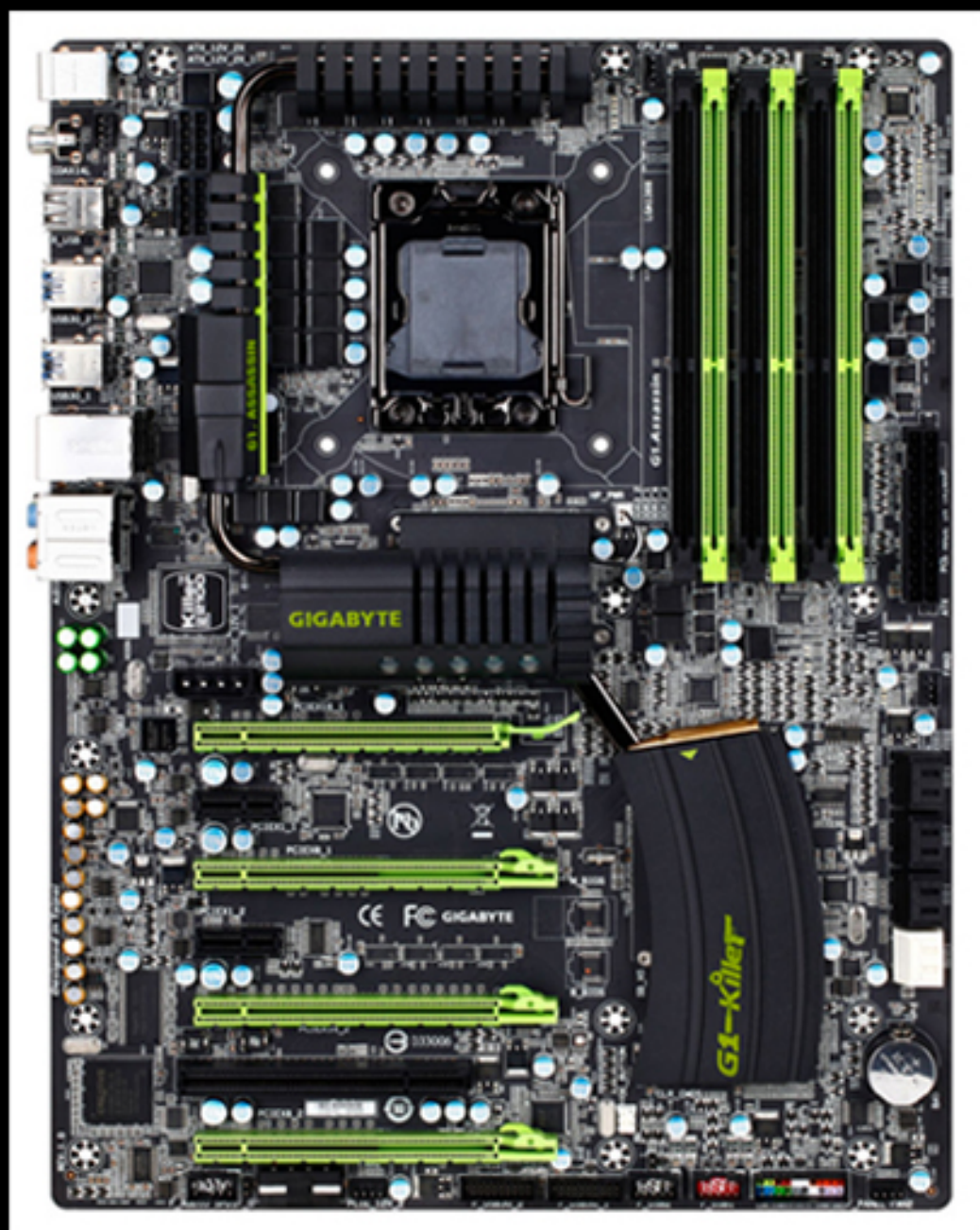


MANILLA CENTRAL SCHOOL

STAGE 4

Year 7 + 8



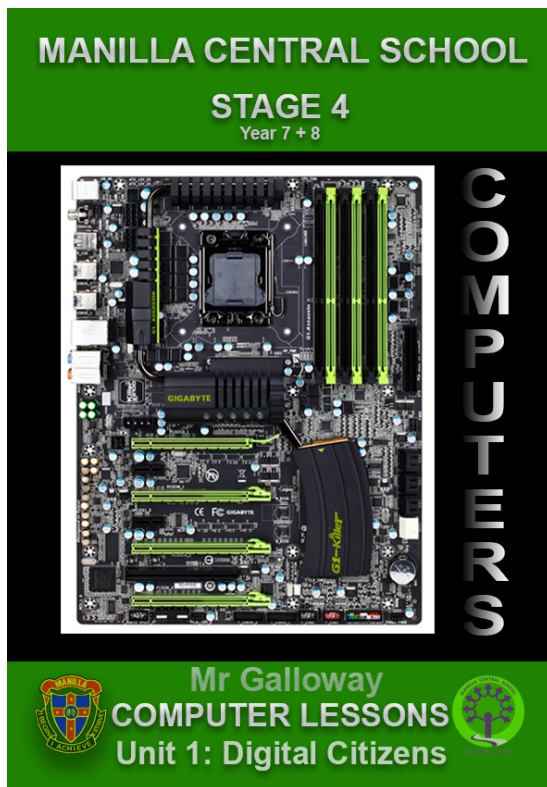
COMPUTERS



Mr Galloway
COMPUTER LESSONS
Unit 1: Digital Citizens



Overview



Welcome to the Computer Studies lessons booklet.

This booklet contains tasks that you can complete at home on your computer on Google Classroom or using Microsoft Word.

All lessons in this booklet are placed on Google Classroom and can be completed and 'turned in' there.

This Unit continues our studies on **Digital Citizens**.

If you have any questions feel free to email me on james.galloway@det.nsw.edu.au

Take care, Mr Galloway 😊



Google Classroom codes

7-8 CS1 2020: mwpoqrd

7-8 CSX 2020: 7iemeuj

7-8 CSA 2020: ryhjqmp

Module 2

SOCIAL AND ETHICAL PRACTICE IN IT

40



Teacher information



IT knowledge and skills covered in this module

- The social impacts of digital technology
- Ethical use of digital technology
- Cyberbullying
- Tips for digital health and safety
- Intellectual property

Alignment with the Australian Curriculum

ICT Capability elements covered

- Applying social and ethical protocols and practices when using ICT
 - > recognise intellectual property
 - > apply digital information security practices
 - > apply personal security protocols
 - > identify the impacts of ICT in society
- Investigating with ICT
 - > define and plan information searches
- Creating with ICT
- Communicating with ICT
 - > collaborate, share and exchange
 - > understand computer mediated communications
- Managing and operating ICT

Other general capabilities covered

- Critical and creative thinking
- Personal and social capability
- Ethical understanding

Digital Technologies curriculum content in this module

Knowledge and understanding

- **Digital systems** – Investigate how data is transmitted and secured in wired, wireless and mobile networks, and how the specifications affect performance (ACTDIK023)

Processes and production skills

- Acquire data from a range of sources and evaluate authenticity, accuracy and timeliness (ACTDIP025)
- Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints (ACTDIP027)
- Plan and manage projects that create and communicate ideas and information collaboratively online, taking safety and social contexts into account (ACTDIP032)

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2.1 Ethical use of computers

A computer is a powerful tool. The ever-increasing use and abilities of computers has a huge impact on home, school and work life. This impact can range from positive to negative depending on your circumstances and how you conduct yourself while using a computer. As a member of society you have a responsibility to yourself and to others to use computers in an **ethical** manner that maintains the safety and integrity of you personally, your information, and property and that of all others, not just people you know. You have the power to choose how you conduct yourself. Choose to be a good digital citizen.

ethical

Moral principles – also known as right or wrong behaviour.

Social and ethical practice in IT exercise 1

Thinking about our digital footprints.

The Australian Government's Office of the Children's eSafety Commissioner website has a great campaign to teach young Australians about being cyber safe. This is called *Be Deadly Online*, which is an animation and poster campaign about big issues online, like bullying and respect for others. The campaign has been developed with Indigenous writers and voice actors, and is suitable for all Australian students.

- 1 Open your browser.
- 2 On the Office of the Children's eSafety Commissioner website, YouTube or Vimeo, search for the "Dumb Stuff" video, written by Danielle Maclean. Please note: this video contains very minor coarse language.
- 3 Reflect on the video's message. What does "Dumb Stuff" say about our digital footprints?
- 4 Draw a poster explaining how you use digital technology in your daily life, and how your family and friends also use it. Explain in the poster:
 - a What is a digital footprint?
 - b How do you positively engage with digital technology?



2.2 How the digital age impacts society

Computers are now part of most people's everyday lives in Australia and other westernised countries. Access to the internet is also commonplace. There are many advantages and disadvantages of using the internet. Can you add to the list that follows?

Advantages and disadvantages of the internet

Advantages of using the internet:

- > It provides people with membership to a worldwide library and resource centre.
- > It allows greater communication between all people throughout the world and breaks down geographical and cultural boundaries. For example, **Voice over Internet Protocol (VoIP)**, such as Skype, allows more people to stay in touch than ever before.
- > It is changing the workplace environment by allowing people to work from home and in remote locations.
- > Worker productivity in some job types has increased due to the use of computers.
- > It provides education, health and commercial services to people anywhere in the world.
- > It allows people who are otherwise isolated from society for whatever reason to socially interact.
- > It provides entertainment and information for millions of people.



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Voice over Internet Protocol (VoIP)

A technology that allows you to make voice calls using a broadband internet connection instead of a regular phone line.

Disadvantages of using the internet:

- > It can isolate people from direct social interaction.
- > It promotes the spread of computer viruses and other malicious applications.
- > No controlling body verifies the validity of information or restricts illicit material.
- > Because knowledge is power, it extends the division between the privileged and the underprivileged.
- > It enables opportunities for fraud.
- > The security of information belonging to individuals, businesses or governments may be jeopardised.
- > Some people's jobs are replaced by computers.



Advantages and disadvantages of computer use

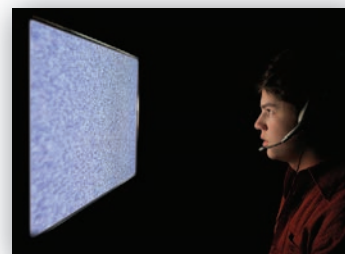
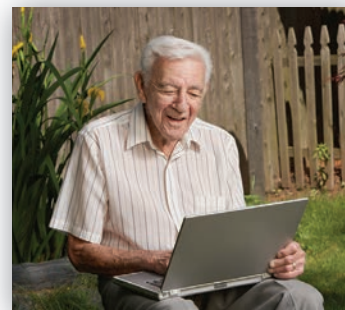
Today, computers are tightly wound into the fabric of our society. Smartphones in particular have revolutionised how people interact with each other. Advancements in technology have affected the workplace and job opportunities.

Advantages of computer use:

- > New ways to communicate personally – social media, smartphones.
- > Text-based computer communication opens a world of opportunities to those with physical or social problems.
- > Technology automates manufacturing to provide goods at a cheaper price.
- > Technology assists in medical research and creativity.
- > New industries develop based on evolving computerisation increasing job opportunities.
- > Games and educational tools are more sophisticated and fun to use.
- > New technology means computers are far more portable than before.

Disadvantages of computer use:

- > Communicating via smartphone interferes with personal communication face to face.
- > Gaming addiction can be a real problem, interfering with other normal parts of life.
- > Portability of computers enables them to encroach in areas where they wouldn't normally be and so interfere with other parts of life.
- > New technology in some industries reduces the workforce required, resulting in job losses.
- > Money is invested in technology rather than people.
- > Older people sometimes feel alienated in the workplace because of their lack of computer skills.



Social and ethical practice in IT exercise 2

Advantages and disadvantages of the computer and internet use

- 1 Add two points to the lists for advantages and disadvantages of the internet.
- 2 Add two points to the lists for advantages and disadvantages of computer use.
- 3 For each list, including your new points, what is the most important point for you?
- 4 Can you predict some job types that might be replaced by technology in the near future?



2.3 Cyber health and safety

Using the internet and smartphones can be lots of fun. You can chat with your friends, post photos and look at photos others have posted. You can keep up to date with friends that live anywhere in the world. You can also play games online and look up lots of websites in areas of interest. While this is good, if you are not aware of how you are using these features there are two factors that can be seriously affected – your health and your safety.

Though it can be fun, it is also very easy to spend a lot of time in front of the computer or using your phone. It is easy to get hooked and spend too much time doing this. The time you spend means you have less time for other things that should also be important in your life. Remember – not everything in your life might be as fun as playing with your computer or phone, but certain other activities are very important for your development. You also need to spend time:

- > face to face with family and friends
- > on hobbies such as reading books, playing sport, playing a musical instrument, getting out and about
- > helping around the house
- > doing homework if you have it
- > sleeping – everyone needs adequate sleep to function properly.

You can control how much time you spend on the internet, on the phone or doing any of the other things in life you could be doing. Be aware of the time and what you are doing.



Social and ethical practice in IT exercise 3

Cyber health

- 1 Keep a diary for a week that records what you do and how long you spend doing it. Be honest – include things like travelling to school, watching TV, reading, playing sport, shopping, doing homework, housework and so on. For time spent on the internet, divide it into:
 - a Socialising on sites like Facebook, Twitter and Instagram.
 - b Research for schoolwork.
 - c General interest surfing (e.g. the sports pages of a newspaper site).
 - d Playing games.
- 2 Did you do all your homework?
- 3 Did you do the tasks you are supposed to around the house?
- 4 Write a list of things you would like to do, if you had the time.
- 5 Look at the time you spend on the internet or talking on the phone. What else could you do during this time?
- 6 What do you think is a reasonable amount of time to spend on the internet each day?



Being cybersmart to stay safe

It would be nice to think that all people can be trusted. The sad fact is that there are many people online purposely trying to trick you and others so they can get something from you or hurt you in some way. These may be people you know or people you don't know. The people you don't know can come from anywhere – next door, the next town or suburb, even the other side of the world. You can control the effect these people have on you by being aware of what you are doing when you are on the internet or phone, and by being aware of what is going on around you.

Cyber safety checklist

- > Keep your details and those of your friends and family private. Always check with your parents or an adult before giving out any personal details.
- > It can be a lot of fun making new friends online. Keep in mind that all is not always what it seems. That 14-year-old girl may in fact be a much older person, and possibly male.
- > You may make new friends online. If you want to meet them, always go with a parent or adult friend to a busy public place to start with. The person you think you are friends with may in fact be someone quite different, even dangerous.
- > Never give your passwords to anyone, not even your friends (but you should provide them to your parents or caregivers for safekeeping).
- > If you feel uncomfortable about something you see on the net or that is sent to you, leave the page or the chat room, or don't respond to the message or email. Make sure you tell an adult about it.
- > Sites may expect you to fill out forms and include personal details before they enable you to download free items, or register an email address. You should always give the minimum amount of information possible and check with a parent or adult first.
- > People may offer you things that seem fantastic and you feel very lucky. These offers will most likely be bogus – another ploy to get information from you that they can use to your detriment or it may be an avenue to install malicious software onto your computer. If it seems too good to be true, it probably is.
- > If you have a webpage or blog, be very careful about the information you put on it. You may think only your friends are reading it, but in reality you may have a much wider audience – it is easy to forget and place personal information online. You should also be careful about the photos you upload – think about who may be looking at them. You should also be considerate of other people's privacy (e.g. don't load photos of other people without their consent).
- > Treat other people as you yourself would like to be treated. Only send the types of messages you would like to receive. Don't write things you would not like other people to write about you.
- > Especially when using social media, be mindful of its global nature. There can be big differences in both time zones and the meaning of terms and concepts for people in different locations and cultures.
- > Tell someone if you or someone you know is being treated badly.

FACT BYTE

Be sure to forward personal communications from friends such as emails or texts only with their permission.

FACT BYTE

When emailing, use the CC field to indirectly include someone in your email communication. Take care when using the BCC field – this remains secret to the person you are directly emailing, and could lead to trouble.

Cyber safety sites

There are lots of interesting sites that can help you more with learning how to keep yourself and others safe on the internet, such as:

- > #GameOn: provided by the Office of the Children's eSafety Commissioner, #GameOn provides information, advice and stories to help you use the internet safely. It features five short cybersafety videos that follow the online experiences of a group of lower secondary students who find themselves in situations that catch them off-guard and teach them the consequences of making poor decisions online. Topics include cyberbullying, excessive gaming, sharing passwords, free downloads and online friends.



2.4 Netiquette – internet etiquette

Netiquette is a new-age term for etiquette on the internet. Netiquette focuses on how people should behave when using the various services on the internet. For example, YOU SHOULD AVOID USING UPPERCASE WHEN TYPING MESSAGES. This is known as shouting.

When using social media or a chat room, you could be talking to anyone in any country. It is inevitable at some stage that you will not agree with some of the ideas or statements presented. There are many excellent sites that provide detailed guidelines on how to behave when communicating with others on the internet:

- 1 Type in the address for Yahoo! in the address box.
- 2 Type *netiquette* in the search box and press **<enter>**. This should give you a decent list of sites.
- 3 Now try it in Google. Type in the address for Google Australia in the address box, and then type *netiquette* in the search box and press **<enter>**. You should get a very decent list of pages.
- 4 Click on the links to some of the sites to learn more about netiquette.

Social and ethical practice in IT exercise 4

Netiquette

In this exercise you will create a short report on the results of your searches about netiquette. You may need to repeat the searches.

- 1 Start a new document in Microsoft Word or a similar word processor.
- 2 Enter a title for your report and save it as: Netiquette search report.
- 3 Write a brief introduction that states what netiquette is.
- 4 Name two search engines you could use to search for sites about netiquette.
- 5 Conduct a search using each search engine. List the top five sites displayed for each search in your report. How many sites did your search find in one of the searches?
- 6 After looking at each of the sites, create your own list of rules – you should be able to list at least eight rules – some for emails and some for newsgroups (some may overlap).
- 7 Find out the guidelines set down at your school for communicating on the internet and compare them to your own list. Are there any other rules you would add to your own list? If there are, add them to your list.
- 8 Enter your name and the date at the end of the report.
- 9 Run a spell check, save and close your document.
- 10 If required, print your report out and submit it to your teacher for checking.



2.5 Cyberbullying

Smartphones and emails enable bullies to silently bully and harass others. If this is happening to you, do the following:

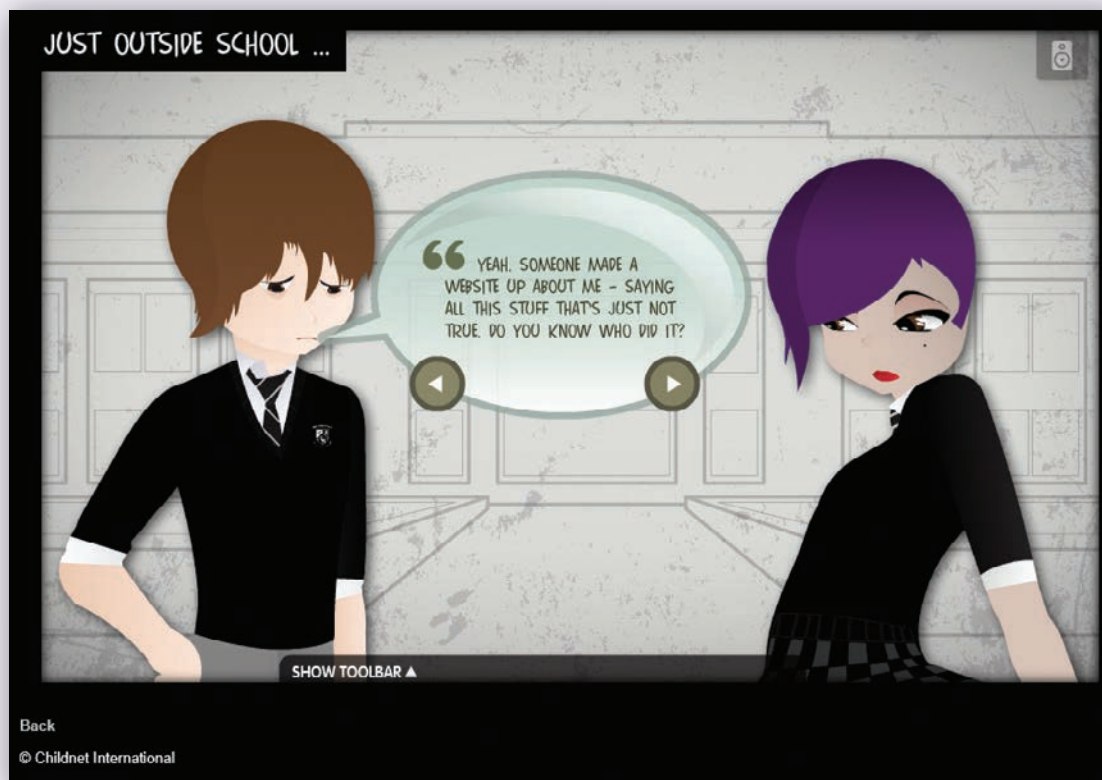
- 1 Tell an adult that you trust about what is happening so they can help.
- 2 Tell a friend or classmate so they can give you emotional support.
- 3 Block the bully from your phone or emails.
- 4 Keep evidence of what is happening – take pictures of texts on your phone or keep emails. You could also make notes in a diary that records dates and times and what is said.
- 5 If it happening via a particular site (such as social media or through online gaming) then report the person.

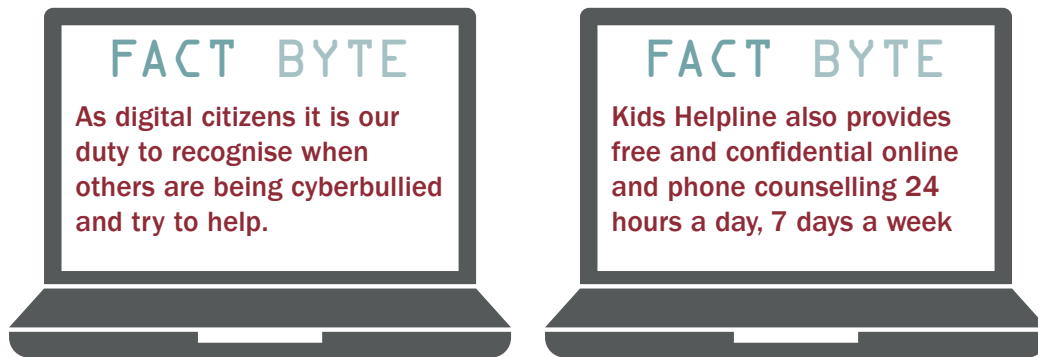
Social and ethical practice in IT exercise 5

Play the Digizen game – are you a responsible digital citizen?

This game is developed by Childnet International. You spend a day with Joe at school and make choices about how to help him as he experiences cyberbullying.

- 1 Open your browser.
- 2 Look up the Digizen site in the address box and press **<Enter>**.
- 3 Move through the game and make decisions about what to do.



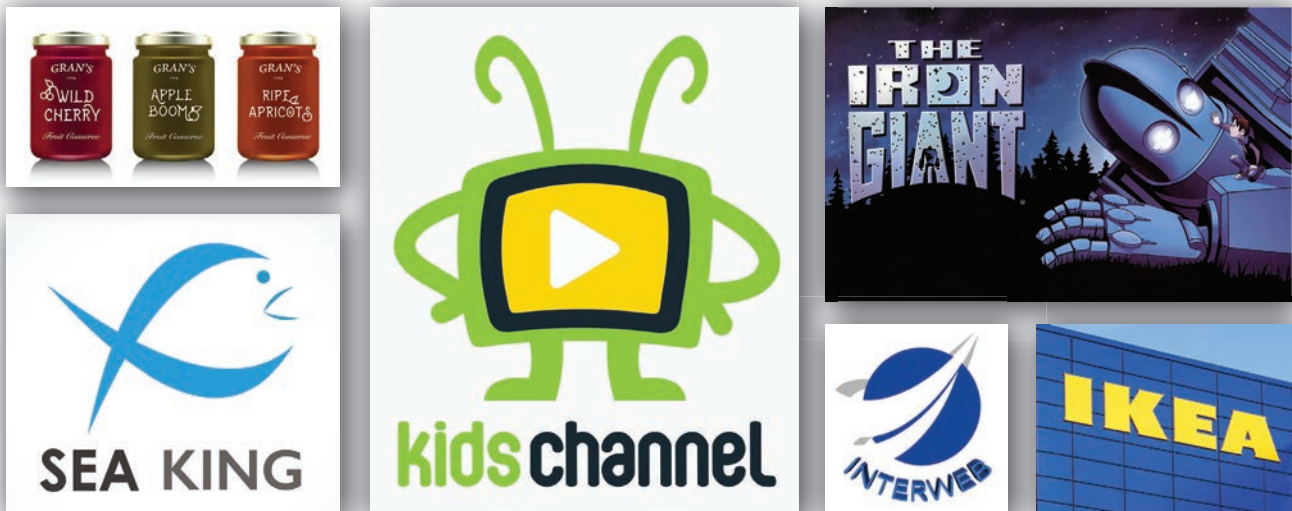


2.6 Intellectual property

Further to keeping your information secure, as well as that of others, is respecting other people's intellectual property. Think, for instance, about the distinctive colour purple for Cadbury chocolate wrappers. Cadbury came up with this and it is now protected – no other company selling chocolate can use the same shade of purple.

Similarly, we all know the word 'Google'. But what we may not know is that it is a play on the word 'googol', a mathematical term for the number 1 followed by 100 zeros. The company founders came up with this name in their garage workspace in the early inception of Google and the word is now trademarked. In fact, it is the most valuable trademark today. The Microsoft trademark is not far behind.

Overall, companies need to know what may or may not be copied, and check for permissions and legal obligations before creating new products.



Copyright is another aspect of intellectual property that is commonly breached. If you download music or movies from any organisation other than an authorised distributor, you are breaching copyright. You are also breaching copyright if you then make this available to others by streaming it or making copies and distributing it. This is called piracy.

Intellectual property copyright also extends to your friends and classmates. Files they have created belong to them. You should not copy them or parts of them and pretend they are your own work. Instead, you must name the sources you borrowed from, and at all costs avoid committing **plagiarism**.

plagiarism

A serious type of copying where someone claims that another's work is their own.

iTunes is an example of a legal distributor where you can download various types of media – music, movies, books – for a small fee. One day you may be a creator of this type of work and you will surely want to be paid for the time, effort and money you spend on creating your work.

The social impact of piracy is a reduction in production and jobs. There are many blockbusters that make millions of dollars. This money is used to create films that are not always successful. To encourage a diverse range of topics and film genres requires the funding from the mainstream films. If the movie industry dies, entertainment is reduced; people who work in that industry and associated support industries are out of work.

You are also putting yourself at risk when you download illegal files. Often these files will have malicious software attached that may harm your computer or steal information without you even knowing. Module 1 covered keeping your computer up to date with anti-malicious software. Following these steps is also known as **ethical protocols**.

ethical protocols

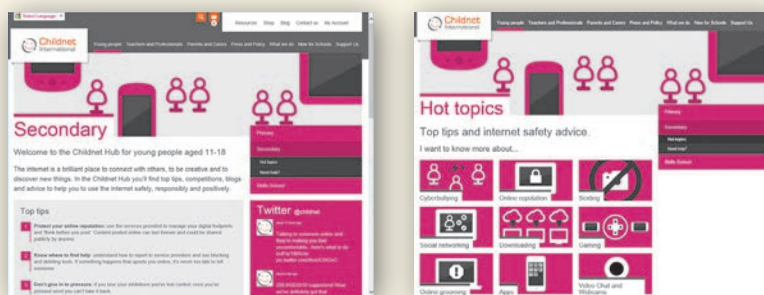
Generally accepted rules or behaviours when undertaking research and collecting and using information from primary and secondary sources (e.g. confidentiality, informed consent, citation and integrity of data).

Childnet International has a range of resources in an effort to provide information and advice on using chat rooms, mobile phones, email, SMS and games safely. Stories and quizzes are also provided. It is bright and easy to use. You may have younger siblings or friends who would also benefit from looking through the information here.

Social and ethical practice in IT exercise 6

Intellectual property

- 1 Look up Childnet International: Secondary in the address box of your browser.
- 2 Scroll down and click on 'Hot topics'.
- 3 Click on the topic 'Downloading' and read through the information.
- 4 Can you think of a time when you have copied something that you should not have?



Maintain your digital security

Your password is yours and yours alone. Do not give it to anyone else (other than parents). Why would anyone need your password? Any number of excuses may be used, but be aware. Providing your password provides that person with access to all your files or memberships to games and other sites. They can pretend to be you, copy or delete your files. (Module 1 covered using passwords and other means of access to your computer.)

SOCIAL AND ETHICAL PRACTICE IN IT PROJECT

You are to create a story that is an example to others on how to conduct themselves ethically and responsibly in a situation. Depending on the tools you have at your disposal, you could create a video based on recordings of you and your classmates – if necessary, role playing. Or you could create the video using illustrations. For either of these, Module 5: Making movies can help you. Or you could hand draw a series of scenes as in a comic strip or use an online illustration tool.

Collecting the data

Decide on what the topic will be. You should discuss this with your teacher. For example, it could be:

- > What to do if you are being cyberbullied.
- > Protecting your personal information.
- > What is intellectual property.

What are the main points you want to convey? For examples and inspiration you could watch some of the short videos on the Australian Government's eSafety Office Vimeo page.

Defining the solution

- > Create an outline of the message to be conveyed in the video or comic strip. Will you have just one person or will there be two or more people in the story?
- > Design the scenes or scene of the story. Check that you have included everything necessary. Is your message clear?

Implementing

Record the scenes based on your script or draw them.

Evaluating, collaborating and managing

- 1 Look at the result of your work. Has it worked as you had planned? Can you improve it in any way?
- 2 Ask your friends and classmates to look at your video or comic strip and to give you feedback.

