie is downloaded onto your PC. The next time you visit that site, your PC checks to see if it has a cookie that is relevant (that is, one containing the site name) and sends the information contained in that cookie back to the site.

The site then 'knows' that you have been there before, and in some cases, tailors what pops up on screen

The LAW

Copyright, Designs & Patents Act 1988 (CDPA)

The Copyright Designs and Patents Act (1988) gives creators of digital media the rights to control how their work is used and distributed.

Music, books, videos, games and software can all be covered by copyright law.

Anything which you design or code is automatically copyrighted and may not be copied without your permission, as the digital creator.

Data Protection Act 1998

The Data Protection Act aims to safeguard all information held about an individual classified as personal (e.g., name, address, financial details) or sensitive (e.g., ethnicity, political opinion, religion). The act ensures data stored about you is processed fairly and lawfully.

Computer Misuse Act 1990

The Computer Misuse Act protects personal data held by organisations from unauthorised access and modification).

The act makes the following illegal:

- 1: Unauthorised access to computer material. This refers to entering a computer system without permission (hacking)
- 2: Unauthorised access to computer materials with intent to commit a further crime. This refers to entering a computer system to steal data or destroy a device or network (such as planting a virus)
- 3: Unauthorised modification of data. This refers to modifying or deleting data, and also covers the introduction of malware or spyware onto a computer (electronic vandalism and theft of information)
- 4: Making, supplying or obtaining anything which can be used in computer misuse offences

These four clauses cover a range of offences including *hacking*, *computer fraud*, *blackmail* and *viruses*.

ADWARE

software that automatically displays or downloads advertising material such as banners or pop-ups when a user is online

PHISHING

sending emails pretending to be from known companies to get individuals to reveal personal information by clicking on a link in the email

ZOMBIE or BOT

is a computer that a remote attacker has accessed and set up to forward transmissions (including spam and viruses) to other computers on the Internet

SPAM

the use of electronic messaging systems to send out unrequested or unwanted messages in bulk.

WORM

a malicious, self-replicating software program (popularly termed as 'malware') which affects the functions of software and hardware programs