

Contents

1	Hacking.....	1
1.1	Types of hackers.....	1
1.2	Things around the home that can be hacked	1
1.3	Cybercrime	1
1.3.1	Types of Cybercrime	2
1.4	The future	2
2	Computers.....	3
2.1	What is a computer?.....	3
2.2	What is it for?.....	3
2.3	How does it work?	4
2.4	Programs (Apps).....	4
2.5	Terminology	4
2.6	Virtual computer.....	5
2.7	Appendices.....	6
2.7.1	Binary and hexadecimal numbers.....	6
2.7.2	Prefixes.....	6
2.7.3	Links	7
3	Secure your device.....	8
3.1	Secure your computer	8
3.2	Backing up	8
3.3	Secure your mobile devices	8
3.4	Passwords	8
3.4.1	25 Most popular passwords (2019)	9
3.4.2	Creating secure passwords – Bruce Schneier	9
3.4.3	There's more to passwords than simply choosing a good one:.....	10
3.5	Password managers	10
3.5.1	Browser integration	10
3.5.2	Password generation	10
3.5.3	Phishing protection	10
3.5.4	Cross platform access	11
3.5.5	Surveillance protection	11
3.6	Additional protection techniques	11

3.7	Encryption	11
3.7.1	Types of encryption.....	12
3.8	References	Error! Bookmark not defined.
3.9	Cracking Passwords.....	12
4	Networks.....	14
4.1	Home network	14
4.1.1	Components of a home network:.....	14
4.2	Building a home network	15
4.3	Communication between devices.....	15
4.3.1	Private addresses	16
4.3.2	Find an IP address	16
4.3.3	Network scanner.....	18
4.3.4	MAC address	19
4.3.5	Access points.....	20
4.4	Secure your network.....	20
4.4.1	Secure your Wi-Fi network	20
4.5	Glossary.....	22
4.6	Links	24
5	The Internet	25
5.1	The public side of your router.....	25
5.2	Communicating with the Internet	25
5.3	Common TCP/IP Ports.....	25
5.4	Domain Names.....	26
5.4.1	Domain name hierarchy.....	26
5.4.2	Investigating DNS records.....	27
5.4.3	Special addresses	28
5.5	Other issues	29
5.5.1	Geo-blocking	29
5.5.2	VPN.....	29
5.5.3	Cloud computing and storage	29
5.5.4	Internet speed.....	30
5.5.5	Bandwidth	30
6	Browsers and Email.....	31

6.1	Browsers	31
6.1.1	Address bar	31
6.1.2	How does a browser work?	31
6.1.3	HTML.....	32
6.1.4	JavaScript	32
6.1.5	Cookies.....	32
6.1.6	Common problems:	33
6.1.7	Secure browsing?.....	33
6.1.8	Browser extensions.....	34
6.1.9	Safe practices	34
6.1.10	Secure your browser	34
6.1.11	Practise safe browsing	34
6.1.12	Search engines	35
6.2	Web servers	35
6.3	Email clients	35
6.3.1	Sample SMTP session.....	36
6.3.2	Email headers.....	36
6.3.3	Avoid spam.....	37
6.3.4	Avoid scams and fraud	37
6.4	Phishing	38
6.5	Ransomware	38
6.6	Tools.....	38
6.7	Secure your router	39
6.8	Links	39
7	Additional Security Matters	40
7.1	Scams and Fraud	40
7.2	Phishing	40
7.2.1	Protect yourself.....	40
7.3	Business Email Compromise (BEC).....	44
7.4	Dangers	44
7.5	Protection	46
7.5.1	Protect your identity and privacy	46
7.5.2	Other steps.....	46

7.6	Online payments	47
7.7	How to clean up a serious malware infection.....	47
7.8	Links	48
7.9	References	48