http://www

INTERNET
SUPER-USER
TEXTBOOK

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In November 2009, we spent many days at GetSmarter HQ brainstorming ideas for new online courses. During this time, we analysed our past students for clues on what courses we should be presenting next, and we realised that thousands of our past students represented some of the smartest people in the country.

Was this because they had taken one of our online courses? Perhaps. But it quickly became clear to us that it was their use of the internet and its tools that set them apart from their peers. They were more effective, more efficient and smarter because they were already internet super-users. The fact that they took one of our online courses was simply because they could.

So we decided to share the love by offering a course to help novice internet users become internet super-users.

We quickly realised that a suitable textbook didn't exist, and so we decided to develop one ourselves. My thanks and admiration go to Masha du Toit and Anna Malczyk, who worked many hours and completed hundreds of reviews to make this textbook the valuable resource that it is today. I'd also like to thank Jean-Paul van Belle for his guidance throughout the design of the book.

If you are looking to become an internet super-user, good luck and have fun. My wish for you is that this textbook opens up a world of exciting internet tools that enriches your life forever.

If you are a teacher and are looking to prescribe this textbook to your class, I am thrilled that you have chosen to work with us. It's free for your students, and we have a wealth of teaching support materials that can assist you in delivering an excellent course. We'll also ensure that the content is always up to date and of the highest quality.

Find time to visit www.internetsuperuser.com and drop us a line on the discussion forums. We would love to hear about your adventures as an internet super-user.

Yours in getting smarter,

Sam Paddock

Managing Director - GetSmarter

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Introduction

Why is the internet important? How has it influenced our lives? How does it work, and where did it start?

By the end of this chapter, you will:

- Have insight into the power and influence of the internet and the impact its astonishing growth has had on our lives (section 1)

- Have a basic understanding of how the internet works (section 2)

- Know how to connect to the internet and understand much of the technical terminology involved (sections 3 and 4)

- Know the history of the development of the internet – how and why it came to be (section 5)

Each section contains some suggestions for further reading. You won't be tested on the content of the linked articles, but they will help you understand the material being studied.

1. The internet in context

It is difficult to think of an aspect of our lives that has not been affected by the internet. For many of us, the internet has changed how we work, learn and shop, how we interact with friends, family and lovers, how we find new music and watch movies.

1.1 Growth

According to Internet World Stats, the number of people using the internet has increased from 16 million in 1995 to 1,734 million in September 2009. That is an increase from 0.4% to 25.6% of the world's population in less than two decades. These days, in developed countries like the United States, Sweden, Norway and the Netherlands, more than 70% of the population is active online.

1.2 Who and why

It is difficult to find meaning in these numbers. They tell us how many people are using the internet, but they don't tell us who is using the internet and what impact it has on their lives. Let's focus a bit more closely and consider some of these internet users.

A young girl is preparing for her first job interview. She positions her laptop so that the onboard video camera will show the tidiest part of her lounge and punches in the login details for the video-conferencing

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facility. She sits down and nervously rehearses the answers she may give to her interviewer, who is at his office in a different city.

Her interviewer is quite busy. While he waits to conduct yet another job interview, he is searching Google for any embarrassing photos or messages that the next hopeful candidate might have placed online. What can he learn about her before the interview even starts?

In the office next door, a man is writing and re-writing an email. He is struggling with how to politely phrase yet another request for long-overdue research findings from colleagues all over the world, most of whom he has never met. He does not look at the number of unread messages in his inbox – he will have to spend most of his day working his way through them; a never-ending task. He sends the email –

– to a woman who is dreaming her day away under the florescent lights of her windowless cubicle. She has her web browser open to a site that offers live video footage from a camera next to a river in Africa. She watches as, halfway across the world, an elephant relishes the cool riverbed mud. She sighs, closes the browser window and checks the Facebook status of –

– her daughter, who is sitting in an internet café in Brazil, working out the best route for her next adventure. While waiting for the route-checker website to load, she opens a website with reviews by fellow travellers recommending the best backpackers, warning of tourist traps and offering advice on local customs. After printing out a number of maps, she checks her bank account and leaves.

Another patron of the internet café smiles and moves to the computer she has just vacated. He retrieves her bank account username and password, which were recorded by some key-capture software installed on the computer. While he waits for the banking site to load, he checks his own inbox to see if anyone has replied to his persuasive email offering a fair share of the winnings of a national lottery if they supply him with their contact details.

He composes yet another plausible story and sends it to his email list. The mail arrives in thousands of inboxes, including that of a young man struggling to keep his eyes open in the glow of his computer screen. He should have finished his essay a week ago and now he is reduced to copying and pasting entire unread paragraphs from Wikipedia. He sighs, saves the document and mails it off to his tutor, who is also up late – but for a different reason.

She absently soothes her fretting baby while reading a blog post on her laptop screen. This is her favourite blog, written by a young mother who describes the trials and tribulations of parenthood in a comforting and amusing way. She clicks to another window on her browser that contains advice on how to cope with a colicky baby.

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Next door, her wheelchair-bound neighbour is also online, finishing a report that he will email to the office the next day. He relishes hitting the "send" button. The action symbolises the freedom from having to depend on others to help him travel the long and gruelling way to the building where his colleagues work. He realises he is hungry and rolls to the kitchen, to the unopened boxes of groceries he ordered online this morning.

This story could carry on for many pages and still leave out many examples of the impact the internet has had on our lives. What about the dentist in Iraq, whose blog post about his day in a war-torn city is read by more people than the latest newspaper article? Or the farmer in Uganda, who charges his cellphone from his car battery so that he can access information on crop diseases?

An aspect of the massive adoption of the internet that is often ignored is its unequal distribution. In Africa, only 6.8% of the population is online. In countries like Afghanistan and Cambodia, less than 2% of people have internet access. Many thousands do not have access to basics like clean water, never mind an internet account. But even the lack of infrastructure and the sheer expense of setting up a connection is not an insurmountable barrier. Mobile and wireless technologies make it possible for more and more of the world's population to access the internet.
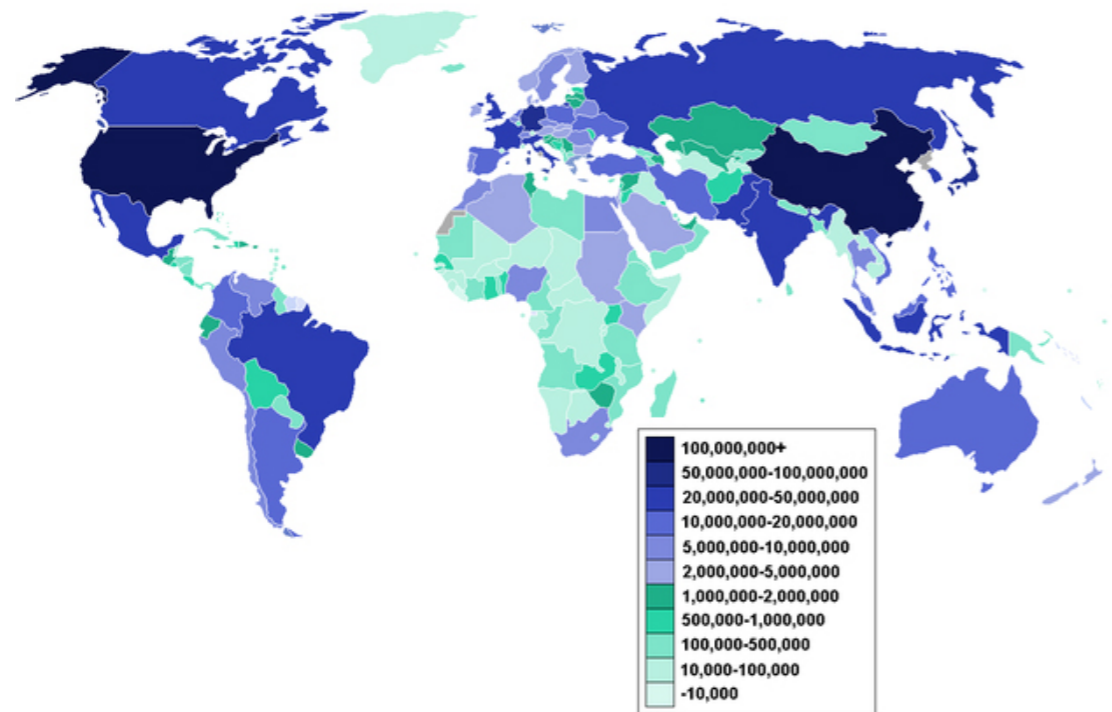
Figure 1: Internet usage around the world.

1.3 What the future holds

So where is it all going? What can we expect to see next?

Internet TV is a development that has been heralded for a long time. Video delivered across the internet offers the potential for a vastly more interactive relationship between the viewer and the broadcaster than is possible with traditional television technology.

The mobile web is the growing trend of connecting to the internet with our cellphones instead of desktop computers. It has already changed the way we interact online. Some of the possibilities include making payments with your phone – instead of using cash or a card, you will be able to make transactions by swiping your phone at a till point – and searching with your phone's camera – you can find online information about anything you point your phone's camera at.

1.4 Further reading for section 1

1. The preface to David Weinberger's "Small Pieces": www.smallpieces.com/content/preface.html

2. An account of the impact of mobile access in rural Africa: www.nytimes.com/2009/10/06/science/06uganda.html?_r=2

3. More about the two tier "pay" system: news.bbc.co.uk/2/hi/technology/5009250.stm

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2. How does the internet work?

2.1 The internet vs. the web

We often use the terms "internet" interchangeably with "World Wide Web" or "the web". This is not correct. The internet is a collection of computers that are connected to one another in a global network. It has existed since the mid 1960s. The World Wide Web (or just "the web") is the collection of interlinked documents that are accessible through a web browser. This came into being in 1991. The internet is the infrastructure that makes the World Wide Web possible.

2.2 Why connect computers in a network?

Computers are useful machines even when used in isolation. Their power increases exponentially when they are connected together in a network. One example of a network is the internet. Others are LANs (local area networks) such as you might have come across at school or at work.

There are three reasons why you would connect computers together in a network:

1. Sharing resources
2. Sharing hardware devices
3. Accessing data

2.2.1 Sharing resources

Networked computers can share one another's resources. In other words, instead of being reliant on the processing power of a single machine, you can network a number of machines together to use their combined processing power. An example of this type of network is a render farm, which is used in the movie industry. The imagery of movies such as *Avatar* or *Wall-E* requires many hours of computer processing to create.

2.2.2 Sharing hardware devices

Within a computer network, computers can share hardware devices such as printers and scanners. This allows for the most effective use of these devices, which are sometimes very expensive.

2.2.3 Accessing data

Networked computers can retrieve data from one another. This means that you can use the computer you are working on to access images, video, sound and text files stored on the hard drive of another computer, as long as a network connection exists between them. This last aspect – accessing data from a

remote computer – is the primary way in which we use the internet.

2.3 Getting information over the internet

You have probably spent a considerable amount of time browsing the web looking at websites. But do you know what you are looking at? What is the internet? How does it work?

To understand what happens when you open a web page, you first need to understand what happens when you open any document that is saved on your computer.

2.3.1 What is a folder?

When you open a document using the Finder (on a Mac) or Windows Explorer (on a Windows PC) you usually do it by clicking on little pictures of folders. But what is a folder and why does this process help your computer find a document? What is really going on?

A folder is simply a category into which you can sort the documents on your computer. Imagine if there were no folders. All the information on your machine would be in one long list of thousands of files.

Program files and system files are special files used by your computer to run programs and store program information. Folders allow us to create categories so that we can find things more easily. Folders act like a document's "address". To find a document that has been saved in a particular folder, the computer needs a "path" to that document: it needs to know which folder it has been saved in, which folder that folder is in, and which folder that folder is in.

When you click on those little folder icons and open them to find the document you are looking for, you are in reality "writing a path" to the document in question. These days you don't need to be aware of a document's path in order to find it, but when you start working with websites you will need to understand what a path is.

2.3.2 What is a path?

All documents on your computer are, ultimately, saved on the hard drive of that computer. The hard drive on a Microsoft Windows computer is referred to by a letter, usually C. Hard drives on Apple and Linux computers are referenced slightly differently. For the purposes of our discussion on paths, we will be using the example of a Windows computer.

Imagine we are looking for a document called letter.doc. If you wanted to find a document that was saved directly on the hard drive and had not been put in a folder, its folder path would be written like this:

    C:\letter.doc

If the document you want to find was saved inside a folder called "homework"

> **NOTE**
>
> Program files are the software applications installed on your computer, like Microsoft Word or Adobe Photoshop. System files are documents your computer uses to store information about itself.

> **NOTE**
>
> Using slashes. You'll notice that the various parts of a path are separated by slashes. Paths on a Windows or Mac computer are written with "back slashes" (\), while website paths are written with "forward slashes" (/).

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which is in a folder called "school" which is in a folder called "My Documents" which is in a folder called "Documents and Settings", the folder path would look like this:

C:\Documents and Settings\My Documents\school\homework\letter.doc

It is very important that the path is correct. If you spelled one of the folder names incorrectly or put them in the wrong order, the computer would not be able to find the document. So far, so what? What does this have to do with the internet?

2.3.3 Getting a document from another computer

What if you want to get a document from another computer across a network?

To make it possible to identify an individual computer on a network, each computer has its own "IP address".

When a message travels from one computer to another over a network, the destination of the message is specified as the IP address of the computer it is going to. When you want to connect to a computer over a network, you are still using a path. This time, instead of the first letter in the path specifying the hard drive of your own computer, it specifies instead the IP address of the computer that you want to contact over the network. Something like this:
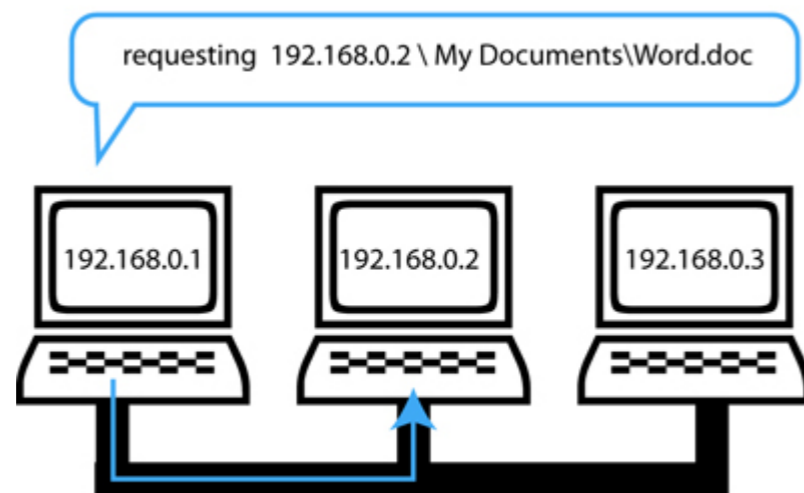

Figure 2: One computer requesting a document from another over a network.

2.3.4 Requesting a document over the internet

Each web page is a separate document. Before you can see it displayed on your computer's screen, it must first be copied from the machine on which it is saved to your own hard drive.

To view a web page, you need a piece of software called a web browser. The web browser allows you to send a message via the internet to the computer

on which the web page is saved. The page is retrieved from that computer, moved to your computer and saved there so that you can look at it. Some well-known web browsers are Firefox, Google Chrome, Safari, and Microsoft Internet Explorer.
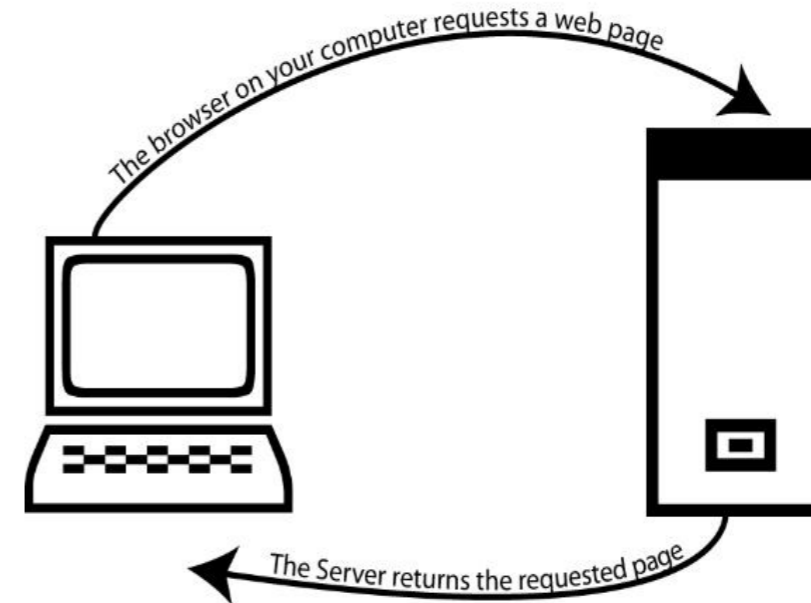
Figure 3: A web browser communicating with a server.

This process of saving web pages on your computer is called caching pages. Pages are cached to a folder on the hard drive of your computer, which is called the web cache.

2.4 The building blocks of the internet

How does the message from your machine get to the computer on which the web page is saved? A small network is relatively easy to understand. Ten or twenty computers can all be connected to one another without too much difficulty. But what happens when you have a network made up of millions of computers, like the internet?

It would be impossible to have a direct connection between every computer linked to the internet. Instead the internet has a backbone of computers that communicate with one another, relaying the messages along the shortest route.

2.4.1 Client and server, local and remote

The computers that make up the internet backbone are called servers. The other computers that are linked to the internet are called client computers. Client computers are those you use at home, work or school – computers that are used by people to look at websites. Another way to describe the relationship

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between the client computer and the server is to call them the local machine (the client) and the remote machine (the server).

The diagram below shows a very simplified view of the client and server machines on the internet.
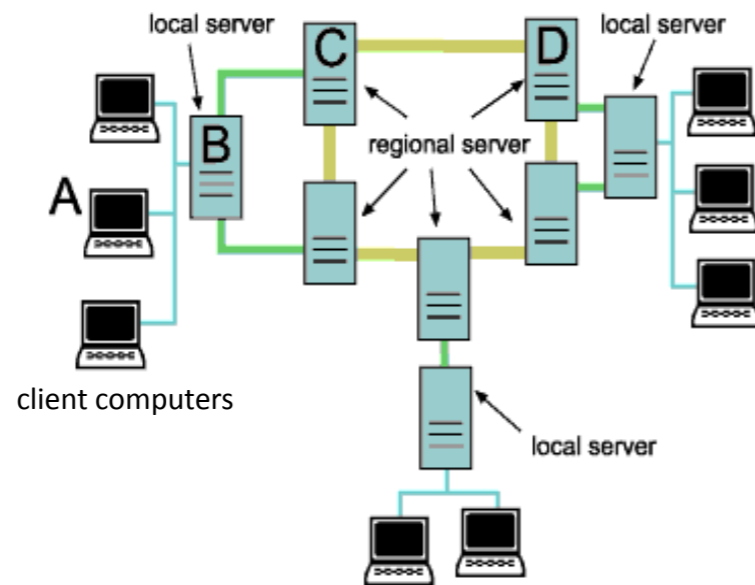
Figure 4: Client and server machines working together.

1. When client computer A want to see a web page that is saved on server D, it cannot send a message directly to that server – the server might be in another city or country. Instead it sends a message to its local server, server B in the diagram.

2. The server checks the message to see where in the world it is headed, and sends it on to the server closest to server D.

3. That server does the same, and the message gets passed on until it reaches the correct server.

4. Server D then sends a copy of the requested web page back, from server to server until it reaches the original client computer.

Can you believe that steps 1 to 4 all happen in milliseconds?

2.4.2 Domain names and domain name servers

Now, you may be thinking: when you type an address into a browser, you don't type in an IP address or a full path listing the folders in which a particular web page is saved. You usually type in something much shorter, for example:

www.amazon.com/books/romance.htm

To create a more human-friendly address that is easier to remember and share, the full address of a site is registered on a domain name server (DNS) along with a unique (and much shorter) nickname called a domain. Examples of domains are www.amazon.com or computer.howstuffworks.com.

The DNS matches the domain name in the address to the server that the site is saved on, and sends the request to the correct destination. So, in the example above, it would match www.amazon.com to the full address that the Amazon website is saved on.

Here are some examples of domain names:

World wide web	Domain / Site name	Type of organisation	Geographical location
www.	mweb.	co. (company)	za (South Africa)
www.	howstuffworks.	com (commercial)	
www.	woolworths.	co.	za
www.	ment.	co.	za
www.	info.	gov. (government)	za
www.	gamesdomain.	co.	uk

2.4.3 Uniform resource locators (URLs)

The address of a website is also called a URL, or uniform resource locator.

You may have noticed that in your browser's address bar, the address has another bit added to the front. It usually looks like this:
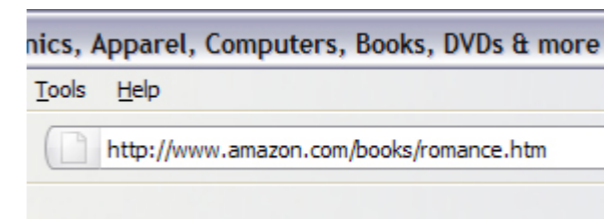
Figure 5: An example of a URL.

Notice how the URL is made up out of two parts – the "http:" and the "amazon. com".

The "http" part of the URL is called the protocol identifier. The rest is called the resource name.

The protocol identifier indicates what protocol must be used to fetch the resource. In the example above, the protocol is http. The resource name – which is www.amazon.com/ books/romance.htm in this example – indicates the address to the requested resource.

2.4.4 What is a protocol?

A protocol is an agreement on how something should be done. We are all aware of such agreements between people. For example, there is a strict protocol governing a formal dinner party. If you know this protocol, you will know who should be seated where, depending on how important they are, and who should be served first. The protocol ensures that everybody understands how things should happen, and if you know which protocol to use, the dinner

will go smoothly with no embarrassing incidents.

Computers also use protocols. In this section, we are concerned with communication protocols. Such protocols establish the way in which information will be sent and received.

For example, a protocol may specify that the first line in a message indicates where it should be sent to and the second line where it came from.

Some examples of protocols include:

1. Hypertext Transfer Protocol (HTTP), which specifies how the communication between a web browser and web server should take place

2. File Transfer Protocol (FTP), which specifies how files should be transferred between computers

2.4.5 What is the difference between a "URL" and a "domain name"?

So, if the address of the website can be called a "domain" and can also be called a "URL", which is which? What is the difference? How can it be both?

The answer is that the domain is usually *part of* the URL.

For example, let's look at the following URL:

http://www.getsmarter.co.za/learning/mod/forum/view.php?id=2127

The entire thing, from beginning to end, is the uniform resource locator (URL) – the unique address for that particular page on the World Wide Web.

The bit between the "http://" and the next forward slash "/" is the domain name:

So, in that URL above, the domain name is www.getsmarter.co.za:

http://www.getsmarter.co.za/learning/mod/forum/view.php?id=2127

The domain name is the nickname of the entire website. The URL points at a particular page in that site, and so includes the domain name.

2.5 Further reading for section 2

1. An example of how a DNS server operates: computer.howstuffworks. com/internet-infrastructure8.htm

2. How do websites handle the load of millions of visitors a day? computer. howstuffworks.com/question342.htm

3. How do I connect?

This section describes how to connect to the internet from a computer. We will look at how to use a phone to connect to the internet in chapter 11.

To connect your computer to the internet, you will need:

- To decide what type of internet connection you need

- To choose the correct type of modem or router

- An account with an internet service provider

- An internet browser

First, you need to decide what kind of connection you need. You can choose between a dial-up connection, an ADSL connection or a 3G connection.

3.1 Dial-up

With a dial-up connection, you set up your computer so that it calls your internet service provider (ISP) through a phone line. The modem is programmed with a phone number (provided by the ISP) and calls the ISP through the phone line to make a connection.

3.1.1 Advantages of a dial-up connection

- You can get a connection wherever you have access to a phone line.

- Many computers come with a built-in dial-up modem.

3.1.2 Disadvantages of a dial-up connection

- The connection is usually much slower than a DSL connection.

- You pay for how long the "call" takes, so the longer you are online, the more you pay.

- You cannot use the phone line to make phone calls while you are online, and anyone who tries to call you will receive a "busy" signal.

3.2 DSL

DSL stands for "digital subscriber line". For a DSL connection, you will need either a phone line or a wireless network to connect you to your ISP. So, if DSL can also use a phone line, what is the difference between DSL and dial-up?

DSL takes advantage of the following fact. During a phone call, only a small part of the carrying potential of the copper cable that makes up the phone line is

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actually used. By transmitting a DSL signal at the correct frequency, it can be sent along a phone line without interfering with the phone calls that are also travelling along the line.

3.2.1 What is ADSL?

You are probably familiar with ADSL. What is ADSL, and how is it different from DSL? ADSL stands for "asynchronous digital subscriber line" and is a widely used type of DSL connection. Some people say that the A in ADSL stands for "asymmetrical". Both definitions are widely used, and mean largely the same thing.

The "asynchronous" in ADSL refers to the fact that an ADSL connection manages the processes of receiving and sending data separately and has different "download" and "upload" speeds.

3.2.2 Downloading vs. uploading

When you look at images or videos, listen to music or read text online, you are downloading information. When you send emails, write blog posts or post images on Facebook, you are uploading information.

Typically, an ADSL connection means that you will be able to download information faster than you can upload it. This meets the need of most internet consumers, who are likely to access more information than they send.

3.2.3 Advantages of DSL

- DSL usually provides a faster connection.

- You can use the phone to make calls while you are online.

- You do not need to connect to the internet every time you wish to go online – DSL is "always on".

3.2.4 Disadvantages of DSL

- It may not be possible to get a DSL connection in your area.

- Your connection speed and reliability depends on how far you are from your local hub.

- You may need to spend more on the initial setup – DSL modems are more expensive than dial-up modems.

- You will need to invest in antivirus software to protect your computer. Because the DSL connection is "always on", it is more vulnerable to attack.

3.3 3G

Why not connect to the internet via your cellphone? How you connect your

> **NOTE**
>
> A "hub" in this context is a device used on the telephone network to collect data from a number of phone lines into one stream of information. The number of hubs between you and your service provider can interfere with your DSL connection.

phone to the internet depends on the type of phone you have. At the time of writing, the fastest and most reliable ways is called "3G". A 3G connection allows you to surf the web and speak on your phone at the same time.

The speed of a 3G connection makes it easier to browse the web, and is especially convenient for watching online video.

We will have a closer look at all aspects of the "mobile web" – browsing the internet with your cellphone – in chapter 11.

3.4 Wi-Fi

You don't have to use a cable to connect to the internet. You can also use a wireless or "Wi-Fi" connection. Wi-Fi stands for "Wireless Fidelity" and is a system that allows wireless communication between devices and the internet.

Instead of having a cable that connects your computer to a modem, a Wi-Fi connection allows your computer to communicate with the modem via radio waves. We will have a closer look at how Wi-Fi works in chapter 11, which deals with the mobile internet.

3.5 What is a modem?

A modem is an electronic device that acts as a translator between your computer and the network infrastructure of the internet. The internet is made up of many computers connected to one another through phone lines or wireless networks.
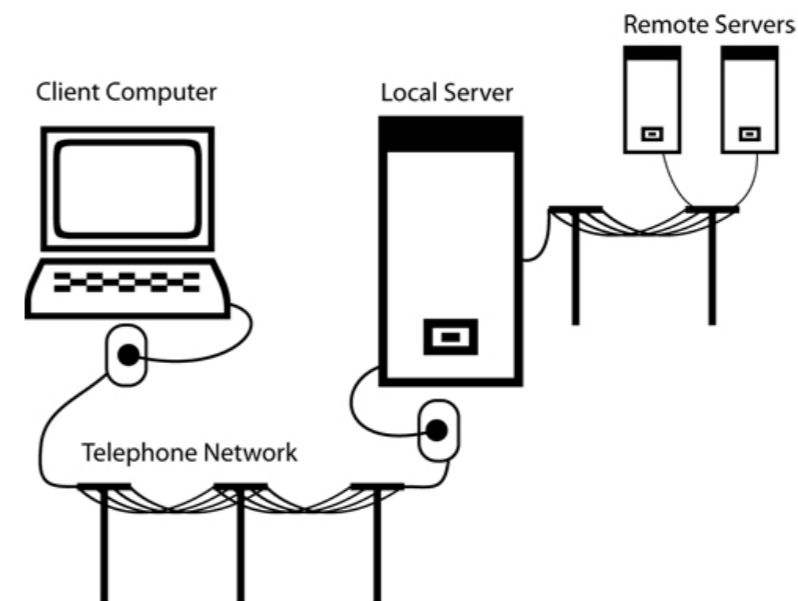

Figure 6: A graphic representation of the internet.

Information, such as pictures, text, video or music, can be saved on a computer's hard drive. It can also be transmitted across the phone lines and

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wireless networks that make up the internet. But in order to move across the internet, the information has to be translated into a different format from the one used to save it.

This means that when you send a picture or text message from your computer, it must first be changed into a signal that can travel over a phone line or wireless connection. The same applies to messages your computer receives.

A modem takes the information you wish to send over the internet and changes it into a signal that can travel across a phone line or wireless network. It also takes the information that your computer receives over the internet and translates it back into a form that your computer can interpret.
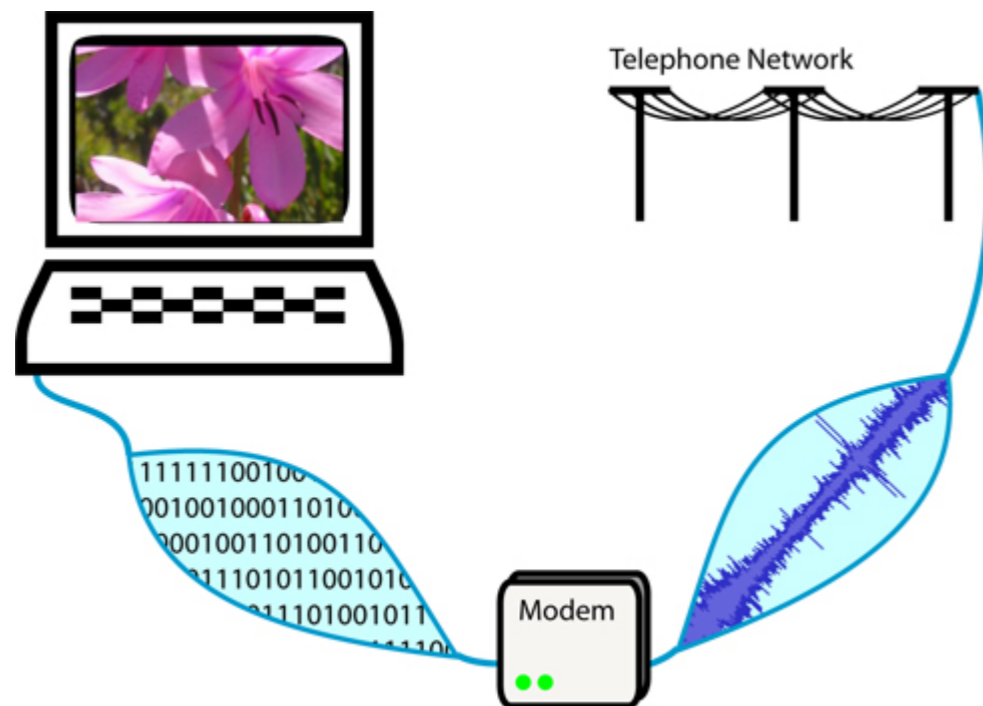

Figure 7: A modem translating information.

3.5.1 Types of modems

The kind of modem you need depends on what type of internet connection you have chosen. Many computers come with a built-in dial-up modem, but you will probably have to buy your own DSL modem. With DSL, you can also choose between a telephone line and wireless modem.

3.6 What is a router?

When investigating a DSL connection, you may come across recommendations to get a "router". So, what is a router?

A router is a device that connects two networks. So, for example, if you have more than one computer in your home, you may wish to connect them together to form one network, and you will need a device to connect this

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"home network" to the larger network that is the internet.

Such a router will often incorporate a modem (in other words, the modem and the router form one unit) and many people use the terms interchangeably.

3.7 What is an internet service provider?

An internet service provider (ISP) is a business that makes it possible for you to connect to the internet. ISPs own a number of powerful computers called servers that act as gateways between your own computer and the millions of other computers that make up the internet.

When you've signed up with an ISP, they will help you connect your computer to their servers, and all the information you download and upload will be routed through their servers.

You will typically sign up with an ISP for a period of time, and pay a monthly or yearly fee for the connection they provide. Depending on the agreement you have with your ISP, they can also provide you with access to email, host your website, store your data online and offer many other useful services.

3.8 The entire journey

Below is a very simplified diagram showing a page request travelling across the internet infrastructure.

1. The client computer sends a request using a web browser.

2. The request travels through a modem and is translated into a suitable signal so that it can be sent across a telephone network.

3. The signal travels across the telephone network.

4. It arrives at the server of the internet service provider (ISP).

5. The ISP sends a message to the domain name server (DNS) to check where in the world the requested page is hosted, and the DNS server matches the domain name in the request to a regional server address.

6. The ISP sends the request to the identified regional server.

7. The regional server routes the request to the server on which the requested resource is saved. The resource is sent back across internet, along the same route from regional to local server to client computer.

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1 Client Computer
2. Modem
3. Telephone Network
4. ISP Server
Regional Servers
6. Regional Servers
7. Google Server
5. DNS
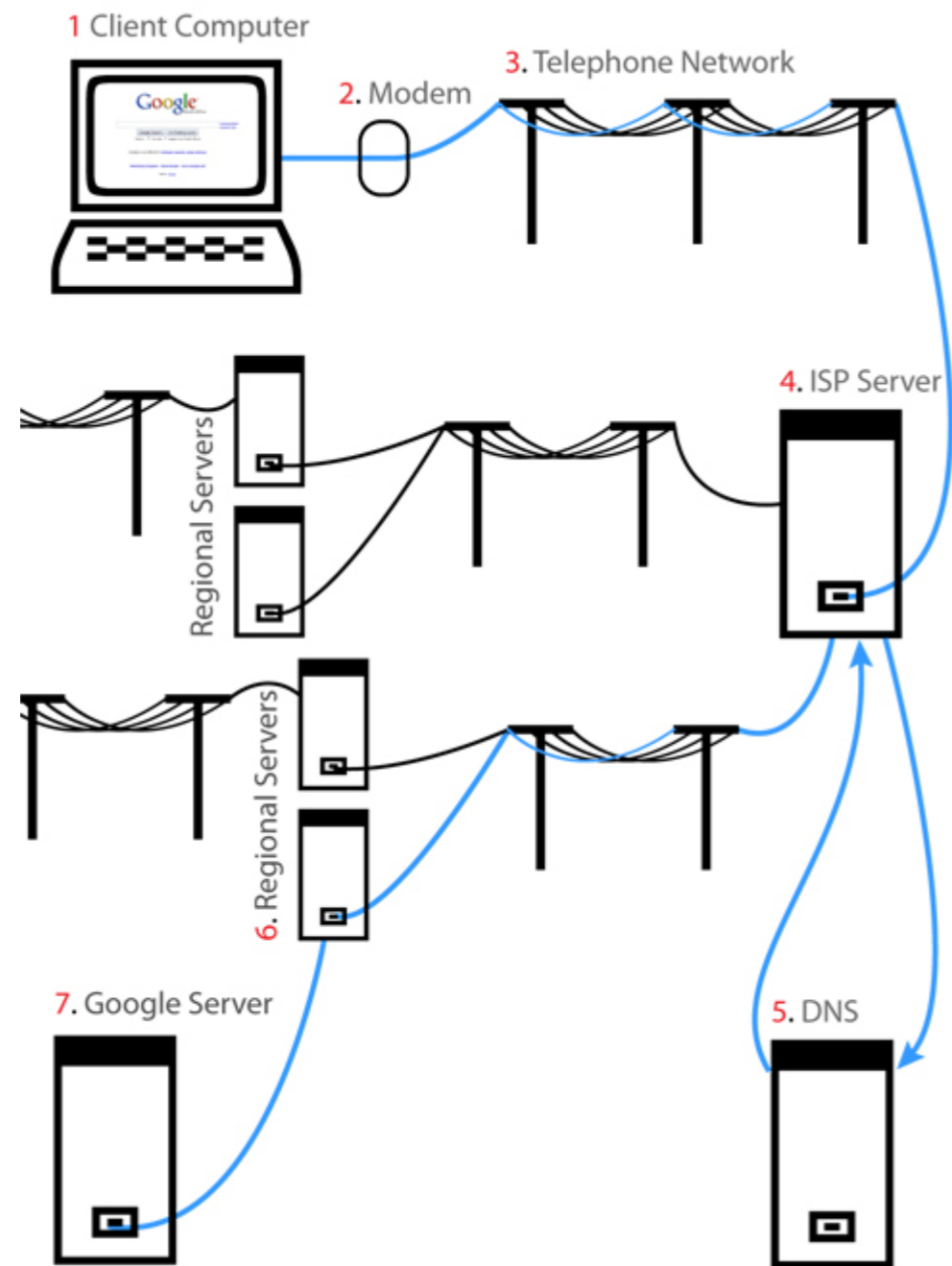
Figure 8: The entire journey.

4. Understanding your internet connection

It is important that you know what type of internet connection you are using. The following exercises will help you determine whether you have the setup that is best for you.

4.1 Exercise 1: Who is my internet service provider?

Do you know who your ISP is, and how to contact them? If you cannot find a record of which company you are using, you can trace your service provider like this:

1. Go to the website whatismyipaddress.com.

2. A page will open that reflects your computer's IP address, and uses this information to figure out who your ISP is.

In the example below, the ISP is called Web Africa.
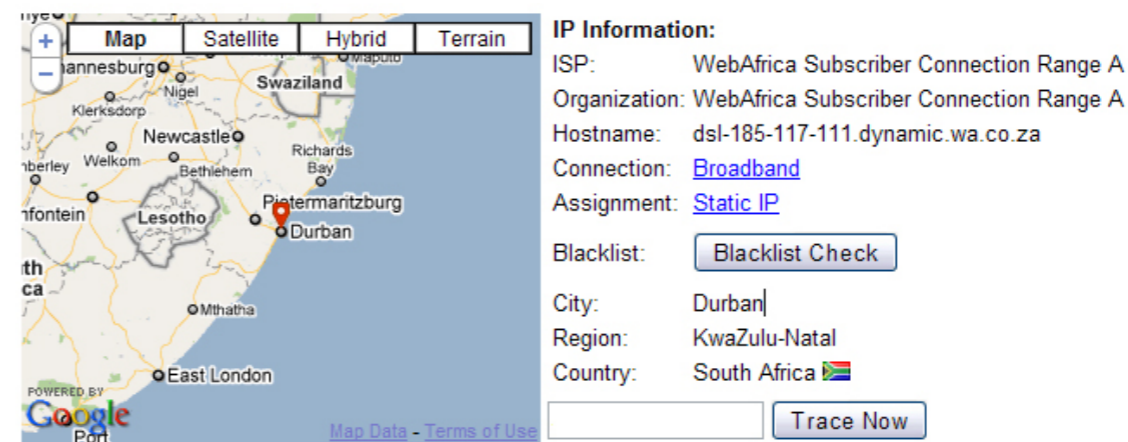
Figure 9: Finding your ISP.

You can now search for your ISP's contact details by using Google or by looking them up in a phone directory.

4.2 Exercise 2: What are my internet access details?

Whenever you need help or advice about your internet connection from your ISP, they will ask you for your username and password. Do you have a record of these? If not, find the person who set up your internet connection and ask them. Alternatively, contact your ISP and ask for their help in finding your access details.

4.3 Exercise 3: Am I using a dial-up connection or ADSL?

What type of internet connection are you using?

An easy way to check is to see if you can use the phone while you are online.

If your phone line gives a "busy" signal whenever you are online, you have a dial-up connection. If you can use the phone and browse the web at the same time, you probably have an ADSL connection.

4.4 Exercise 4: Where is my modem?

Do you know where your modem is?

Depending on your setup, your computer may have a built-in, internal modem that you won't be able to see or access. If you are using dial-up, you probably have this kind of modem.

If you are using an ADSL connection, chances are that you have an external modem. Check if you can find it, and if you know how to switch it on and off.

Is your computer connected to the modem with a cable, or do you have a wireless connection? Have a look.

4.5 Exercise 5: What connection type is best for me?

Now that you know what type of connection you have, are you sure that this is the best type of connection for you? Revise the section on the advantages and disadvantages of ADSL and dial-up in section 3.

4.6 Further reading for section 4

1. How mobile broadband services work: communication.howstuffworks. com/mobile-broadband-service.htm

2. How to connect with a cellphone: www.which.co.uk/advice/surfing-the-internet-on-your-mobile-phone/how-to-surf-the-internet-on-your-mobile/index.jsp

3. How Wi-Fi works: computer.howstuffworks.com/wireless-network.htm

5. A brief history of the internet

5.1 Where did the internet start?

After the Second World War, the scientific community started paying particular attention to the development of computers. Computers existed, but they were severely limited. The personal computer was a thing of the distant future. A typical computer installation at the time was a central processor so large that it could fill an entire room. Many people could share this single computer through a system of terminals that were usually located in a different room from the computer itself. While many people could share a single machine through this system of terminals, it was very difficult to connect computers together in a network. This limited the possibility of sharing processing resources between computers and of transferring information from one machine to another. In the United States, special efforts were made to unite military and scientific communities to enhance this research.

5.2 The creation of ARPA

In 1958, the Advanced Research Projects Agency (ARPA) was created. Its purpose, which fitted the prevailing Cold-War ethos of the time, was to give the United States a technological edge over other countries. Among other fields, ARPA was concerned with computer science, and to this end they employed the psychologist Joseph Licklider, an expert in the way that humans interacted with computers. At the time, computers were essentially large calculators. Licklider predicted that computers would be useful in many other aspects of our lives. He imagined an "Intergalactic Network" that would allow people to connect with one another, share information, and collaborate more effectively. Joseph Licklider laid the foundations for the first computer networking group.

Figure 10: Joseph Licklider.

5.3 Helping computers communicate

There were many technological breakthroughs that advanced the aim of Licklider and his colleagues – that of finding faster and more reliable ways to help computers communicate with one another. For example, inventor Paul Baran specified that the most robust and reliable way to create a computer network was to avoid a system with a central hub or controller.

Baran saw each computer as a "node" on the network, and each node would be equally important. If one node failed, the information travelling on the network would be re-routed to a different, working node. No one node would be essential to the functioning of the network. Not content with this robust model, Baran also specified that messages between computers should be broken up into many separate "packages", which could be sent across a network in any order and re-assembled upon arrival. If one package was corrupted, it would not impede the flow of the rest of the message.

The combination of these two ideas – the decentralised network and packages – meant that the system could function even if most of its components were damaged.

Some people believe that this was important because Baran and his colleagues were concerned about the possible effect of a nuclear war on the communications network. After all, these were the Cold War years, and this system allowed communication to flow unimpeded even when a country's infrastructure was under severe attack. Others claim that the inherent instability of the network itself was reason enough to develop this system, without adding the fear of a nuclear attack into the equation.

Figure 11: The ILLIAC IV, a supercomputer from 1968.

5.4 ARPANET: Putting it all together

A networking specialist named Larry Roberts joined ARPA. His task was to find ways to link computers via telephone lines. In 1969, Roberts and his colleagues created ARPANET. The focus of ARPANET was to create a long-distance computer network that would allow computers to share resources and decentralise information storage. The first two nodes in ARPANET were a computer in the University of California, Los Angeles, and one in the Stanford Research Institute. We still have a record of the conversation between the researchers in Stanford and UCLA, as the login was coordinated over the phone:

> "Did you get the L?" Charlie Klein, an undergraduate at UCLA, asked. "Yes," came the answer from Stanford. "Did you get the O?" asked UCLA. "Yes," answered Stanford. When Klein typed "G" another first occurred - the network crashed.

ARPANET continued to grow as more nodes were added to the network. New protocols were developed to govern communication between computers. From the beginning, ARPANET did not develop quite as intended. Its official purpose was supposed to be the sharing of computer resources. Instead, researchers were using it to communicate with one another. This was the realisation of Licklider's vision – the users of ARPANET were far more excited about the network's ability to connect them with one another than they were about the way it connected computer resources.

In 1972, Vincent Cerf and his team started working on the protocol that was eventually to become the standard for internet communication – TCP/IP (Transmission Control Protocol/Internet Protocol). This protocol made it possible for networks to connect to one another. It incorporated rules for how the information packages should be created and routed, as well as error detection. TCP/IP was robust enough to make a global network possible.

5.5 The birth of the World Wide Web

By 1989, the network existed across the world. Personal computers were widely available and used. Microsoft's Windows operating system had made its debut, and more and more people were employing computers in many aspects of their personal and professional lives. Licklider's vision of a worldwide network had been realised, but it was still very difficult to use. In particular, it was difficult to access the vast amount of information stored on computers across the world.

In 1990, Tim Berners-Lee developed the Uniform Resource Locator that made it much easier to identify and find a specific document on a particular server. He created a piece of software that he called a "browser", which could be used to find and view documents remotely. He also developed the Hypertext Transfer Protocol, which would come to govern interactions between servers and browsers.

These three technologies – the URL, the HTTP protocol and the browser software – together created the internet as we know it today: the World Wide Web. Before their existence, only experienced users could access the internet.

Since then, we have seen many innovations in internet technology. The first browser that could display images, Mosaic, was adopted at an unprecedented rate. Soon enough, we could watch video and listen to music over the internet. Search engines like Archie and Alta Vista helped us sift through the ever-growing online archive. But the internet was no longer just a way to search for information or communicate through email and notice boards. Soon it was possible to buy and sell, gamble, participate in online dating or do any of the myriad possibilities available today.

5.6 The internet in South Africa

At the time of writing, connecting to the internet in South Africa has some unique challenges. In comparison to the rest of the developed world, South Africans have to pay more for a slower service. This has hampered the growth of online business in South Africa, as fewer people can afford to be online and the slow connection speeds limit the number of services that can be offered.

Unlike their overseas counterparts, broadband users in South Africa have "usage caps" – a limit on the amount of data that a user can download and upload per month. If the cap is exceeded, the user either loses their connection for the rest of the month or has to pay for the service to be extended.

Another challenge is that of infrastructure: many South Africans live in areas that do not have access to the telecommunications infrastructure necessary to support an internet connection. There are also relatively few cables that connect Africa to the rest of the world. This can create a "bottleneck" of information flow.

However, things are improving. The new SEACOM cable that connects Africa to Europe and Asia should boost the speed of data flowing between Africa and the rest of the world. Various service providers have started offering "uncapped" data packages at competitive rates – although these are still far more expensive than their overseas equivalents. Also, the ability to connect to the internet with a cellphone has brought the online world to many areas of South Africa that were previously out of range.

5.7 Further reading for section 5

1. Illustrated timeline of the history of the internet: www.computerhistory.org/internet_history/

2. Illustrated development of computers in the 1950s: library.thinkquest.org/18268/History/hist_c_50s.htm

3. Images of the original ARPANET computers: www.dailymail.co.uk/sciencetech/article-1224100/internets-40th-birthday-First-email-crashes-just-letters.html

6. Summary of chapter 1

In this chapter, we looked at:

- Why the internet is profoundly important to all of us, and the impact it has on all aspects of our lives

- How the "building blocks" of the internet work together to transfer data quickly across such a vast network

- The ways in which you can connect to the internet, and their various advantages and disadvantages

- How the internet came to be – the development from a simple network to the world-spanning web of today

7. References

7.1 The internet in context

1. Statistics of internet usage: www.internetworldstats.com/stats.htm

2. Internet TV: www.washingtonpost.com/wp-dyn/content/article/2006/01/11/AR2006011102134.html

3. David Weinberger's "Small Pieces": www.smallpieces.com/content/preface.html

4. Mobile access in rural Africa: www.nytimes.com/2009/10/06/science/06uganda.html?_r=2

5. More about the two-tier "pay" system: news.bbc.co.uk/2/hi/technology/5009250.stm

7.2 How does the internet work?

1. How internet infrastructure works: computer.howstuffworks.com/internet-infrastructure.htm

2. What is a URL? java.sun.com/docs/books/tutorial/networking/urls/definition.html

3. TCP/IP: www.w3schools.com/tcpip/tcpip_addressing.asp

7.3 How do I connect?

1. What is a modem? www.wisegeek.com/what-is-a-modem.htm

2. Dial-up and ADSL: www.helpwithpcs.com/internet/internet-connections.htm

3. How DSL works: www.howstuffworks.com/dsl.htm

4. The difference between DSL and ADSL: www.wisegeek.com/what-is-the-difference-between-dsl-and-adsl.htm

Using web browsers

- What is a browser and how does it work?
- What browser should I use?
- Getting the best out of your browser

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Introduction

By the end of this chapter, you will:

- Have a basic understanding of how a web browser displays an HTML web page (section 1)

- Know how to choose a web browser that suits your needs (section 2)

- Know how to adjust your web browser and customise its settings (section 3)

1. What is a browser and how does it work?

Later in this chapter we will look at the range of browsers that are available, and you may like to compare them to one another. In order to understand why one browser behaves differently from another, it's worth knowing the basics of how all browsers work.

1.1 What does a web browser do?

A browser is a software application designed to help you access information on the World Wide Web. At its most basic, a browser will:

1. Allow you to enter the URL of the resource you wish to retrieve from the internet

2. Send a message to a server requesting that resource

3. Accept the resource when the server returns it

4. Translate the resource into a correctly laid out, viewable web page

We've already covered the first three processes in the previous chapter. So let's spend some time with the fourth step.

1.2 How web pages are constructed

Most web pages have been designed so that they are easy to find with a search engine and quick to download.

Try the following experiment:

1. Open a web page in your web browser. Ideally, choose one that contains both pictures and text.

2. Click on and drag a picture. Select a portion of text.

Can you see that this web page is not just one single image, but a collection of text and images? You can select individual words and copy them from the page.

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But what would the difference be if the whole web page were a picture? You would still be able to read it, after all. But would you be able to find it in a search engine? And how long would it take to download? Search engines can't decipher text in pictures easily, and pictures take longer to download than text.

1.3 Hypertext Markup Language

In chapter 1, you learned that Tim Berners-Lee invented the World Wide Web and the various protocols that made it possible. One of these is Hypertext Markup Language, or HTML. HTML is a system that makes it possible to insert instructions on how a page should be displayed when opened in a web browser into the page itself.

A web browser opens an HTML document and displays that document according to the HTML instructions included in the page. That is what is meant by a browser "translating" a resource.

1.4 Try it out: Looking at the page source

1. Open a web page in your browser.

2. On the menu bar of your browser, click "View".

3. Choose "Source" or "Page Source" (what you see will depend on which browser you are using).

A window will open containing the untranslated, raw HTML version of the page you are looking at. It will look something like this:

Figure 1: Viewing the page source.

Have a close look at it. Can you find any similarities between this "source"

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document and the web page? You may need to scroll down quite far before you see anything recognisable.

The source page you just viewed is the untranslated HTML version of the web page. The browser is programmed to read the instructions contained in this source page and use them to determine how the content of the page should be displayed.

1.5 How browsers "translate" a web page

For the sake of clarity, here is an example using English instead of HTML descriptions. The source document is "marked up" with instructions like this:

<the background colour should be pink, and the lettering should be white> <the following is a heading, display it in a larger font> **Mary Had A Little Lamb** <display the following in a smaller font> **Mary had a little lamb** <new line> **Its fleece as white as snow** <new line> **And everywhere that Mary went** <new line> **The lamb was sure to go**

The browser follows the instructions and translates them into a page that looks like this:
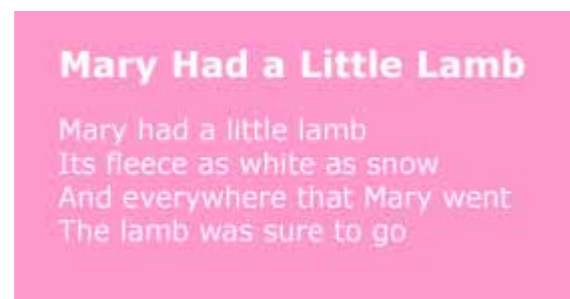
Figure 2: The translated instructions.

1.6 The practical implications

It's not important for you to understand the HTML version of the page. You do not need to understand HTML to be able to use the internet. However this knowledge will help you make sense your browser's behaviour, particularly when things go wrong.

You may find that you can do your online banking when using the Internet Explorer browser, but when you try to open the same banking website with the Safari browser, you are no longer able to use the site.

This is because different browsers have been programmed to interpret the instructions included in the HTML source document differently from one another. If the person who created that source document did not write the instructions in such a way that the browser in question can translate it correctly, the site cannot be viewed using that browser.

Think of a web browser as a person who is translating a foreign language for

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you. In this analogy, the foreign language is the HTML code and the translator is the web browser. And, as is the case with many translators, each web browser interprets what the foreigner is saying slightly differently!

1.7 File size and bandwidth

You may have noticed that some websites are much slower than others. Sometimes an image takes an age to appear. Why is this?

Remember, every time you open a web page on your browser, that information has to be downloaded to your computer. A simple web page with small images and text will transfer quickly. A page with large images, or one that contains video or music, may take longer.

The speed depends on two factors:

1. The file size of the information being downloaded

2. The speed of your internet connection – also called your "bandwidth"

1.7.1 File size

Whenever we save something on a computer, it takes up a certain amount of space on that computer's hard drive. A small text document that only contains a couple of words does not take up much space. A long video that contains sound and images will take up quite a lot of space.

We measure the amount of space a file takes up in units called "bits". Whenever a file is moved from one computer to another, all the bits that make up that file must be transferred. The more bits a file has, the longer it takes.

Most files are made up of hundreds of thousands of bits, which makes the bit an awkward measurement to use. Just as you would not express the distance you travelled today in terms of millimetres (you would probably use kilometres), we don't often refer to "bits". Rather, we talk about kilobytes (KB), megabytes (MB) and gigabytes (GB).

Here is a list to help you understand how these different file sizes relate to one another:

1 byte = 8 bits

1KB = 1,000 bytes

1MB = 1,000KB

1GB = 1,000MB

Here are some examples to put these measurements in context:

a) A typical web page with a couple of pictures and some text is usually less than 100KB.

b) A short online video is usually around 3MB.

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c)   Downloading a complete music album can be more than 100MB.

d)   Downloading a complete series of videos could be several gigabytes.

1.7.2 Bandwidth

The speed at which your internet connection transfers all of this information is called "bandwidth". Bandwidth is usually measured in the amount of kilobits that can be transferred in a second, expressed as Kb/s.

A typical dial-up connection has a bandwidth of about 50Kb/s. ADSL connections are available at different speeds. Some typical ADSL speeds are 512Kb/s – a typical home internet connection for a light user who does not need to download large files or watch many videos – or 4Mb/s – suitable for heavier internet users such as small businesses.

1.8 Taking a screenshot

Some exercises in this course may require you to take a screenshot – in other words, a "photo" of what is currently on your computer screen. It is also a useful skill to know when something goes wrong on your computer: you can take a screenshot and email it to your tech support person, or post it on a forum.

In Windows:

1.   Click the "Print Screen" button (called "PrntScn") on your keyboard. At this stage, it will look like nothing has happened.

2.   Open the Paint program.

3.   Press Control + V to paste the image into Paint.

4.   Save the image with a file name of your choice.

In Mac:

1.   Press Command + Shift + 3.

2.   The screenshot is automatically saved to your desktop. Rename it to a name of your choice.

1.9 Further reading for section 1

1.   Want to learn more about HTML? www.w3schools.com/html/default. asp

2. What browser should I use?

This sounds like a straightforward question. A browser is a piece of software for viewing websites. Which is best? A little bit of searching online will reveal that asking which browser to use ranks right up there with "What music should I listen to?" or "Which soccer team should I support?" as a way of starting an argument. Everybody has an opinion. The answer is – it depends.

A teenager who spends most of her time playing online games has different needs from a researcher who is constantly checking scholarly references. A father concerned about keeping his children from seeing disturbing and shocking content will choose a different browser from a website designer who needs to check his code. Are you using a Windows PC, a Mac or a Linux machine? How fast is your internet connection? All of these will influence your choice.

Let's have a look at the browsers that are available, and determine how you can choose the one that suits your needs.

2.1 What's available?

There are literally hundreds of browsers available for download. Here is a list of the most widely used web browsers, with an indication of the operating system needed to run them. All of the browsers listed below are available for free.

	Internet Explorer (Windows only) Internet Explorer is still one of the most widely used browsers, primarily because it comes pre-installed on most Windows PCs.
	Firefox (Windows, Mac and Linux) Firefox is a very popular browser. It has a reputation for being secure and reliable, and users can add features to it by installing "plug-ins" or "add-ons".
	Safari (Windows and Mac) Safari is a popular browser for Mac users, as it comes installed as part of the Mac operating system. It has a reputation for speed, elegance and ease of use.
	Google Chrome (Windows and Mac) The new competitor to Firefox, and quickly growing in popularity. Google Chrome has been designed for ease of use and simplicity.
	Opera (Windows, Mac and Linux) An alternative that offers all the features of more popular browsers such as Firefox and Internet Explorer.

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2.2 Browser versions

To make things even more complicated, there are many different versions of each browser. As the software is improved, security problems are fixed and more features are added, newer and better versions of the browser are released. Browser versions are indicated by a number, where the highest number is the latest version. For example, Firefox 3.5 is a more recent version than Firefox 2.1.

There are often significant differences between browser versions, and it's important to update your browser to the latest version.

2.3 Upgrading your browser

Because of the many differences between the available versions of a browser, it is highly recommended that you upgrade your browser to the newest available version. This will make your web browsing experience more enjoyable and it will also keep you safer from online threats.

2.3.1 Upgrading Internet Explorer

1. Check which version of Internet Explorer you have.

2. Internet Explorer version 8 is the latest one. If you have an earlier version, you will need to upgrade.

3. To upgrade, visit the official Internet Explorer website here: www. microsoft.com/ windows/internet-explorer/default.aspx.

4. Click the "Download" link on the right.

5. Select your country and version of Windows. Note that Internet Explorer can only be used on Windows computers. Once you click on your version of Windows, you will be taken to the download page.

6. Click "Download". The file will download onto your computer. Once it has finished downloading, run the file and the new version will install automatically.

2.3.2 Upgrading Firefox

1. Check which version of Firefox you have.

2. Firefox version 3 is the latest one. If you have an earlier version, you will need to upgrade.

3. To upgrade, visit the official Firefox website here: www.mozilla.com/ en-US/firefox/upgrade.html.

4. Click on the prominent download link in the centre of the screen and follow the instructions you are given on the next page.

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2.4 Comparing browsers

Apart from choosing a browser that will work on the operating system you have, what are the other criteria for choosing a browser?

2.4.1 Safe and secure

It is possible for an unscrupulous person to gain access to your computer by taking advantage of security loopholes in browser software. There are no browsers that are completely immune to attack. Which is the most secure browser? There is no easy answer.

To illustrate, statistics on security rely on reported vulnerabilities. The number of reports may, or may not, align with the actual vulnerability of the browser. A small, less well-known browser may be very prone to attack, but because so few people use it, it will seem to have a better record than more popular browsers. Another variable is that hackers often don't attack the browser itself, but focus on a browser plug-in or add-on. Some browsers offer thousands of plug-ins and add-ons to extend the usefulness of the software – others hardly offer any.

While you may wish to base your decision on one of the many articles discussing the safest browsers, there are other ways to protect yourself. The most important are installing reliable antivirus software and a firewall. These topics will be covered in chapter 7.

2.4.2 Plug-ins and add-ons

The terms "plug-in" and "add-on" mean exactly the same thing: they are small downloadable programs that add functionality to a browser. Some are essential and come preloaded with your browser. An example is the Flash Player plug-in, without which the browser cannot display a website with Flash content.

Plug-ins cater to many needs. You can find a plug-in to correct your spelling, change the look of your browser, check your eyesight or keep track of the latest cricket score.

2.4.3 Speed

The speed of a browser may refer to a number of different things, and all of them are considered in a proper comparison.

1. Cold start: The time the browser takes to open for the first time since the computer was started.

2. Warm start: The time the browser takes to open again, after it has been closed.

3. Content-rich page load: The speed for loading a page with many images and videos.

4. JavaScript load: The speed for loading JavaScript applications. Many

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interactive website applications, like internet banking, run on JavaScript.

2.4.4 Factors that influence browser speed

Once again, it is difficult to find a fair comparison. The speed of a browser will fluctuate depending on how well integrated it is with the operating system on your machine. This means that a browser that does well in an official browser speed test might not perform as well on your own machine. The number and type of plug-ins you have added to your browser will also affect its speed.

2.4.5 Other considerations

What will you be using your browser for? It is worth reading up on a browser's special features before making your choice. There are even browsers that are created for people with particular handicaps. An example of a common and useful browser feature is "tabbed browsing".

Tabbed browsing is a process that allows you to open multiple web pages in a single browser window. Here is a screenshot of tabbed browsing in Firefox:

Figure 3: Tabbed browsing in Firefox

2.5 Further reading for section 2

1. A list of alternative browsers, including their most important features: www.alternativebrowseralliance.com/browsers.html

3. Getting the best out of your browser

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Here are some exercises designed to guide you through the process of customising your browser to suit your own needs.

We avoid including step-by-step instructions in these notes for two reasons.

1. It would be impossible to include instructions for all versions of all possible browsers.

2. These instructions would quickly become outdated as new browser versions are released.

In addition to this, completing these exercises will help you to gain one of the most essential skills of the internet super-user: using the help files.

You can find complete instructions on how to do each of these exercises by clicking on the "help" link in your browser's menu bar. In fact, you will probably be able to solve most of these exercises simply by paying attention to the various options available in your browser menu bar.

For example, some of the solutions can be found in the "Internet Preferences" settings, and some by accessing the menus at the top of the browser window. You will need to hunt around to find the answers. You can access your "Internet Preferences" menu here:

- Firefox on a Windows PC: Choose "Tools", then "Options"

- Firefox on a Mac: Click on the Firefox menu, then "Preferences"

- Firefox on Linux: Choose "Edit", then "Preferences"

- Internet Explorer: Choose "Tools", then "Internet Options"

3.1 Exercise 1: Set your home page

The home page is the web page that will load automatically when you open the browser. It's convenient to set this to the web page you usually visit first.

See if you can figure out how to:

1. Set your home page to be the site you visit most often.

2. Set a blank page as your home page.

3. (Available in Firefox only) Specify that the home page is the last page you visited in your previous browser session.

3.2 Exercise 2: Know when a website is still busy loading

Sometimes it's difficult to know when a web page has finished loading. You can keep track of this in the "status bar". The status bar displays messages relating to the page's status: things like "contacting", "transferring" and "done". However, the status bar is often switched off. Can you work out where to specify that the

status bar should be visible?

3.3 Exercise 3: Know the URL of a link without clicking on it

It can be useful to know where a link will take you without actually clicking on it. Some links state the URL they link to in the text of the link itself, but most do not. How do you know which URL the "check this out" or "more" link will take you to without clicking on it?

3.4 Exercise 4: Open a link in a new tab

What if you are reading through a lengthy web page and come across a link to another website half way down the page? If you click on the link, you will be taken to a new page and lose your place on the previous web page. This is where tabbed browsing becomes useful: you can have both pages open in your web browser by opening the new link as a new tab. Can you figure out how to do this?

3.5 Exercise 5: Search without visiting a search engine's page

Many people only know how to use a search engine by going to its home page. For example, they go to www.google.com and type their search terms into the text field. There is a much quicker way to search, directly from your browser. Can you find the search text field on your browser? And for extra kudos, can you figure out how to change the search engine your browser uses when you use this text field?

3.6 Exercise 6: Find a word quickly

Sometimes it's difficult to find the information you are looking for on a web page. Even if you are fairly sure you have found the right page, it can take a long time to read through all of it to find the bit you are looking for. Your browser allows you to search for occurrences of a particular word at the click of a button. Can you find out how to do this?

3.7 Exercise 7: Zoom in and out

Imagine your eyes are no longer what they were, and you cannot read the tiny writing on a web page anymore. How do you enlarge the entire web page? And how do you reset the view to the normal size?

3.8 Exercise 8: Specify a download location

When you download a file from the internet, it is often automatically saved in a folder on your computer. You can customise the settings of the browser so that downloaded files are saved in a folder of your choice. Can you figure out how to specify your own download folder?

3.9 Exercise 9: Explore your browsing history

Let's imagine that you want to find a website you were looking at a day or two ago. It no longer appears when you search for it, so how can you find it? Unless you specify otherwise, your browser keeps a record of every page you view. If you can find this list, you can use it to open pages you were looking at days or even weeks ago. Can you find it?

3.10 Exercise 10: Empty your web cache

In chapter 1 you learned that when you look at a web page on your machine, all the information in that page is saved in a folder on your hard drive called a "cache". This is done to reduce the amount of information that has to be downloaded during repeat visits to the same web page. For this reason, you may notice that the second time you visit a web page, the images appear much more quickly. This is because your computer had already downloaded these images when you first visited the page.

All those cache files take up space on your hard drive, so you may want to "clear the cache" or delete all the information saved in that folder. You could do this by finding the folder on your hard drive, opening it and deleting all the files manually – but this is not a good idea as you might accidentally delete an essential file or folder and affect the functioning of your computer.

A safer way to do this is to use your browser to safely clear the information out of your cache. Can you find out how to do this?

3.11 Exercise 11: Check if cookies are allowed

What's a cookie, and what has it got to do with your browser? Cookies are small bits of information stored on your computer by a website you visit. Next time you visit, the website can access the cookie and check, for example, whether you have already signed up with that website, what language you prefer to use or where you are in the world. Don't worry: cookies are only able to record limited types of information about you and your computer and don't create any security threats.

Browsers are usually set to allow cookies, but it is possible for you to change your browser settings so that cookies are no longer allowed. This can cause problems when interacting with some websites and you may receive a message

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requiring you to "allow cookies". Can you figure out how to turn cookies off and on?

3.12 Exercise 12: Find and install a plug-in or add-on

There are literally thousands of plug-ins and add-ons that you can use to extend what your browser can do. Find a plug-in or add-on that suits your needs and install it. Here are some suggested places to start looking.

- Firefox: addons.mozilla.org

- Internet Explorer: www.ieaddons.com

- Chrome: www.mychromeaddons.com

- Safari: www.apple.com/safari/download/plugins.html

3.13 Further reading for section 3

1. An article the experience of older people using web browsers: www.iheni.com/wheres-my-googlebox-adventures-in-search-for-silver-surfers

2. Learn more about internet cookies: computer.howstuffworks.com/question82.htm

4. Summary of chapter 2

In this chapter, we looked at:

- How a web browser translates HTML into understandable text and images

- How to choose the best browser for your needs

- How to adjust a browser to suit your needs

5. References

5.1 What is a browser and how does it work?

1. What is HTML? www.yourhtmlsource.com/starthere/whatishtml.html

5.2 What browser should I use?

1. A list of popular browsers: www.webdevelopersnotes.com/design/browsers_list.php3

2. A comparison of popular browsers: www.extremetech.com/article2/0,2845,2335242,00.asp

3. Which browser is most secure? www.thetechherald.com/article.php/200910/3128/Whose-browser-is-more-secure-Microsoft-s-or-Mozilla-s

5.3 Getting the best out of your browser

1. Firefox: www.mozilla-europe.org/en/firefox/tips

2. Internet Explorer: www.techradar.com/news/software/applications/10-internet-explorer-8-tips-direct-from-microsoft-617773

Using search engines

- How search engines work
- How to search
- Which search engine?
- Getting the most out of Google

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Introduction

By the end of this chapter, you will:

- Understand how search engines enable web search (section 1)

- Know how to construct an effective search query (section 2)

- Be able to use operators and keywords to refine your search (section 2)

- Be familiar with some of the available search engines (section 3)

- Be able to use some of the advanced search features offered by Google Search (section 4)

1. How search engines work

1.1 What is a search engine?

The World Wide Web is unimaginably huge and it's growing every day. Without help, finding a particular piece of information online is much less likely than finding a needle in a haystack. A search engine is a website that helps you find information on the web. There are hundreds of search engines with different features and strengths, but they all do the following:

1. They search the web for commonly used terms.

2. They store the results of this search in an index.

3. A user can then use the search engine to search the index.

1.2 Crawling the web

When using a search engine such as Google or Bing to search the web, the search engine is not really searching the entire web. That would take far too long. Instead, the search engine creates its own constantly updated list of sites, called an index. This carefully structured index makes it possible for the search engine to retrieve the content and location of a website at a moment's notice.

1.3 How is this index created?

Search engines use automated software programs called "spiders" to search through all the pages stored on the World Wide Web. These spiders visit web page after web page, and copy all the content into their own database – the index. To make the content easily searchable, it is converted into a new format. For example, there will be clear indications in the index what the title of the document is, and which parts of the content are the most important.

> **NOTE**
>
> The internet vs. the web. Remember the difference between "the internet" and "the web", discussed in chapter 1? The collection of interlinked documents that make up the World Wide Web is only a part of the whole internet.

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But if a spider is an automated software program, what would it consider important? How can a software program figure out what the topic of a web page is?

Spiders sort the contents of a site according to pre-defined criteria. Each search engine programs its spiders differently, but the most common criteria are:

- How frequently is a word used? That is often a good indication of the topic of a page.

- Where in the page is the word? Words in a heading or near the top are usually a better indication of the topic than words near the end of the document.

1.3.1 Meta-tags

Web pages also contain another source of information that spiders can access – "meta-tags". It is possible to insert a page description and a list of keywords into the web page in such a way that they are visible to search engine spiders, but invisible to human viewers. Meta-tags are part of the HTML information of a web page.

1.3.2 Try it out

To see the meta-tags of a web page:

1. Open a web page in your browser.

2. Go to View > Page Source.

The HTML view of the page will open. You may need to scroll down a bit, but somewhere near the top of the page you will find the meta-tags.

In the example below, you can see the meta-tags of a page about search engines.

```
<meta name="keywords" content="internet search engines, search engines,
google" />
<meta name="description" content="Internet search engines do your research
for you. Learn how internet search engines like Google work, how internet search
engines build an index and what Boolean operators are." />
```

Figure 1: Meta-tags.

1.4 Matching the index to a search query

Once a spider has finished indexing a particular page, it searches that page for links to other pages. If such links are present, the spider follows those links and indexes those pages. Because the web is always changing, this is a never-ending process.

We have considered some of the criteria that a spider uses to determine what parts of a page are the most important, and how to determine the topic of a

page. What happens when a search engine has to match the questions you type into its search bar with this index?

It would be of little use if the search engine simply returned a list of all the pages that matched your search term. To make it easier for you to find the page you are looking for, the search engine will attempt to sort pages in order of importance, matched to the words you typed into the search bar. Some factors that influence a page's importance:

1. How many times keywords that match your search appear on the page, and where on the page they appear.

2. How popular the page is: how many people are already viewing it?

3. The "age" of a page. Newer pages usually have a lower importance than pages that have been online for a long time.

4. The number of pages linking to that page. This is usually a better indication of a page's usefulness than how many people visit it.

When you perform a search with a search engine, it returns a list of URLs and page descriptions sorted in terms of the search engine's own criteria. Different search engines have quite different criteria. This means that the same search may have quite different results depending on which search engine is used.

The screenshots below show the results returned by the popular search engines Google, Bing and Yahoo for the search term "Siamese cats". The result of a Google search:
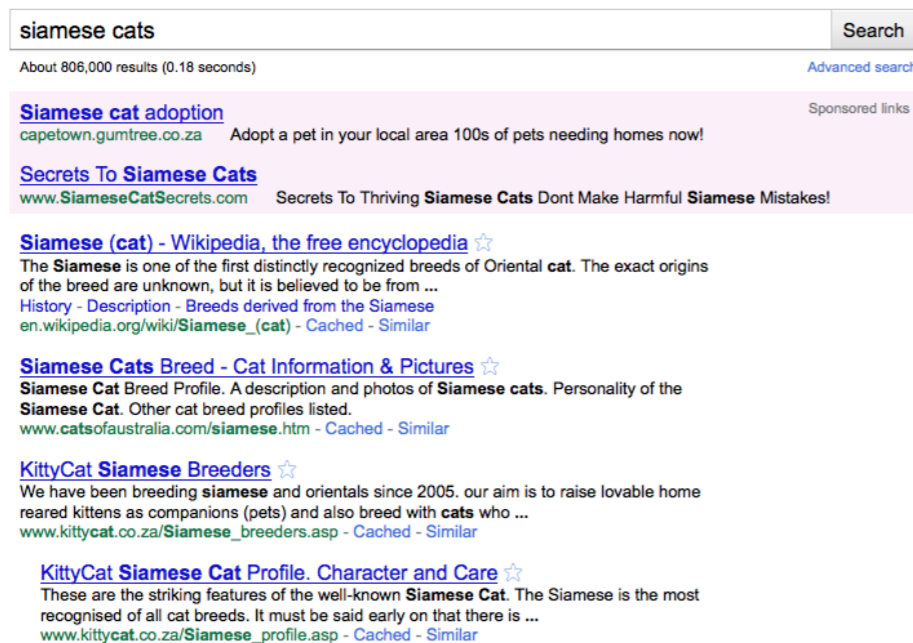
Figure 2: Google search results page.

The results of the same search in Bing:
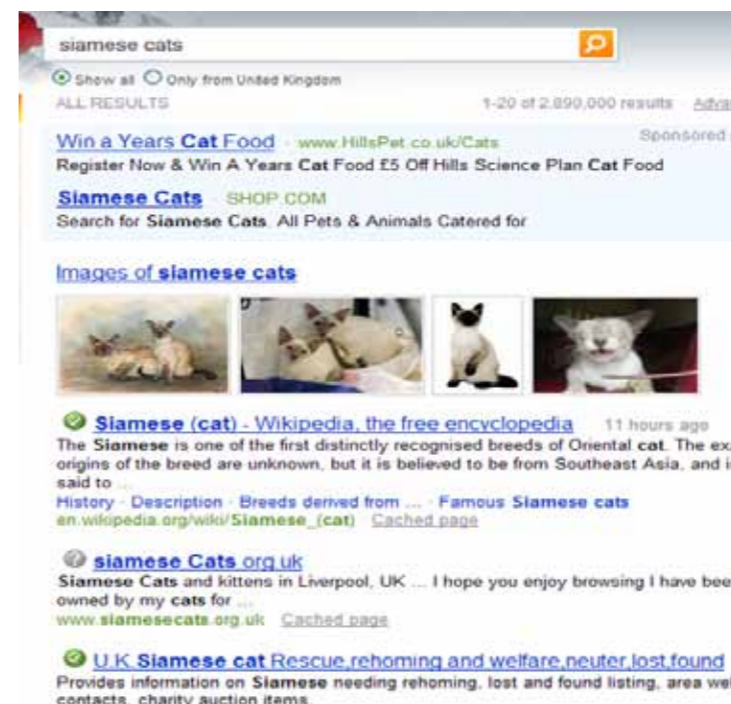
Figure 3: Bing search results page.

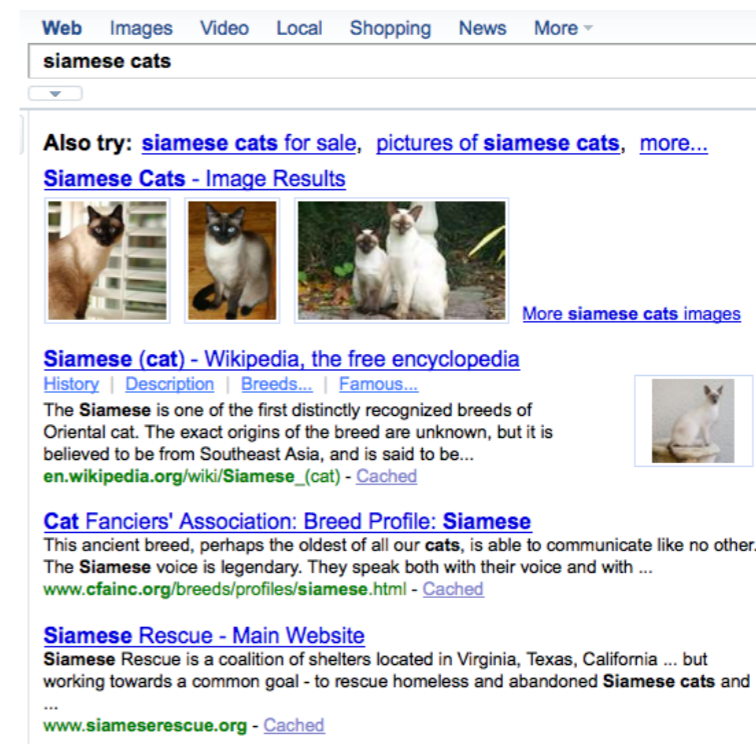The results of the same search in Yahoo:

Figure 4: Yahoo search results page.

1.5 Further reading for section 1

1. How search engines work: www.howstuffworks.com/search-engine.

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htm

2. How Google ranks pages: www.smashingmagazine.com/2007/06/05/google-pagerank-what-do-we-really-know-about-it

3. Learn more about indexing and caching: www.seoboy.com/get-hip-to-seo-lingo-by-distinguishing-between-crawl-index-and-cache

2. How to search

2.1 Creating an effective search query

Search engines base their search on the "search query": the question that you type into the search bar. Search engines like Google and Bing have complex algorithms according to which they match search terms with keywords to return the most likely documents.

2.2 How to phrase a search query

There is a difference between asking a human being a question and constructing a search term for a search engine. For example, consider the search query "Which lake in Russia has the clearest water?" A conventional search engine will match that to documents containing the keywords "lake", "Russia", "clearest" and "water", which may result in useful results purely by accident – or it may not.

The ability of a search engine to understand this kind of question is called its "natural language" ability. There is much controversy as to whether or not natural language search is better than the sophisticated keyword algorithms used by search engines like Google and Bing. In either case, the following guidelines will help you create more effective search queries.

2.2.1 Short and simple is best

Keep your query as short as possible, leaving out any unnecessary words. A single name or keyword often works better than an entire sentence.

2.2.2 Be aware of word order

Search engines often use each subsequent word in a query to limit the search further.

For example, if you use the query "song bird", the search engine could assume you want to look within the subject of "song" for any mentions of "bird" – you might find a page on the popular folk songs about birds.

If you use the query "bird song" the search engine will look within the subject of "bird" for any mention of "song" – which might give you pages on various birds and the sounds they make.

Notice that this means that the more words you use, the more focused the search will be, and the fewer the results you will get.

2.2.3 Capitalisation does not matter

You will find the same pages whether or not you use capital letters. So searching

> **NOTE**
>
> "Algorithm" in this context is the process that the search engine applies when matching keywords in its index. It specifies the criteria used to determine if a page contains valuable information. Companies like Google and Bing keep the details top secret, so that people cannot cheat the system by creating websites designed to fool the search engine into considering it a valuable source of information when it is not.

for "New York" will yield the same results as searching for "new york" or "NEW YORK". Note that this does not apply to using "Boolean operators", as you will learn later in this module.

2.2.4 Choose your words carefully and be specific

The more precise the words you use, the closer your results will be. If your search term contains only commonly used words, you are less likely to have success than if you are more specific. For example, searching for "South African snake" will have less success than searching for "puff adder".

2.2.5 Stop words

"Stop words" are very common English words that are automatically excluded from searches by the search engine. Examples include "the", "and", "is" and "because". They are excluded because they appear so frequently in normal language that including them would give much less accurate final search results. Therefore, instead of searching for "the cat and the dog", you may just as well search for "cat dog".

2.3 Refining your search with operators

There are various tricks and techniques to help you find exactly what you are looking for. One of the most useful of these is using operators as part of your search query. Operators are symbols or words that help to focus your search. For example, the minus symbol "-" is an operator used to specify that a certain keyword should be excluded from the search.

2.3.1 Must exclude

To limit a search so that it leaves out certain words, put the "-" in front of the word you want the search engine to ignore. The example below should give results about jaguars, but leave out all pages about the Jaguar car.

| jaguar -car | Search |

It is important that you leave no space between the "-" sign and the word you want to exclude.

2.3.2 Must have this exact phrase

A typical search will find pages that include any or all of the words in the search query, even if they are in a different order or have other words between them. Including quotation marks around a phrase – "like this" – forces the search to return only the exact phrase in your search query. The example below is more likely to return pages that refer to the song than pages that happen to include the words "twinkle", "little" and "star" in any order.

| "Twinkle twinkle little star" | Search |

2.3.3 Can include either this or that

Most searches will return pages with all the words in your search query. You might want to search for pages that include one of the terms or the other, but not both at the same time. To do this, use the word "OR" in upper case between your search terms. "OR" is a Boolean operator. The following will return pages about dogs, and pages about cats, but no pages in which both dogs and cats are mentioned.

| dog OR cat | Search |

The search engine is reasonably good at grouping terms without your help, so the following term will result in pages on either "dog fighting" or "cat fighting" and not pages on either "fighting" or "cat".

| dog fighting OR cat fighting | Search |

2.3.4 Search for exactly this word and not its synonyms

Most search engines automatically search for synonyms of your search query. So, a search for nutrition would return results for "nutrition" as well as "diet", "food" and "nourishment". To prevent this, include the "+" symbol just in front of the word.

| mushrooms +nutrition | Search |

You can achieve the same result by putting a single word in quotation marks.

| mushrooms "nutrition" | Search |

2.3.5 Combining symbols

You can combine any of the above symbols. For example, you are looking for information on the poem warning about the dangers of poison ivy. You remember it contains the phrase "leaves of three". When you do a search, you keep finding information about the movie "Poison Ivy" and a musician by the same name. To refine your search to exclude these, you might construct your query like this:

| poison ivy -movie -musician "leaves of three" | Search |

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2.4 Google Search and special characters

The Google help page on search terms states that, "with some exceptions, punctuation is ignored". This means that searching for "100%" will give the same results as searching for "100". The "%" symbol is ignored.

2.4.1 What are the exceptions?

- Commonly used terms: Punctuation is not ignored when it is part of a widely used term that has a particular meaning, like C++ or C# (which are programming languages).

- Dollars: The dollar sign can be used to indicate price – "Sony $120" will get different results to "Sony 120". Other currency symbols are ignored at the moment.

- Hyphens: Google considers hyphens to be spaces. For example, "soft-touch" will return results for "soft-touch", "softtouch" and "soft touch". Remember that if there is a space before the hyphen, and no space after it (for example, "soft -touch") Google will read the hyphen as a negative sign, and exclude that last word from your search.

- Underscore: The underscore symbol is not ignored when there are no spaces between it and the words before and after it. For example, "soft_touch" will get different results from "soft _ touch".

- Asterisk: In search engines, the asterisk (*) functions as a wildcard. This means that you can insert a * whenever there is a variable character, word or part of a word in your search term. For example, a search for "cat*" will bring up results that include "cat", "cats", "caterpillar", "CAT scan" and so on.

As Google evolves, you may find more exceptions that are not listed above. For example, Google can identify the "#" symbol and find results that start with a "#", such as hashtags in Twitter. You'll learn more about these in chapter 9.

2.5 Using keywords

You can also use a set of pre-defined keywords to send your search in the right direction. There are many search keywords, but these are the most commonly used.

2.5.1 Find the definition of this word

To find any site that gives a definition of a word or phrase, include "define:" in front of your query.

| define: potentiometric titration | Search |

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2.5.2 Search only in this website

To search only in a specific website, and not the entire World Wide Web, include the term "site:" and the site's domain name. The example below will search only in the site irish-society.org.

| pirate queen site:irish-society.org | Search |

2.5.3 Search number range

If you would like to search a range of dates or numbers, get the search engine to consider the range by specifying the lowest and the highest numbers, separated by three dots like this – "1…5". The example below will return results about British kings from the year 1400 all the way to 1500, including all the years in between.

| british kings 1400…1500 | Search |

2.5.4 Words must be in the document's title

To find a page with a specific word in the title, include "intitle:" in front of that word. In the example below, the search will return documents with "French" in the title, and "Revolution" either in the title or elsewhere in the document.

| intitle:French Revolution | Search |

2.5.5 All words must be in the document's title

To find a page that has all the words in the search query in its title, include the word "allintitle:" before your search query. The example below will result in a search for all documents with both the words "French" and "Revolution" in their titles.

| allintitle:French Revolution | Search |

2.6 Exercises

Working with search queries is a very practical process and you will find that you get a feel of what works best for you. It's good to experiment with a variety of operators, word combinations and keywords. Here are some exercises to get you searching.

NOTE

We will cover more advanced search techniques in chapter 5.

2.6.1 Exercise 1: Start searching

Pick a topic that you are interested in – for example, a hobby you have or a pet you own – and come up with a problem you could conceivably have with regard to your topic. Search for the simplest keyword you can think of relating to your topic (e.g. "cooking" or "cat"). Are any of the results useful to you? Search again, using a synonym for the word (e.g. "baking" or "feline"). How do the results differ?

2.6.2 Exercise 2: Narrow your search

You have probably found millions of articles that relate to your search term. Now, try to narrow them down by searching for the problem you're experiencing. Either include additional terms (e.g. baking "burnt cake") or exclude some (e.g. cat -healthy). Do you see a change in search results? Can you think of additional terms to include or exclude? Keep narrowing it down until you find the results you are looking for.

2.6.3 Exercise 3: Search for your problem exactly

Go back to the problem you thought of in exercise 1 and, instead of searching by narrowing down your results, try entering the most exact search query you can think of right away (e.g. baking chocolate cake burns in oven at 200 degrees C). How do the results differ from those in exercise 2? Which method do you prefer – narrowing your search or being exact right away?

2.7 Further reading for section 2

1. Advanced operators cheat sheet: www.googleguide.com/advanced_operators_reference.html

2. How Google detects synonyms: googleblog.blogspot.com/2010/01/helping-computers-understand-language.html

3. Which search engine?

At the time of writing, Google is unquestionably the best-known and most widely used search engine available. In fact, many people refer to the process of online search as "googling". However, there are many alternative search engines available. Some are all-purpose search engines like Google and Yahoo. Others are specialised – they focus on one particular topic or aspect of the web. Let's have a closer look at Google and its competitors.

3.1 All-purpose search engines

3.1.1 Google

www.google.com

As the most widely used search engine, Google prides itself on presenting a clean look and easy-to-use interface without sacrificing any of its sophisticated functionality.

Apart from searching for websites, Google provides some of the most widely used tools to enable focused search for images, videos, maps, news and scholarly research. Google is known for its drive not only to improve what already exists, but also to discover new ways to explore the web.

3.1.2 Bing

www.bing.com

Bing is Microsoft's competitor to Google. It features very similar focused search options to Google, but promises a more "common-sense" approach to online search, returning search results that fit with the search engine's estimate of the user's intent rather than the pure search query alone.

Some features in Bing:
- Allows the viewer to preview search items by hovering over them

- Displays a different background image every day

- Claims to provide more focused search results

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3.1.3 Yahoo

YAHOO!®

www.yahoo.com

Yahoo was one of the first search engines on the web, launching in 1994. Like Google, Yahoo offers many services, including web mail, advertising, maps and video sharing. Yahoo has recently teamed up with Microsoft's Bing to improve the speed and quality of their searches.

Yahoo search has many useful features, including:

- A direct link to Wikipedia, the online encyclopedia, for each search term entered

- A list of related searches for each search term

- Search Pad, a tool that lets you type in and save search terms and web addresses

3.2 Specialised search engines

Search engines such as Google are useful for a broad spectrum of tasks. Other search engines are more specialised. They focus on searching for particular types of data, or specialise in a particular topic area.

Ask.com	www.ask.com Ask.com is designed to respond to questions framed in natural language.
blinkx	www.blinkx.com Blinkx specialises in video search and allows the viewer to play the video in the search engine's interface.
BoardReader Connecting Communities through Search	boardreader.com BoardReader is used to search for online forums.
KidsClick! web search for kids by librarians	www.kidsclick.org KidsClick is a search engine for children, created by librarians.
idée TinEye beta	www.tineye.com TinEye is a "reverse image search" – you submit an image to the search engine and it finds similar images.

Pillbox BETA rapid identification	pillbox.nlm.nih.gov Pillbox allows you to identify pills based on their shape, size, colour, scoring and other markings.
Multicolr Search Lab	labs.ideeinc.com/multicolr Multicolr Search Lab searches the Flickr image bank for images based on a colour or combination of colours.

3.3 Exercise 1: Which search engine is best for you?

Explore some of the search engines listed in this chapter. Do a search on a topic of interest, and compare the results you get from the different search engines. Keep in mind that most search engines keep track of your preferred search methods, so the longer you use a specific search engine, the better its search will be calibrated to meet your needs.

3.4 Exercise 2: Choose your default search engine

Many web browsers, including Internet Explorer 8 and Firefox, have a convenient little search box in their top menu bar. Instead of navigating to the search engine's home page, you can simply type a search term directly into this box.

You can specify which search engine should be used to perform this search. Can you figure out how to control which search engine is used?

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4. Getting the most out of Google

4.1 Understanding Google search results

4.1.1 Sponsored links

You may have noticed that not all search results are displayed the same in Google. Some links are displayed at the top of the page with a coloured background, and some in a sidebar to the right of the page. Clients pay Google to place these sponsored links on the page whenever you search for specific keywords. It is easy to distinguish sponsored links from "clean" search results.

In the screenshot below, the sponsored links for a search for "puppy training" are indicated in green.
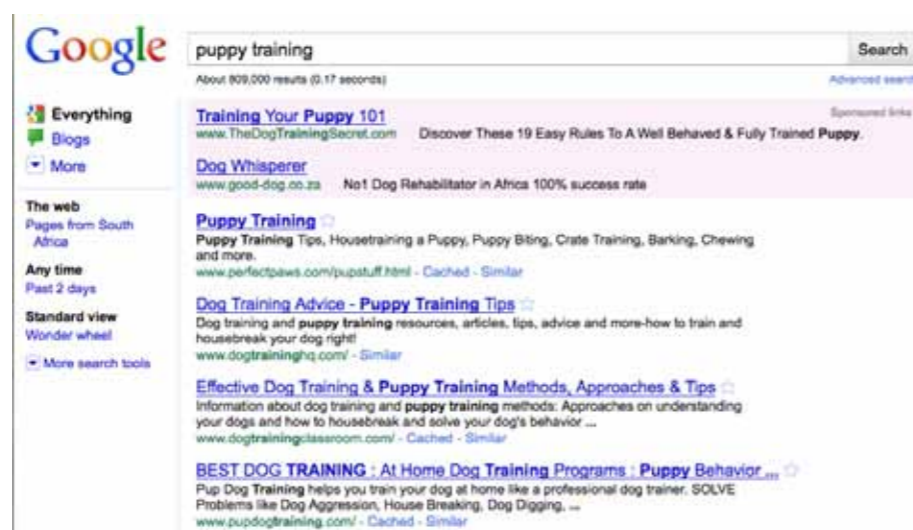
Figure 5: Sponsored links.

4.1.2 How to read your Google search results

Google search results are always displayed in the same way. Have a look at the screenshot below.
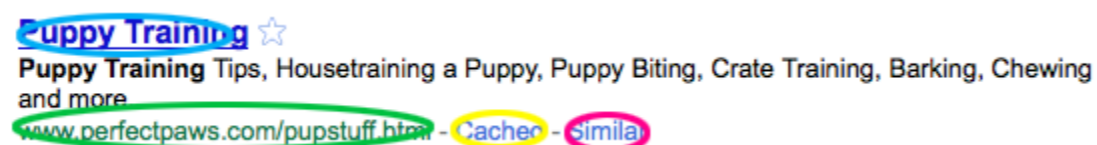
Figure 6: Reading Google search results.

The top link, indicated in blue in the image above, is the title of the page and is a clickable hyperlink to the page.

The URL of the page is indicated in green, and is not a hyperlink.

If you wish to see the "cached" version of the page, you can click on the "cached" link, indicated in yellow on this screenshot. Google creates and stores snapshots of all pages it processes when creating its search index. This is stored in a "cache" on the Google servers. It is possible that a page can be changed after the snapshot was taken, in which case the version of the page that is online is different from the version in Google's cache. You can view these older, "cached" versions of the page by clicking on the "cache" link.

Google often leaves out pages that are very similar to the ones in the list. To see more similar pages, click on the "Similar" link, indicated in pink in the screenshot.

4.2 Search settings

The "Search settings" page allows you to specify how you wish Google to search the web. To access the search settings page, click on the "Settings" link at the top right of your page, and choose "Search settings" from the dropdown menu.

You can control the following on your settings page:

1. Interface language: Sets the language that Google uses to display the search engine itself.

2. Search language: Sets the language your search results should be in.

3. Safe-search filtering: Allows you to exclude content of a sexual nature from your search results.

4. Number of results: Controls how long the list of search results will be, with 10 being the default. It may be convenient to set this number to 20 or 50 if you find that the best search results do not always appear on the first page.

5. Results window: Opens search results in a new browser window, rather than replacing an existing search.

6. Query suggestions: You can set Google to "suggest" similar search topics as you are typing a search query into the text field.

4.3 More features in Google Search

4.3.1 Advanced search

Each Google page has a small "Advanced search" link next to the search bar that allows you to fine-tune your search.

As you can see in the screenshot below, you can use advanced search to achieve many of the things you can also achieve using keywords or operators. This includes:

*   Searching for an exact phrase

- Searching for a keyword OR another keyword

- Excluding certain words from a search

You can also use the advanced search interface to specify how many results you wish to view in a page, what language to search in and if you require a specific file type.

**Figure 7**: Google advanced search.

4.3.2 The options sidebar

You can fine-tune your search with the options sidebar. This is a very powerful way to expand or focus your search results.

4.3.3 How to access the options sidebar

Click on the "More" and "More search tools" links near the top left of the search results page. This will open a sidebar on the left of your page. Below is a screenshot of the options available for a standard web search.

4.3.4 Working with the options sidebar
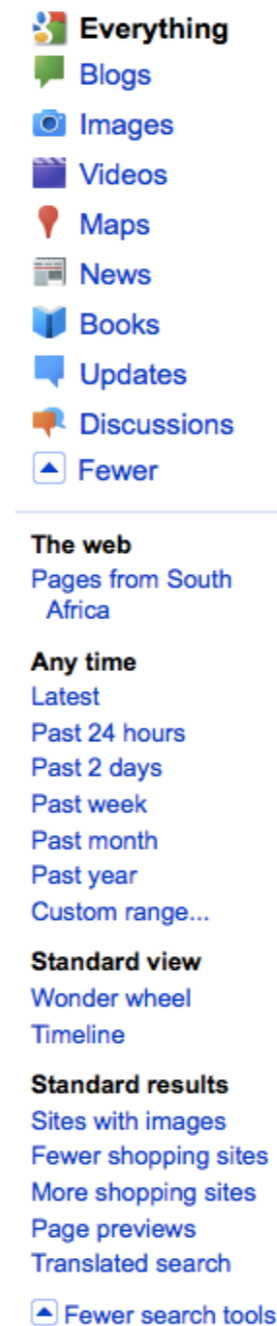
The options sidebar is divided into several sections.

The first section allows you to set the type of search you want: images, videos, news, blogs, updates, books or others. The screenshot on the left is of the options sidebar of a standard web search, indicated by the "Everything" link right at the top of the list. The other sections on this web search sidebar are:

The web: Choose to search the web in general, or pages from South Africa specifically.

Time: These links allow you to specify how long ago your search results were published.

View: These links let you choose an alternative way of looking at your search results. Standard view is the familiar list of sites. Wonder wheel and timeline views are explained in more detail later in this chapter.

Results: Here you can add or remove listed items from your search results, or add images and previews of pages to the list. These are also explained in more detail below.

4.3.5 Page previews

Clicking on the "Page preview" link in your options sidebar will add small screenshots of each page.

Figure 8: Page previews.

4.3.6 Sites with images

Choosing the "Sites with images" option displays a selection of images from each page next to its listing.

Figure 9: Sites with images.

4.4 The wonder wheel

The wonder wheel is an alternative way to look at search results in Google. It

allows you to refine your search term by clicking on a visual representation of the various categories your search may fall into.

4.4.1 How to use the wonder wheel

1. Type your search term into the text field as you always do.

2. Click on the "Show options" link at the top of the page to reveal the options sidebar, if it is not already visible.

3. Click on the "Wonder wheel" option in the options sidebar.

A diagram will appear, displaying the categories towards which you may wish to refine your search. In the screenshot below, you can see that in searching for Postman Pat, you can choose between "postman pat video", "postman pat dvd", "postman pat pictures" and many other options.

Figure 10: The wonder wheel.

If you click on one of these arms, three things will happen.

1. The wonder wheel will expand to show you all the areas you can choose in the new category.

2. A new list of possible pages will appear to the right of the wonder wheel.

3. Your search term in the text field will change to reflect the new focus of your search. In the screenshot below, you can see the result of having clicked on the "postman pat video" category.

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Figure 11: The search term changes.

4.5 Timeline search

To organise your search results by the date they were published, click on the "Timeline" link in the options sidebar. You will see a timeline like the one in the screenshot below.
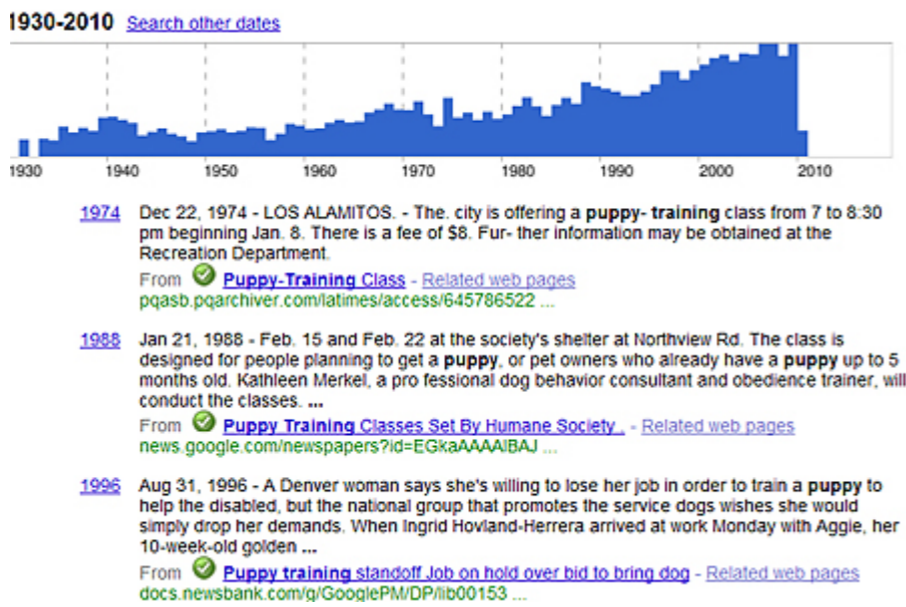
Figure 12: Timeline search.

Clicking on a section of the timeline will refine your search to include only results between the years specified.
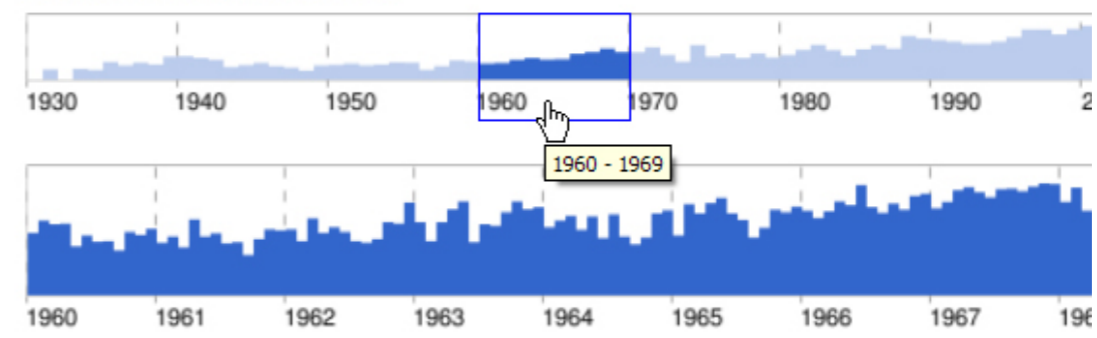
Figure 13: Refining the timeline search.

4.6 More options

When you change the type of search, the links in the options sidebar adjust to that search type. For example, if you click on "Images" at the top of the options sidebar, the links will change to display those in the screenshot below.

Figure 14: The options sidebar for images.

You can see that, in an image search, you can specify your search to include

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images of a specific size, colour or type.

4.7 Exercise 1: Search for your favourite food recipe

All of us have some foods that we really enjoy eating. The internet has a wealth of recipes and dish ideas that you now have access to. Can you find a recipe for your favourite dish by using a search engine?

4.8 Exercise 2: Search for a video tutorial

Now that you've found your favourite recipe, you may want to see somebody demonstrating the more complex techniques. Online video tutorials are a great source of help and information. Can you do a search for the recipe and specify that the results be videos only?

4.9 Exercise 3: Search according to date

You're planning to hold a 1920s party and you want to serve period-appropriate food. Can you search for relevant recipes within the correct time frame?

4.10 Exercise 4: Search for wine and food pairings

It's not always easy to figure out which wine should be served with a meal. Can you find the best wine to pair with the recipe you chose in exercise 1? If you don't drink wine, can you find an appropriate alternative? Be sure to use search operators and keywords to help you.

4.11 Exercise 5: Search for help

Sometimes, cooking can go wrong. Before you try to prepare your chosen dish, search for blog entries by people who encountered problems following the recipe. Can you find some useful hints there? Do they provide alternatives for ingredients that are hard to source, or do they have a vegetarian version of the recipe?

5. Summary of chapter 3

In this chapter, we looked at:

- How search engines crawl the web to make it possible for you to search quickly and efficiently

- How to create a effective search query

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- How to use operators and keywords to focus your search

- A range of different search engines

- Some of the special features offered by Google Search

6. References

6.1 How search engines work

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2. Meta-tags: www.w3schools.com/tags/tag_meta.asp

6.2 How to search

1. The unofficial guide to using Google: jwebnet.net/advancedgooglesearch.html

2. Google's basic search: www.google.com/support/websearch/bin/answer.py?hl=en&answer=134479

3. Recommended search strategies: www.lib.berkeley.edu/TeachingLib/Guides/internet/Strategies.html

4. Showing more results from a domain: googlewebmastercentral.blogspot.com/2010/08/showing-more-results-from-domain.html

6.3 Which search engine?

1. About Bing: searchengineland.com/bings-stefan-weitz-rethinking-the-search-experience-34165

2. About Yahoo: tools.search.yahoo.com/searchtour.html

6.4 Getting the most out of Google

1. Step-by-step guide to the wonder wheel: www.googlewonderwheel.com/google-wonder-wheel-step-by-step

2. What are sponsored links? www.googleguide.com/ads.html
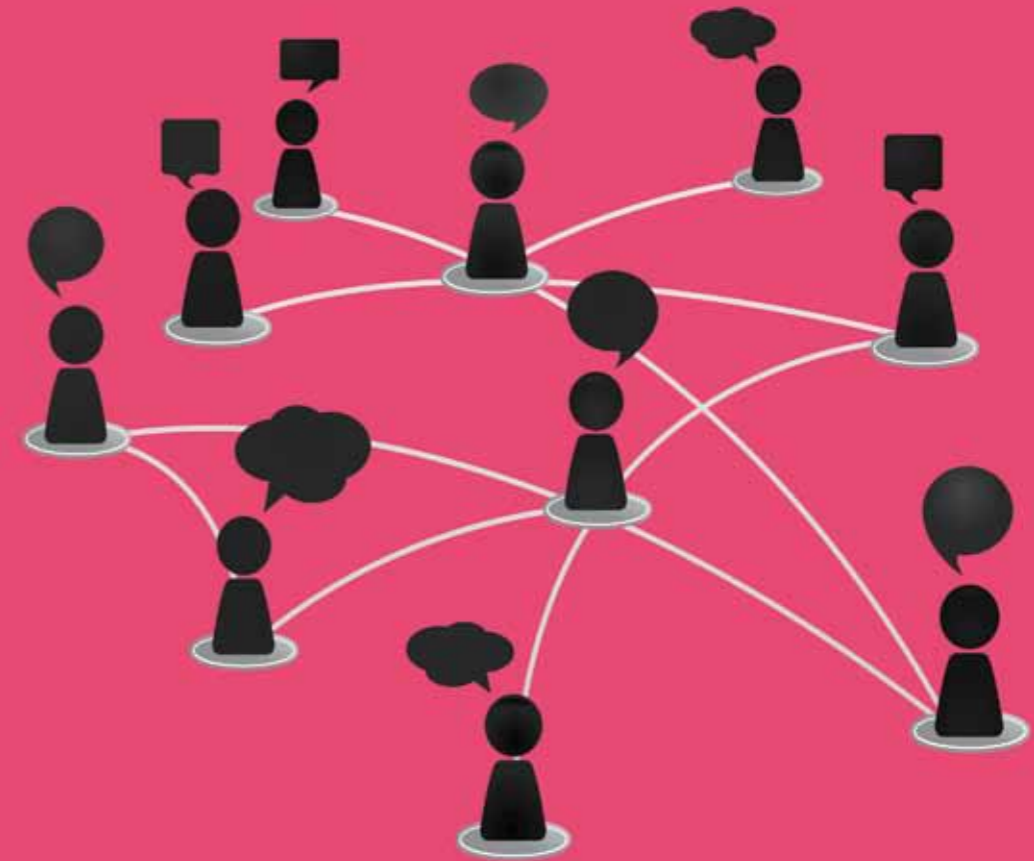
Communicating online

- Internet etiquette
- How does email work?
- Email best practice
- Calendaring
- Online forums
- Instant messaging
- Voice over internet protocol (VoIP)

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Introduction

There is a lot more to the internet than surfing the World Wide Web. In this chapter, we look at some of the many ways the internet allows us to communicate.

By the end of this chapter, you will:

- Know how to communicate appropriately and effectively on the internet (section 1)

- Understand the difference between local email and webmail (section 2)

- Be able to use your email more effectively (section 3)

- Know what calendaring is and how to use it (section 4)

- Know how to interact on an online forum (section 5)

- Understand what instant messaging is, and how to use it (section 6)

- Know what the Voice over Internet Protocol is, and why it is useful (section 7)

- Be able to set up and use a voice-over-internet service (section 7)

1. Internet etiquette

Some people say that the popularity of the internet has meant a resurgence of the most old-fashioned skill of all: writing. So many of the new forms of communication – like email, online forums, composing and commenting on blog posts – require the ability to express yourself on a page, with words. Others are not convinced. Apart from the sloppy grammar, tangled sentences and butchered spelling visible all over the internet, it seems that we have also forgotten the rules of common courtesy.

Are you familiar with road rage? The online equivalent to that explosive frustration is called a flame war. There are many theories for this phenomenon. It seems that something about communicating online encourages us to forget our manners.

1.1 Communicating through text

When you are speaking to somebody face to face, it's easy to pick up clues about their mood and attitude. Their expression and body language communicate as clearly as the spoken words. Even a phone call is easier to manage, as the tone of voice helps us understand one another.

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In email or any other text-based medium, all these clues have been removed. You only have the words on the screen, and it's easy to take offense when the tone of voice is in your imagination. A simple misunderstanding can escalate into an ugly fight in a couple of words.

So how can you avoid starting a flame war?

1.2 Online communication checklist

Here is a checklist to keep in mind whenever you communicate online, whether in an email, a discussion forum, a note on Facebook or through any of the other forms of text-based communication.

1. Be polite. Would you say the same if you were face to face with the person you are writing to?

2. Be concise and clear. Vagueness and generalisations cause misunderstanding. Refer to specific examples and actual people – ideally things that you have personally experienced.

3. Respond to the words on the page, not to what you believe the author's intention was. Base your assumption on what has actually been written, rather than reacting to what you think the writer believes or means to say.

4. Stay away from making blanket statements and referring to broad groups of people (either positively or negatively). Blanket statements expose your prejudices but don't add useful information to a discussion.

5. Be open minded. You don't have to agree with everybody out there. Having an open mind means that you are willing to listen to others and respond in ways that are not intended to silence them.

6. Watch your emotional levels. If you find yourself responding emotionally – even with the greatest of justification – step away from the keyboard. Allow yourself time to cool down before responding.

7. Be aware of your motivation. Why are you writing? Are you trying to prove that you are right, or to "win" an argument? Or do you care about persuading somebody or changing their mind about something? Look at what you have just written. Does it just serve to stamp your opinion, or have you added to the conversation?

1.3 Speaking with text

These days, most email programs and browsers are capable of displaying text as **bold** or *italic*, and it's easy to insert images into a message. These visual aids can help express your emphasis and tone of voice. This was not always the case in the past, and an entire system evolved to convey tone of voice and attitude through the use of text symbols. These are still very useful as they are often subtler and more expressive.

As always, consider the context before using any of these. What may be useful in a friendly message may be off-putting in a formal letter.

1.3.1 Emphasis

You can stress a particular word or sentence by bracketing it with appropriate punctuations marks. An asterisk symbol (*) adds light emphasis:

> It is *essential* that we agree on the correct approach.

Angle brackets (> <) and capital letters create quite a different effect, and one that is more emphatic. They should therefore be used sparingly.

> Please remember that we will >>NOT<< accept any entries after the stated deadline.

1.3.2 Emoticons

Using letters to create the equivalent of facial expressions can be useful to indicate the emotional tone. There are dozens of emoticons in use, but the most common are:

> smile   :)
>
> frown   :(
>
> wink   ;)
>
> wry   :/
>
> embarrassed/disgusted   :P

Emoticons can be very useful in avoiding misunderstandings, but should be used sparingly in any but the most informal context. Keep the context in mind when using any of these techniques.

1.4 Be aware of the context

The above examples are a very small sample of how one can convey tone of voice in a message. There are no rules, and different people will attach different meanings to the same symbols. Always look at the context to make sense of the communication. For example, the asterisk can also be used to indicate the writer's internal muttering or actions. For example:

I am so over him < yeah right > I couldn't care less if I never hear from him again. *Rushes off to check email again*.

2. How does email work?

There are two approaches to email:

1. A local account connected to an email server
2. An online-only account ("webmail")

2.1 Local email

With this option, you need a piece of software called an email client installed on your computer. You use this to send and receive mail, manage addresses, organise mail and many other functions.

Many of the most popular email clients are available for free and are part of your operating system – chances are that you already have an email client on your computer. Many are also available for free download.

Some examples of commonly used email clients are:

	Microsoft Outlook (Windows and Mac)
	Microsoft Entourage (Mac only)
	Thunderbird (Windows, Linux and Mac)

2.1.1 How do I get started with local email?

To use a local email client, you need to set up an email account with an internet service provider. This is usually a standard part of any internet access package, and your ISP should be able to help you through the following steps:

1. Registering your username and email address with your ISP
2. Configuring your email client with the necessary settings so that it can connect to the ISP

2.1.2 Configuring your email client

"Configuring your email client" means inserting various instructions into the account settings of the email software you use, so that the software can connect to the internet to download and send email.

You can get the detailed instructions on how to do this from your ISP. Typically, this will involve inserting the following into an account settings dialogue box:

1. Your username and password
2. The address of the server that controls incoming mail

3. The address of the server that controls outgoing mail

2.1.3 Accessing mail on local email

If you use a local email client, all your email-based information is saved on your own computer. This means that all messages, your entire address book, and all your folders and their contents are stored in a folder somewhere on your hard drive.

When somebody sends you an email, it is stored on your ISP's mail server. To access this mail, you first need to connect to your ISP and download the list of messages waiting for you. This sounds complicated, but in fact it usually involves clicking a button called "receive mail".

Many companies and schools have their own local mail server. In practice, this means that all messages are stored on the school or business's server, waiting for you to download them to your own machine.

2.2 Webmail

This service allows you to log in to a web page where you can read and send email messages, organise your address lists and use many other features. Some examples of popular webmail applications are:

	Gmail
	Yahoo Mail
	MSN Hotmail

All your email messages, address lists and folders are stored on a remote server and you can access them from any computer that has internet access.

2.2.1 How do I get started with webmail?

Go to the home page of the service you want to use and sign up to create an account. You will be asked to choose a username (usually the same as the email address you want to use) and a password. And that's it! Once you are signed in to your account, you are ready to send and receive messages.

2.3 Comparing local email and webmail

2.3.1 Ease of access

An obvious advantage of webmail is that, because all of your email information is saved online, you can access it wherever there is an internet connection. You do not need to have access to a specific computer.

On the other hand, it also means that you can only access your email if you can access the internet, which can be a disadvantage if you have an insecure connection or if you are on dial-up.

2.3.2 Accessing your email

If you use webmail, all messages, address information and folders are saved on a remote server. When somebody sends you an email, it appears directly in your webmail inbox with no intermediate steps needed.

With a local email client, you can only see the email once it has been downloaded from your service provider. Typically, this means you need to click on a "receive mail" button to check if there are any new messages available.

2.3.3 How secure is your information?

There are two ways of looking at the fact that, with webmail, all your email information is saved on a remote web server.

On the one hand, because the information is not stored on your own hard drive, you won't lose your address book or email if your own computer crashes, or if you need to move to a new machine. On the other hand, it is possible that something could happen to that remote server – which might mean the end of your mailbox.

You will have to create a backup of your webmail account, which is not always easy.

2.3.4 The best of both worlds?

Most ISPs provide webmail access to any email account. This means that you can set up a local mail account as described, and then choose to access it in two ways:

1. You can access it using your email client as already described, or

2. You can use your internet browser to log into the webmail portal, where you can access any email you have not downloaded to your own machine yet

Because there is a webmail portal, you can access your email from any computer, as long as it has an internet connection.

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2.4 A closer look at Gmail

Gmail is one of the most popular webmail services. It also offers some unique features. It's worth having a closer look at what makes Gmail different.

2.4.1 Message threads

In most other email clients, like Outlook Express for example, messages are organised like this:

1. When somebody sends you an email, it appears in your inbox with its subject in bold to indicate that it is a new, unread message.

2. You open it, read it and reply to it. Your message no longer has a bold subject, because you have read it.

3. The person you are corresponding with replies to your message.

4. The reply appears in your inbox above the first message, with its subject in bold.
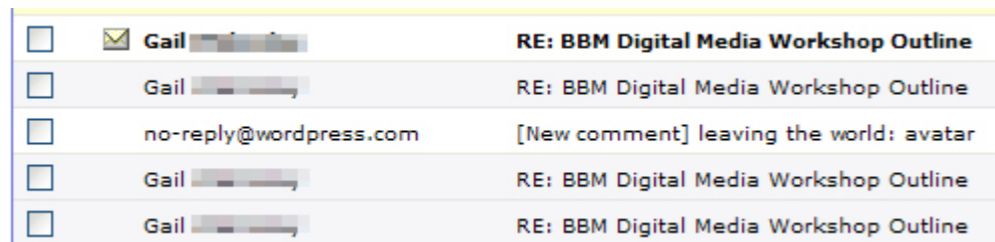
Figure 1: A screenshot of an inbox.

All the messages from Gail are in the same correspondence, but they appear listed separately in the inbox.

In other words, each message in this conversation is listed as a separate email in your inbox.

From step three, Gmail handles the conversation differently:

3. The person you are corresponding with replies to your message.

4. Their reply does not appear as a separate email in your inbox list. Instead, the original message subject "goes bold" to indicate that a new message has been added to the conversation.
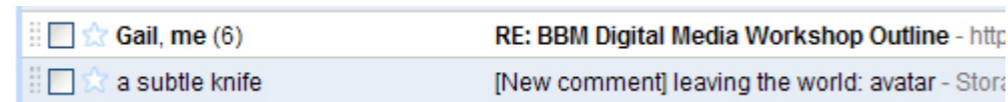
Figure 2: A Gmail inbox.

Notice that all messages from Gail have been grouped together as one subject. The number in brackets indicates how many messages there are in the conversation.

To read the new message, you open the thread and scroll down to find the new addition at the bottom of the page.

This approach makes it easier to keep track of related emails.

2.4.2 Using labels to organise messages

Most email clients allow you to sort your email messages into folders. Gmail uses a different system – labels.

How are labels different from folders? You cannot file a message in more than one folder at the same time. For example, if you receive a work-related email from your father, you cannot place it in both the "family" and "work" folders.

The same is not true for labels. In the above example, you could add both the "family" and "work" labels to the message. From now on, the message will show up if you click on either the "family" or "work" label.

Labels appear next to an email's title:
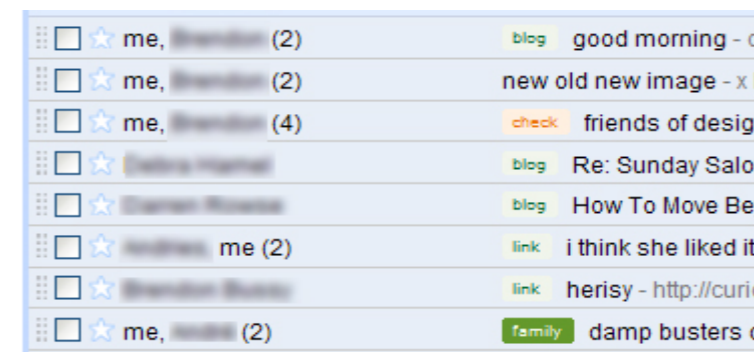
Figure 3: Labels in Gmail.

In the screenshot below, all the "family" labels are being shown. Notice that some messages have more than one label:

Figure 4: All emails with the "family" label.

2.5 Fax to email

Although email has overtaken faxing in many areas, it is often still necessary to send and receive a fax. With a "fax-to-email" service, you can do this without having a fax machine. Depending on the service you choose, a fax-to-email service can be much more cost effective than buying and maintaining a fax machine.

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It is very likely that your existing ISP provides this service, typically for a small fee. There are also several free fax-to-email providers. A free service is fine for occasional or home use, but possibly not reliable enough for a business user.

Your service provider will give you number. This is your unique fax number, the one that other people will use to send faxes to you.

2.5.1 How to receive a fax over email

1. The sender enters your fax number into their fax machine.

2. The fax machine scans the page, translating it into data that can be sent over a phone line.

3. The service provider receives the data and translates it into an image file.

4. The service provider forwards this image file to your email address as an attachment to an email.

5. You open the email and view the attached image.

2.5.2 How to send a fax over email

1. You create the document you wish to fax (for example, a Microsoft Word file or an image of a scanned document).

2. You create a new email message, and add the document to the message as an attachment.

3. You enter the fax number of the recipient in the address field. Depending on the service provider, you may need to include the service provider's name with the number (e.g. 02137781228@faxhost.co.za).

4. You send the message.

5. Your service provider translates the data you've sent into a format that a fax machine can read, and forwards it to the number you specified.

6. The recipient's fax machine receives the data and prints it out.

2.6 Dealing with spam

There are a number of ways to "filter" your mail for unwanted spam emails. Your service provider will probably offer a number of "spam-filtering" services. In addition, your email client will have a number of filters it employs to detect spam.

In both cases, the filter can operate in two ways:

1. Blocking spam messages outright so that they never reach you

2. Marking some messages as spam and sorting these into a "spam" folder

The second option – sorting mail to a spam folder – allows you to double-check

in case a legitimate message was marked as spam.

2.6.1 How does spam detection work?

Regardless of whether your service provider or your email program does the filtering, they employ the same basic principles when deciding which messages are spam:

- Detecting common patterns, such as certain words or symbols in the spam's header or message body

- Compiling a "black list" of domains from which spam is sent

- Blocking messages with more than a certain number of recipients in their address field

2.7 Organising your email

Here are a number of exercises to help you use your email program effectively. You should be able to apply these exercises to either a webmail or local email client.

2.7.1 Exercise 1: Add a contact to your address book

Can you find the address book that stores all the email addresses of your contacts?

Can you add a contact to this address book?

2.7.2 Exercise 2: Edit a contact

Can you figure out how to change an existing contact that has already been saved in your address book?

Most email programs allow you to add details to the address book other than the person's email address. This might include their full name, their phone number or other details. Can you see how to do this?

2.7.3 Exercise 3: Create a group

Instead of manually adding each recipient's address to the email one by one, you can create a "group" of contacts, and then use that group's name instead of the list of email addresses. In some email clients, this is called a "list".

Can you figure out how to create a group, and how to add contacts to this group?

2.7.4 Exercise 4: Mark a message

Most email programs have some system for marking a message for future

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attention. Depending on the program, this may be called "flagging", "starring" or something similar.

Can you figure out how to mark a message in your inbox for future attention?

2.7.5 Exercise 5: Organise your messages

As discussed in the section on Gmail, you can organise your email messages for later reference. Most email programs use a system of folders. Gmail uses labels to organise messages.

Can you create some useful categories to organise your email into, and start sorting your messages into these categories?

If you are using program that uses folders to organise email, you may need to "nest" folders to help you organise them.

2.8 Further email exercises

Here are a number of intermediate-level exercises in using email.

2.8.1 Exercise 1: Insert your own signature

You can create a "signature" – a small piece of text that is automatically attached to the bottom of all your email messages.

Where in your program can you create and save an automatic signature?

2.8.2 Exercise 2: Insert custom headers and footers

Some email programs allow you to create "pretty" emails with images or logos inserted in the top or bottom of the email. These are often called "stationery" or "templates".

Does your email program have this feature? Can you create your own email stationery?

2.8.3 Exercise 3: Back up your address book

Few things are as exasperating as losing an entire address book worth of email contacts. The safest way to avoid this is by creating a backup of your address book. Can you figure out how to do this? Hint: it is often called "exporting".

2.8.4 Exercise 4: Import an address book

When you move to a new email program, or get a new computer, you will need to import your email address book. Can you see where this is done?

You may wish to set up a webmail client (if you don't already have one) and import your existing address book.

> **NOTE**
>
> To "nest" folders means to save one folder inside another. This can be a useful way to organise folders. Here is a screenshot of nested folders in the email client Outlook Express. The folders "applications", "funding" and "research" have all been nested inside the "studies" folder:
>
>

2.8.5 Exercise 5: Automatically forward email to another email account

Many email programs allow you to automatically forward a copy of your mail to another email account. Why would you want to do this?

One reason is that it is a convenient way to "back up" your mail to another location. You may also wish to change your email address, in which case you can hang on to the old address for a while, allowing it to forward any mail to your new account.

See if you can figure out how to set up automatic forwarding.

2.8.6 Exercise 6: Create an automatic reply

Most email programs allow you to set up an automatic reply. This can be useful if you are going away, and need to let people know why you cannot reply to their emails immediately.

Set up and test your own auto-reply message.

2.8.7 Exercise 7: Dealing with spam

1. Can you find the "filter" settings on your email client?

2. Is there a spam filter where your spam messages are sent?

3. Find out how your service provider blocks spam. Do you have control over the settings they use?

2.9 Further reading for section 2

1. The technical details of how an email is sent: communication. howstuffworks.com/email.htm

3. Email best practice

There is more to email than simply getting the message to the right address. The following guidelines will help you to use email effectively and to prevent irritation and confusion.

3.1 Communicate effectively

3.1.1 Should it be an email?

Email is good for obtaining information, setting up meetings or continuing collaboration once decisions have been made. It's not so good for resolving conflict or crafting decisions. If you find yourself sending an email because you would rather not speak to a person, that's usually an indication that the issues in question need to be resolved with a phone call or meeting.

3.1.2 Keep it short

Don't expect the reader to extract your meaning out of your unformed ramblings. Shorter is always better. As a rule of thumb, keep a message under 25 lines.

3.1.3 Put important information near the top

Start your message with the most important thought. Why are you sending the message? What do you want from the recipient? In a formal context, you could include "action required" in the subject line of the message, or as a heading.

3.1.4 Acknowledge receipt

It is not always possible (or even necessary) to reply to an email as soon as you receive it. However, a long delay can mean that the sender may think you have not received the email, or that you are rudely ignoring it. A simple "Thanks, I will reply to this shortly" can make a world of difference in establishing a professional relationship.

3.1.5 Answer all questions, respond to all points

One of the most common frustrations in email communication is needing to repeatedly request the same information. When replying to an email, ensure that you have responded to all points in the original mail. If you are unable to answer a question, say so.

3.1.6 Format your writing clearly

Use headings, paragraph breaks and bullet points to help your reader grasp your meaning. Nobody likes to read an uninterrupted block of text.

3.1.7 DON'T SHOUT

Typing an entire message ALL IN CAPITAL LETTERS LIKE THIS is called "shouting". If you have an urgent message to convey, let the words you choose do the work for you. PEOPLE TEND TO STOP LISTENING WHEN YOU SHOUT. SHOUTING IN RED is particularly rude.

3.1.8 Create meaningful subject lines

If the subject line clearly states what the message is about, your email is more likely to be read, filed correctly and found in a search.

3.1.9 Edit the subject line to fit a change of topic

Messages are often searched for, and found (or not), based on their subject lines. If you receive a message with the subject line "Camera Equipment Price List" and you reply with your concerns about your parking space, your message is likely to get lost unless you edit the subject line of your reply to fit the new topic.

3.1.10 Don't forward blindly

When forwarding a message to another recipient, always add a message of your own above the forwarded message explaining why you are forwarding it. Simply forwarding without an explanation can be perceived as rude and confusing.

3.1.11 Be aware of the tail

When you reply to an email, the original message appears below your reply. This can be useful as both parties are reminded of the conversation so far. It can also be catastrophically embarrassing if you inadvertently forward the message, with all its history attached, to the wrong person.

3.2 Sending to multiple recipients

3.2.1 Beware of replying to all

If you receive an email that has been sent to many other recipients as well, "reply all" will send your reply to all of those recipients. Only do this if your reply is truly relevant to everybody on that list.

3.2.2 Don't spam

Only send emails that are truly useful to all recipients, and insert a polite "unsubscribe" line:

> I am sending you this mail because I believe you will find the content useful. If you do not wish to receive messages like this in future, please

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reply to this message with "unsubscribe" in the subject line, and please accept my apologies for the inconvenience.

Be aware that you have the legal obligation to reveal how you obtained an individual's email address if they should ask you.

3.2.3 Use BCC to respect privacy

When sending to more than one recipient, consider listing their addresses in the "BCC" (blind carbon copy) address line rather than the "CC" (carbon copy). This means that the recipients won't be able to see one another's email addresses.

3.3 Do no harm

3.3.1 Don't forward junk

Somebody sends you a scary warning about a new computer virus or a petition about the plight of women in Afghanistan. With the best of intentions, you forward it to your entire address list. In most cases, these warnings are hoaxes, and the petitions out of date. Forwarding these messages does harm in two ways: you waste the time of your friends and colleagues, and you help to clog the already-overloaded email servers.

3.3.2 Don't overload their inbox

When sending an attachment, particularly image files, first check the file's size. Flooding somebody's inbox with large files is rude and inconsiderate. If the attachment is unsolicited, keep its file size below 150KB.

3.4 Further reading for section 3

1. Help for Outlook Express users: www.microsoft.com/windows/ie/ie6/using/oe/default.mspx

2. Help for Gmail users: mail.google.com/support/bin/static.py?page=guide.cs&guide=24916

4. Calendaring

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A natural extension of organising your email is the interactive calendar. In fact, many email clients include calendaring as part of their standard features. Outlook, Entourage, iCal and Gmail all provide an interactive calendar.

Interactive calendars become especially useful when they are shared with other people. Here are some ways that interactive calendars can be useful.

4.1 One calendar, many users

A group of people who work together can access a single, shared calendar on which to indicate important dates. For example, a school might have an official calendar in which all staff and students can check deadlines and exam dates. Because there is only one copy of this calendar that all members can access, it cuts down on misunderstandings and duplication when changes are made.

4.2 Many users, many calendars

Each employee in a company can have their own personal calendar where they fill in the times when they are away or in meetings. This means that any one employee can:

- See a colleague's calendar, and make note of whether that person is available

- Send an electronic invite to a colleague to participate in a meeting, in which case that meeting's time and place are automatically noted on that colleague's own calendar

4.3 Other features

Reminders. You can set your calendar software to send you, or anybody else, a reminder at a specified time before an event takes place.

To-do list. You can create a list of tasks and their deadlines, and mark them off as you complete each task. The software can be set to sort each task by urgency or by which project it is related to.

4.4 Google Calendar

In this section we look at how to use the interactive calendar provided by Google. Google Calendar is part of any Gmail account.

Here is a screenshot of a Google Calendar, set to show the days of the month. Notice the events listed on appropriate days:
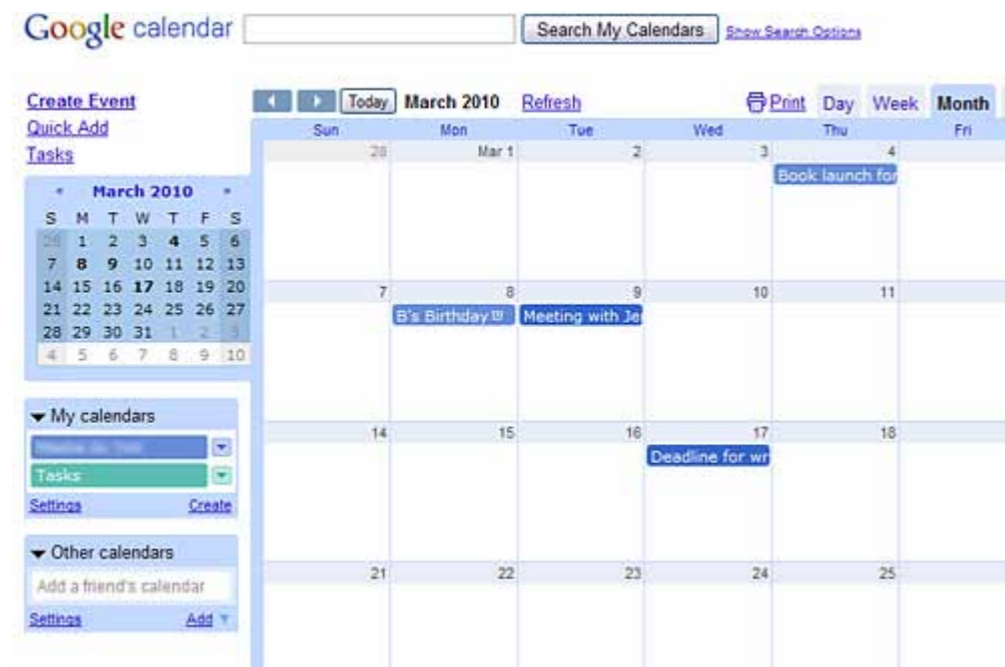
Figure 5: Google Calendar

You can also view the events for a single week. Notice, in the example below, that the birthday is an all-day event, and the meeting takes place from 10am to 12pm:
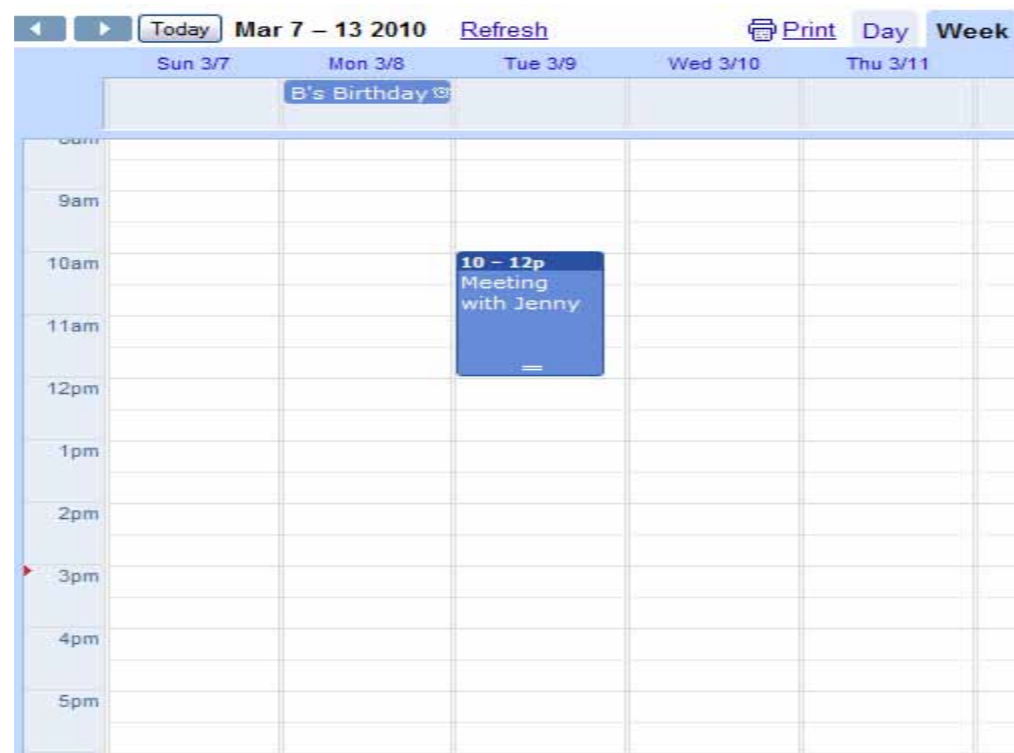
Figure 6: A birthday and a meeting.

To create an event, click on the calendar on the day the event takes place. If you are using the "week" or "day" view, you can click on the correct time of day

for the event. A small dialogue box will open in which you can name the event.
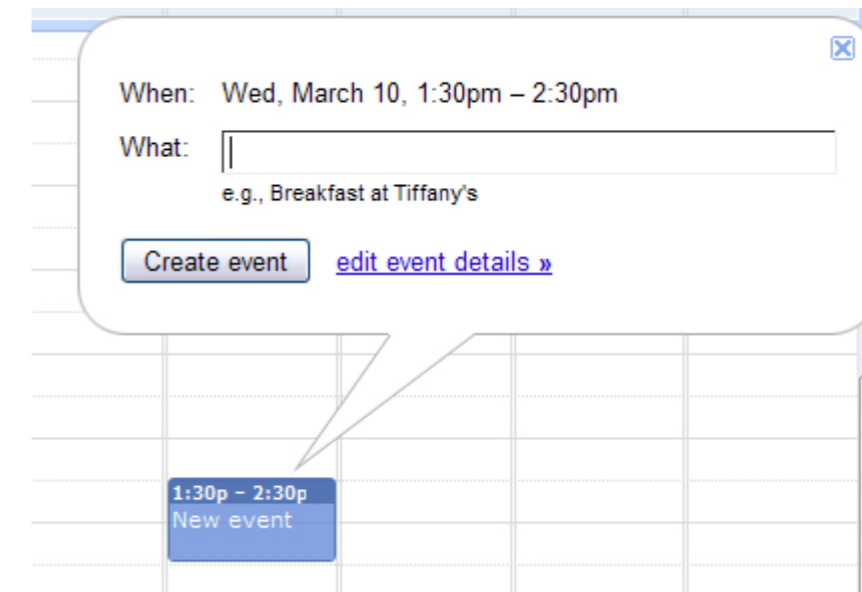
Figure 7: Creating an event.

Once you have inserted a name for the event, you can click "create event", which will save your event on the calendar and close the dialogue box. You can also fine-tune the event by clicking on "edit event details".

4.5 Exercise 1: Create and edit an event

1. Edit the start and end times of the event.

2. Invite others to participate.

3. Specify when a reminder should be sent.

4. Specify who can see this event on your calendar.

5. Online forums

One of the most useful forms of online communication is the online forum, also called a discussion forum or message board. A forum is a system in which a large number of people with a collective interest can communicate and share information. The forum interface allows members to "post" questions or comments, which other forum members can respond to.

This is where you will encounter one of the amazing and unexpected aspects of the internet: generosity. Why would a complete stranger spend the time and energy to help you fix your vacuum cleaner, for free? Why would anyone spend hours and days answering the same beginner questions over and over again? And yet, they do.

Forums topics range from pure entertainment – fans of the latest celebrity craze or movie – to strictly professional – sharing information on crop disease or engineering problems. Some perform a vital function – support groups for the terminally ill – and others are more disturbing, such as the infamous "pro-ana" sites where anorexic girls share tips and techniques to lose even more weight.

5.1 Forum jargon

Some common terms you may come across are listed here.

- Posting: The act of putting a question or comment on a forum.
- Moderator: Many (but not all) forums are managed by moderators. These are forum members who check that the forum is running as it should and that the members are behaving themselves. A moderator has the power to remove you and your messages from the forum if they feel your actions are disturbing other members.
- Thread: When somebody posts a message on a forum, all responses are linked to it, usually in a long list. This conversation is called a "thread".
- The OP: The OP is the original poster. The OP is the person who started the thread.
- Subscribe: If you wish to receive email notifications every time somebody replies to a thread, you need to subscribe to that thread.
- Board: Most forums are divided into sections. Sections are devoted to particular topics, and are often called "boards". A forum may have a "newbie board", which is the section where beginners can ask questions.
- Bumping: When you post a question, it usually appears at the top of the list of questions by other members. When somebody else posts a question, your thread will move lower down on the list. Eventually, it will disappear off the first page and be more difficult to find. If you reply to your own thread, it will move up to the top of the list again. This is called "bumping".

It is usually considered very rude to bump your own posts.

- Troll: There are people who make a hobby out of trying to start flame wars on forums. They go out of their way to be offensive in an effort to start an argument. These are called trolls.
- Lurking: A forum member who reads but does not comment is said to "lurk" on the forum.
- Avatar or profile picture: Most forums add a little picture to every message you post. This is your "avatar".
- Screen name, display name or nickname: This is the name that other members will see attached to any of your posts on the forum. While some forums specify real names, in most cases you can use any nickname you like, as long as nobody else on that forum is using it already. You can often change it.
- Username: This is the name that you use when you log in. Some forums use your username as your display name; others allow you to choose a separate display name. You cannot change your username.

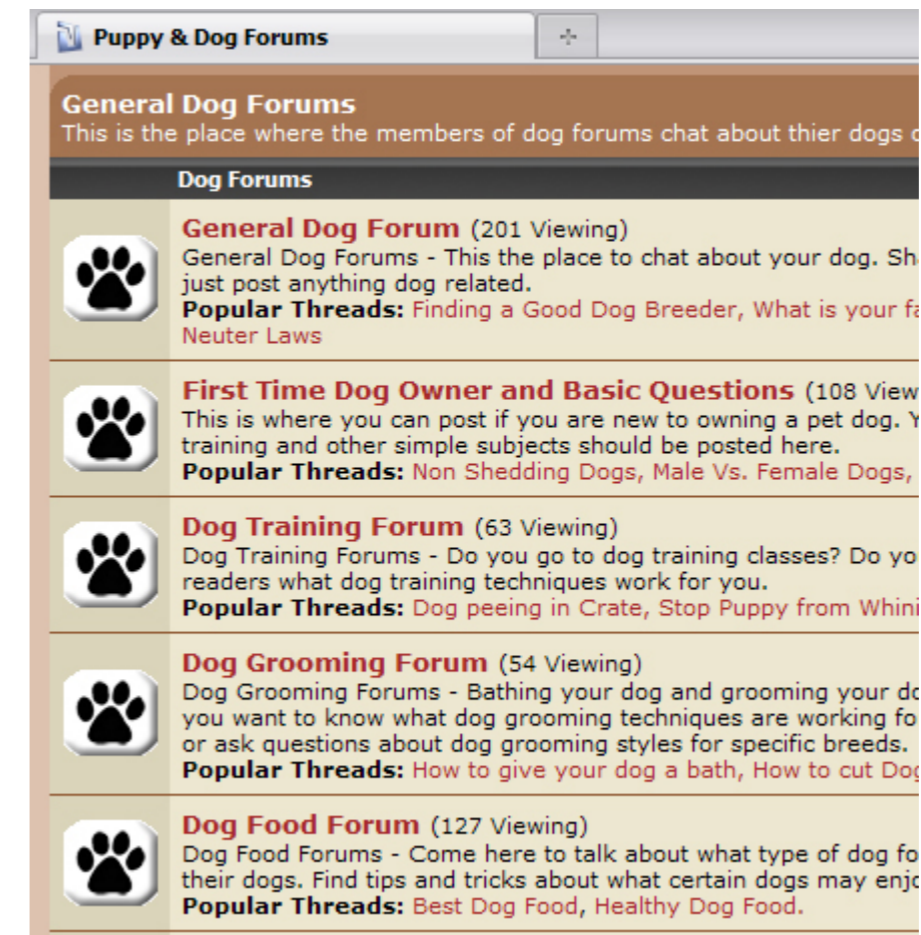Here are some of the boards available on the popular "Puppy & Dog" forum.

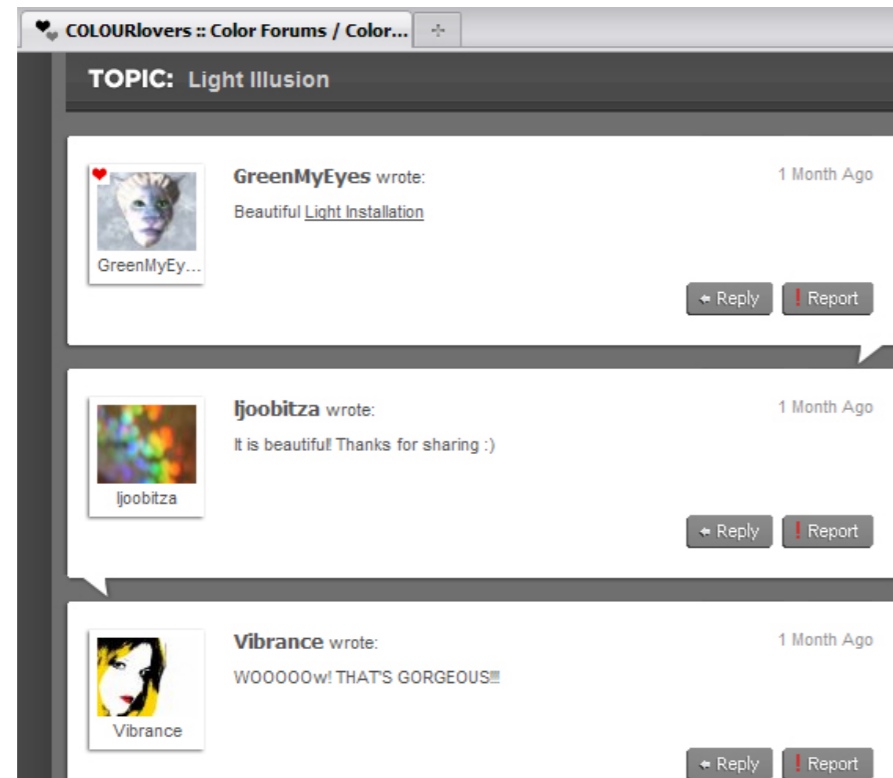**Figure 8**: Puppy & Dog, a typical forum.

Figure 9: A typical thread in the ColourLovers forum.

In this example, "GreenMyEyes" has shared a link. Forums often have a strong group culture that governs the nicknames members choose and the tone of the conversation. ColourLovers members are usually very nice to one another!

5.2 Forum etiquette

Most forums have a frequently asked questions (FAQ) or etiquette section that states what is required of a member. Read this. Inappropriate behaviour will result in your membership being revoked. There are forums in which anything goes, but the ground rules are usually as follows.

5.2.1 Introduce yourself

Most forums have a special section for new members to introduce themselves. Start there – many people will check the introductions section to learn more about you before answering your questions.

5.2.2 Search before asking

The question you wish to ask has probably been answered many times already. Use the forum's search feature to find the help you need. Only post a question if you don't succeed in your search. It's also a good idea to indicate that you have made the effort. "Hi there. I've done a search for the answer to the following, but had no luck. Can anyone tell me…"

5.2.3 Create a meaningful subject line

Depending on the size of the forum, your question is more likely to be read and answered if the other members can tell what kind of help you need without having to open your message. "Help please!" is less likely to get attention than "How can I calm my vicious dog?"

5.2.4 Don't be selfish

You will encounter great generosity on a forum. People will go to great lengths to help you or have discussions with you. Pass it forward – if you expect others to help you, be willing to give back. Even if you are a complete beginner, there are guaranteed to be other members who are just as ignorant as you are, and would even appreciate an acknowledgment that they are not alone.

5.2.5 Don't hijack a thread

While it's a great idea to contribute to the forum by responding to another member's post, remember that this is their conversation. Act just as you would when entering into a conversation in real life. Abruptly changing the topic or dominating the conversation with your own concerns rather than responding to the original poster (OP) is considered extremely rude.

5.2.6 Use the correct board

Familiarise yourself with the forum's board system before posting. At worst, a moderator may move your post to the correct board, but it will slow down the response rate and may create a bad impression.

5.2.7 Don't bump

Bumping your own thread is considered rude in most forums. Under some circumstances, you can bump somebody else's – "I think this entry deserves more attention. Check it out!"

5.2.8 Don't spam

Only post a message that has a legitimate purpose to other members of the forum. Using a forum to promote your own website, workshop or product is usually frowned on and is one of the fastest ways to get yourself banned from a forum. If you believe your message is legitimate but may be perceived as spam, check with a moderator before posting.

5.2.9 Don't play moderator

If you feel another forum member is misbehaving, don't reprimand them. Don't get involved in an argument between other members. If you feel a member is contravening the rules of the forum, report them to a moderator.

And last but not least, follow the seven points in the online communication

checklist!

5.3 How do I find a forum?

So how do you find a forum that suits your needs? The simple answer is: Google it! There are even some specialised search engines for finding forums – for example, you can try BoardReader (boardreader.com).

Here are some miscellaneous examples of popular forums:

- Official Adobe Photoshop forum: forums.adobe.com/community/photoshop

- DogForum.com, for all your questions on dog care and training: www.dogforums.com

- Critique Circle, for aspiring writers looking for critiques and advice: www.critiquecircle.com

5.4 How do I join a forum?

Most forums require you to register a username and password combination so that you can participate. Some don't. Some forums allow you to read messages without having to register – but only registered members can post their own questions, or answer the questions of other members.

5.4.1 Registering an account

Look for the "register" or "create account" link, which should be available on all pages. Clicking this will take you to a form that will ask you to choose a username and password, and specify your forum settings.

Figure 10: A typical sign-up page from the Adobe.com forums.

5.4.2 Choosing your settings

Depending on the forum, you can specify how you wish to interact with the forum. Typically, you will be asked whether you want other members to be able to send you private messages or have access to your email address.

Figure 11: A typical sign-in page from the Adobe.com forums.

5.5 How do I participate?

Superficially, forums look very different from one another. But most forums operate in more or less the same way.

1. In most cases, you need to register to participate.

2. Once you have registered, you click on the login link on the forum's home page, and log in with your username and password.

3. Most forums have multiple message boards. Choose the board that suits your purpose.

4. To read another member's message, click on its subject line.

5. To post your own message, look for a button named "post a question" or something similar. This may not be visible if you are not logged in to the forum.

6. Fill in the subject line, and type your message.

7. To reply to another member's question, hit the "reply" link at the bottom of their message.

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How do I know when somebody has answered my question? Most forums allow you to "subscribe" to a thread. This means that whenever somebody posts a reply, you will receive an email notification. Sometimes you can click a checkbox on the page to subscribe to the thread. Otherwise you need to manage your subscriptions in your forum settings – the link will be something like "your account", "user cp", "settings" or "control panel".

5.6 Can I start my own forum?

Yes you can! There are several free online platforms that offer all the functionality you will need. Two examples are Proboards (www.proboards.com) and Freeboards (www.freeboards.net/main.htm).

5.7 Some exercises

Complete these exercises by using the student discussion forum for module 3.

5.7.1 Exercise 1: Find the forum

Find the forum for module 3. By now, you should understand how this forum operates.

5.7.2 Exercise 2: Interact

Ask a question on the forum, or answer somebody else's question.

5.7.3 Exercise 3: Insert a link in a forum post

One of the most useful ways to answer a question on a forum is to insert a clickable link to another online resource. Can you figure out how to insert a link in a forum post?

5.7.4 Exercise 4: Insert a picture in a forum post

Most forums allow you to insert images in forum posts. Can you figure out how to do this on the forum you've chosen?

6. Instant messaging

6.1 What is instant messaging?

Instant messaging (IM for short) is a way to send messages from one computer to another. It is more direct and faster than email. With email, the communication flow consists of writing and receiving letters. Instant messaging is more like having a text-based conversation. Instant messaging can also be used for more than just text-based messages – depending on the service you use, you can send images, sound and video files, share documents and send messages directly to a cellphone.

6.2 What is instant messaging used for?

Instant messaging is great for situations in which you need a free flow of communication, such as an ongoing conversation between colleagues in different offices or a chat with a family member on the other side of the world. It is particularly suited to communication between more than two people. IM is ideal for people collaborating on a project in which participants need a constant flow of information – for example, a designer working on a tight deadline with a client in another city.

IM is not suited for more formal types of communication. For example, you would not approach a prospective employer through an instant message. Here are some other things to watch out for when using IM.

6.2.1 Productivity

While IM can be a great tool for collaboration, some people feel that IM can hurt productivity. Apart from the temptation to chat, joke and flirt, the constant interruption of messages arriving can impede your concentration.

6.2.2 Safety

Not everyone is comfortable with the idea of teenagers and children having free access to instant messaging, as it could expose them to unscrupulous strangers who can take advantage of their naivety.

6.2.3 Security

While the servers that host instant messaging have an acceptable level of security, it is not impossible for a hacker to gain access. You should never send confidential information such as bank account details or passwords in an instant message.

6.2.4 Viruses

If the IM client is used to share documents, it is possible that your computer could get infected with a virus.

6.3 How do I get started with instant messaging?

To use instant messaging, you will need to download a free software client – this is the software that allows you to send and receive messages.

You will also have to sign up for online account with a username and password. Your username is usually an email address. Other people will use you username to contact you.

6.4 An instant messaging demonstration

There are many instant messaging clients. Some are freestanding programs; others are part of other services such as Facebook.

	iChat: Part of the Mac operating system.
	Windows Messenger: Part of Windows XP.
	Windows Live Messenger: The latest version of Windows Messenger – must be downloaded and installed to your computer.
	Google Talk: An application you can download and install on your computer.
	Gmail Chat: Built into Gmail.
	Facebook Chat: Part of Facebook.

6.4.1 What can you do with instant messaging?

All the services listed above offer a very similar set of features:

1. Conference chat: more than two people can chat to one another at the same time

2. File transfers: participants can send file attachments to each other

3. Video chat: participants can link their webcams to the chat program and see one another during chat

For the purposes of demonstration, we are using Windows Live Messenger (WLM).

6.4.2 Setting up

1. Download the WLM software client from download.live.com.

2. Install the WLM software on our computer.

3. Create a Windows Live ID account. To do this, go to accountservices. passport.net and click "sign up". During the sign-up process, you will be asked to specify an email address and a password.

4. Once you have completed the sign-up procedure by verifying your email address, you are ready to start.

6.4.3 Adding a contact

Right click on the little "Add contact" icon at the top and choose "Add a contact" from the dropdown menu.
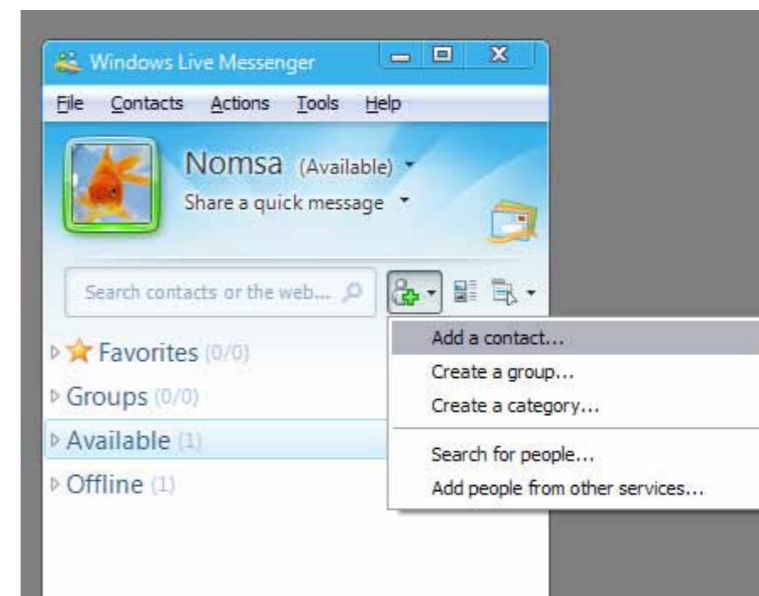
Figure 12: Adding a contact.

A dialogue box will open. Enter the address in the "Instant messaging address" field. If you like, you can insert their phone number in the "Mobile device number" field, but it's not essential. Click "Next".

Another page will open, in which you can send an invitation to the contact you are adding. You don't have to enter anything here – either way, click "Send invitation" when you are done.

6.4.4 Sending an instant message

Once you have set up a contact, you can send them an instant message. Right click on the contact, and choose "Send instant message".

Figure 13: Sending an instant message.

A chat window will open. The display picture associated with your contact will appear near the top of this window, and your own picture will be near the bottom. To start chatting, type something in the speech bubble next to your display picture.

Here is a screenshot of a conversation in progress.
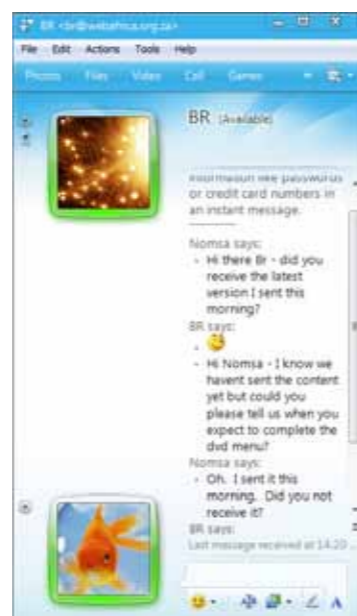
Figure 14: An instant messaging conversation.

6.5 Further reading for section 6

1. What is the difference between MSN, Windows Live Messenger and Windows Messenger? ask-leo.com/whats_the_difference_between_ windows_live_ messenger_windows_messenger_msn_messenger_ and_windows_messenger_service.html

7. Voice over Internet Protocol (VoIP)

7.1 What is VoIP and why should I use it?

Voice over Internet Protocol is a way of taking analogue sound signals – like the sounds from a phone or microphone – and turning them into digital data that can be sent over the internet. What this means in practice is that you can have a real-time conversation with another person over your internet connection – just like you would over a phone. VoIP turns your computer into a phone.

What is so amazing about that? VoIP is free. It makes no difference to your VoIP connection how far you are from the person you are speaking to. In other words, you can make free long-distance calls. By using VoIP, you are completely bypassing your telephone company.

7.2 Why isn't everybody using it?

There are some limitations to the use of VoIP.

1. Not everybody has it. While some VoIP providers allow you to make calls to a normal phone, you usually have to pay for that service. In most cases, this will still be cheaper than a traditional call. Otherwise you can only make a VoIP call to somebody who is also set up to send and receive VoIP.

2. No power, no VoIP. While most normal phone calls don't require electricity, if your computer is switched off, you cannot access VoIP.

3. No emergency calls. At the moment, the standard emergency call centres like the 911 line are not set up to receive calls over VoIP.

7.3 What you need to use VoIP

1. A DSL connection.

2. A sound card: A hardware device that allows your computer to process sound. Most computers have a sound card installed, but yours might not.

3. Speakers or headphones, and a microphone.

4. VoIP software: To use VoIP, you need a software application to help you place and receive calls. Examples are Skype, Google Talk and iChat. Windows Live Messenger also provides this service.

7.4 What else can you do with VoIP?

There are hundreds of VoIP software packages you can choose between. To

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give you an idea, here is a list of the services offered by Skype. Skype is free, and supports Windows, Mac and Linux operating systems.

Skype offers free access to:

1. Skype-to-Skype calls, regardless the distance
2. Video calls
3. Instant messaging
4. Conference calls (calls between more than two people)

Skype also offers paid access (at much reduced rates) to landlines.

There is a significant overlap between instant messaging and VoIP. Most of the software packages that allow you to do one also give you access to the other.

7.5 Using Skype

To demonstrate some common tasks in using VoIP, we will use the popular VoIP service Skype.

7.5.1 Step 1: Download the software

Visit the Skype website at www.skype.com and download the Skype software.

7.5.2 Step 2: Install and configure the software

Open the downloaded file and allow it to install. A "setup wizard" will guide you through the process.

Figure 15: Setting up Skype.

A dialogue box will ask you to:

1. Create your Skype username and password
2. Insert your email address

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Figure 16: Creating your Skype account.

Another dialogue box will ask you to:

1. Specify which country you are in
2. Specify your birthday (optional)
3. Specify your cellphone number (optional)

A final window will open, in which you can:

1. Learn how to use Skype.
2. Test your computer's sound setup to see if it is ready to use Skype. You can use this to test the microphone, speakers and video camera – although using a video camera is optional.
3. Add contact numbers you wish to use in the future. You can use this interface to import existing contacts from Gmail, Facebook, Hotmail and many other services. You can also use this dialogue box to search for people you think might be on Skype already.

Figure 17: Finishing your Skype registration.

7.6 Skype exercises

Now that you have installed and configured Skype, use the Skype interface to do the following exercises.

7.6.1 Exercise 1: Search for Skype users

Can you find the menu item that allows you to search for your friends and family on Skype?

7.6.2 Exercise 2: Add a contact

Once you've found some Skype contacts, add them to your contact list.

7.6.3 Exercise 3: Make a Skype-to-Skype call

Once you have established some Skype contacts, make a Skype call. Hint: there is a green "call" button that you have to click.

7.6.4 Exercise 4: Make a Skype-to-landline call

Try to use Skype to make a call to a landline number. Hint: there is a button labelled "Call phones" that you will have to click to start this process. Note that calling a landline phone is not free – you will have to buy some Skype Credit.

Figure 18: Skype Credit.

8. Summary of chapter 4

In this chapter, we looked at:

- The etiquette of communicating online

- Web-based and local mail, and their advantages and disadvantages

- Some special features of Gmail

- Some guidelines on using email effectively and efficiently

- How to use an electronic calendar to organise your tasks

- What online forums are used for, and how to find and use one that appeals to your interests

- How to use an instant messaging service

- How Voice over Internet Protocol works, and how to use it

9. References

9.1 How does email work?

1. Advantages and disadvantages of webmail: www.smartergeek.com/blog/2008/12/webmail-vs-local-email.asp

9.2 Using email effectively

1. An article on using email effectively: lifehacker.com/149156/geek-to-live--train-others-how-to-use-email

2. A useful guide to effective emailing: www.webfoot.com/advice/email.top.php

3. An introduction to Gmail: mail.google.com/mail/help/intl/en/about.html

9.3 Instant messaging

1. What is instant messaging? www.wisegeek.com/what-is-instant-messaging.htm

2. How Windows Live Messenger works: communication.howstuffworks.com/windows-live-messenger.htm

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3. Dangers of instant messaging: www.buzzle.com/articles/dangers-of-instant-messaging.html

9.4 Voice over Internet Protocol

1. How Voice over Internet Protocol works: communication.howstuffworks.com/ip-telephony.htm

2. VoIP software: www.networkuptime.com/tools/voip_clients/

3. Skype's features: www.skype.com/intl/en/getconnected/?c=204

Researching online

- Focus on online research
- Wikipedia
- Evaluating an online source
- Conducting effective online research

05

Introduction

By the end of this chapter, you will:

- Know how to search for videos, images, maps and directions, news, music, people and health-related issues (section 1)

- Understand what Wikipedia is and how to use it (section 2)

- Be able to evaluate the reliability of online information (section 3)

- Know how to conduct effective online research (section 4)

1. Focus on online research

There are literally thousands of ways to search the internet. This chapter focuses on some popular search areas, with some instructions on how to conduct a search within a recommended search application. Many of these recommended sites are "online portals" that offer far more than just a search feature. Members can upload content and customise the portal to suit their needs. This course will cover these and other aspects of online portals in chapter 6. For the moment, we will only look at the search aspects that even non-members can take advantage of.

1.1 Search for online videos on YouTube

1.1.1 What is YouTube?

www.youtube.com

YouTube is the most popular destination for finding, watching and sharing online videos. It is famous for hosting some of the funniest, most unusual, tragic and surprising videos on the web.

1.1.2 Keyword search

YouTube offers a search bar into which you can type your search query.

Figure 1: YouTube search bar.

It works exactly like the search bar in a search engine like Google. You can use many of the same keywords and operators that were covered in chapter 3.

1.1.3 Enhancing keyword search

Click on the "Search options" link below the search bar to reveal a variety of

suggested links that can be used to refine your search.

For example, you can specify that you are only interested in videos of a certain length. You can also search according to relevance, upload date, duration and more. Notice that most of these are the equivalent of using the operators we covered in chapter 3.

Figure 2: Additional search options in YouTube.

Consider "Suggestions"

Once you have found a video, look further. All videos on YouTube are accompanied by a list of links to other videos that you may want to see.

Look for the "Suggestions" list on the right of another video's page.
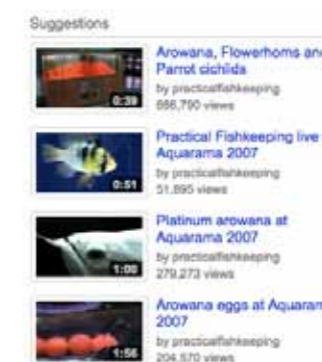
Visit a channel

A "channel" on YouTube is the profile page of a YouTube member. The username of the person who uploaded the video is shown both above and below the video.

To see a list of the other videos uploaded by the same person, click on their username to visit their channel.

Some pages also display a "More From" list of other videos uploaded by the same person.

1.1.4 Categories

Click on the "Browse" link to the right of the search bar at the top of the page.

Figure 3: The "Browse" link.

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This will take you to a page where you can choose to browse YouTube by category.

For example, you can choose comedy, education, entertainment, music, science, sport or many more.

1.1.5 Spotlight

On many YouTube pages, you will see an area marked "Spotlight". These feature videos that have been chosen by the YouTube staff and guest editors.

Figure 4: YouTube's spotlight.

1.1.6 Other ways to search for video

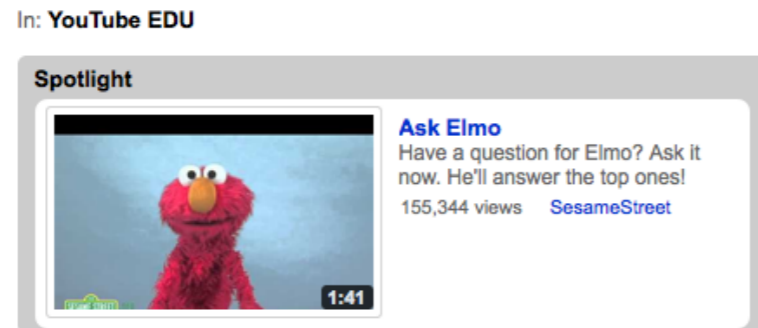- Google Video Search searches the entire web for video: video.google.com

- Blinkx searches the entire web for video: www.blinkx.com

- Vimeo focuses on creative projects such as animation and music videos: www.vimeo.com

1.2 Search for news on Google News

1.2.1 What is Google News?

news.google.com

Google News is a good way to stay up to date with the latest headlines – and read the entire article if you choose to. Google News is an online "aggregator" of the latest news stories. Google News collects the most popular and latest breaking news stories and sorts them into topics: World, Nation, Business, Sci/Tech, Sports, Entertainment, Health and Most Popular.

NOTE

An aggregator is a search engine that collects content on a specific topic into a single location for easy viewing.

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Changing editions: Google News provides different "editions" for different parts of the world. Google News adjusts its content to include more stories from your area.

You can switch to a different edition by clicking on the dropdown menu at the top left of the page. Notice that the screenshots here are all for the South African edition.

Browsing a section: The topic areas in Google News are called "sections". When you open the page, all sections are displayed – you may need to scroll to see all of them.

To see the results from only one section, click on the section link. Notice that because the screenshot to the right is of the South African edition, "Africa" and "South Africa" are listed as sections.
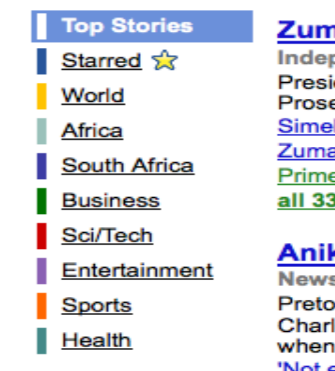
1.2.2 Customise your Google News view

To customise the way in which sections are displayed, click on the "Edit this page" link at the top right of the page. A dialogue box will open.

Figure 5: Customising Google News.

You can drag sections to change the order in which they appear on the page. If you click on any of the sections listed in this dialogue box, a new dialogue box opens that allows you to fine-tune that section. In the screenshot below, you

can see the custom settings for the "World" section.

Edit this page ▾

Edit a standard section
Edition:
South Africa
Section:
World
At least 3 stories
Delete section ☐
Save changes   Cancel

Figure 6: Custom settings.

Notice that this dialogue box allows you to:

1. Change the edition for the chosen section.

2. Specify how many stories should be displayed.
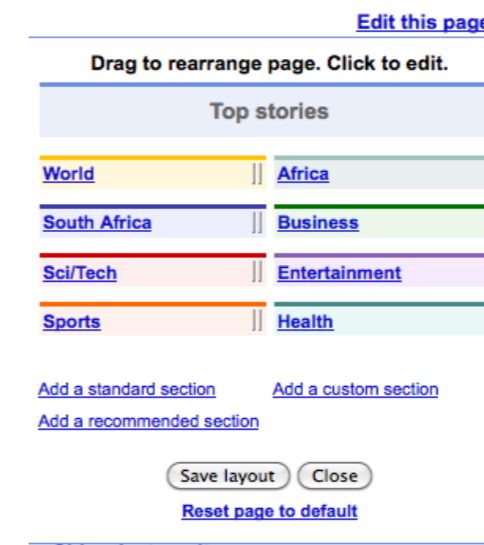
3. Delete that section.

4. Apply these changes by clicking on the "Save changes" button.

1.2.3 Add your own custom section

You may not be satisfied with the standard list of sections on offer. To create your own custom section based on a keyword search:

1. Click on the "Edit this page" link at the top right of the page.

2. Click on the "Add custom section" link at the bottom of the dialogue box.

3. Type a keyword for the topic you would like to add.

Add a custom section
Keywords (stories will contain all):
[   ]   Advanced
At least 3 stories

Add section   Cancel
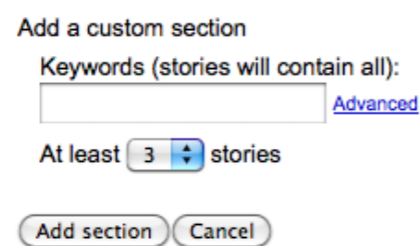
Figure 7: Adding a custom section.

Your new section will appear on the list to the left of your page.

1.2.4 Other ways to search for news

1. Collecta, an aggregator that includes blog updates, Flickr photos and Twitter posts as well as news feeds: collecta.com

2. BlogPulse focuses on collecting the latest breaking stories published in

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blogs: www.blogpulse.com

1.3 Search for images with Google Image Search

1.3.1 What is Google Image Search?

images.google.com

You can access Google Image Search in three ways:

1. By using the link given above.

2. By clicking on the "Images" link at the top of the Google page.

Web Images Videos Maps News Shopping Gmail more ▾

Google   goldfish
About 8,240,000 results (0.12 seconds)

Figure 8: The images link.

3. By clicking on the "More" link just below the search bar on a search results page, and choosing "Images" from the options sidebar.

Everything
Images
News
Videos
Maps
Shopping
Books
Blogs
Updates
Discussions
Fewer

Figure 9: More options.

A page will open showing the image results of your search.

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Figure 10: An image search results page.

If you click on one of the images, your browser will take you to the page that contains that image – the image will be visible in the middle of the page. Notice the added section to the right of the page. It contains more information on the image you are searching for.

Figure 11: An image result.

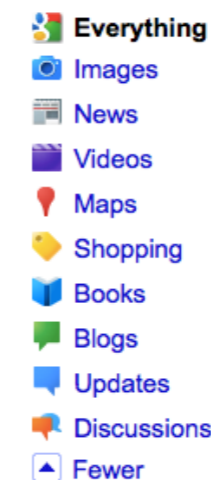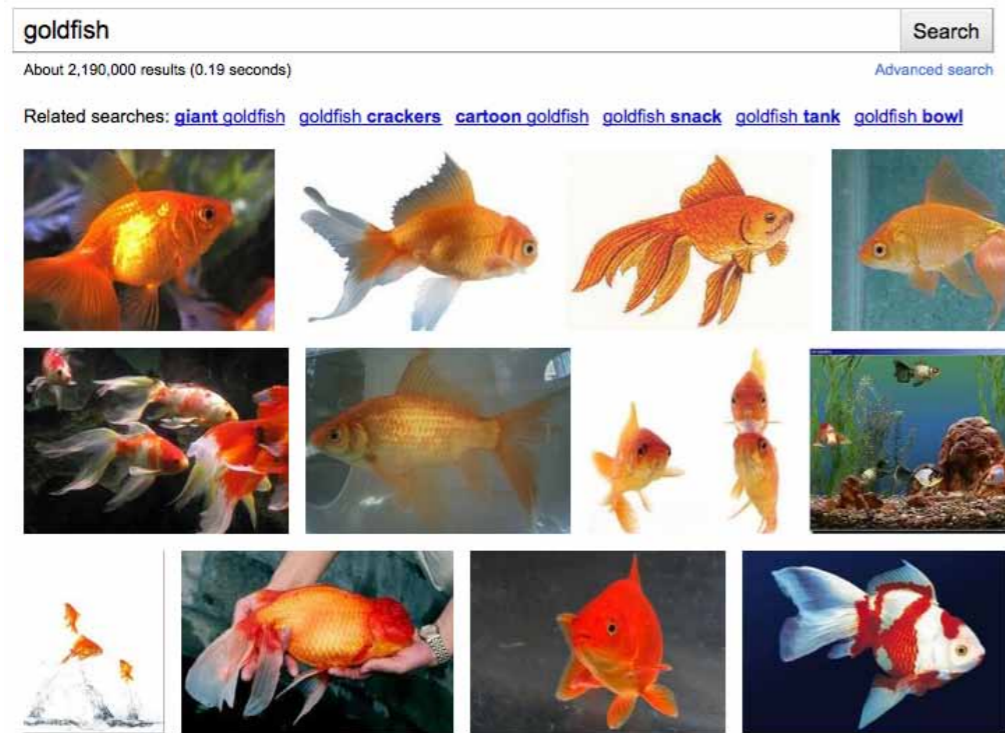To remove this, click anywhere on the website to be taken to that page. To see the image itself, not placed in the context of the page, click on the "Full-size image" link at the top right in the white bar.

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1.3.2 More Google Image Search options

On the Google search page, look at the additional search options to the left of the image results. You will see the options sidebar shown below.
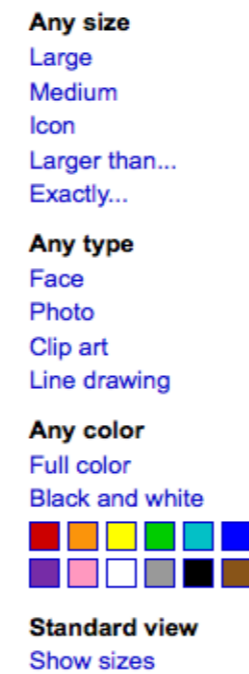
Here you can specify:

- What size the images you are looking for should be.

- Whether you are looking for an image of a particular type – a photograph, line drawing or an image containing a face, for example.

- Whether you are looking for an image within a particular colour range.

1.3.3 Other ways to search for images

1. iStockphoto, for royalty-free images: www.istockphoto.com

2. TinEye reverse image search finds images that are similar to images you submit to the search: www.tineye.com

3. Flickr photo sharing is a vast database of high-quality images, some of which are available for use: www.flickr.com

1.4 Search for geographic information with Google Maps

1.4.1 What is Google Maps?

maps.google.com

Google Maps is a media-rich interface that allows you to look for businesses or other places of interest based on their street address, name or other keywords.

1.4.2 Search by address

The best results are achieved by specifying the address in this order:

Address, city, state OR address, city, postal code

In the example below, the search specified the street address for the Fogg Museum in Cambridge.
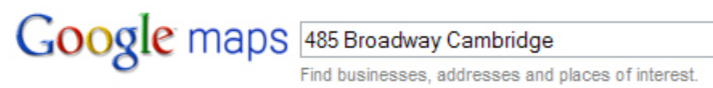
The result is a map view of Cambridge, with a small red "marker" indicating the destination.
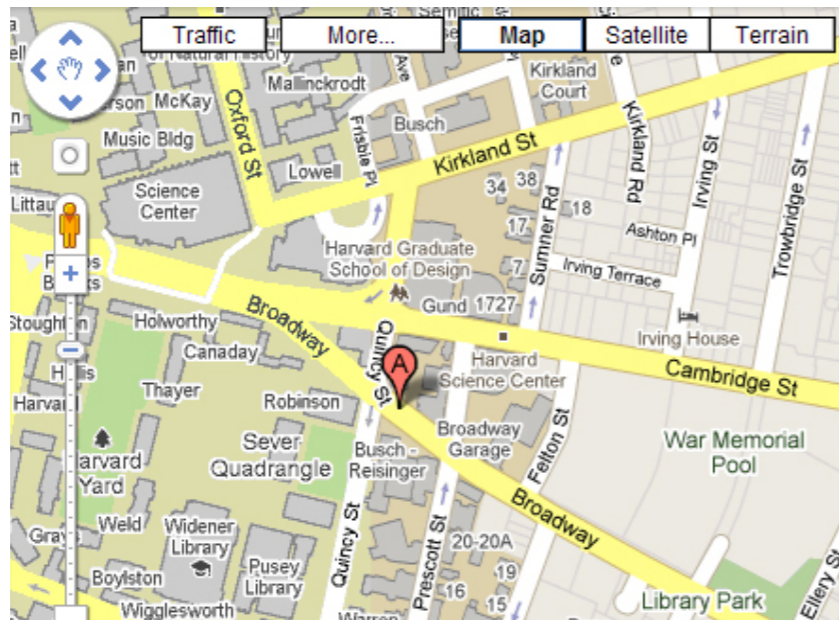
Figure 12: A Google map.

Clicking on the marker reveals more information about the destination, with appropriate links to even more information.
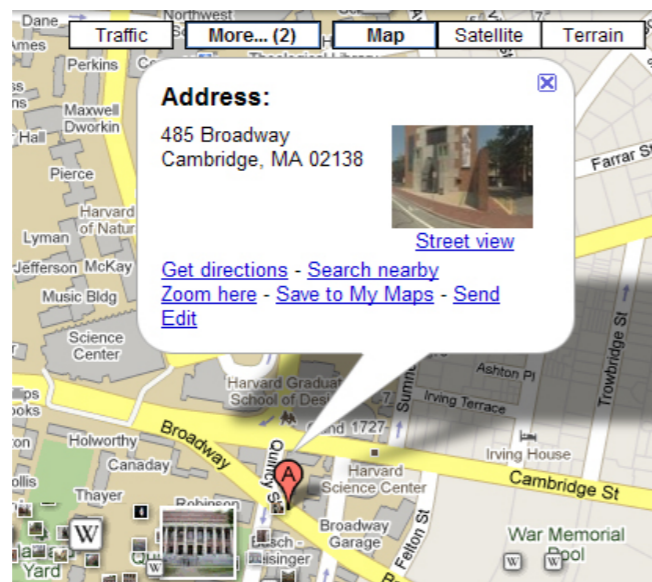
Figure 13: More information.

Using street view:

The "Street view" link, visible in the screenshot above, shows you a photograph of the location as though you were standing in the street.

Clicking in the image allows you to "move around" in the street view. You can travel around corners, and look up at buildings.

1.4.3 Add layers of information

You can also add other details to the map view by choosing to add "layers" of additional information to the map view. These include photographs and excerpts from Wikipedia articles relevant to the location. You can also add the "Satellite" layer, which shows a real-world (though not real-time) satellite photograph of the area.
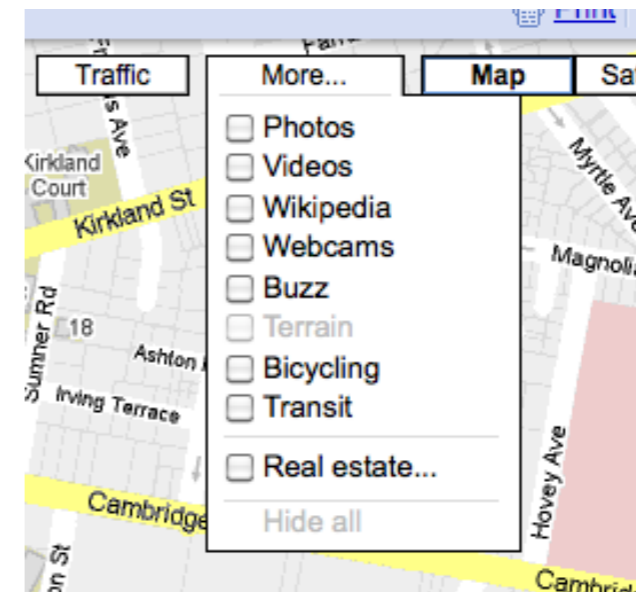
Figure 14: Layers.

Figure 15: Layers added.

1.4.4 Zoom

You can use the controls on the side of the map view to zoom closer or further away.
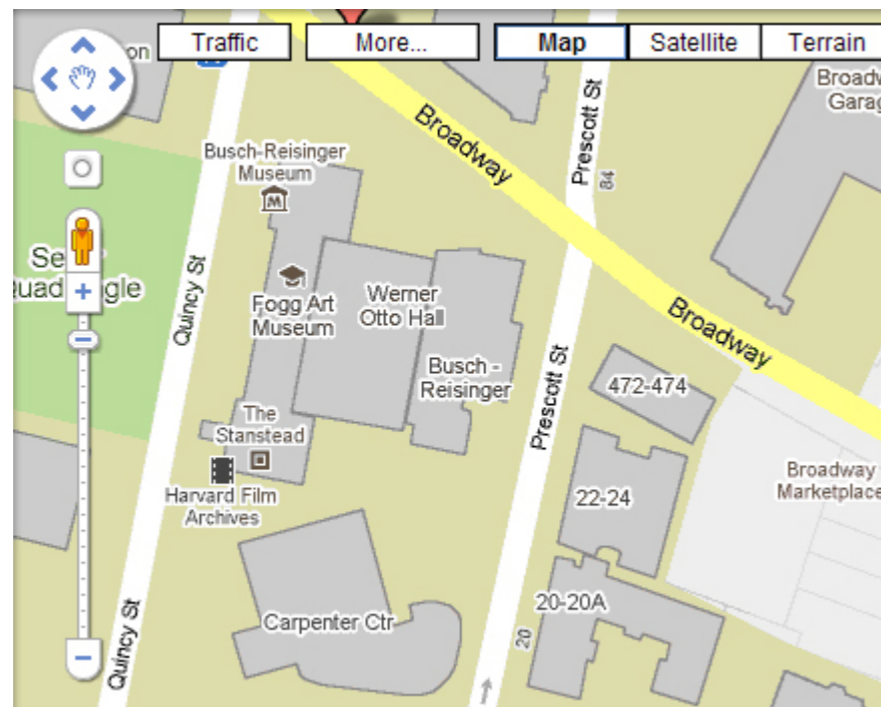
Figure 16: Zooming options.

1.4.5 Get directions

Click on the "Get directions" link at the left of the page. This opens a search field that lets you enter your starting point (A) and your destination (B), and specify some other options, such as whether the directions should apply to travelling by car, by public transport or on foot.
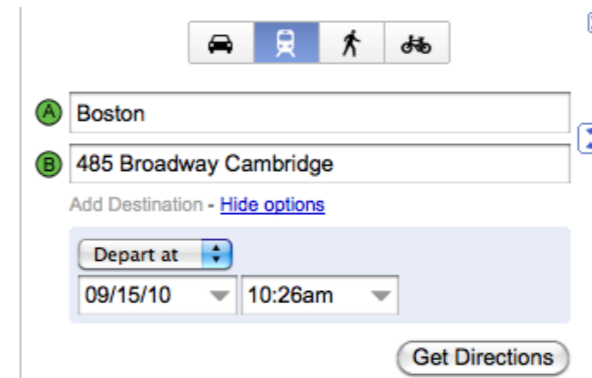
Figure 17: Getting directions.

The directions are specified by a line on the map that indicates the best route, as well as text directions on the left of the page.

There is usually a list of alternative routes listed on the left of the page. Hovering over them results in a transparent alternative route appearing on the map view.
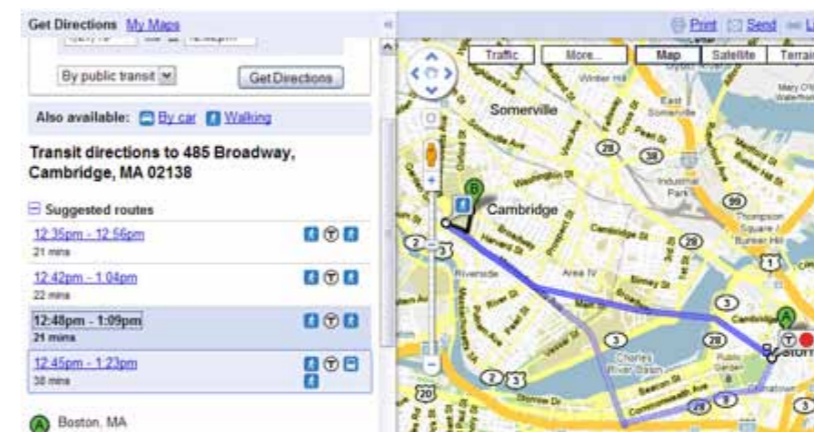
Figure 18: Directions.

1.5 Search for music on LastFM

1.5.1 What is LastFM?

www.last.fm

LastFM is famous as a source for finding new music. It is also a great place to find information about musicians and to listen to music. LastFM creates recommendations for music that you may like based on the music you are

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already listening to. You cannot buy music directly from LastFM, but if an artist has music for sale, their page may include links to affiliate sites where you can buy these tracks.

You can only listen to the music available on LastFM if you are a signed-up member, but you don't have to be a member to take advantage of the other LastFM features.

Keyword search:

To find an artist or album, type the name into the search bar at the top right of the page. A list of suggestions will appear, allowing you to choose from related searches.
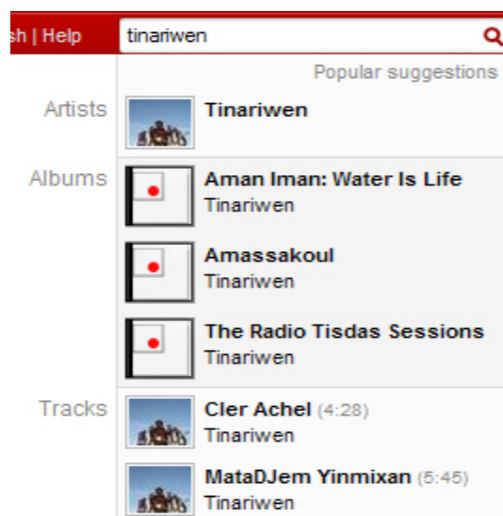
Below is a screenshot of a band's profile page. You can navigate the buttons on the left to find more information, such as a list of their albums, pictures, videos or any upcoming events that they are involved in.
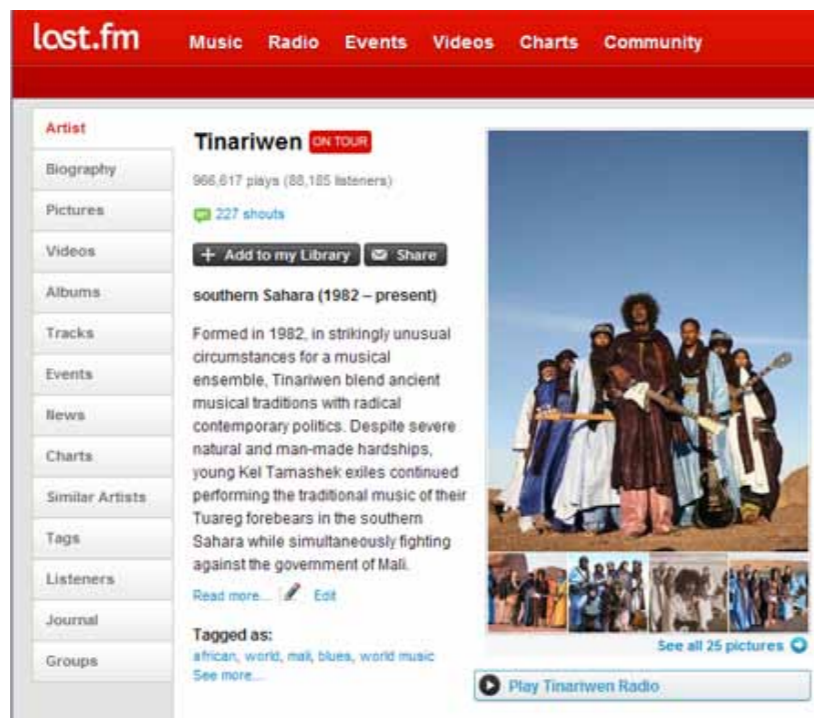
Figure 19: A typical profile page.

1.5.2 How to listen

Notice the "radio" link in the middle of each page? This loads a small media player that will stream music by this group or other similar groups. The radio player is only available if you are a signed-up LastFM member.
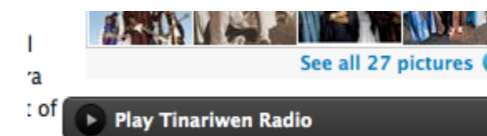
Figure 20: Listening on LastFM.

1.5.3 Find music you don't know exists

Even if you are not a signed-up LastFM member, you can still take advantage of its recommendations. Look for the "Similar Artists" area on each page. The "See more" link will take you to a page with an extensive list, arranged in order of similarity. The similarity is based on the listening habits of other LastFM users.
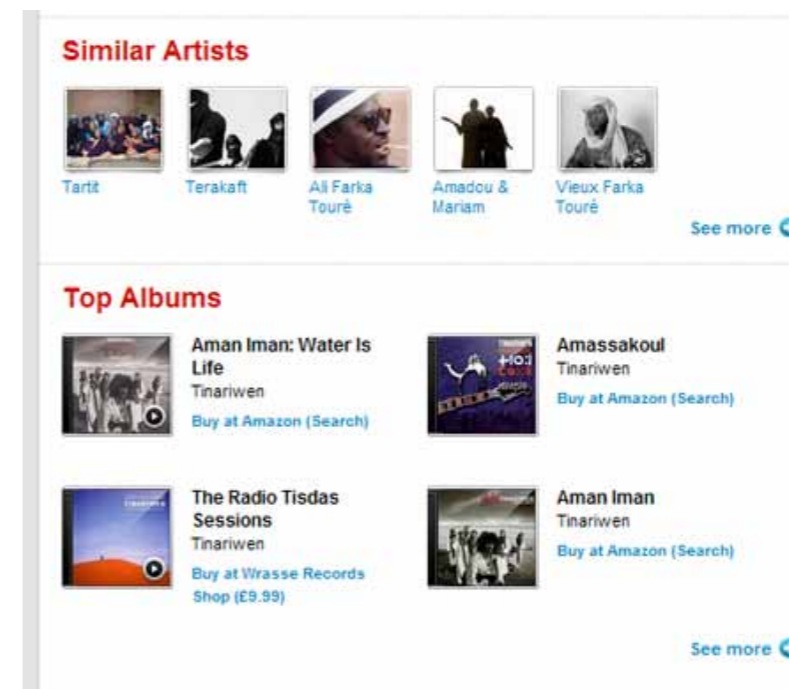
Figure 21: LastFM's suggestions.

1.5.4 Find the most popular tracks

Each artist or album's page has a listing of the most popular tracks based on feedback from LastFM's members. Once again, you can only listen to this track if you are a member yourself.

Figure 22: The most popular tracks.

1.5.5 Other ways to search for music

1. AllMusic, one of the oldest and most comprehensive sources: www.allmusic.com

2. Chordie, for guitar tabs, chords and lyrics: www.chordie.com

3. Soundike, to purchase and download music: www.soundike.com

1.6 Search for people with Pipl

1.6.1 What is Pipl?

pipl.com

Need to find out more about a particular person – their contact details, for example? A simple Google search can reveal a lot of information about an individual, but there are also some specialised "people search" engines like Pipl. Pipl specialises in "deep web" searches that include databases that are not in the range of other search engines. To quote from their site:

> Since most personal profiles, public records and other people-related documents are stored in databases and not on static web pages, most of the higher-quality information about people is simply "invisible" to a regular search engine.

Pipl finds all kinds of information about an individual: contact details, photographs, blog entries and much more. Pipl supports searching by name, username, phone number and email.

Here is an example of a Pipl search for Robert de Niro. Notice that this example starts by searching by name. You could equally well search for someone by their email address, username or phone number.

Figure 23: A Pipl search.

The resulting page includes an extensive list of information.

Figure 24: A Pipl results page.

1.6.2 Other ways to search for people

1. Spock, another search engine that uses multiple sources: www.spock.com

2. Yahoo People Search: people.yahoo.com

1.7 Search for health-related information on WebMD

1.7.1 What is WebMD?

www.webmd.com

Be warned: Searching for health-related information deserves a special cautionary note. Quite apart from misinformation, scams and product promotions disguised as advice, medical search has some unique challenges.

Consider the act of searching for a common symptom such as a headache. The overwhelming majority of headaches are caused by non-life-threatening conditions: diet, stress, hormonal changes and so on. However, a symptom search for "headache" – while returning these relatively benign results – will also bring up a list of frightening possibilities, from meningitis to brain tumours. These search results don't indicate how likely these possibilities are and, in particular, they don't indicate how applicable these results are to your individual case. It is human nature to consider the worst scenario as the most likely. In this case, indulging your fear can cause unnecessary distress.

A well-respected source of advice and information on health issues is the US website WebMD.

WebMD allows you to search in a variety of ways. Aside from the straightforward keyword search in a standard search bar, you can use the dropdown menus to browse categories. Categories include Health A–Z, Drugs & Supplements, Healthy Living, Eating & Diet, Parenting & Pregnancy, Mental Health and even Pet Health. The screenshot below shows the dropdown menu for the Health A–Z category.

Figure 25: A category on WebMD.

A search for "hypertension" takes you to a page with a variety of results. The sidebar on the left provides multiple links to different ways in which you could use WebMD to find out more about hypertension.

Figure 26: The WebMD sidebar.

There are "quick links" to important facts.

Figure 27: Quick links.

The page also includes links to an overview of the subject, diagnostic tools, headlines and other content.

Figure 28: A subject overview.

While the site does include adverts and some of the articles are provided by sponsors, sponsored content is clearly marked as such, as can be seen in the screenshot below.

Figure 29: Sponsored content.

1.7.2 Other ways to search for health-related information

1. NCCAM (National Centre for Complementary and Alternative Medicine): nccam.nih.gov/about

2. Quackwatch, international network exposing health-related fraud: www.quackwatch.org

3. NHS Direct for self-diagnosis: www.nhsdirect.nhs.uk/zone.aspx?zonename=HealthCheckers_Zone

1.8 More links to useful destinations

1.8.1 Movie reviews

1. Rotten Tomatoes: www.rottentomatoes.com

2. IMDB (the Internet Movie Database): www.imdb.com

1.8.2 Weather

1. Weather.com: www.weather.com

1.8.3 Blogs

1. Google Blog Search: blogsearch.google.com/blogsearch?hl=en

2. Technorati: technorati.com

3. Bloglines: www.bloglines.com

1.8.4 Books

1. Project Gutenberg: www.gutenberg.org

2. Google Book Search: books.google.com

3. LibraryThing: www.librarything.com

4. Amazon.com: www.amazon.com/books-used-books-textbooks/b?ie=UTF8&node=283155

1.8.5 Classifieds

1. Craigslist: www.craigslist.org

2. Gumtree: www.gumtree.co.za

1.8.6 Translation

1. Google Translator: translate.google.com

2. Bing Translator: www.microsofttranslator.com

3. Newstran translates newspapers from around the world, including the Middle East, China, Spain and Portugal: www.humanitas-international.org/newstran/index.html

1.9 Search exercises

1.9.1 Exercise 1: Find new music

Think of your favourite musician or band. Find another similar musician who you did not know existed.

1.9.2 Exercise 2: Find practical information

Search for the following information:

1. What building is just across the road from the Double Tree guesthouse on Times Square in New York City?

2. What usernames does Mark Zuckerberg, the founder of Facebook, use?

3. What are the symptoms of overdosing on vitamin C?

4. What was the most recent concert or event that Madonna performed at?

5. Find a video of the very first moon landing in 1969.

1.9.3 Exercise 3: Customise Google News

Set up a Google News page for yourself, customised according to your interests.

2. Wikipedia

2.1 How Wikipedia works

2.1.1 What is a wiki?

A "wiki" is an online document that can be edited by many people at the same time. The most famous of these is Wikipedia, an online encyclopaedia. Anyone can insert new content or edit existing information in Wikipedia. There are many wikis on the web. You can even create your own wiki, a useful tool when collaborating with colleagues or friends. An example of such a service is Wikispaces (www.wikispaces.com).

2.1.2 How the Wikipedia community creates content

A traditional encyclopaedia is written and edited by a small group of people with recognised credentials. These individuals have complete control over the content of the encyclopaedia, and they also take responsibility for its veracity.

Wikipedia, on the other hand, is created by an enormous group of mostly anonymous contributors. Anybody with access to the internet can insert content or change what somebody else wrote. So, how can you trust Wikipedia? What is to prevent somebody from simply vandalising a page or inserting misleading information?

The secret to getting the best out of Wikipedia is to accept both its limitations and its strengths. The very aspects that seem to prevent reliability – the massive anonymous contributor base and the open editing policy – are also the source of its strength and vitality. The key to this strength is the Wikipedia community.

If you edit a Wikipedia page, your changes are instantly recorded in a "revision history" that is visible to anybody interested in that page. They might ignore your changes, remove them or even build upon them. The entire process is completely visible. To quote from Wikipedia:

> Be bold in updating articles and do not worry about making mistakes. Your efforts do not need to be perfect; because prior versions are saved by default, no damage you might do is irreparable.

If you expect an encyclopaedia to be a fixed, definitive and never-changing source of information, then Wikipedia will seem strange and unreliable. In Wikipedia, the principle is that "an article changes until everybody is satisfied". Instead of trying to prevent vandalism or mistakes, Wikipedia focuses on fixing and improving articles. This improvement is an ongoing, never-ending process driven by the enormous community of Wikipedia users.

This never-ending process has ensured that many people consider Wikipedia to be more accurate, and certainly more up to date, than the Encyclopaedia Britannica.

But what criteria do these "editors" use when improving an article? What is to prevent everybody from promoting their own individual vision, and any article from descending into an "edit war" in which changes are made and unmade eternally?

Wikipedia has a system of registered users and administrators who keep an eye out for conflicts that can descend into edit wars. In some cases, when pages deal with particularly popular or contentious topics such as religion or politics, an administrator can decide to "lock" a page from further editing until the dispute dies down.

Wikipedia has a strong anti-authoritarian stance. There are no rules and regulations. There are, however, some principles that are promoted by the community. These are known as the Five Pillars.

2.1.3 The "Five Pillars" of Wikipedia

1. All content should be verifiable with citations to reliable resources. Personal experience, interpretations and opinions are not acceptable and any information must be backed up with a link to the original source.

2. Wikipedia has a neutral point of view. An article must not promote a single point of view, and balance is required. Overly emotional language is discouraged.

3. Wikipedia is freely available. Nobody owns the content, and everybody can access it.

4. Contributors must interact in a respectful and civil manner.

5. Wikipedia does not have firm rules beyond these five pillars.

2.2 How to get the best out of Wikipedia

Wikipedia is not a place to find primary research. In other words, a well-written Wikipedia article is a summary of research found elsewhere with links to that research. Like any other source of information, it should be approached with healthy scepticism and any information it contains should be verified by looking at a variety of other sources.

Apart from its obvious use – to gain quick understanding of a topic – Wikipedia is very useful for:

- Finding useful links to sources. By taking note of the sources used by the authors – especially those listed in the "Notes" and "External links" sections at the bottom of the page – you can quickly find a list of very useful sources around which to base your research.

- Help in creating search queries. A Wikipedia article is often a useful source of keywords, synonyms and jargon associated with a given topic. These can help you construct search queries that you may not have otherwise considered.

- Insight into the culture or context of a topic. A look at the "discussion" page associated with an article can be a quick way to gain insight into the issues surrounding a particular topic.

2.3 Anatomy of a Wikipedia page

To see the Wikipedia community in action, you can have a closer look at any Wikipedia page. The screenshots below are of the page on "Goldfish".

Each Wikipedia page has a sidebar on the left with a general navigation bar that contains links to help you move around Wikipedia. Also notice the little "search" field that you can use to search Wikipedia for information.

Figure 30: A Wikipedia page.

Notice the tabs at the top of the page. Pages open on the "article" tab by default.
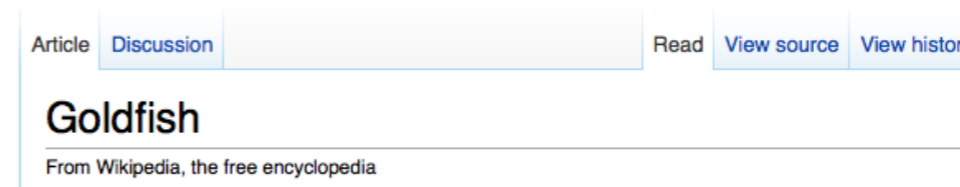
Figure 31: Wikipedia's menu bar.

If you scroll down a little bit, you will find the table of contents, with links to the various topics in the page. When you click on these links, the page will scroll to show you the relevant topic on that page. In other words, the links point to information on the same page, and won't lead to a different page.

Figure 32: A contents menu.

Further down, there is also a "Notes and references" section with a list of the articles, books, journals and websites that were referred to in the article. Right at the bottom of the page, you will find some of the most useful information: the "External links", a list of links to useful websites about the same topic.

Figure 33: References and external links.

If you click on the "discussion" tab at the top of the page, you will find a page with an ongoing conversation about the changes that have been made to the page. This page is not intended as a place to discuss the topic itself, but rather as a place where the people who are editing the article can justify or challenge any changes made.

The discussion page is often very interesting, and can be a good place to gain insight into a topic.

Figure 34: A discussion page.

If you click on the "Edit" tab at the top of the page, an interface opens that allows you to edit the page. You can also click any of the "edit" links that are part of each section of the page.

Figure 35: Editing a Wikipedia entry.

2.4 Further reading for section 2

1. How wikis work: computer.howstuffworks.com/wiki2.htm

2. An article by an experienced Wikipedia user on why Wikipedia works: www.equivocality.net/?p=111=1

3. Evaluating an online source

The world of the internet has some unique challenges. In the days before the internet, it was not easy to reach a large audience. Established institutions such as publishing houses, newspapers and radio and television broadcasters had their own systems of checks and balances to control the content they made public. When you read an article by a journalist from a well-known newspaper, the integrity of the report was – to some extent at least – implied by the reputation of the newspaper.

But the internet changed all that. These days, if you have access to the internet and a keyboard, you can publish your views to an audience of millions. How can you tell who to believe?

Whether you are merely reading for your own entertainment, doing research for a school project, deciding what to buy or researching the latest news, you need to know how to evaluate online content.

3.1 Checklist for evaluating online information

The following is a checklist to help you decide how trustworthy an online source is. These are not rules or laws – it is quite possible for a text to fail on all points and still be perfectly truthful. As usual, you will have to use common sense and make up your own mind in the end!

3.1.1 Can you verify it?

The first rule of research is not to rely on a single source. Can you find any alternative opinions? Does anyone else refer to the article? What are their opinions of this article or its author?

3.1.2 Who published it?

What site is the article on? Is it part of a well-known and reputable institution or not? Can you find out more about the website itself? What is its purpose? Is it an academic, business or personal website? You can often find these details in an "about" page on the site.

3.1.3 Who wrote it?

Look for the author's name. An anonymous article is not usually a good source of reliable information. Does the article include contact details for the author, or an indication of their credentials?

3.1.4 When was it written?

Look for the publication date. Information can go out of date quickly, and there is often no easy way to check how long ago an article was written.

NOTE

Keep in mind that there is often a difference between the webmaster – the person who built the website – and the author of the article itself.

3.1.5 Is it a "dead" site?

Another good indication of reliability is if the website that hosts the article is clearly "live" and being updated regularly. A website that is not maintained is often filled with links that no longer work, which can be an indication that the content is also out of date.

3.1.6 Is it objective?

Can you determine the author's intention? Is the article based on emotive statements and opinions with little or no substantiation? Does the author link to the sources of their research, or offer examples to prove their point? Do they quote from, or link to, other reliable sources?

3.1.7 Is it advertising?

Is the primary purpose of the piece to convince you to buy or use a product or service? A list of glowing "product reviews" is often fake feedback created to promote rather than inform.

How to spot advertising

The internet is a great place to find customer reviews on anything from movies and travel destinations to personal electronics and beauty treatments. If it's out there, somebody has reviewed it. Unfortunately these reviews are not always as unbiased as you may think. In fact, some "customers" are actually employees of the company that provides the product or service. So, how can you tell?

> **The "perfect" review**: Look for 3 or 4-star reviews rather than 5 stars. Balanced reviews that discuss the pros and the cons are more likely to be the real thing.

> **Buzzwords and ad-speak**: Is the review phrased naturally, or does it sound like an advert? Does the reviewer sound unusually familiar with all the features, and use the same phrases as the adverts?

> **Multiple posts in a small time period**: Has the person reviewed many products in the same day? Do they tend to use the same phrases in each review?

> **Links to affiliate websites**: Has the reviewer included a link to an affiliate website where this product or a competing product can be bought? If so, then beware of a potential biased review designed to induce you into purchasing the product.

3.2 Exercises

The best way to learn how to verify a website is to try doing it yourself. Here are some exercises that will walk you through the process. First, find an interesting

article online, related to a topic that you're interested in.

3.2.1 Exercise 1: Find out who published it

Check the URL and the home page of the website. Can you tell if this is a reputable publisher? If you don't recognise the publisher, can you do a Google or Wikipedia search to find out more about them?

3.2.2 Exercise 2: Find out who wrote it

Does the article you've chosen have an author? The author could be named just below the article's title, at the end of the article or – if the website is a blog – on the about page. Can you find the name anywhere?

3.2.3 Exercise 3: Find out when it was written

Can you find the date when the article was written? Is it shown on the page at all? (Hint: In chapter 12 you'll learn an advanced way to find out when a web page was published. If you can't see the date now, come back to this question later.)

3.2.4 Exercise 4: Find out if the site is still live

Scan the home page of the website for any dates or information that may indicate when the website was last updated. Some pages have a copyright notice with the date given at the bottom of the page. Can you find out if the site is being updated regularly?

3.2.5 Exercise 5: Analyse whether the site is objective

Read over the article and decide for yourself if the author is being objective and balanced. Do they use emotive language, exaggerations and definite statements? Or do they reference others, consider both sides and come to a balanced conclusion? Could the article possibly be an advertisement?

4. Conducting effective online research

It is worth having a closer look at ways of improving your research technique. These methods are relevant whether you are writing an essay for school, comparing features for the latest electronic gadget or compiling a report on consumer behaviour. They don't rely on access to any particular tool or search engine, but they do require focus and perseverance.

Some of the most important principles of conducting any kind of research, online or off, are:

1. Consider multiple, varied sources. It is difficult to form your own opinion if you only consult a few sources, or only look at sources that take the same point of view.

2. Be open minded, but sceptical. It is easy to be taken in by a writer with an authoritative style or impressive title. Don't make your mind up too quickly and take the time to look around at some alternative viewpoints.

4.1 How to approach online research

Before going anywhere near a search engine, you need to know what it is that you want to find out. Framing your "search question" is the most important step to finding what you are looking for.

4.1.1 Use natural language

Frame the question as though you were asking a human being. What exactly is it that you hope to find out? You may want to write it down or say it out loud.

4.1.2 Keywords

Write down a list of likely keywords. Put them through the following test:

1. Are they distinctive? The more specific the keywords, the more likely you are to achieve the results you want.

2. Have you achieved the right level of "focus"? Are you looking for a broad overview of a topic, or do you want to look at a specific aspect?

3. Can you think of synonyms or alternatives?

4.1.3 Do a test search

Use your most likely keywords as a search query in a search engine. Look at the resulting list of links, but don't click on any of them yet. You may already be able to:

1. Improve your search query.

2. Refine your search query with the appropriate operators to exclude

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certain keywords. Do this if many of the results are on a different topic entirely.

4.1.4 Scan for keywords

If any of the results in your search look positive, open them in a new tab in your browser (right click on the link and choose "Open in new tab"). If possible, open at least three or four. Don't read them yet, but scan through them quickly. You may be able to:

1. Eliminate them from your search.

2. Improve your search query.

4.1.5 Construct a new search query

Construct a new search query based on the new information you have gained. Run through points 3 – 5 a couple of times. At this stage, you are merely collecting pages, not reading or judging them. When you have at least ten to fifteen likely pages open in your tabs, you can move to the next phase of the search.

4.1.6 Weed out the trash

Consider each page according to the "reliability checklist" earlier in this chapter. Close those that are a waste of time.

4.1.7 Look for links

This is the stage where you are most likely to find useful results. Start reading the pages you have found. In particular, look for:

1. Links to resources the writers have used themselves.

2. Links to other articles.

4.1.8 Repeat this process

Repeat this process until you feel that you have a solid understanding of the subject.

4.1.9 Bookmark

Bookmark all the best pages you have found (right click and choose "Bookmark this page") and read them carefully.

1. Don't be sidetracked into other areas of interest. If you find a fascinating page on another topic, bookmark it for later reference and return to your primary search.

2. Reconsider your question. Have you found an answer? Was it the right question in the first place?

> **NOTE**
>
> Wikipedia pages are usually quite useful at this stage in the research process, as they offer a wealth of alternative keywords.

5. Summary of chapter 5

In this chapter, we looked at:

- Some examples of how to search for specific content such as videos, images, maps and directions, news, music, people and health-related issues

- What Wikipedia is, and how to use it

- How to judge if the content you find online is reliable and valid

- How to conduct an efficient online search

6. References

6.1 Focus on online research

1. YouTube: www.google.com/support/youtube/bin/answer.py?hl=en-uk&answer=111997

2. Google News: news.google.com/intl/en_us/about_google_news.html

3. LastFM: www.last.fm/about

4. WebMD: en.wikipedia.org/wiki/WebMD

5. People search: lifehacker.com/5138427/five-best-people+search-engines

6. Google Maps: maps.google.com/support/bin/answer.py?hl=en&answer=20637

6.2 Wikipedia

1. How to use Wikipedia: academicwriting.suite101.com/article.cfm/using_wikipedia_wisely

2. About Wikipedia: en.wikipedia.org/wiki/Wikipedia:About

3. The Five Pillars of Wikipedia: en.wikipedia.org/wiki/Wikipedia:Five_pillars

6.3 Evaluating an online source

1. Evaluating a website, from the Berkeley library site: www.lib.berkeley.edu/TeachingLib/Guides/internet/Evaluate.html

2. Five pointers to a reliable site from Cornell University: www.library.cornell.edu/olinuris/ref/research/webcrit.html

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3. How to spot fake user reviews: www.consumersearch.com/blog/how-to-spot-fake-user-reviews

6.4 Conducting effective online research

1. Search strategies from Berkeley library: www.lib.berkeley.edu/TeachingLib/Guides/internet/Strategies.html

Managing information

- Folders and tags
- Using bookmarks
- Using RSS
- Using a web portal
- Document sharing

Introduction

By the end of this chapter, you will:

- Understand the principles of organising information using folders and tags (section 1)

- Know how to use local bookmarks to save the location of web pages (section 2)

- Know how to use the Delicious social bookmarking service to save and share bookmarks online (section 2)

- Understand what RSS is and how it is applied (section 3)

- Be able to use Google Reader to keep up to date with new content as it becomes available online (section 3)

- Be able to customise the iGoogle web portal to suit your individual needs (section 4)

- Know what document sharing is, and be able to use Google Documents (section 5)

1. Folders and tags

The more you use your computer to create documents or find information, the better you have to be at organising your data. Whether you are writing essays, capturing photographs from your camera, receiving and sending emails or downloading videos, pictures and music from the web, all these activities create large amounts of information that must be saved, stored and easily searchable to be useful.

The more information you gather, the more difficult it becomes to keep track of everything you have. This module looks at various systems you can use to help you access what you need, when you need it.

1.1 What are folders and tags?

Folders and tags are devices used to organise your information into categories so that you can find it more easily. You can apply folders and tags to offline storage on your own computer, or in online applications.

1.2 Folders

You can save something "in" a folder, just like you might place a document

inside a real-life paper folder. Naming a folder and saving similar documents in the same folder is a useful way of organising your information.

1.2.1 The operating system of your computer

Regardless of whether you use Windows, Linux or Mac, your operating system makes it possible for you to create and name folders in which to organise all your data. Just like a real-life paper folder, you cannot save a single document in more than one folder. However, you can "nest" folders in other folders to help you group related items together.

For example, if you captured a number of photographs from your camera, you could organise your photos as follows. Create a folder called "photos". Inside that folder, create two more folders – "family" and "pets". All the family photos go in the "family" folder, all the pet photographs in the "pets" folder. Since both those folders are already saved in a "photos" folder, you don't have to look far to find them.
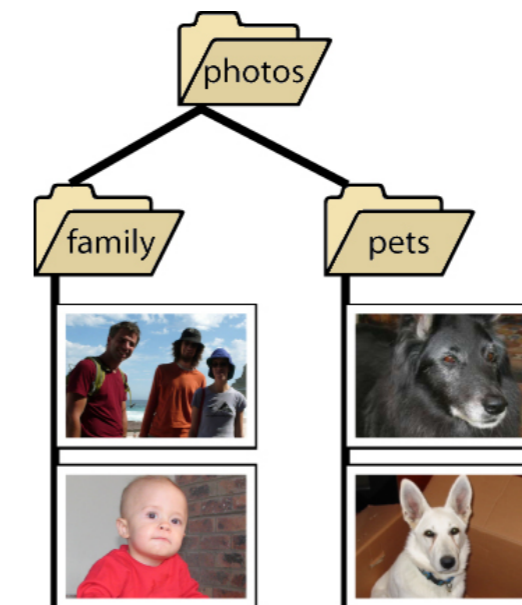
Figure 1: Nested folders.

1.2.2 Folder hierarchy

Folders are a "hierarchical" system. This implies that some elements are more important than others, or are higher up in the order. Saving one folder inside another is often called "creating a folder hierarchy".

A folder hierarchy is sometimes referred to in terms of a parent/child relationship, with the "parent" being the main folder, and the "child" being any folder inside it. A child folder could be a parent to further sub-folders saved inside it, and so on.

1.2.3 Creating your own folder structure to store data

The storage on your computer's hard drive is already organised in a folder hierarchy. You can add to this folder structure by creating your own customised folders. It is worth devoting some time to designing a structure that will suit your needs.

Some questions you should ask yourself when creating a folder structure:

1. What are the main categories of data that I need to save?

2. Is it possible to "nest" any one of these categories inside another without losing its usefulness?

Here are some examples of useful categories, with nesting indicated. As you can see, decisions about folder categories and how they should be nested are highly individual.
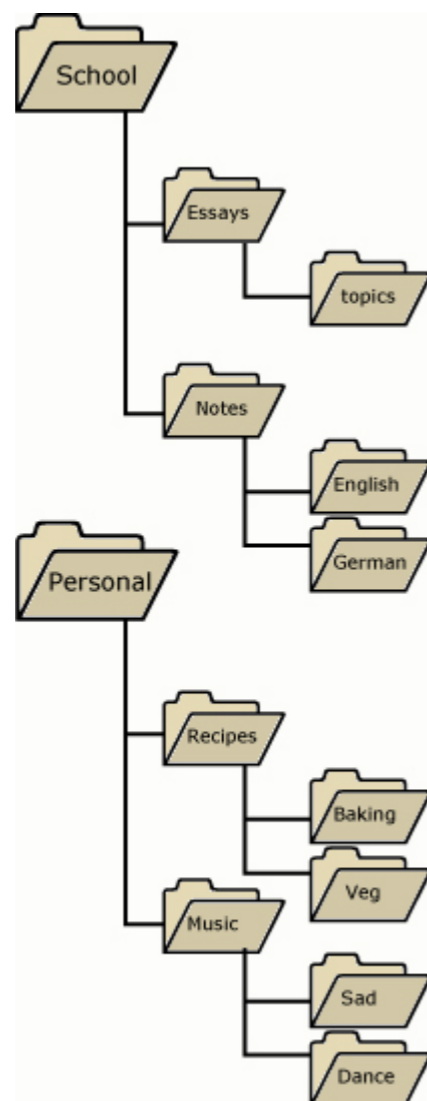
Figure 2: An example of a folder hierarchy.

1.2.4: Exercise 1: Organise your documents

Go to the "My Documents" folder on your computer and have a look at all the files saved there. Are any of them grouped into folders? Are any folders nested inside others? Try creating a folder called "Bank documents" in your "My Documents" folder. Inside that, nest a folder called "Online statements". When you reach chapter 8, you will know how to retrieve your bank statements online. For now, is there anything you can put in the "Bank documents" folder? Can you think of any other useful sub-folders?

1.3 Tags

You can "attach" a tag to a document, just as you would attach a price tag or nametag to an object. Most operating systems like Windows, Linux or Mac use folders (and not tags) as their basic system of organising information. Tags are often used by applications. We already looked at an example of an application that uses tags when we covered Gmail in chapter 4 of this course. Gmail labels are a good example of tags in action.

For example, you open your Gmail inbox and see that you have received quite a few emails. Instead of dealing with them one at a time, you quickly tag them. The mail from your father is tagged "urgent" as well as "family". The friendly note from your brother is tagged "family". The letter from your bank is tagged "urgent" as well as "finance". In this way, you quickly sort your mail into categories that can be retrieved at a later stage.

It is not possible to create a tag that is a sub-category of another tag. In other words, you cannot nest tags. Unlike folders, tags are not hierarchical.

## 1.4 When to use tags and folders?

While operating systems like Windows, Mac and Linux only use folders to organise data, some applications that we will look at in this chapter allow you to use both tags and folders. There are no hard and fast rules for when you should use a folder, and when you should attach a tag. If possible, you should use both together. As a rule of thumb, use folders for big, over-arching categories such as "work", "study" or "shopping". Tags can fulfil a more descriptive role – "urgent", "reliable", "gift idea" or "inspiration".

1.5 Examples of applications that use tags and folders

- Email clients like Outlook and Entourage use folders – you can create folders to organise your mail into categories, but you cannot save a single email into more than one folder at a time.

- RSS readers like Google Reader use both folders and tags. You can save your RSS feeds into folders and attach tags to individual posts. This chapter

TIP

Simulating the tag system with folders. If you are using a folder system, for example on your hard drive, you can simulate the flexibility of tags by using "shortcuts".

A shortcut is a file that links to its source file when you click on it. For example, if you have a document in your "My Documents" folder, you could create a shortcut to it and place the shortcut on your desktop. Then, whenever you want to open the file, you can simply click on the shortcut instead of navigating to the exact folder and clicking on the file.

To simulate tags, you can create multiple shortcuts to a file and place them in several folders, creating the appearance that one file is saved in several places at once.

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will explain what RSS is, what feeds are, and how to use Google Reader.

- Media players like Winamp and iTunes use tags to sort music into "playlists". It is not always obvious that tags are used, but the fact that you can assign a single song to more than one playlist without duplicating it indicates that the underlying principle of organisation is a system of tags.

- Online portals like Yahoo, LastFM and Flickr allow users to sort their content with tags. We will also have a closer look at these systems later in this chapter.

- Gmail does not use folders at all, but instead uses a system of tags called "labels".

1.6 Exercise 1: Tags or folders?

Go to your email program. Can you figure out if it uses folders, like Outlook, or tags, like Gmail?

1.7 Exercise 2: Organise your email

Regardless of whether your email program uses tags or folders, try to create some meaningful categories to sort emails into. Can you group some emails into these categories?

1.8 Further reading for section 1

1. More about tags: blackboard.blog-city.com/what_are_tags_how_do_they_work.htm

2. Some consequences of using tags: www.tekka.net/10/tags.html

2. Using bookmarks

2.1 What are bookmarks?

To mark a particular page in a book, you can slip a piece of paper or a bookmark between the pages. A web bookmark fulfils exactly the same purpose. Instead of having to write the page's address down, you can use your web browser to bookmark the page. The browser uses a bookmark to record where on the web the page is located by saving the page's URL. When you want to visit that page again, you simply open your list of bookmarks and click on the bookmark of the page you wish to open.

2.2 Local vs. online bookmarks

There are two kinds of bookmarks. Local bookmarks are saved in the web browser of the computer you are using. Online bookmarks (also called "social bookmarks") are saved in an online account on the web.

Both systems allow you to organise your bookmarks into categories, and to add descriptive notes to remind yourself why you bookmarked the page.

Social bookmarks have the advantage that you can access them from any computer with an internet connection. Instead of having to carry a list of bookmarks around with you, you can log on to your online bookmark account from work, school, the library, or any computer that can access the internet. Another advantage of using online bookmarks is that you are less likely to lose your bookmarks if something happens to your computer, or if the browser software is uninstalled.

Whether you use local or social bookmarks depends entirely on your individual needs.

2.3 How to manage bookmarks locally

Local bookmarks are created and managed by your browser software. Different web browsers manage bookmarks slightly differently from one another. In Internet Explorer, for example, bookmarks are referred to as "Favorites", and while Firefox allows you to use both folders and tags, Internet Explorer only uses folders.

2.4 How to create a local bookmark in Firefox

1. Open the page you wish to bookmark.

2. Click on the Firefox "Bookmarks" menu.

3. Choose "Bookmark this page" from the dropdown menu.

> **NOTE**
>
> Internet Explorer uses the term "Favorite" instead of "bookmark". In these notes, we will use "bookmark" as the generic term for the practice of saving and managing links to pages.

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Figure 3: The bookmarks menu.

4. The "Edit This Bookmark" dialogue box will open.
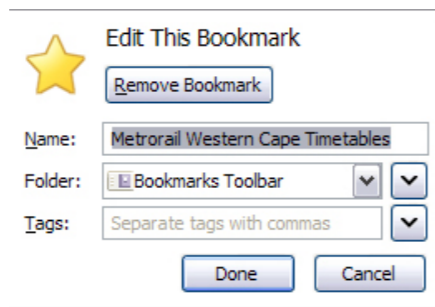
Figure 4: Editing a bookmark.

5. You can edit the "Name" of the bookmark. The name will be visible in your bookmark list, and giving the bookmark a unique name will help you remember why you are saving the page.

6. In the screenshot above, the "Folder" is set to its default setting: "Bookmarks Toolbar". If you click on the "Done" button, your bookmark will be saved in the default location – in the bookmarks toolbar in your browser.

The screenshot below shows several bookmarks displayed in the bookmarks toolbar.
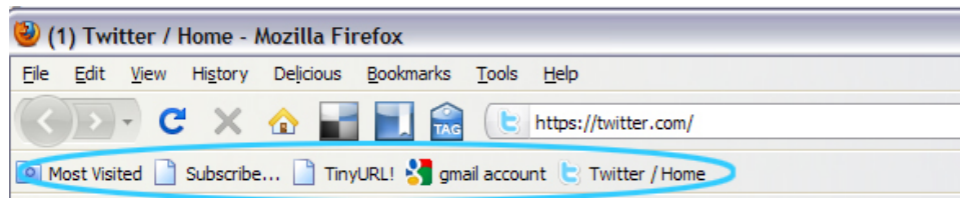
Figure 5: The bookmarks toolbar.

If you cannot see your bookmarks toolbar, go to View > Toolbars and put a checkmark next to "Bookmarks Toolbar".
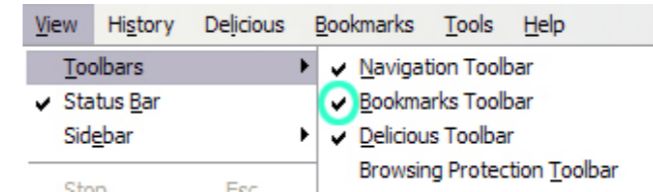
Figure 6: Activating the bookmarks toolbar.

For more information on using, organising and tagging bookmarks in Firefox, have a look here: www.wikihow.com/Organize-Bookmarks-in-Firefox.

2.5 How to create a local bookmark in Internet Explorer

1. Open the page you wish to bookmark.

2. Click on the "Favorites" menu at the top of your browser window.

3. Choose the "Add to Favorites" button at the top of the dropdown menu.

4. The "Add a Favorite" dialogue box will open.
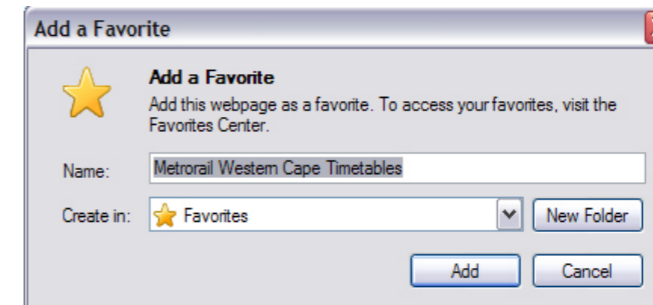
Figure 7: Adding a Favorite.

You can edit the "Name" of the bookmark to help you remember why you are saving this page.

In the screenshot above, the "Create in" field is set to its default setting, "Favorites". If you click on the "Add" button, your bookmark will be saved in the default location – in the top level of the "Favorites Center", which you just accessed by clicking on the "Favorites" menu at the top of your browser. You should see your new "Favorite" saved in the list.
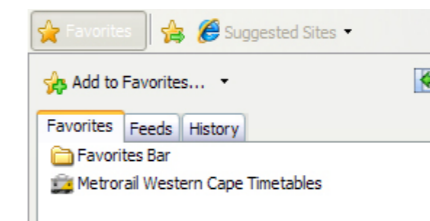
Figure 8: New Favorite saved.

For more information on organising and managing your Internet Explorer Favorites, have a look here: websearch.about.com/od/internetresearch/a/favorites.htm.

2.6 How to use social bookmarks

As has already been mentioned, social bookmarking allows you to save your bookmarks in an online account. You can access this account from any computer with an internet connection, and you can easily share your bookmarks with other people – or hide them, if they are private.

2.6.1 What is "social" about it?

Online bookmarking is called "social" bookmarking for three reasons.

1. You can choose which bookmarks are "private" and visible to you alone, and which are visible to anyone who visits your page.

2. It is easy to share a list of online bookmarks with a friend or colleague.

3. You can visit the pages of other members and browse their bookmarks.

2.7 Getting started with Delicious

Delicious is one of the most popular social bookmarking sites. You can visit its home page at delicious.com. To help you get to grips with social bookmarking, we will use Delicious as an example of how to set up, use and share online social bookmarks.

2.7.1 How to create a Delicious account

You will need a Yahoo user account, or "Yahoo ID", to sign up for Delicious. This is your Yahoo username and password.

If you do not have a Yahoo ID, go to edit.yahoo.com/registration and complete the registration process. Keep a careful record of the username and password you choose here – this is your Yahoo ID and will become useful for signing in to many other online services.

To create a Delicious account, go to the Delicious homepage at delicious.com. Click on the "Join Now" link at the top right of the page and log in with your Yahoo ID. Now, follow the steps in the sign-up process.

1. Choose a link for your Delicious account. This is where you determine what the URL of your Delicious account will be. You will have to choose a unique name.

Figure 9: Creating a Delicious account.

2. Install the Delicious add-on. This step installs three buttons in your

browser. These buttons are used to access Delicious and to create Delicious bookmarks. This step is optional but highly recommended. You can use Delicious even if you skip it, but you will be missing out on the convenience of using the Delicious add-on.
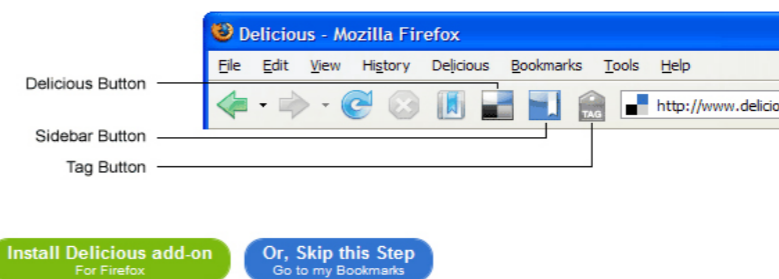
Figure 10: Installing the Delicious add-on.

Once you have completed the two steps, you have created a Delicious account and you are ready to start saving bookmarks. The next page has several helpful links.
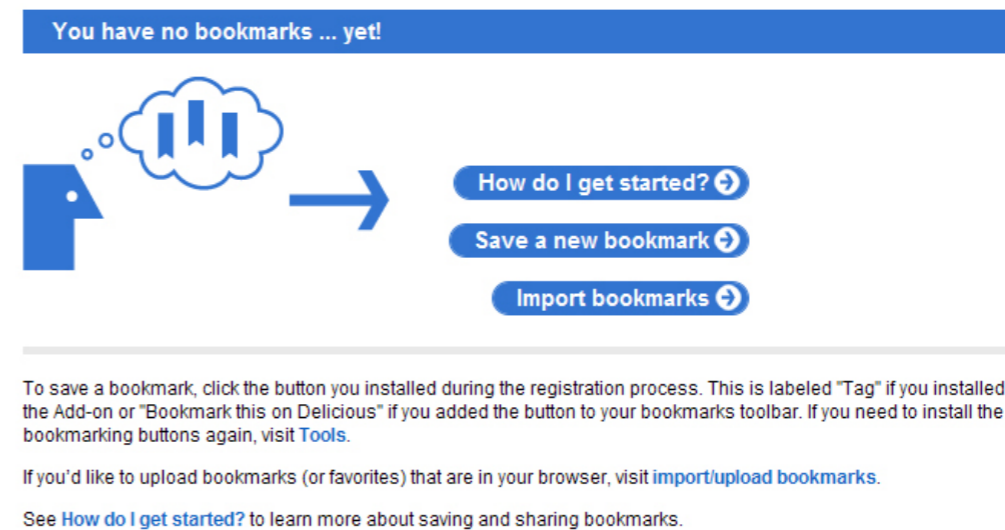
Figure 11: Helpful links.

The "How do I get started?" page explains how to use Delicious. Although these notes cover the basics of using Delicious, you will find this page very helpful. Here is the direct link to this "Get Started" page for later reference: delicious. com/help/getStarted.

The "Save a new bookmark" page allows you to create a bookmark. You can ignore this page. There are better ways of creating bookmarks in Delicious (as you will soon find out), but you can try this one out if you like. Type the URL of

the page you wish to bookmark directly into the text field on this page.

The "Import bookmarks" page allows you to copy any existing local bookmarks you may have into your new Delicious account. This is an optional step. If you are unsure if you want to import your local bookmarks, you don't need to decide now. You can easily come back to this page later. Here is the direct link: secure.delicious.com/settings/bookmarks/import.

2.8 Using Delicious

These notes cover the basics of using Delicious. You can also refer to the "How do I get started?" page (delicious.com/help/getStarted) and the frequently asked questions page (delicious.com/help/faq).

2.8.1 Bookmarking a page in Delicious

The most convenient way to save your bookmarks into your Delicious account is to use the Delicious add-on, also called the "Delicious buttons". You should see them in the top of your browser window.
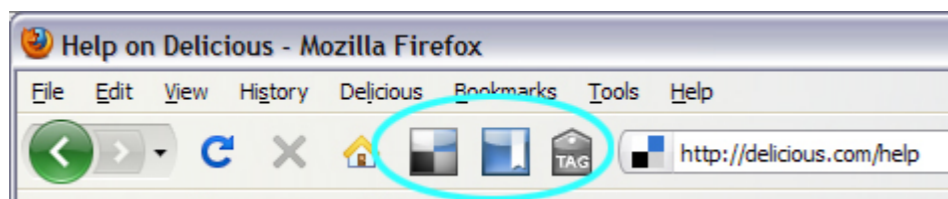
Figure 12: The Delicious buttons.

2.8.2 If you don't have the buttons

If you skipped "Step 2" of your sign-up to Delicious, then you do not have the add-on.

1. Click on the "Help" link at the top of your Delicious page.

2. Look for the link under the heading "Need Tools?".

3. Here is the direct link: delicious.com/help/tools.

4. This will take you to a page with instructions for installing the Delicious buttons in your browser.

2.8.3 Bookmarking a page with the Delicious buttons

1. Open the page you want to bookmark in your browser.

2. Click on the "Tag" button.

3. A dialogue box will open.
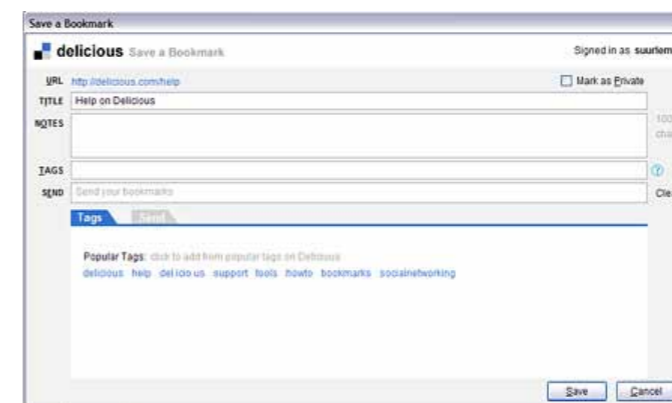
Figure 13: Bookmarking a page.

If you click "Save", the page will be saved and the bookmark will be listed in your Delicious account. To see your list of bookmarks, click on the "Bookmarks" at the top of the page.

2.8.4 Using the "Save a bookmark" dialogue box

While you don't have to fill out anything on the "Save a bookmark" dialogue box, it is a very good idea to make full use of these options. Before you know it, you will have dozens of bookmarks and it's easy to get confused. Adding some information to a bookmark as you create it makes it much easier to get the most out of Delicious.

Let's have a closer look at the different aspects of this dialogue box that opens when you create a new bookmark.

2.8.5 The URL and title

At the top left of the "Save a bookmark" dialogue box, you will see the URL of the page you are about to bookmark, and a text field with that page's title.

The text in this "Title" field is used as your bookmark's title when it is listed in Delicious. You can edit it if it is too long or not descriptive enough. It's a good idea to create short, easy-to-understand titles.
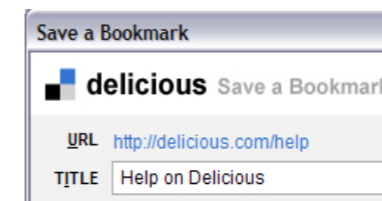
Figure 14: URL and title.

2.8.6 Mark as private

At the top right of the dialogue box is a small checkbox that allows you to specify that a bookmark is "private" (in Internet Explorer, this box is called "Do not share"). Private bookmarks are invisible to everyone but you. What is more, you will only be able to see your own private bookmarks if you have signed in

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to Delicious. If you sign out and view your own account, private bookmarks will be invisible.
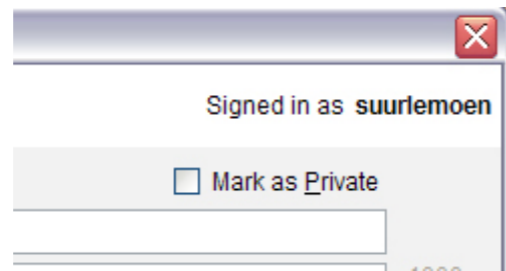
Figure 15: Mark as private.

2.8.7 Notes

In the middle of the dialogue box, there is a text field that allows you to insert additional information about the page you are bookmarking. This will appear in your bookmark list, under the title of the page. It is worthwhile inserting a few words to remind yourself why you are bookmarking this page.

Figure 16: Notes.

2.8.8 Tag and send

At the bottom of the dialogue box, you will find controls for tagging and sharing your bookmark. Inserting a meaningful tag here is essential to getting the best out of your Delicious bookmarks, because Delicious uses tags as its basic system of organisation. You will find more information about tagging and sharing below.
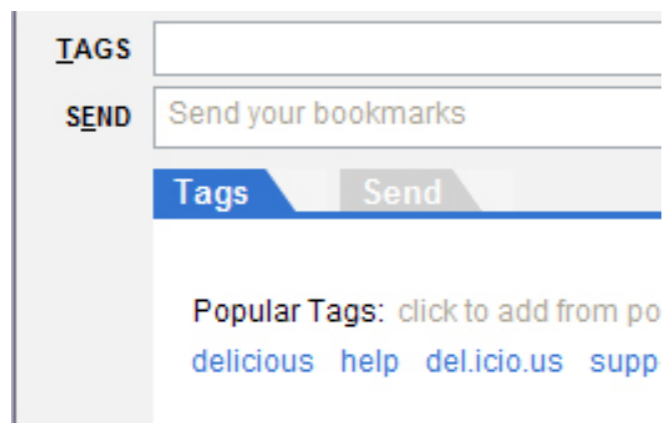
Figure 17: Tags**.**

NOTE

Creating tags. If you type several words separated by a spaces into the "tag" field, each word will be recorded as a separate tag. For example, if you insert "dog training", you will have created two tags: "dog" and "training". To avoid this, use a joining character – for example, "dog_training" or "dog-training".

2.9 The anatomy of a Delicious account

Let's have a look at an example of an existing Delicious account. This will help you to understand what is possible in Delicious. The screenshot below shows a typical Delicious user's page.
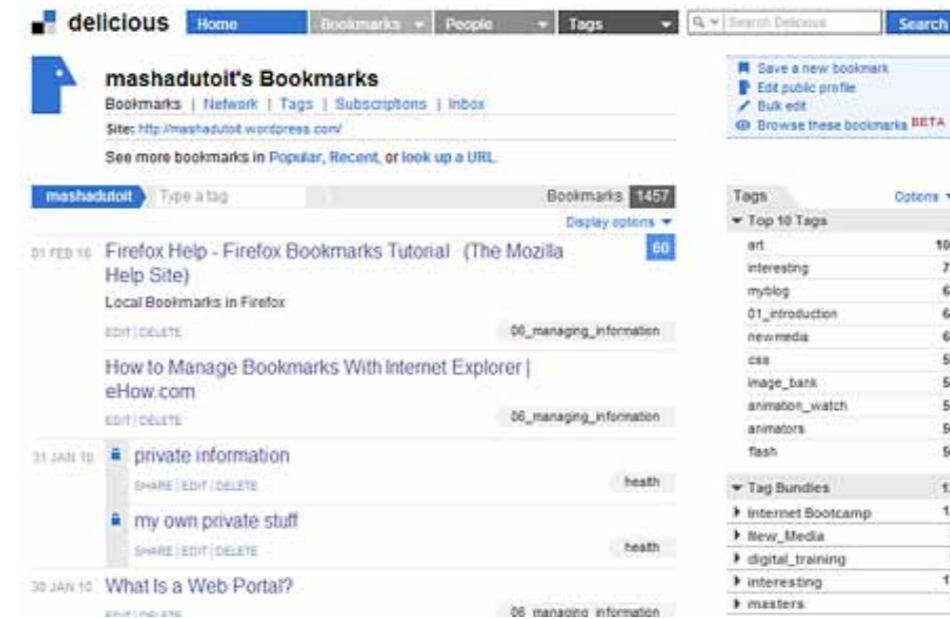
Figure 18: A Delicious account.

2.9.1 The bookmark list

In the main section of the page, you will see the list of all bookmarks in this account.

1. The title: To visit the page the bookmark links to, click on the title. The title also reminds you of the content of the page.

2. The notes: Displays information filled into the "Notes" section of the "Save a Bookmark" dialogue box. It can remind you why you bookmarked a page.

3. The tag: Indicates all tags associated with this bookmark. It also acts as a link to a list of all bookmarks that share this tag.

4. Private: These bookmarks are private. Other users cannot see these.

5. Edit/delete: This link opens the "Save a Bookmark" dialogue box. This allows you to change or add to the title, notes, privacy settings and tags of this bookmark.

6. Share number: This number indicates how many other Delicious users have bookmarked this page. It also acts as a link to a list of the users who have bookmarked this page. You can use it to access their Delicious accounts, and see what other useful pages they have bookmarked.

2.9.2 Your tags

On the right of the page is a list of all tags associated with bookmarks in this account. These also act as a list of links – if you click on any of these tags, the link takes you to a list of all bookmarks associated with that tag.

Whenever you type a tag into the "Tag" field of the "Save a Bookmark" dialogue box, it will automatically appear in this list. As you can see in the screenshot below, each tag has a number indicating how many bookmarks are associated with this tag.

An important note about tags: as you can see, Delicious adds any tag you create into your tag list. This could result in a long, confusing list of arbitrary words – not much use to you in finding your bookmarks.

When tagging a page, keep the following in mind.

Keep it short: A tag should be a concise and general enough so that you can reuse it easily. Use the "Notes" section for more specific and longer page descriptions.

Keep it understandable: It's tempting to use abbreviations or to make up arbitrary terms on the fly, but this will cut down on the usefulness of your tags. Keep them clear and easy to understand.

Reuse: Tags are useful, but having too many tags is confusing. Try to create tags that can be reused on as many bookmarks as possible.

Below the "Top 10" list of the most common tags, there is a list of all the "tag bundles" in the account. Tag bundles are a way of organising tags – we will have a closer look at them later in this chapter.

Figure 19: Delicious tags.

2.9.3 Bundling tags

It is difficult to avoid generating a long list of tags. The longer the list, the more difficult it is to find an individual tag. It is possible to "bundle" tags into related groups – this makes it much easier to navigate your tag list.

The screenshot below show several tag bundles. One of them – the "New_Media" bundle – has been expanded to show the tags grouped in that bundle. To expand a tag bundle, click on the little triangle icon next to it. The triangle will rotate to point downwards, and the tags grouped in that tag bundle will be displayed below. To "collapse" the tag bundle, click on the arrow again. This is also called "twirling down" and "twirling up".

Figure 20: Tag bundles.

Tags can be associated with more than one bundle. In the screenshot below, you can see that the tag "design_principles" is associated with both the "New_Media" bundle and the "digital_training" bundle.

Figure 21: Tag bundles.

2.9.4 Using tag bundles

To access the page where tag bundles are created, click on the "Options" link at the top of the tag list. Choose "Manage Tag Bundles" from the dropdown menu. This will take you to a page on which you can create and manage your tag bundles.

Note: In the screenshot above, the tags have different sizes. This is an indication of the number of items that have been tagged in that category. For example, you can deduce from this screenshot that there are more items tagged as "animation_watch" than there are items tagged as "02_communication".

Figure 22: Managing tag bundles.

2.9.5 Creating a new tag bundle

1. To create a new bundle, click on the "Create" button.

2. Name the bundle by typing into the "Enter Tag Bundle Name" field.

3. Associate tags with the bundle in two ways – by typing directly into the second field, or by clicking on any of your existing tags in the "tag cloud" displayed lower on the page.

4. Click on "Save" to save your new bundle.

Figure 23: Tag bundles.

2.9.6 Editing an existing bundle

You can add more tags to an existing bundle, or remove them.

1. Click on the "Options" link at the top of the tag list.

2. Choose "Manage Tag Bundles" from the dropdown menu.

3. Click on the "Edit" link next to the relevant bundle.

4. This will take you to a page where you can add tags to and remove tags from a bundle.

Figure 24: Tag bundles.

2.10 Exercises

2.10.1 Exercise 1: Create a local bookmark

Visit the GetSmarter Learning home page and bookmark it locally. Can you do this?

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2.10.2 Exercise 2: Name the bookmark

Once you've chosen to bookmark the website, an editing box should appear. Can you name the bookmark so that it has a useful, easy-to-remember title?

2.10.3 Exercise 3: Add information to the bookmark

Can you find a way to add tags, notes or other information to your bookmark? Can you save it in a folder?

2.10.4 Exercise 4: Organise your bookmarks in folders

Visit your bookmark library and see which folders you have there. Can you create a new, descriptive folder and move some existing bookmarks into it?

2.10.5 Exercise 5: Create a Delicious account

Go to the Delicious home page and follow the step-by-step instructions to creating a Delicious account. Can you do so successfully?

2.10.6 Exercise 6: Create a Delicious bookmark

Visit the GetSmarter Learning home page and bookmark it using the Delicious buttons. Can you do this? Is it easier or harder than creating a local bookmark? Which do you prefer?

2.10.7 Exercise 7: Mark your bookmark as private

Find the box that allows you to mark the bookmark as private, and tick it. Can you do this?

2.10.8 Exercise 8: Tag your bookmark

Create a new tag and use it to tag your new bookmark. Can you do this?

2.10.9 Exercise 9: Create a tag bundle

Visit the tag bundles section of Delicious and go through the steps of creating a new tag bundle. Can you do this?

2.10.10 Exercise 10: Add your tag to the new bundle

Can you add your new tag to your new tag bundle? There are several ways that you can do this. Can you figure out how to do it while you're creating the tag bundle?

2.11 Further reading for section 2

1. What is a Delicious network? delicious.com/help/faq#network

2. How to share bookmarks: www.ehow.com/how_2019685_sharing-

bookmarks-delicious.html

3. Email and tweet your delicious bookmarks: blog.delicious.com/blog/2009/08/sharing-made-easier-email-and-tweet-your-bookmarks.html

2.12 Other online bookmark services

1. Furl: www.furl.net

2. Magnolia: ma.gnolia.com

3. Visualiseus (specialises in image bookmarking): vi.sualise.us

3. Using RSS

3.1 What is RSS?

Once you have a handle on using bookmarks, you can easily find useful web pages again. But what if, instead of finding the same page, you would prefer to keep up to date with the latest updates on your favourite website?

One way would be to bookmark the home page of that site and visit the page every day – not the most efficient way to keep track of the latest breaking news or the most recent posts on a blog. This is where a technology called "RSS" becomes very useful.

Depending on whom you believe, RSS stands for "Rich Site Summary" or "Really Simple Syndication". It doesn't really matter what exactly it stands for – what matters is how it works.

Most web pages have an "RSS feed" that sends out a signal every time new information is added to that page. To receive this signal, you need to subscribe to the RSS feed. Once you are subscribed, you will receive a notification as soon as new content is available for that particular site. This happens automatically, without you having to do anything to check for updates.

3.2 The RSS reader

So how exactly does this work? To subscribe to an RSS feed and receive updates, you will need software called an "RSS reader". Other names for this software include "feed reader" or "aggregator". Many sites allow you to instantly subscribe to an RSS link by clicking on an image or link. The image usually looks like this:

If you click on this image, your browser will use the built-in RSS reader to subscribe to and manage the feed. There is nothing wrong with this, but in these notes we will be using a different one – an online RSS reader called Google Reader.

3.2.1 Local or online?

RSS readers can be installed on your computer or accessed online – exactly like local or online bookmarks. Most browsers come with built-in RSS readers. These are "local" readers that store their information on a particular computer. Online RSS readers, on the other hand, can be accessed from any computer connected to the internet.

Some of the best RSS readers are available for free and are extremely easy

to use. These notes will focus on Google Reader – an online RSS reader – to demonstrate the functionality of typical RSS reader software.

3.3 How to use Google Reader

The Google Reader is part of a suite of applications available to anyone who has a Google account. Other applications include Gmail, an online calendar and Google Documents for online document sharing. If you don't have a Google account, you can sign up for one at mail.google.com/mail/signup.

3.3.1 Opening Google Reader

Once you have a Google account, access the Google Reader by signing into your Gmail account at mail.google.com/mail. Click on the "Reader" link at the top of the page. If you cannot see a "Reader" link, you can try visiting www. google.com/reader/view/?tab=my.

This will open your Google Reader. Below is a screenshot of a Google Reader in use.
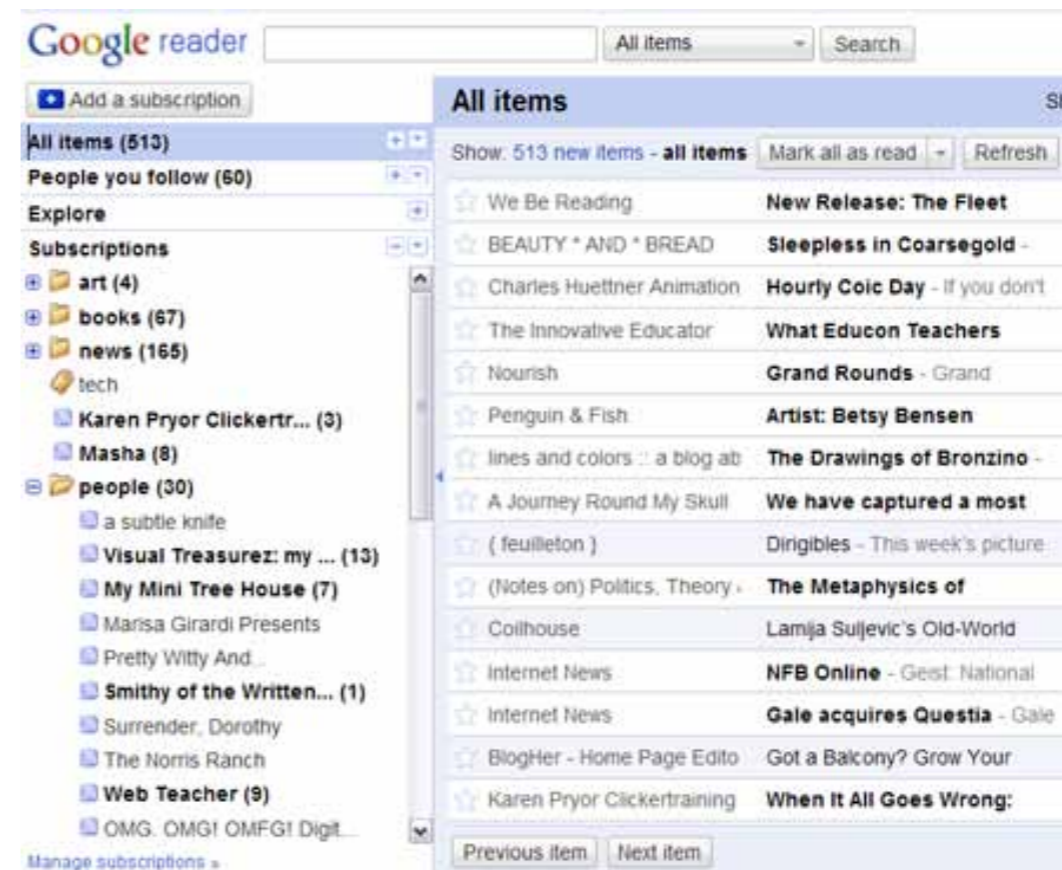
Figure 25: Google Reader in use.

Google Reader has two areas. On the left is a list of all the RSS feeds you have subscribed to. On the right is a list of the latest updates available for each RSS feed.
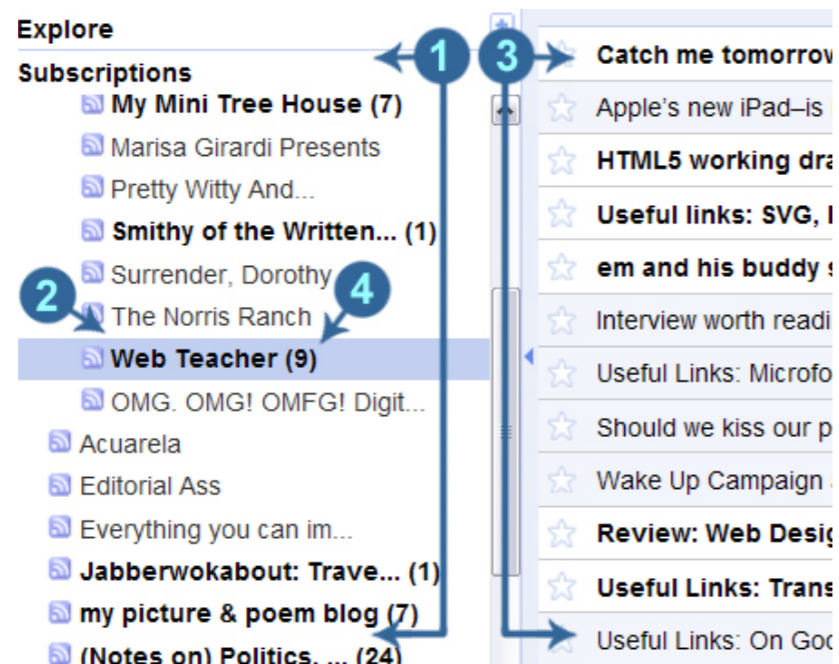
1. The subscriptions: On the left is a list of all the RSS feeds you have subscribed to.

2. A selected feed: A specific feed, in this case from a site called Web Teacher, has been selected so that we can see all updates to that site on the right of the feed reader.

3. The updates: A list of the latest updates to the Web Teacher site. Notice that the updates that have not been read yet are listed in bold.

4. The unread number: The number in brackets indicates the number of unread updates for each feed. This is a convenient way to see if new content has been added to a feed without having to select it.

3.3.2 Subscribing to a feed

Use your web browser to open the home page of a website you wish to subscribe to. Select the URL of the site in the browser's address bar, and copy it.
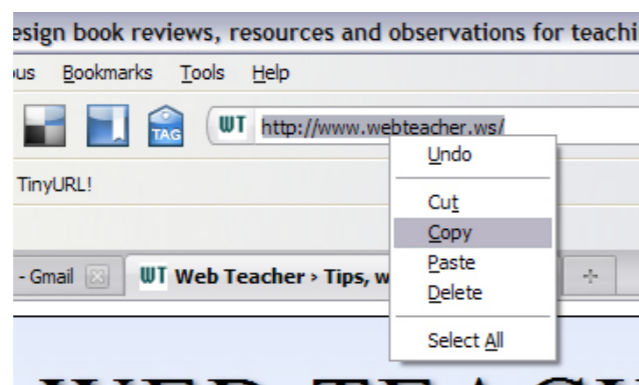
Figure 26: Subscribing to a feed.

Open your Google Reader. Click on the "Add a subscription" button in the top left corner, and paste the URL you have just copied.
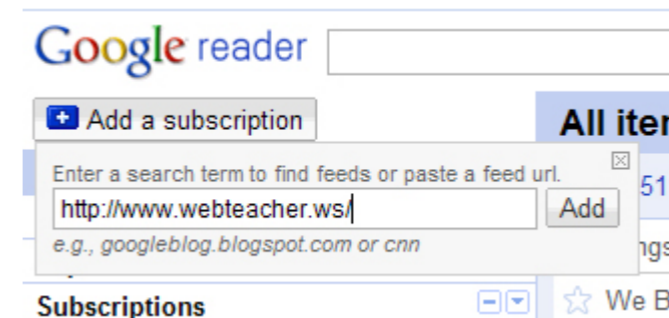
Figure 27: Adding a subscription.

If the site has a RSS feed, Google Reader will now automatically find it and subscribe to it. Be aware that not all websites have an RSS feed.

3.3.3 Reading an update on a feed

Click on the title of the update you wish to read. The reader will expand that section so that you can view its content. All text and images will appear.

If you prefer to read the original page and not the version that appears in your reader, click on the title link. In the example below, clicking on the big blue "Site Testing Checklist" title will open the original web page.

Figure 28: Reading a feed update in Google Reader and on the original web page.**3.4 Exercises**

3.4.1 Exercise 1: Create a Google account

If you haven't already done so, create an account with Google. You'll be able to access Gmail, Google Reader and many other useful tools that will be used in later chapters.

3.4.2 Exercise 2: Find Google Reader

Once you've created your account, can you find your way to the Google Reader page? There are several ways to do this. (Hint: if you're really stuck, why not just try searching for it in Google?)

3.4.3 Exercise 3: Add a subscription

Can you add a subscription to your favourite website or blog? If you can't think of anything to add, try Dictionary.com's Word of the Day (dictionary.reference.com/wordoftheday).

3.4.4 Exercise 4: Create a folder

Create a folder to organise your subscriptions into. Can you figure out how to do this?

3.4.5 Exercise 5: Read your update on its website

You can read your updates directly in Google Reader, or you can view them on their native websites. Can you figure out how to read the update on its own web page?

3.5 Further reading for section 3

1. How RSS works: computer.howstuffworks.com/rss.htm

2. Google Reader tips and tricks: lifehacker.com/233712/hack-attack-getting-good-with-google-reader

3. How to share feeds with others in Google Reader: www.google.com/help/reader/sharing.html

4. Using a web portal

4.1 What is a web portal?

A web portal is yet another useful tool for keeping track of your favourite parts of the web. A web portal is a service that allows you to create your own customised web page, made up of snippets from all over the web. This can include weather reports, the latest headlines, stock reports, games, gossip, and access to online services such as email, Facebook or Twitter. You can choose to add or remove content as you see fit, and to rearrange the layout of the page.

Here is a screenshot of the Yahoo web portal.

Figure 29: Yahoo web portal.

Here is another example of a web portal, Lycos.

Figure 30: Lycos web portal.

4.2 Which web portal?

While each web portal offers a different range of content, the steps to customising them to your own needs are very similar from one portal to another. For demonstration purposes, we will look at setting up the iGoogle web portal.

Some other popular web portals:

1. Yahoo: www.yahoo.com

2. Go: www.go.com

3. MSN: www.msn.com

4. America Online: www.aol.com

5. Voila: www.voila.com

iGoogle is part of a suite of applications available to anyone who has a Google account. Other applications include Gmail, an online calendar and Google Documents for online document sharing. If you don't have a Google account, you can sign up for one at mail.google.com/mail/signup.

4.3 How to set up iGoogle

Sign into your Gmail account at mail.google.com/mail, then go to the iGoogle home page at www.google.com/ig. You will see the default iGoogle page.
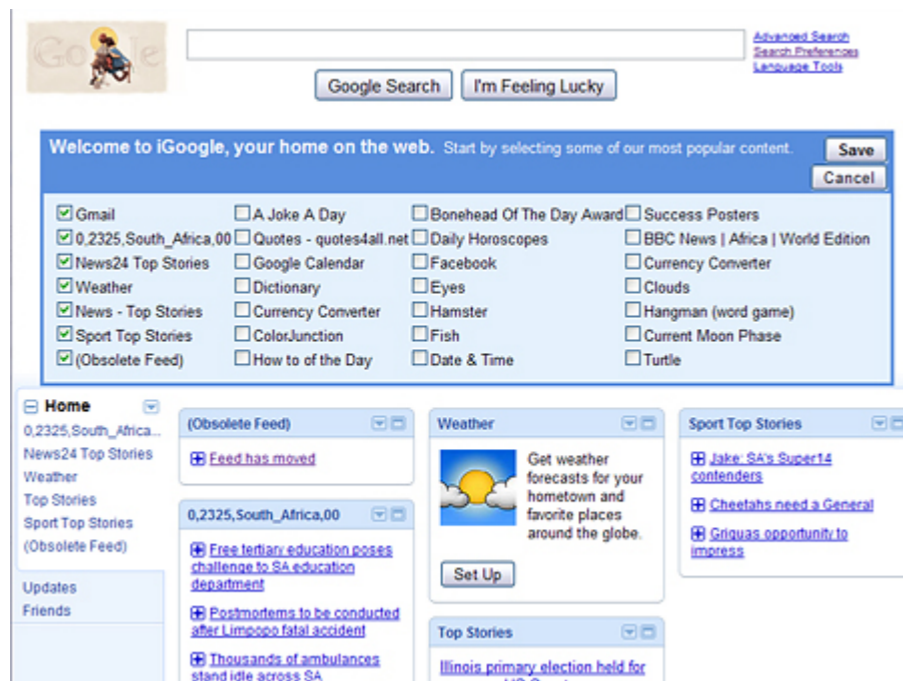
Figure 31: The default iGoogle page.

Tick the checkboxes to choose which content you want to include on your iGoogle page.
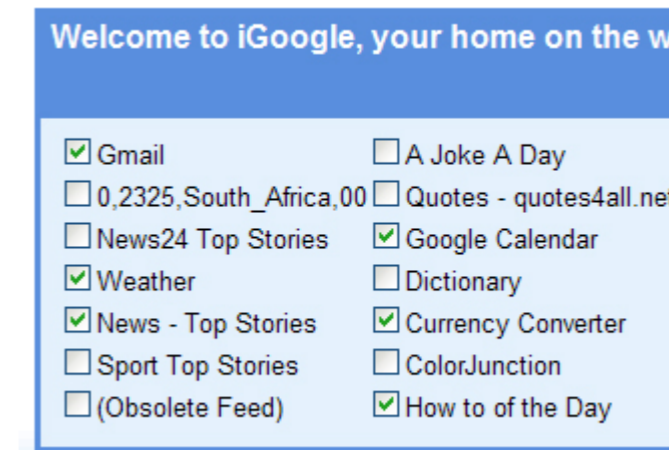
Figure 32: Choosing content.

Click the "Save" button in the upper right corner, and your iGoogle page will be displayed with all the content you chose.

Figure 33: Personalised iGoogle page.

The page is made up of a number of sections, based on your choices. In iGoogle, these sections are called a "gadgets". You can customise this page even further.

4.3.1 Moving content

Hold your mouse pointer over the title bar of the gadget you wish to move. You will see a small "cross pointer" appear.

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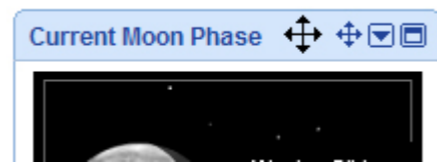
Figure 34: Moving content.

If you click and drag now, you can move the gadget and drop it elsewhere in the page.

Figure 35: Moving content.

4.3.2 Accessing the controls of a gadget

Click on the small down arrow in the title bar of the gadget you wish to edit.

A dropdown menu will appear.
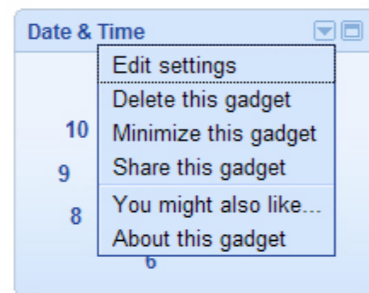
1. "Delete this gadget" will remove it from the page. You can add it again if you change your mind.

2. "Minimize this gadget" will shrink it down so that only its title bar is visible.

3. "Share this gadget" will let you send an email message to a friend with a note from you and a link that will allow them to add the gadget to their iGoogle page.

4. "You might also like..." will open a page with other, similar gadgets that you may want to add to your iGoogle page.

5. "About this gadget" will open a page with information about who created the gadget, and a list of comments from other users. Users often comment on problems they've experienced with the gadget, along with suggestions on how to fix them.

4.3.3 Expanding a gadget

Click on the tiny "expand" icon at the top right of the gadgets title bar. A new page will open in which the gadget is "expanded" to display additional features. To "restore" the gadget to its previous state, click on the small "restore" icon at the top right of the gadget.

Not all gadgets have additional features. An example of one that does is the "Date & Time" gadget that expands to display a calendar and an interactive world clock.
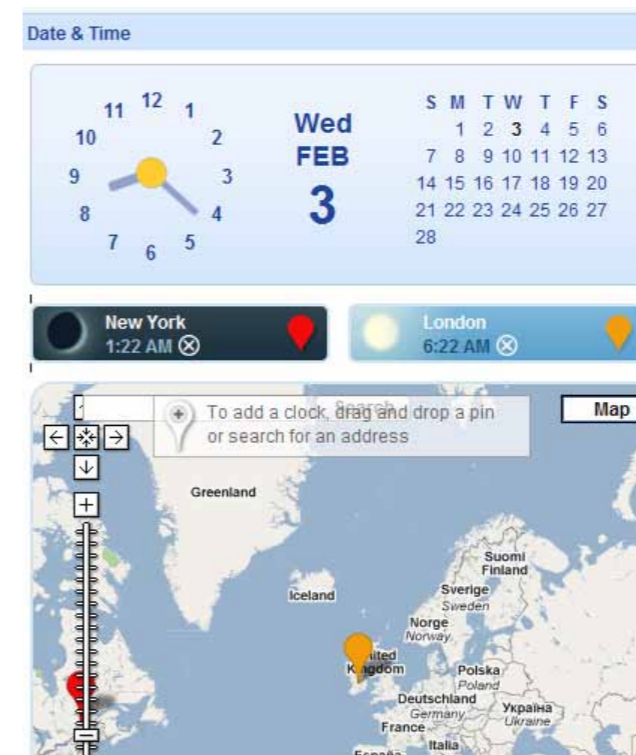
Figure 36: Expanding a gadget.

4.3.4 Adding more gadgets

Click on the "Add stuff" link at the top right of the page. This will take you to a page with a list of gadgets. There are thousands of gadgets, so you may have to use the search function to find the gadget you are looking for.

Not all gadgets are created equal. Some won't work as advertised and some may even crash your browser. It's a good idea to follow these guidelines when adding a gadget.

1. Add one gadget at a time, and wait until you are happy with the way it functions before adding another one. If you add many gadgets at a time, it can be difficult to pinpoint which one may be causing problems.

2. Before adding a gadget, always visit the gadget's comments page to read other users' comments. This will give you a good indication of whether the gadget works as it is supposed to.

To visit a gadget's comments page, click on the gadget's title on the "Add stuff" page or, if you have already added the gadget, choose "About this gadget" from the gadget's settings menu.

4.4 Exercise 1: Visit your iGoogle home page

You should have a Google account by now. If you don't, go ahead and create one. Can you find your personal iGoogle home page?

4.5 Exercise 2: Play around with gadgets

When you view your iGoogle page for the first time, you will be asked to choose some gadgets. Pick a few that sound interesting and play around with them: move them around, expand them, find out more about them, and so on. Try adding a new gadget too. Can you do all of these things?

4.6 Further reading for section 4

1. iGoogle help: www.google.com/support/websearch/bin/topic.py?hl=en&topic=1592

5. Document sharing

Creating systems to organise your data so that you can access it is only one aspect of managing information. What about situations in which you have to share documents with others? There are several document sharing services that will help you manage shared information. Most document sharing systems allow you to:

1. Create content online. Instead of using software installed on your own computer, you can use the online editor to create word documents, spreadsheets and presentations.

2. Share documents with others. You can give other people access to the most up-to-date version of a document. If the document is updated, everyone who has been granted access will see these changes.

3. Collaborate in real time. Instead of taking turns working on a document, or getting confused about which version is the correct one, several people can edit the same document at the same time.

4. Store and organise documents. The document sharing service provides a certain amount of storage and an interface that lets you organise your content with tags and folders. Because the documents are stored online, you can access them from any computer that can access the internet.

5. Control access. Just because the documents are online, it does not mean they are publicly available. You can decide who can see which documents, and whether or not they can edit them.

For demonstration purposes, we will use Google Documents as our example of how to use document sharing.

5.1 How to use Google Documents

Google Documents is part of a suite of applications available to anyone who has a Google account. Other applications include Gmail, an online calendar and Google Reader. If you don't have a Google account, you can sign up for one at mail.google.com/mail/signup.

5.2 How to set up Google Documents

If you have a Google account, you already have Google Documents. Go to docs.google.com/?tab=mo. If you are not already signed in, do so. You will use the same username and password as for all your Google services – for example, Gmail and Google Reader.

Here is a screenshot of a typical Google Documents account in use.

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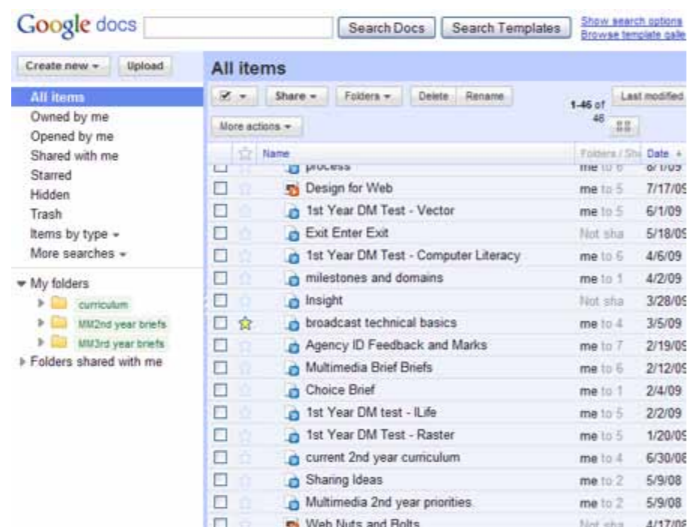
Figure 37: Google Documents.

On the left is a menu that allows you to show or hide documents and organise them into folders. The main part of the page shows a list of all documents saved in Google Documents.

5.2.1 Creating a new Google Document

You can use the Google Documents interface to create a range of document types.

To create a new document, click on the "Create new" button. A menu will open, in which you can choose what type of document you want to create.
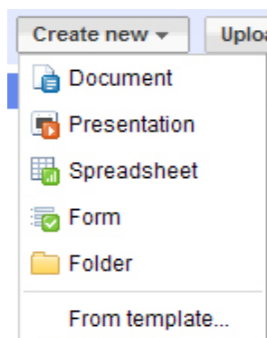
- "Document" creates a new blank text document, with editing controls similar to those in Microsoft Word.

- "Presentation" creates a new blank slideshow, with editing controls similar to those in Microsoft PowerPoint.

- "Spreadsheet" creates a new blank spreadsheet, with editing controls similar to those in Microsoft Excel.

- "Form" creates a blank emailable form that you can customise to your needs.

- "Folder" creates a folder that you can use to manage any documents you have already created.

- "From template" loads an interface in which you can choose from a number of ready-made document templates, from calendars to budget plans and invoices.

5.2.2 Uploading a new Google Document

You don't have to create your Google Document from scratch – you can also upload an existing document. You can upload documents in two ways:

1. As Google Documents that can be edited and shared using the Google Documents interface.

2. As normal documents that can be stored and viewed in Google Documents, but not edited.

To upload an existing document, click on the "Upload" button at the top left of the page. A page will open that will allow you to upload the document. Click on the "Select files to upload" link, and navigate to the document you want to upload. If you wish to convert the file into an editable Google Document, tick the checkbox labelled "Convert documents, spreadsheets & presentations to Google Docs format". When you are ready to upload the document, click on the "Start upload" button at the bottom of the page.

Files that are converted to Google Document format can be edited online. They do not count towards your storage limit. Some features may not be fully supported when files are converted, including footnotes, tables of contents, tracked changes and comments, embedded graphs, pivot tables and slide animations.

5.2.3 Editing documents

Once you have created a Google Document, it will be listed in your Google Documents account. Click on its title to open it.

An appropriate interface will open, depending on whether the document is a word document, a spreadsheet or a presentation.

Below is a screenshot of the text document interface. As you can see, it offers all the basic functionality of a word processor, such as choosing the size, colour and font of text and inserting bullet points, images and tables.
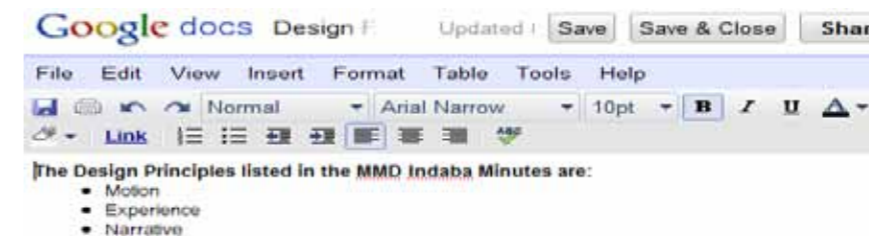
Figure 38: Document interface.

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Here is a screenshot of a spreadsheet interface. It offers a straightforward and easy-to-use spreadsheet program, allowing you to insert data, calculate values and format text as well as use many other features.
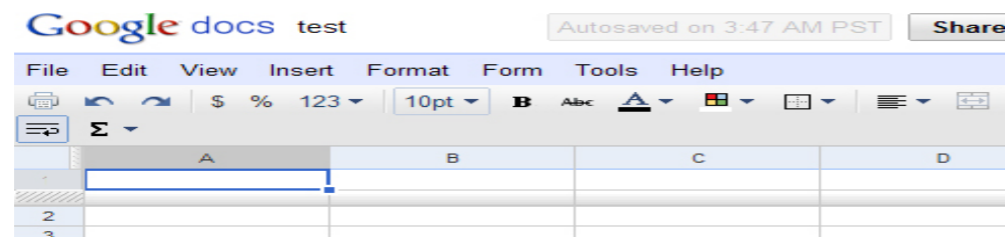
Figure 39: Spreadsheet interface.

Here is a screenshot of a presentation interface. It allows you to create a slide show, insert text and images and arrange the slides, as well as providing many other features.
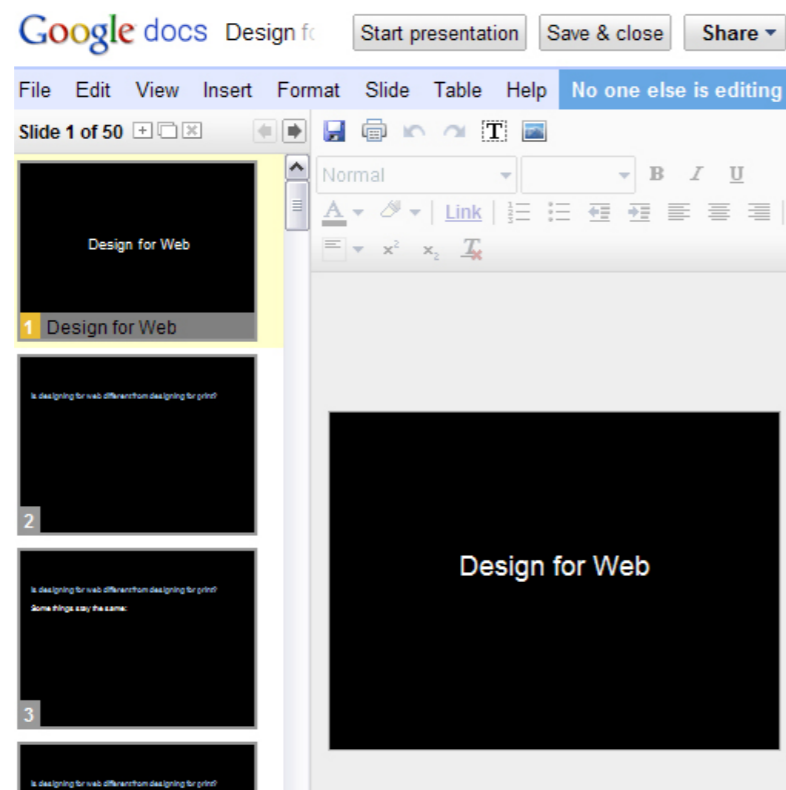
Figure 40: Presentation interface.

5.2.4 Sharing documents

There are two ways of sharing documents:

1. For collaboration, allowing others to co-author and help you create and change a document.

2. For viewing, allowing others to see the document, but not to edit it.

You can also choose whether you wish to make a document public, by publishing it, or to keep it private.

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5.2.5 Sharing a document for collaboration

Open the document and click on the "Share" button at the top right of the page.
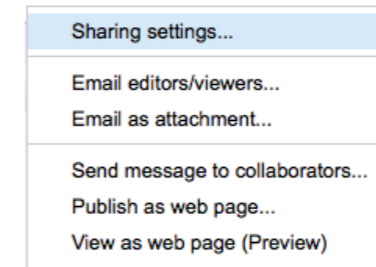
Figure 41: Sharing a document.

1. Sharing settings: Add collaborators and manage the people who can edit or view your document.

2. Email as attachment: Attach the document to an email.

3. Send message to collaborators: Send a note to everyone who has editing access to the document.

4. Publish as web page: Turn the document into a publicly available – but non-editable – document that anyone can see.

5. View as web page (Preview): Preview what the document will look like once it is published.

5.2.6 Inviting collaborators

The first option in the "Share" dropdown menu opens an interface that allows you to send a message inviting others to access and edit the document.

Google Documents has three levels of visibility, which you can set individually for each document. The three levels determine how private your document is.
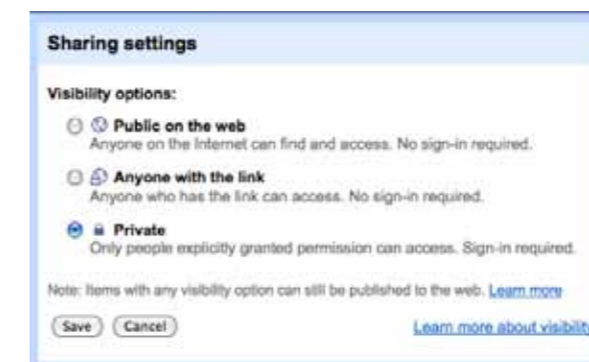
Figure 42: Visibility options.

In the "Sharing settings", you can add new collaborators, write a personalised note in the optional message area and view and manage those who already have access to the document.

Figure 43: Inviting collaborators.

The people you invite will receive an email with your message and a link asking them to sign in to Google Documents. They don't need to have a Gmail address, but they will need to have a Google account so that they can access Google Documents.

5.3 Further reading for section 5

1. Google Documents tips and tricks: news.cnet.com/8301-17939_109-9732473-2.html

2. More Google Documents tips and tricks: www.accreditedonlinecolleges. com/blog/2009/100-great-google-docs-tips-for-students-educators

6. Summary of chapter 6

In this chapter, we looked at:

• The principles of organising information using folders and tags

• Using local bookmarks to save the locations of web pages

• How you can use the Delicious social bookmarking service to save and share bookmarks online

• How RSS works and how it is applied

• Using Google Reader to keep up to date with new content

• Customising the iGoogle web portal to suit your individual needs

• What document sharing is, and how to use Google Documents

7. References

7.1 Folders and tags

1. Folders in Apple OS: support.apple.com/kb/HT2476

2. What are tags? blackboard.blog-city.com/what_are_tags_how_do_ they_work.htm

7.2 Using bookmarks

1. Bookmarks in Internet Explorer: www.ehow.com/how_2033258_ manage-bookmarks-internet.html

2. Bookmarks in Firefox: mozilla.gunnars.net/firefox_bookmarks_tutorial. html

3. Get started with Delicious: delicious.com/help/getStarted

4. Delicious frequently asked questions: delicious.com/help/faq

7.3 Using RSS

1. What is an RSS feed? www.sixapart.com/about/feeds

2. What is RSS? rss.softwaregarden.com/aboutrss.html

3. Help on using the Google Reader: www.google.com/support/ reader/?hl=en

7.4 Using a web portal

1. What is a portal? www.wisegeek.com/what-is-a-web-portal.htm

2. List of web portals: www.google.com/Top/Computers/internet/On_ the_Web/Web_Portals

3. iGoogle help: www.google.com/support/websearch/bin/topic. py?hl=en&topic=1592

7.5 Document sharing

1. Google Documents help: www.google.com/google-d-s/intl/en/tour1. html

Staying safe online

- Are you a target?
- Malware
- Firewalls and antivirus software
- Phishing
- Passwords

07

Introduction

By the end of this chapter, you will:

- Understand the risks inherent to connecting to the internet (section 1)

- Know what malware is and how to avoid it (section 2)

- Know what antivirus software and firewalls are and how they protect you (section 3)

- Know how to avoid being the victim of a "phishing" attack (section 4)

- Be able to create and remember secure passwords (section 5)

A. Personal safety

1. Are you a target?

How dangerous is the internet? Newspapers and magazines are filled with stories of computer viruses, hackers and online fraud. Maybe it would be best to disconnect your computer from the internet altogether?

Most of us learned the common-sense rules of staying safe when we were little children: "don't talk to strangers", "look before you cross the road", "careful, that stove plate is hot." There are dangers at home, at work, on the road, in the playground and at the shopping mall. Behaving sensibly is not a guarantee of safety, but it reduces the risks.

The same applies to the internet. If you know the "rules of the road", you can avoid the unpleasant and dangerous aspects of being online. You can regain control over your safety online.

1.1 What can happen?

Before we focus on the strategies you can use to keep yourself safe, let's have a quick look at the dangers you might be exposed to.

1.1.1 Identity theft

Identity theft is a serious crime. It is possible for someone else to impersonate you if they have access to details such as your internet passwords, your address, identity number and credit card number. With this information, a stranger can steal your money or safely commit fraud, knowing that you will be blamed.

1.1.2 Damage to equipment and stored information

Some software programs are designed to harm your computer. They can corrupt files and make the machine difficult or impossible to run. A computer infected with a virus can cost time and money to repair. Viruses cause tremendous disruption to network and email services.

1.1.3 Loss of privacy

The more you "live online", the more information about you may become available to others. One of the consequences of loss of privacy is the possibility of identity theft, as mentioned above. But there is more to "keeping private" than protecting your money and passwords. How much control do you have over what others know about your behaviour, tastes, opinions, credit record, sexual preferences, health and other aspects of your life?

1.2 How can I protect myself?

That list is enough to make anyone think twice about ever going online again. The rest of this chapter examines the various aspects of online safety. But first, here is a quick checklist to keep you safe online. These rules are every bit as important as "don't use your hair dryer in the bath" or "don't drink and drive". It is better not to wait until you are hurt – prevention is better than cure.

1.3 The online rules of the road

1. Install and maintain antivirus software and a firewall. There is no substitute for reliable and up-to-date protection for your computer. You will learn more about antivirus software and firewalls later in this chapter.

2. Be cautious of opening email attachments, even from people you know. Take the same care when opening files from other people's flash drives or CD-ROMs.

3. Take care when installing new software. Some software programs can create loopholes in your computer's security. Always search online to find what other users say about software before installing.

4. Take care before sharing personal information such as your passwords, phone number, identity number, bank account details and credit card details. Never share such information with a stranger. Never share such information in a chat room or instant message, and check that you are on a secure connection before entering this information into an online form.

> **NOTE**
>
> What are firewalls and antivirus software? These are software applications that protect your computer from viruses and hackers. You can find more information on these later in this chapter.

1.4 Keep safe on the social web

There are some special risks involved in communicating with strangers online. Keep these tips in mind when using public spaces such as chat sites, forums, blogs or social networks like Twitter and Facebook. These tips are particularly important when using online classifieds sites such as Gumtree or Craigslist, where there is a good chance that you will be dealing directly with strangers.

1. Never share details such as your phone number, place of work, school or physical address.

2. If you are younger than 16, don't share this fact online. This can attract unwanted attention and result in your being stalked or harassed.

3. Be aware that if you use an obviously female nickname, you may attract unwanted attention.

4. Be very careful in arranging a "real world" meeting with anyone who contacts you online. NEVER agree to meet such a person without some trusted friends present.

5. Be aware of the "privacy" settings of any social media networks you use, such as Facebook and Twitter. We will cover these in more detail in the chapter on social networks.

1.5 What about hackers?

All of the threats discussed in this chapter – viruses, worms, phishing and the rest – are created by someone who has decided to use their digital expertise to do harm. We often refer to these online criminals as "hackers".

The term "hacker" is controversial. It commonly means a person who attempts to gain unauthorised access to a computer in order to do harm. In many online communities, however, this type of person is called a "cracker", and a "hacker" is a skilful programmer (particularly one with an unorthodox attitude towards authority). Another benign use of the term is for a person who can make technology do useful or entertaining things that it was not explicitly designed to do.

You probably think that hackers always use sophisticated technology, but they are equally likely to use quite simple and non-technological methods – for example, tricking you into telling them your password with a phishing email.

Why do hackers do what they do? Apart from the obvious motives such as gaining access to your bank account and extracting money, there is quite a variety of reasons.

Some hackers will perform the digital equivalent of graffiti – they will gain access to a database or website and deface it, simply to prove that they had the necessary skill. This could include anything from leaving a simple text message to destroying data.

Some hackers claim to be "white hat" hackers, and use their skills to expose security flaws that can then be fixed.

In this digital age, governments employ hackers to help them gather intelligence. For example, journalists who write about China have alleged that their email accounts have been hacked by the Chinese government.

There are also hacker groups who say that they are working to expose fraud, corruption and criminal activity in governments and business establishments.

How safe are you from hackers? Most of the information in this chapter is explains how to protect yourself. However, there is no denying that there are aspects of our digital lives that are beyond our control. We rely on our banks and service providers to keep our data safe, but mistakes can happen. However, that does not mean you are hopelessly vulnerable to attack: hackers don't have it all their own way.

Most reputable online services – including banks, email providers and shopping sites – use the digital equivalents of barbed wire, burglar guards, locks and guard patrols to protect themselves from hackers. In fact, the current rise in phishing attempts could be seen as an indication of the strength of these defences. Hackers are exploiting the weakest link in this security chain: your willingness to fall for a persuasive message.

B. Data safety

2. Malware

2.1 What is malware?

The term malware (from MALicious softWARE) is the collective term for software designed to gain access to your computer without your consent, whether to harm it or to gather information.

2.2 Computer viruses and worms

Computer viruses and worms are software programs designed to install themselves without your permission and harm your computer. While the terms "virus" and "worm" are often used interchangeably, it is worth knowing the difference.

Viruses always attach themselves to other software programs. They are designed to take advantage of a loophole or weakness in the software you already have installed on your computer. For example, a virus can embed itself into Microsoft Word and cause that application to disrupt your computer. A virus always requires some human intervention to spread. For example, a virus in an email attachment cannot infect your machine until you double click on it to open it and allow it to run on your machine.

Worms are stand-alone software programs. They can run all by themselves, and don't have to embed themselves into other software programs to do their harm. Worms do not require human intervention to spread from one computer to another, but take advantage of existing security loopholes to access your computer. In other words, the person who creates a worm looks for ways in which to exploit weaknesses in the network that connects computers together. If these flaws exist in your network, the worm can access your computer with no further help from you.

Both viruses and worms can duplicate themselves and spread from one computer to another via a computer network. They also spread by infecting storage devices such as flash drives, or by attaching themselves to email messages.

Another difference between viruses and worms is the effect they have on your computer.

Viruses can delete documents, or erase everything on the hard drive of your computer. They can "corrupt" a document, which means that the data in the document is changed in such a way that the computer will no longer be able open or edit it. They can also disrupt your computer by simply duplicating themselves endlessly to fill up storage space, and can interfere with email systems by overloading them with automated emails.

Although worms can contain a virus "payload" that corrupts files or damages a computer, they are primarily used to gain access to a user's computer. Once a machine is infected with a worm, the creator of the worm may be able to control that machine. For example, they may use their access to steal sensitive information or to use your machine to send thousands of spam emails.

2.2.1 Macro viruses

While there are no viruses that infect the Mac operating system, it is possible for some applications on an Apple Mac computer (as opposed to the operating system itself) to be infected by a "macro virus".

Macros are small programs that exist inside applications like Microsoft Word. They are designed to automate repetitive tasks. For example, a Microsoft Word document can include a macro to automate page numbering. Macros can be saved as part of a document, and that is how macro viruses spread. For example, if you open a Word document with an infected macro, it may spread to the version of Microsoft Word on your computer.

Purely looking at harm to your own computer, macros viruses are not usually as harmful as viruses that affect operating systems, but they can be quite disruptive. For example, they will prevent you from saving a document in the format you choose.

The real danger of macro viruses lies in the way they spread themselves. Because they often cause a computer to send multiple infected attachments, macro viruses can cause mail servers to fail under the sheer load of emails that each infected computer is sending.

2.2.2 Trojan viruses

Trojan viruses infiltrate your computer's security system. The Trojan itself does not harm your computer. Instead, it creates a hole in your computer's security system so that a hacker can gain access, for example to harvest sensitive personal information like credit card details or bank account numbers. Trojans are not self-replicating like most other viruses, but are imbedded in innocent-seeming files like screensavers or games, and are spread as these are downloaded and installed.

2.2.3 Some famous worms and viruses

- Love-bug, a worm that was spread via an email with the subject ILOVEYOU, and the message "Kindly check the attached love letter coming from me." The worm spread itself by automatically sending itself to other contacts in the user's address book. Its exponential spread disrupted email servers worldwide.

- Melissa virus, a macro virus that spread itself by sending emails with an infected Word document to contacts in the computer's address book.

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2.2.4 How do I know if my computer is infected with a virus or worm?

Unfortunately, it is quite possible for a computer to be infected with no obvious symptoms. However, there are some common signs.

- The computer freezes constantly

- Files and folders disappear or refuse to open

- You cannot access the websites of antivirus software companies

- You computer displays unexpected messages or images, or plays unusual sounds

- Your CD-ROM drive opens and closes for no reason

- Programs start by themselves

- If you have a firewall installed, it may notify you that an application has attempted to connect to the internet

- People mention that they have received emails from you, but you never sent them

- Your mailbox contains many messages with no sender or no subject listed

If you suspect you may have a virus on your computer, don't panic. See the end of this section for instructions on how to deal with a possible malware infection.

2.3 Spyware and adware

2.3.1 Spyware

Spyware is a type of software program that installs itself on your computer without your permission. Unlike viruses and worms, spyware does not duplicate or spread itself. It is not designed to harm your computer, although it can inadvertently cause harm. Spyware spies on you by gathering information and relaying it to interested parties. For example, it may keep a record of your browsing and shopping habits. Apart from the ethical issues surrounding the invasion of your privacy without your consent, spyware can cause harm by interfering with the functioning of your computer, slowing it significantly. It can also expose you to unwanted spam emails and other communication.

2.3.2 Adware

Adware is a form of spyware that displays unwanted adverts on your computer. Some types of adware will attempt to redirect your browser to a particular website – frequently a pornographic site. These "browser hijackers" are

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particularly difficult to get rid of.

2.3.3 How does my computer get infected by spyware?

- Downloading and installing free software: Many software applications include spyware. Screensavers and games are particularly likely to be spyware in disguise.

- Peer-to-peer networks: File-sharing clients designed to share music and video files are often the source of unwanted spyware. See the end of this chapter for more on peer-to-peer applications.

- Browser add-ons: Browser enhancements like special toolbars or additional search boxes may be spyware in disguise.

- Fake anti-spyware scans: Some online services pretend to offer scans to check if your computer is infected, or to offer protection from spyware. These are, in fact, often spyware themselves. If you scan your computer or download the application, you have installed more spyware.

- Drive-by installations: Some websites will attempt to bypass your browser's security and install spyware onto your computer.

2.4 Avoiding malware

- Install reputable antivirus software and a firewall, and keep them updated. Use your antivirus software by scanning any flash drive inserted into your computer and any new software you have downloaded.

- Don't open email attachments unless you know what they are.

- If possible, check with the sender before opening an attachment. Be on the lookout for emails with odd subject lines and be particularly careful of attachments that appear to be video files, or attachments with an .exe file extension.

- Don't download software and add-ons unless you have thoroughly researched and checked that they do only what you expect them to. Unfortunately, pirated software and free software are particularly likely to contain malware.

- Don't visit suspect websites. Websites that specialise in offering "cracks", pornography or pirated software, movies and music will often attempt to infect your computer.

2.5 A note about peer-to-peer applications

Peer-to-peer applications like Limewire, Morpheus and Kazaa are popular ways to access free music and videos. Unfortunately, they can severely compromise your computer's security.

2.5.1 What are peer-to-peer programs?

A peer-to-peer (or "P2P") application is a piece of software designed to give you access to files on other people's computers, and to give them access to files on your computer.

A common use for P2P applications is to access free music and video files. You can use the application to request a particular track or video and it will list all available files from the other users on the same P2P network. You can then use the application to retrieve the file from their computer.

2.5.2 The dangers of P2P

- The files you retrieve may harm your computer. Many P2P networks are notorious for the prevalence of viruses and other malware.

- Because the application allows access to your files, it creates a hole in your security system. A hacker may take advantage of this to gain control of your machine or retrieve sensitive information about you.

- You may not consider piracy to be wrong, but if you download or distribute pirated material, you may be liable for prosecution.

Not all P2P applications are equally risky. Limewire and Morpheus are examples of P2P applications that allow you to set filters and other security measures to minimise the risk. However, no P2P application will ever be completely safe. For example, the Limewire network is riddled with viruses, spyware and Trojans masquerading as pornography.

2.6 What to do if you suspect malware on your computer

1. Don't panic. Acting without thinking can cause more damage than any virus.

2. Disconnect. Remove your computer from the internet and any local network by unplugging all phone lines and network cables and switching off any wireless routers.

3. Back up your data. Save critical data on an external device such as an external hard drive, CD-ROM or flash drive.

4. Install a reputable antivirus software program and firewall.

5. Download the latest updates. You cannot download onto your computer

while it is not connected to the internet, so ask a friend or colleague to help you download the latest virus updates for your software.

6. Use the virus software to scan your computer. Remember to scan the backup you created as it may also be infected.

2.7 Further reading for section 2

1. Who creates viruses and why? www.viruslist.com/en/viruses/encyclopedia?chapter=153280553

2. Are peer-to-peer applications dangerous? www.articlesbase.com/security-articles/are-peertopeer-applications-dangerous-1496261.html

3. How risky is peer-to-peer really? billmullins.wordpress.com/2009/06/08/how-risky-is-peer-to-peer-p2p-file-sharing/

4. Prosecution for file sharing: www.guardian.co.uk/technology/2003/jul/24/newmedia.netmusic

3. Firewalls and antivirus software

3.1 What is a firewall?

A firewall is a fireproof wall that acts as a barrier to prevent the spread of fire through a building. In the digital world, a firewall serves much the same purpose. A firewall is a system that allows or denies the flow of data into a computer or computer network. It can detect and deny potentially harmful attempts to access a computer or network.

A firewall can be a hardware device such as a router, or software installed on a computer. A firewall often acts as a barrier between a local network and the internet. Examples of a local network are computers connected together inside a home, school of business.

Some operating systems come with pre-installed software firewalls. Examples are Windows XP and Vista, and the Mac operating system. It is also possible to buy a software firewall and install in on your computer.

3.2 How does a firewall work?

A firewall monitors the flow of data to and from your computer. It has a built in set of rules as to what it should allow, and what it should deny. You can adjust these rules by adjusting the settings of your firewall.

For example, a typical firewall will alert you whenever a software application on your computer attempts to make a connection with the internet. It does this because some forms of malware, like spyware, may attempt to transmit information about your browsing habits. You can decide to allow or deny the program access to the internet.
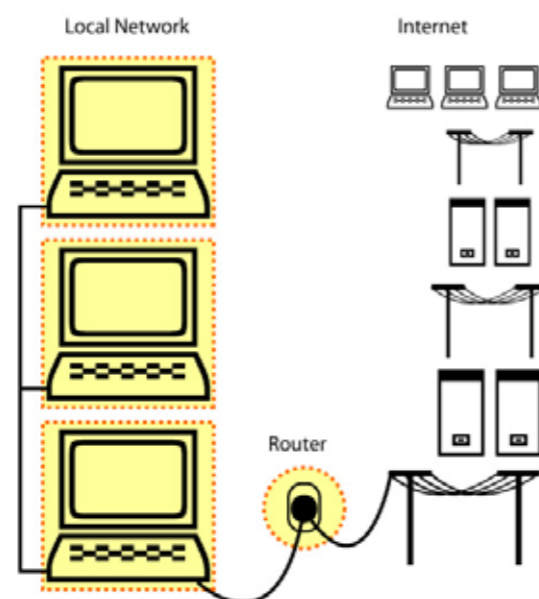
Figure 1: Computers connected to the internet.

Another example: the firewalls of many businesses or schools do not allow computers on their network to use "File Transfer Protocol" – the process that is used to place websites online or to update them. This is because hackers can exploit this "FTP access" to gain access to any computer on the network.

You may not be able to change the firewall policy of your school or place of work, but you can change the settings on your own firewall.

3.2.1 Proxy server

Some companies use a proxy server as part of their firewall protection. A proxy server is a gateway between the company's network, and the internet. When an individual behind the firewall requests a website, it is transferred to the proxy server, and then to the user's computer. This means that the network outside of the firewall – the internet – only comes in contact with the proxy server and not with the computers behind the firewall. This makes it much easier for the company's IT team to secure the network against attack.

Another term you may come across when dealing with firewalls is the rather over-dramatic term "DMZ" or demilitarised zone. A DMZ is a computer or directory in a computer that not protected by the firewall. It can be used to perform those functions, like FTP, that are not permitted by the firewall.

3.3 Where can I get a firewall?

Most modern operating systems come with a built-in firewall. You can buy additional firewall protection. Many antivirus programs offer the option of adding a personal firewall. You can find a list of these applications in the section on antivirus software below.

3.4 Firewall exercises

Whether you are using the built-in firewall that came with your computer's operating system or a commercial version, you can learn more about your own system by doing these exercises.

3.4.1 Exercise 1: Check your protection

Check your computer's safety status at the very handy "Shields up" online application (www.grc.com/x/ne.dll?bh0bkyd2).

Run all the tests, and read the feedback provided. This will give you a very thorough indication of how vulnerable your computer is to all kinds of online attacks.

3.4.2 Exercise 2: Check if your firewall is enabled

Can you figure out if you have a working firewall?

Hint: your Windows firewall can be found by accessing Start > Control Panel. If you are using a Mac, look in "System Preferences" under "Security". If you have purchased additional firewall software, will need to disable the built-in firewall that comes with the operating system. Check with your firewall vendor to find out the ideal system setup for their product. Your operating system may continue to warn you that you have no firewall protection, even if you have another firewall installed. If you chose a reputable alternative firewall, this warning is redundant.

3.4.3 Exercise 3: Check which applications are allowed and which are blocked

Once you have figured out how to access the firewall's interface, can you find where it lists the applications that are allowed to access the internet, and those that are blocked?

3.5 What is antivirus software?

Antivirus software will protect your computer from all forms of malware. Many antivirus programs can be combined with firewalls for additional protection. Antivirus software can operate in two ways:

1. Checking for viruses by using lists of known virus definitions
2. Checking for suspicious, virus-like activity on a computer

Many reliable antivirus packages combine these methods, to gain the best of both approaches.

3.5.1 Checking for known virus against definitions

Most antivirus software works by scanning your computer for known viruses. It does this by checking a list that describes all viruses that have been discovered so far. As new viruses are discovered and analysed, the list is updated. The software is usually configured to retrieve these updates automatically over the internet as soon as they become available.

It is possible that a new virus can bypass the antivirus software if it infects a computer before its definition is added to the list.

3.5.2 Detecting suspicious activity

Some antivirus programs don't look for known viruses, but rather look for typical virus-like activity. This is also known as "heuristic" detection. Whenever an application behaves in a way that the antivirus software considers dangerous, it will attempt to stop this action and alert the user.

While this method may ensure that even the newest virus can be detected, it can also create false positives that can disrupt your computer. A false positive occurs when the software considers harmless activity to be virus-like.

3.5.3 Scanning

Virus software can be set to perform different types of scans.

- Real-time scanning: The antivirus software can be set to run constant scans in the background. In some cases, real-time scanning can cause significant loss of speed. Good antivirus software does not significantly affect the performance of a computer during real-time scans.

- User-initiated scans: You may wish to use the software to scan a particular file or device. For example, you should initiate a scan of any data you download from the internet, and whenever you insert a flash drive into your computer.

3.6 Some reliable commercial antivirus applications

1. F-Secure: www.f-secure.com (Windows, Mac and Linux)
2. Kaspersky: www.kaspersky.com/kaspersky_antivirus (Windows, Mac and Linux)
3. Avast!: www.avast.com/index (Windows and Linux, Mac only available in "Professional" edition.)

3.7 Some reliable free antivirus applications

1. Avast! Home Edition: www.avast.com/index (Windows and Linux)
2. AVG Basic Protection: free.avg.com/za-en/homepage (Windows only)
3. ClamWin: www.clamwin.com (Windows only)

4. Phishing

Malware usually spreads and does damage with little intervention from its creator. Phishing, on the other hand, is an example of how a criminal can use technology to mask their actions. Phishing happens when somebody uses fake emails or websites to trick you into revealing your banking details or other sensitive information.

A typical phishing attack might look like this:

> You receive an email from your bank. You are quite sure that it is legitimate because it looks exactly like the other emails your bank has sent you. It is an alarming email, because it warns you of a potential threat to their security system. They need to confirm your personal details to ensure that your account is safe.

> You click on the link in the email, and your browser opens the familiar internet banking website. You log in with your username and password, as you always do, and fill in the required information. You close the browser with relief, thinking that you have averted an online attack. A few hours later, your bank account has been emptied.

Phishing relies on the weakest point of any security system: you. Through a series of confidence tricks, the phisher can lure you into revealing your username, password, PIN number or any other details they require.

Note: If you lose your master password, there is no way to retrieve it.

4.1 Detecting a phishing attempt

- Don't be fooled: Phishers can make an email look as though it is from a legitimate source by creating a false "from" identity, and by using letterheads and logos to make the communication look legitimate.

- Mistaken identity: Phishing messages often refer to purchases you never made or services you did not sign up for. This is to scare you into thinking that your accounts have already been compromised, or to trick you into thinking you can take advantage of their mistake.

- Generic greetings: Although it is possible that a phisher can direct an attack at you specifically, a generic greeting such as "Dear Customer" should be a red flag. Legitimate communications are likely to use your full name.

- Threats and warnings: Phishers take advantage of your insecurity by trying to scare you into acting without thinking. A typical message will warn you that they are about to "terminate your account" unless you act quickly.

- Requests for sensitive information: No legitimate business will ever ask for your personal details via email or pop-up windows.

BE ALERT

Phishers can use any form of communication to trick you, not just email. Banner ads, pop-up windows, chat rooms, cellphone messages and even telephone calls have all been used to trick people into divulging their personal details.

- Here are two screenshots of typical phishing attempts. Can you spot all of the warning signs?

QuickTime™ and a decompressor are needed to see this picture.

Figure 2: A phishing email.

Figure 3: Two emails with phishing hyperlinks.

4.2 Spotting a phishing URL

One of the ways to spot fake websites set up by phishers is to look carefully at

the links and URLs in a message. You can do this by looking at a link before you click it, or by checking the URL in the address bar of the website.

Phishers often disguise links, so that the link that is visible in the phishing message will look innocent enough, but the underlying link is quite different. You can spot the real URL that a link points to like this.

1. Ensure that your browser's status bar is visible by going to the "View" menu in your browser.

    • In Firefox, ensure that "Status bar" is ticked.

    • In Internet Explorer, look under the "Toolbars" submenu and tick the "Status bar" option.

2. Now, if you hover over any link – whether it is on a web page or in an email – you will see the URL that the link points to in the status bar. Look at the screenshot below. Notice how different the URL in the status bar is.
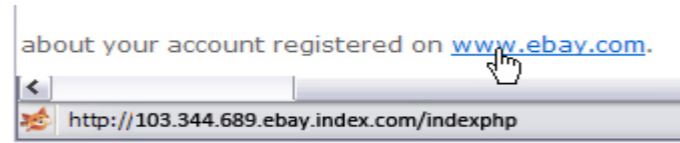
4.2.1 How to identify that a site is phishing

IP address: URLs that include an IP address, which looks like a long series of numbers, are very likely phishing sites.

http://203.144.234.138/index.htm

Looks right – but not quite: Another common trick (which is very easy to fall for) is to change one or two letters in a familiar URL so that it looks legitimate at first glance. Here is an example.

http://micosoft.com/

Another version of this is to add legitimate-seeming words, usually joined with a hyphen.

http://index-microsoft.com/

Deceptive domains: Another trick is creating an extra long domain in the URL so that you identify the wrong part of the URL as the domain.

http://secure-signin.ebay.com.ttps.us/

This URL seems to have the domain "ebay.com", but actually the domain is "ttps.us".

4.2.2 How can you tell what the real domain is?

Rules of identifying the true domain in a URL:

1. Learn to spot the name. The middle part of the URL tells you the site

name. That means, the bit between http:// and the next forward slash, "/".

http://www.getsmarter.co.za/learning/mod/forum/discuss. php?d=2774#p14062

For example, in this URL, the bit between http:// and the first slash is **www.getsmarter.co.za** – that is the domain name.

2. Are you sure it's the name? Don't simply look at the left hand side right next to the http:// Remember to study the URL all the way along to the first slash. The true domain is the bit furthest to the right, just next to the first slash.

Let's try some examples.

http://secure-signin.ebay.com.ttps.us/

The domain appears to be http://**secure-signin.ebay.com**.ttps.us/. Actually, it is http://secure-signin.ebay.com.**ttps.us**/, and clearly a phishing site.

http://ebay.accept.com/index.php

The URL has the domain http://ebay.**accept.com**/index.php. At first glance, this looks like a legitimate eBay URL, but the domain is "accept.com": nothing to do with eBay, and probably a phishing site.

4.2.3 This is confusing. How can I tell for sure?

The best way to check if a domain is legitimate is to do a search for it using a search engine. For example, if you need to visit eBay, type "ebay.com" into a search engine. The top result is usually the legitimate website. Another good rule of thumb is never to click on a link in an email message. Rather type it into your browser yourself.

4.2.4 Feeling unsafe?

You can test your ability to spot phishing scams at these links.

1. A test at Washington post: www.washingtonpost.com/wp-srv/ technology/articles/phishingtest.html

2. A test at Sonicwall: www.sonicwall.com/phishing

3. The Phishing Phill game: wombatsecurity.com/antiphishing_phil/index. html

4.3 What else can I do to protect myself?

• When in doubt, do not click on a link. Don't click on a link to access sensitive websites like your internet banking site. It is possible for a phisher to disguise a link to look legitimate, but actually point it to a fake website prepared by the phisher to harvest your information. Instead of clicking on the link, type the URL into the browser's address bar or use a trusted

bookmark that you created yourself.

- Look for https. If you are about to enter sensitive information on a website, always have a quick look at the URL of the site in the browser's address bar. If it is a secure site, the URL will start with the letters "https". A normal site will have the letters "http" without the final "s".
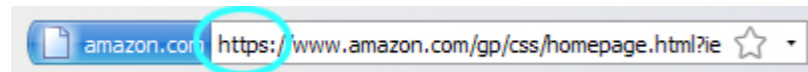
- Look for the lock. Your browser will display a small lock icon. Depending on the browser you use, it might be in the status bar at the bottom of the browser or in the address bar at the top.

- Check the URL. If you have any reason to doubt the integrity of a website, have a close look at its URL in the address bar. If a site is a fake, this can often be seen in its domain name (the part just before the ".com" or ".co. za"). For example, the genuine domain for ABSA bank is "absa.co.za". A fake site could have the URL "absa.login.co.za".

4.3.1 Keeping your software up to date

Another way to ensure that your computer is as secure as possible is to keep your software updated to the latest, most secure versions. This is particularly important for internet browsers. For example, many people regard Internet Explorer version 6 as a significant security risk. If you still use this browser, consider updating it to the latest version, which is version 8 at the time of writing, or switching to another browser such as Firefox or Google Chrome.

4.3.2 Patches

You do not always have to install a completely new version of a program to keep its security features up to date. Software manufacturers frequently release "patches" or small software programs that will upgrade your existing software. You may be prompted to download and install such a patch as it becomes available.

For example, a computer that runs on the Windows operating system will automatically download software patches to upgrade itself through the "Automatic Updates" feature. Most Windows systems have automatic updates enabled by default.

5. Passwords

A downside to the convenience of online banking, shopping and downloading is the need to create and remember passwords. Passwords are essential to keeping your money and information safe – and can often be the weakest link. Even the best security system can be undermined if you do not use it properly.

5.1 Creating a safe password

Hackers have access to sophisticated programs that can guess millions of password combinations. Often, however, they don't even need to use these, because:

- You share your password with somebody, for example when responding to phishing.

- You use an easily guessable password. Chances are your password is 123456, your dog's name, the name of a family member, your birth date, your phone number or even the word "password".

- You write your password down where it can be found.

Without your help, hackers need to use software that guesses many letter and word combinations. The software can use several types of attacks.

1. A brute force attack makes guesses based many combinations of random characters.

2. A common words attack makes guesses based on a list of commonly used words.

3. A dictionary attack makes guesses based on a complete list of words from a dictionary.

Given a long enough time, hacking software can guess any password. The trick is to generate a password that will take an impractically long time to guess. With a sufficiently long password, the hacker would need months or years to guess the character combination that makes up your password.

The simplest solution would be to use a long string of random characters and letters. This would take even the brute force method a very long time to guess. However, how likely is it that you will be able to remember your own password?

If you cannot remember a password easily, chances are that you will write it down or change it to a less secure password out of irritation.

Here are some tricks that will help you to generate long and complex passwords that are difficult to guess but easy to remember.

- Combine several words, preferably at least three: "dangerous dragons dance".

- Include numbers and symbols. To help you remember which symbols you used, include those that already look like the letters in your password: "d@ng3r0us dr@g0ns d@nc3".

- Use acronyms. An alternative method is to create a phrase and use the first few letters of every word: "Twinkle twinkle little star" would become "Twtwlist"

5.2 What about ticking "Remember this password" on a site?

You may have noticed that many websites that require you to log in with a username and password give you the option to "remember me" or "keep me logged in". This means that the next time you access the site, you won't be asked for your password in order to access the site.

This can be convenient, but be careful:

- Never use this option on a shared computer, or a computer in a public space such as an internet café or library. If you do, the next person who uses that computer will be able to access that site with your private login details.

- Avoid using this option on "critical" sites such as your email account or any site that you use to transact online.

5.3 What about letting my browser save passwords?

Most browsers can save your passwords in a convenient list. Some browsers allow you to use this list to log in automatically without the trouble of manually entering a password.

Allowing your browser to save passwords can compromise your security. For example, hackers can access passwords saved in Internet Explorer through a small program that copies the password list.

Passwords saved in your browser can also be easily accessed by anyone who gains access to your computer, unless you protect your password list with a "master password." That way, only someone with a master password can view the password list.

To stay secure:

- Do not allow your browser to save passwords on any computer that could be accessed by a stranger, especially laptops and other easily stolen machines.

- If you do wish to save passwords on your browser, and your browser allows it, add a master password to your password list. (It is not possible

to use master passwords with Internet Explorer.)

5.3.1 Setting a master password in Firefox

1. Choose Tools > Options, and the options dialogue will open.

2. Tick the "Use master password" check box.

3. You will be prompted to choose a master password.

If you have a master password, you will be prompted to enter it each time you start a browsing session with Firefox.

5.3.2 Disabling password saving in a browser

In Firefox, click on Tools > Options and the options dialogue box will open.

1. Choose the "Security" tab.

2. Uncheck "Remember passwords for sites".

3. To delete any passwords that have already been saved, click on the "Saved passwords" button.

4. This will open your password list. To delete all passwords, click on the "remove all" button.
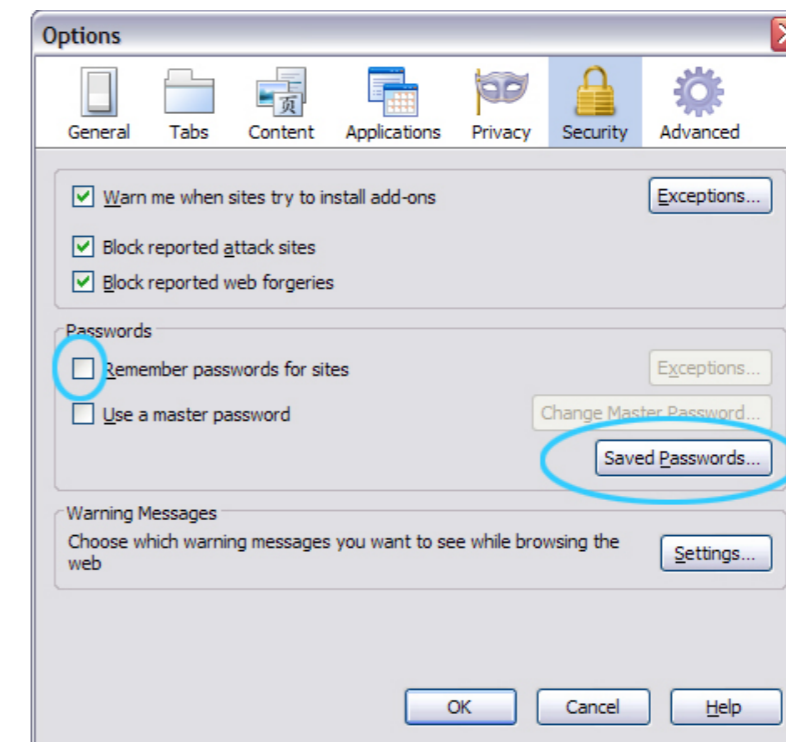
Figure 4: Disabling password saving in Firefox.

In Internet Explorer, click on Tools > Internet Options to access the internet options dialogue box.

1. Click on the "Content" tab.

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2. Choose the "Settings" button next to the "AutoComplete" section.
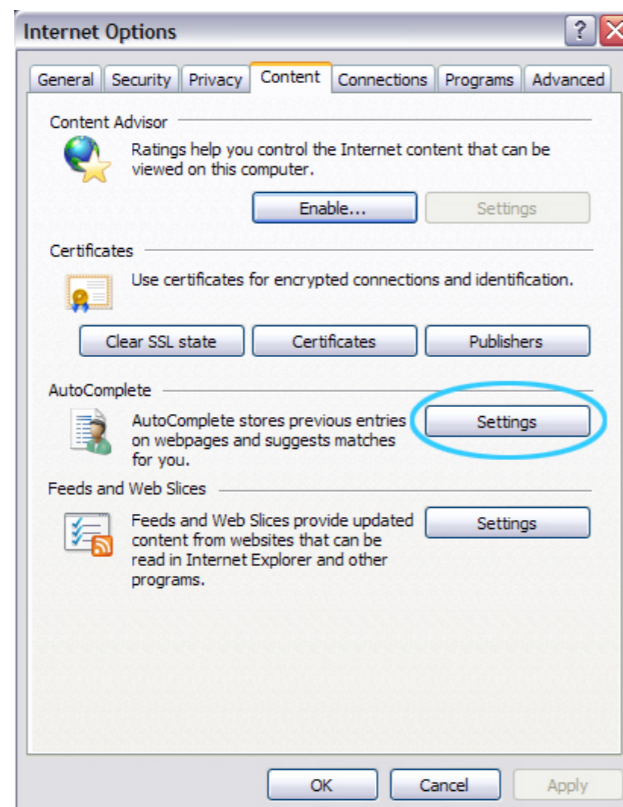
Figure 5: Disabling password saving in Internet Explorer.

3. A new box will open, in which you can uncheck "usernames and passwords on forms".

4. To delete all passwords that have already been saved, click on the "Delete AutoComplete history" button.
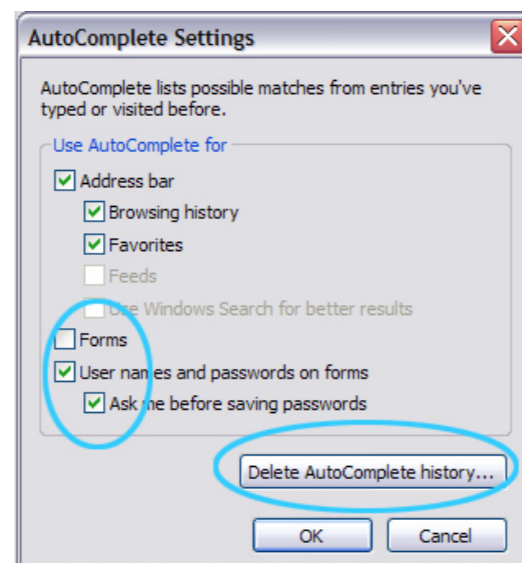
Figure 6: Deleting your AutoComplete history.

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5.4 Keeping your password safe

5.4.1 Vary passwords

It is tempting to use the same password for every application. This is dangerous. When you create a new online account, your username and password are stored on a secure online server. A bank or shopping site will use the latest in security and encryption technology to protect this information. An online forum might not. If you use the same password for all your accounts, it is possible that a hacker can join the dots and access all your accounts.

A middle ground is to use unique passwords for sensitive information, and a single hard-to-guess password for the rest.

Remember that your email password can be the key to accessing all your accounts. A hacker can use it to impersonate you or request that password reminders be sent to your email account.

5.4.2 Using password software

You can use password software to generate or keep your password list. There are many excellent free applications available for download. Password software is usually better at securing passwords than the built-in "password storage" that comes with your browser. Reliable password software uses a much higher level of encryption to keep your passwords safe.

5.5 KeePass

KeePass (keepass.info) is an easy-to-use, free password manager. It stores your passwords in a database, which is locked with one master key or a key file. The database is encrypted using the best and most secure encryption algorithms. KeePass can be used on Windows, Mac and Linux computers. It can be run from a portable device such as a flash drive – it does not need to be installed – and can be used to generate passwords as well as save the passwords you create yourself.

5.5.1 How KeePass works

KeePass has two aspects:

1. The software application that allows you to save and retrieve passwords

2. The database file in which the usernames and passwords are stored

KeePass is unlike many other software applications you may be used to: you can run the program directly from the program file, wherever it is saved. It does not need to be installed. For example, you can save the program file on a flash drive.

However, KeePass cannot run by itself – it needs access to the list of passwords

in the database file. For example, if you want to run KeePass from a flash drive, you will have to save the database file on the flash drive as well.

5.5.2 Using KeePass

To download and open the software:

1. Download the software from keepass.info.

2. Double click on the keepass.exe file to run the KeePass program.

The database is the file in which all your usernames and passwords will be listed. To create a database:

1. In KeePass, go to File > New.

2. A dialogue box will appear, asking you for your master password or key file. KeePass uses a master password or text file to encrypt your database. This is how the software ensures that you are the only person who can access this database.

3. Choose a password. This is the only password you will need to remember. It should be a long, complex password.

Figure 7: Choosing a master password.

To add a password to the database, click on the "Add Entry" button.

Figure 8: Adding an entry.

A dialogue box will open, in which you can insert all the details about the

password you are about to save.
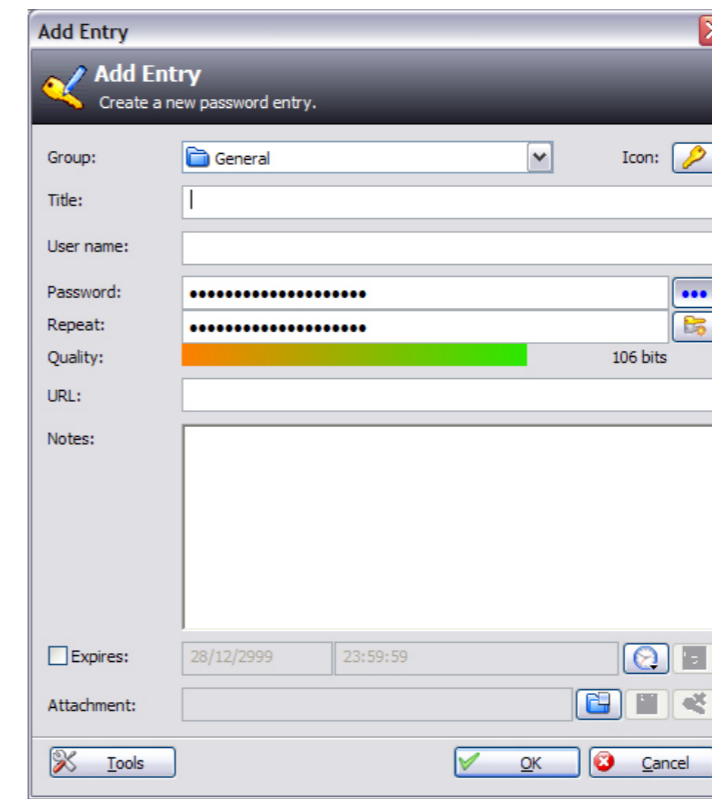
Figure 9: Adding an entry.

1. Title: The name of the site, for your own reference (for example, "my email").

2. Username: The username the site requires when you log in.

3. Accept the secure password that KeePass has already generated for you, or create your own. To see what the password is, click on the little button to the right of the password field. To insert your own password, simply delete the suggested password and insert your own.

4. Copy and paste the URL of the web page in the "URL" field.

5. Click "OK" to save the password into the database.

5.5.3 Saving the database

Every time you add an entry into the database, you must not only save the entry, you must save the database itself.

1. Click on the "Save" icon in KeePass.

2. If this is the first time you are saving the KeePass database, you will be prompted to choose a location to which the database should be saved.

3. Make a note of where you've saved the KeePass database. If you ever wish to use the software on another computer, or save it to a flash drive, you will need to copy this database as well.

5.5.4 Working with KeePass

KeePass offers some very useful features. In the screenshot below is the menu that appears when you right click on a KeePass entry. This gives a good overview of what you can do with KeePass.
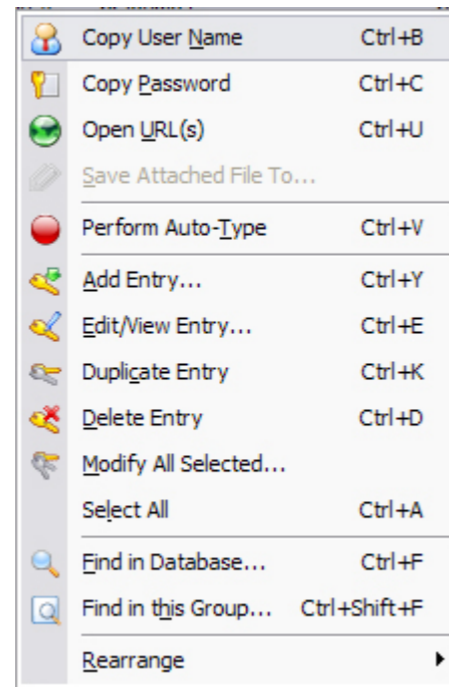
Figure 10: KeePass features.

- "Copy User Name" and "Copy Password" simply allow you to copy and paste the username and password to the relevant site.

- "Open URL" opens the site for you.

- "Perform Auto-Type" writes the username and password into the web page for you (you need to have the page open in your browser for this to work).

The rest of the functions relate to different ways of adding more passwords to the KeePass database.

6. Summary of chapter 7

In this chapter, we looked at:

- The potential dangers that being online can pose to both you and your computer

- The different types of malware – from viruses to Trojans – and how to avoid them

- Using firewalls and antivirus software to keep your data safe

- Identifying attempts to steal your information through "phishing" attacks

- Keeping your data safe with strong passwords

7. References

7.1 Malware

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2. What is a macro virus? www.wisegeek.com/what-is-a-macro-virus.htm

3. How spyware works: computer.howstuffworks.com/spyware.htm

4. About malware: netforbeginners.about.com/od/antivirusantispyware/a/malware101.htm

5. Virus descriptions: www.viruslist.com/en/virusesdescribed

6. What to do when your computer is infected: www.viruslist.com/en/viruses/encyclopedia?chapter=153280800

7. Are peer-to-peer applications dangerous? www.articlesbase.com/security-articles/are-peertopeer-applications-dangerous-1496261.html

7.2 Firewalls and antivirus software

1. How firewalls work: computer.howstuffworks.com/firewall.htm

2. Protect your computer: www.microsoft.com/security/firewalls/whatis.aspx

3. What is a firewall? www.antivirusworld.com/articles/firewall.php

4. Fake virus software: www.microsoft.com/security/antivirus/rogue.aspx

7.3 Phishing

1. Tips for staying safe online: onecare.live.com/site/en-us/article/websurfsafe.htm

2. What is identity theft? 101-identitytheft.com/idtheft.htm

3. How phishing works: computer.howstuffworks.com/phishing.htm

4. Google and privacy: www.narutocentral.com/?p=media/manga_chapters

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7.4 Passwords

1. Creating secure passwords: www.baekdal.com/articles/usability/ password-security-usability

Transacting online

- Introduction to transacting online
- How a typical online store works
- How an online credit transaction works
- Online banking
- Payment gateways
- Mobile payment

Introduction

By the end of this chapter, you will:

- Understand the scope of online commerce (section 1)

- Know how to buy a product at an online store (section 2)

- Understand how online credit transactions work (section 3)

- Understand the potential of online banking and be able to manage your own account (section 4)

- Understand how payment gateways such as PayPal work (section 5)

- Know how to use PayPal to make and receive payments online (section 5)

- Understand what mobile payment is (section 6)

1. Introduction to online transacting

You can find an online equivalent for almost any financial transaction.

- You can buy objects like clothing, books or DVDs.

- You can buy digitised music, videos, movies, books and software.

- You can pay bills – phone, electricity, TV license, website hosting, etc.

- You can book and pay for transport and accommodation.

- You can book and pay for entertainment – movies, theatre performances, music or sports events.

- You can subscribe to online content such as research articles or games.

- You can make donations to a cause you support.

The list is growing every day as more and more businesses make it possible for you to interact with them online.

2. How a typical online store works

To begin with, we will look at a straightforward online store like Amazon.com or Kalahari.net. Such stores sell physical objects like books, DVDs and clothing, and digital information like MP3 music files, digital videos and software.

Most online stores have the same fundamental structure:

1. An interface that allows you to search for products or services

2. A shopping basket where you can list items you wish to purchase

3. A checkout procedure

Some online stores will require you to create an account with them before you can purchase anything. Others will allow you to do once-off purchases without signing up for an account.

2.1 Why sign up for an account at an online store?

An account can be useful:

- It allows the site to record your credit card and contact information so that you do not have to re-enter it every time you want to make a purchase.

- It can keep a record of things you bought in the past.

- It can generate suggestions for things you might want to buy, based on your past browsing and purchasing record.

Some sites offer additional benefits to account holders, such as:

- Member discounts and special offers

- Newsletters or updates on the items you purchased

2.2 The checkout process

Most sites make it very easy to buy online. Every step is clear, and you will have many chances to change your mind. You can cancel the process at any point and see the total you will pay, including shipping costs, before you make the payment.

2.2.1 Checking out at Amazon

In this example, we are assuming that you have searched for and found an item you wish to buy on Amazon.com.

1. Choose the item you want, and add it to your shopping cart by clicking on the "Add to Cart" button. The "Buy with 1-Click" option means that you will bypass the checkout procedure described below and buy the item immediately.
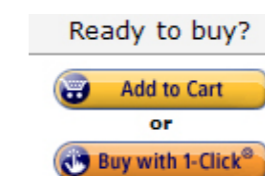
Figure 1: Add to cart.

2. If you first want to check what you are about to buy, you can go to your "shopping basket" by clicking on the shopping basket icon at the top of any page. The shopping basket is a page that keeps track of all the items you wish to buy or have bought in the past. Notice the "Save for later" and "Delete" buttons in the screenshot below.
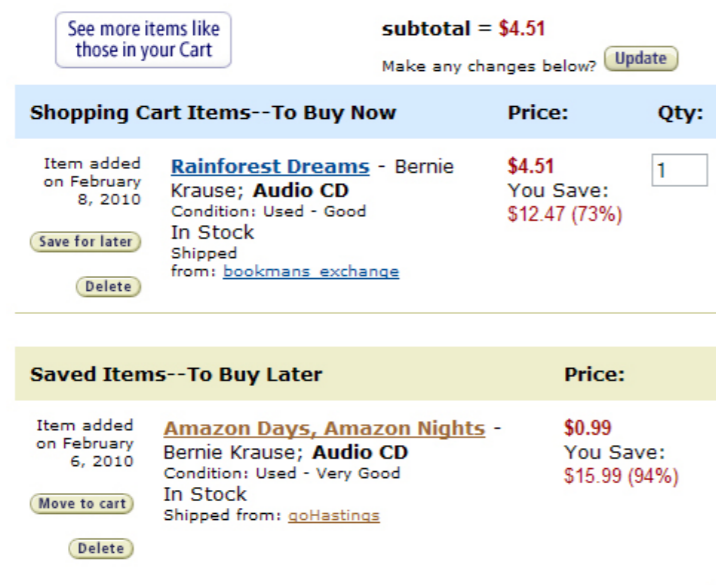
Figure 2: Shopping cart.

3. If you are ready to buy, click the "Proceed to Checkout" button. This button takes you to a page where you can specify how you wish to pay for the items in your cart.

Figure 3: Proceed to checkout.

4. This will take you to a series of pages in which you can fill in your personal details, your postal address and your payment method – for example, your credit card number. There may be several "continue" buttons. These will take you to the next page, and won't trigger payment.

5. When you have filled in all the necessary information, you will be shown a final page on which all the details are displayed.
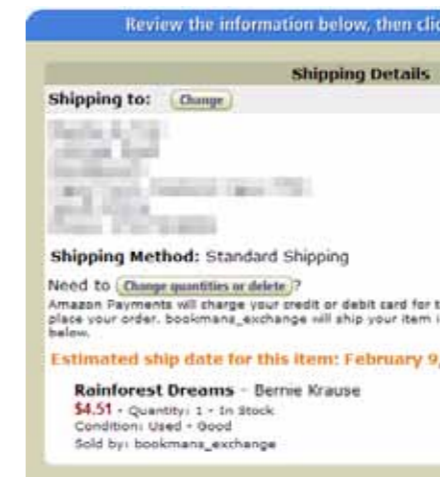
Figure 4: Final page.

6. If you are satisfied, you can click on the "Place your order" button. This button will trigger payment. On other sites, this button may be called "purchase", "submit payment", "pay now" or something similar. Don't click on this button more than once, as in some cases it could result in more than one order being placed.
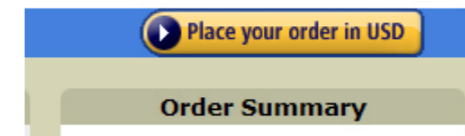
Figure 5: Place your order.

7. Once your order is processed, the site will give you feedback on its success. This may take the form of a page containing an order number, or an email with the details of your transaction. This is important information. You will need it if anything goes wrong with your order or if you are not satisfied with the product you purchased.

2.3 Some tips for pain-free checking out

- Stay calm. You can change your order or cancel at any stage – right until the final stage of submitting payment. Many sites even allow you to cancel the purchase after that point, but that is obviously not ideal.

- Don't hit the "back" button of your browser, as this may confuse the process. If possible, look for "edit", "delete order" or "cancel" buttons in the shopping site itself.

- Only hit the final button if you are sure. An incomplete checkout won't be processed, and no payment will be made.

2.4 Shopping safely

- Check the URL in the address bar. If you are about to enter sensitive information on a website, always have a quick look at the URL of the site in the browser's address bar. If it is a secure site, the URL will start with the letters "https". A normal site will have the letters "http" without the final "s".
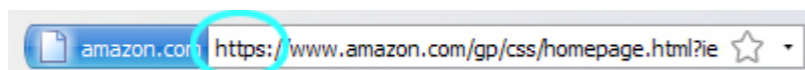
- Look for the lock. Your browser will display a small lock icon. Depending on the browser you use, it may be in the status bar at the bottom of the browser or in the address bar at the top.

- Take care when sharing your information. Never give your credit card number over the telephone unless you initiated the call. Never respond to an email that asks for sensitive information.

3. How an online credit transaction works

Many online transactions require the use of a credit card. From your point of view as a customer, the process seems very simple. You enter your name and credit card number into the correct form, hit the send button, your bank notifies you that your account has been debited and, in due time, you receive the item you bought.

Because things do not always go this smoothly, it is worth knowing what goes on "under the hood" of an online credit transaction. Before we look at the process, here are some terms you might come across.

- Secure server: A web server that uses encryption to safely communicate and store sensitive information like passwords and credit details.

- Payment gateway: It is not possible for an online merchant to connect directly to your bank. This would result in far too many separate and complex communications for the bank to manage. Online merchants use a service called a "payment gateway" to streamline the communication process. Many online merchants can use a single payment gateway. Payment gateways record and authenticate credit applications online. Some examples of payment gateways are PayPal, GOpay and SafePay.

- Acquiring bank or issuing bank: The bank that issues the credit card.

3.1 A typical online transaction

1. You choose the item you wish to purchase using the website of an online shop.

2. The site provides you with online forms to indicate what you want to buy, to fill in your name, contact details and shipping address and to fill in your credit card details.

3. The information is encrypted and sent to the shop's secure server.

4. The secure server checks whether you have filled in all the necessary information. Because it has no direct access to your banking records, it cannot check if you have entered the correct information. However, it can make sure that you enter information in the correct format. For example, it can detect that the number you entered is too short to be a credit card number. You may receive a prompt to fill in missing or incorrect information.

5. If you have filled in the correct information, the secure server sends the information to a payment gateway.

6. The payment gateway also checks that the information is complete, and determines which company manages the credit account – the issuing bank. If it encounters a problem, the payment gateway sends a

message back to the secure server. If there is no problem, it sends the message on to the correct issuing bank.

7. The issuing bank checks its own records to determine if you have an account, if the identity and credit card information are correct and whether you have sufficient funds for this transaction.

8. If the account does not exist, or if there are insufficient funds, the issuing bank sends the reason for failure back to the secure server via the payment gateway. If all is well, a message recording the successful transaction is sent back to the secure server via the payment gateway.

9. If the transaction was successful, the issuing bank makes the correct amount available from your credit account, and the funds are moved from your credit account to the account of the online shop.

3.2 Further reading for section 3

1. What the different numbers on your credit card mean: money. howstuffworks.com/personal-finance/debt-management/credit-card1.htm

4. Online banking

Online banking makes it possible to manage your bank account via an online banking website. You can access your bank account from any computer connected to the internet. Online banking can be very convenient, but there are some disadvantages.

4.1 Advantages

- No need to travel: Not having to go to your local branch or stand in a queue can save time and money.

- Convenience: No need to write and mail cheques to pay bills – online payments are quick and easy, and can be set up to happen automatically.

- Speed and instant communication: You can know the status of your account within minutes of a transaction being made.

- Time: Online banking is not limited to certain opening hours. If you have access to the internet, you have access to online banking.

- Less wasted paper: Doing less paperwork saves you time and money, and it's good for the environment too.

4.2 Disadvantages

- Security: There is always a slim chance that the security and encryption systems may fail.

- Lack of personal contact: While online banking can be convenient, there is no substitute for having a face-to-face conversation with another human being when making important financial decisions.

4.3 Services

The services available in online banking will differ from one bank to another, but here is a list of common features. Online banking typically allows you to:

- Receive notifications of payments into or from your account

- Manage your accounts, which includes checking the history of payments made into or from an account, transferring money between accounts and generating bank statements

- Apply for and manage loans

- Buy or sell investments

- Do once-off or scheduled payments

- Buy airtime

4.4 Exercise 1: Create a private beneficiary

Instead of inserting account details every time you wish to transfer money into somebody else's account, you can save the details and reuse them. Is there anyone who you regularly send money to? Why not create a "private beneficiary" listing for them in your online banking interface?

4.5 Exercise 2: Create a public beneficiary

A public beneficiary is an institution that many people are likely to transfer money to. Chances are that your bank has their bank details on record, and you can access them through your online banking interface. Can you create a public beneficiary – for example, to pay your traffic fines, student fees or income tax?

4.6 Exercise 3: Print a monthly statement

You can access all transactions on all your accounts through the online banking interface. Can you figure out how to do this, and how to print a statement?

4.7 Exercise 4: Check your personal details

Your bank has your postal address and other contact details on record. Can you figure out how to use your online banking interface to check whether the information they have is correct?

4.8 Exercise 5: Specify your notifications

Most banks allow you to receive account statements and other communications via email. Can you find the page where this is controlled?

4.9 Exercise 6: Your password

In the last chapter, we covered the importance of having a secure password. Do you know how to change your online banking password?

4.10 Safe online banking

Most people are nervous about the risks of online banking. While there is much

that is out of your hands, you can reduce your chances of being the weak link in the system.

- Never use a public computer to access your internet banking. It is possible for somebody to install "key capture" or "keylogging" software that will record any username and password you enter. Internet cafés, computers at libraries or in schools are all risky places to access your online banking.

- Never click on a link to your online banking – especially in an email or banner ad. Always visit your online bank by typing in the URL yourself, or using a bookmark you created yourself. A link might be a phishing attempt to divert you to a fake version of your online banking interface.

- Never share your username or password, especially in reply to an email request for such information. Never send your user name or password in an instant message, and avoid emailing it even to a trusted contact.

- Choose a secure password and keep it safe. Use the guidelines in chapter 7 to create a complex password and keep it in a safe place.

- Don't use your banking password for any other online accounts. Your bank uses state-of-the-art equipment and encryption to keep your username and password safe. Other sites may not. If a hacker manages to guess one of your passwords, they will test it on all your accounts.

- Choose an equally safe password for your email account. Once somebody has access to your email, they can easily impersonate you and request your login details.

- Don't save your banking username and password in your browser, especially if you share your computer with anybody else.

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5. Payment gateways

Earlier in this chapter, we looked at the various steps in a typical online credit transaction. One of the crucial parts of this process is the "payment gateway" that streamlines credit requests to banks. You do not have to run an online business to take advantage of the services offered by payment gateways.

A payment gateway acts like a trusted "middleman" between two parties in a transaction. For example, imagine that somebody must pay money into your bank account. Instead of sending them your bank details, you save these details in an account with a trusted payment gateway and send them the details of your gateway profile. Anyone who needs to send you money can pay you via the payment gateway, without ever having access to your banking details.

5.1 PayPal

PayPal is a popular payment gateway.

5.1.1 Why use PayPal?

Buyers can:

- Pay online without having to fill in your credit card or bank information in a potentially insecure site. For example, if you want to buy something from an online business but you are not comfortable with paying directly from your bank account or credit card, you can pay via PayPal and so avoid exposing your banking or credit card details.

- Send money via email to any email address. While the person you are paying does not have to have an existing PayPal account, they will have to create one to access your payment.

Sellers can:

- Accept payments from credit cards, debit cards and bank accounts for low transaction fees.

- Access the many users who already use PayPal.

5.1.2 How safe is PayPal?

PayPal uses state-of-the-art encryption to protect your identity and account information, and it has an "anti-fraud" service that protects your account from unauthorised payments.

- You will receive a confirmation email for every transaction, which will alert you to any unauthorised transactions.

- If an unauthorised payment has occurred, you can contact a 24-hour support team to help you establish what happened.

NOTE

PayPal has recently teamed up with First National Bank to make it possible for South Africans to receive funds through PayPal. Previously, South Africans could only make payments via PayPal. For more information on this, visit www.fnb.co.za/online-banking/pay-pal.html.

5.1.3 How a PayPal payment works

There are two ways you can make a payment through PayPal.

1. Direct payment: You can get PayPal to withdraw the exact amount you wish to pay directly from your bank account or credit card, and pay that amount to the merchant you are buying from. PayPal sends the money to the merchant immediately, and then withdraws that amount from your bank or credit card within two business days. With this option, you are not maintaining a balance in your PayPal account, and there is no fee for this type of transaction (unless currency conversion occurs).

2. PayPal payment: You can maintain a balance of money in your PayPal account and pay from that as needed. Money in a PayPal account does not earn interest. There is no fee for this technique, either, unless currency conversion occurs.

5.1.4 Criticism of PayPal

While PayPal may act like a bank, it is not regulated like one. This does not mean that it is not regulated at all, however; it is subject to some of the rules and regulations governing the financial industry.

While it claims to be secure, its security systems are not scrutinised to the extent that a bank's would be. Also, PayPal does not have to abide by the same guidelines for customer service or settling disputes that a bank would have to.

The most common complaint is that PayPal can freeze a user's account indefinitely and still earn interest on the amount in that account. It is possible to sidestep this problem by using PayPal to transfer money, and not to store your savings.

Despite the above disputes, PayPal is a widely used and trusted service.

5.2 Using PayPal

5.2.1 Which account type should I choose?

Before signing up for a PayPal account, you must decide what type of PayPal account suits your needs.

1. Personal account: For shopping online and occasionally accepting online payments.

2. Premier account: For making a large number of online transactions, both buying and selling, under your own name.

3. Business account: For making a large number of online transactions, both buying and selling, under a company or group name.

All PayPal accounts offer:

- The ability to send money via an email notification

- 24-hour fraud surveillance

- Customer service

- eBay tools to integrate PayPal with your eBay account

Premier and Business accounts allow you to access the PayPal "merchant services", which include the ability to:

- Accept credit card payments on your website

- Accept credit card payments by cellphone

- Create integrated PayPal online invoices

There are also some special features that are available only to Premier and Business accounts:

- The ability to set up subscriptions and recurring payments from your customers

- Access to a PayPal debit card

- The ability to make mass payments to many people at the same time

- The ability to set up multiple logins for employees

5.2.2 Fees

PayPal has a different fee structure depending on where in the world you are. The following information is correct at the time of writing; for the latest fees, visit the PayPal website.

- Paying from PayPal is free for all account types

- Receiving money attracts a fee for all three account types: 2.4% to 3.4% of the amount + US$0.30

- Sending money to a PayPal account is free for all account types

- Sending money using a credit or debit card attracts a fee of 3.4% of the amount + US$0.30

- If currency conversion takes place, this also attracts a fee

5.2.3 Signing up for PayPal

For demonstration purposes, we will describe how to sign up for a PayPal Personal account.

1. Go to www.paypal.com and click the "Sign up" link at the top right of

the page.

2. Check that the dropdown menu specifies the correct country and your preferred language.

3. Click on the "Get started" button under your chosen account type – in this case, we are demonstrating a Personal account signup.

4. A form will open, asking you to specify personal information, which includes your email address and physical address. You will also be asked to create a password. Please be sure to create a strong, unique password.

5. You will be asked to choose a payment method. You can insert your credit card details at this stage, or choose to skip this step by clicking on the "Go to my account" button at the bottom of the page.

5.2.4 Setting up your account

On you account page, you can:

- Add bank account details by clicking on Profile > Add/Edit Bank Account. If you are in South Africa, you need to have an account with First National Bank.

- Add credit card details by clicking on Profile > Add/Edit Credit Card.

- Verify your credit card with PayPal by clicking on the "Get Verified" link just under the menu bar.

5.2.5 Verifying your PayPal account

When you first start using your PayPal account, there are some limits on the amount you can send, receive and withdraw from your account.

To lift these limits, verify your card by clicking on the "Get Verified" link on your account page, and do following the steps.

- There will be a small payment made to your PayPal account as part of the verification process.

- Check your account statement and find the four-digit PayPal code for the charge.

- Return to PayPal and enter the four-digit code to confirm your card.

- This amount will be refunded to your PayPal account after you confirm your card.

5.2.6 Sending money via PayPal

1. Log in to your PayPal account.

2. Click on the "Send Money" tab.

3. Fill in the person's email address, the amount and the currency in the form provided.

4. Notice that you can choose the type of payment – "online purchases" vs. "personal payments".

Figure 6: Sending money.

5. On the next page, you can personalise the email message that PayPal sends to the person you are sending money to.

6. If this person does not already have a PayPal account, PayPal will include instructions on how to create such an account so that they can claim this money.

7. Remember that PayPal may charge a fee if it needs to do a currency conversion.

5.2.7 Paying for a transaction on a website

Some websites allow you to pay for goods or services via your PayPal account. Look out for the PayPal button these sites.

1. Click on the PayPal button.

2. You will be taken to the PayPal site and asked to log in to your account.

3. You will be taken to a page where you can confirm the payment.

4. Click on the "Pay now" button to complete the transaction.

5. In most cases, you can choose to return to the site you made the transaction to.

6. You will receive a confirmation email from PayPal.

5.3 Further reading for section 5

1. General PayPal information: www.paypal.com/za/cgi-bin/webscr?cmd=xpt/Marketing/general/NewConsumerHome-outside&nav=1.0.2

2. PayPal fee structure: www.paypal.com/za/cgi-bin/webscr?cmd=_display-fees-outside&nav=1.0.4

3. More about PayPal security and fraud prevention: www.paypal.com/cgi-bin/webscr?cmd=_security-center-outside

4. Alternatives to PayPal: www.bigoakinc.com/limb/paypal-backup.php

6. Mobile payment

So far, we have only considered technology that is available from your computer. What about your cellphone? Mobile payment allows you to perform transactions with your cellphone. In some countries like Japan and Korea, it is possible to pay for groceries, plane tickets and vending machines with a cellphone. Elsewhere in the world, more limited systems are already available.

Mobile payment can work in many ways:

1. The mobile operators can offer mobile payments services

2. Your bank may offer cellphone banking, linked directly to existing debit or credit accounts

3. You can also access mobile payment through services such as PayPal or mCheck

6.1 Micropayments

Micropayments are small payments that would not be economical if you use your credit card. Some mobile payment providers offer the ability to make micropayments with your phone. Using your cellphone to pay from your existing bank account may not make sense if you are only paying for small transactions, since banks levy service charges on all transactions.

Some examples of ways in which you may use micropayments:

• Buying airtime for your phone

• Paying for music, ringtones or games

• Paying for transport or entertainment

6.2 How do you make a mobile payment?

Depending on the service, you can manage mobile payments by:

• Sending an SMS with predefined codes to a specific number

• Using a call centre

• Using your phone to browse the mobile payment provider's site online – in exactly the same way you would on a computer

• Using Near Field Communication. The phone is held near a register or similar device, and the transaction is communicated via a wireless connection between the phone and the register.

6.3 Challenges to mobile payment

Some obstacles still have to be overcome before mobile payments can compete with other forms of payment.

Mobile payment via text messaging has some particular limitations:

• Security: The current encryption methods available for text messages may not be rigorous enough.

• Reliability: Text message may be lost or delayed. This is a significant problem for important payments.

• Technologies such as Near Field Communication require the widespread adoption of specialised devices.

To be effective, banks, mobile operators and payment service providers have to co-operate. This is an ongoing process, and full mobile payment services are not yet available in many areas of the world. On the other hand, it is fascinating to note how mobile payments – and mobile access to the web – have taken off in areas of the world that do not have easy access to the World Wide Web, like central Africa. The lack of wired infrastructure and access to desktop computers in Africa has caused an unprecedented growth in the use of mobile phones to access the web.

7. Online auctions at eBay

In the early days of the World Wide Web, setting up an online shop was out of reach of most people. Creating, hosting and managing a site that could support online transactions was complex and prohibitively expensive.

These days there many services to help you buy and sell online. If you sign up for such a service, you have access to the service's infrastructure to display your products, and the service deals with the complications of credit transactions, security and managing the communications between buyers and sellers.

7.1 eBay

eBay is the largest online auction site. Anyone with an eBay account can use the site infrastructure to participate in an online auction as a buyer or seller. eBay presents itself as "the world's largest online marketplace, where practically anyone can buy and sell practically anything".

While eBay provides some safeguards to prevent fraud, it does not assume full responsibility of every transaction that takes place using its infrastructure. It is a marketplace where buyers and sellers can connect with one another.

eBay is notorious for the strange and sometimes controversial items that are

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auctioned on its site. Some examples:

- A British man sold an unwanted Brussels sprout left over from his Christmas dinner for £1550 in aid of cancer research.

- The German Language Association sold the German language to call attention to the growing influence of English in modern German.

- An Australian man sold his "entire life" for $384,000. The auction included his house in Perth, his belongings, introductions to his friends and a trial at his job.

7.1.1 How eBay auctions work

The seller lists an item for a specified period – usually seven days. They can add the following:

- A starting price, the price at which they would like the bidding to start. They may accept a lower price.

- A reserve price that specifies the minimum price for which they are willing to sell. The reserve price is often not visible to buyers.

- A "buy it now" price, for which a buyer can automatically win the auction with no further bids allowed.

Most auctions last seven days. During that time, buyers compete by submitting bids for the item. If a buyer chooses the "buy it now" option, the auction is automatically over and the item sold to that buyer.

At the end of the auction period, the item is sold to the highest bidder. If there are no bids higher than the reserve price, the item is not sold.

7.1.2 Signing up

To buy or sell on eBay, you need to sign up for an eBay account. While you don't have to use PayPal, it is the most convenient payment method. These instructions assume that you will be using PayPal to pay for your eBay purchases.

1. Sign up for an eBay account by clicking the "Register" link on any page on the eBay site. Follow the steps in the submission form and submit it to complete the registration process.

2. Sign up for a PayPal account at www.paypal.com.

3. Confirm your bank details on PayPal to become "PayPal Verified".

4. Link your eBay and PayPal accounts.

You can link your eBay and PayPal accounts in your eBay account settings:

1. Click on "My eBay" at the top of most eBay pages.

2. Click the "Account" tab.

3. Click the "PayPal Account" link on the left side of the page.

4. Click the "Link My PayPal Account" button.

5. You will be asked to log in to PayPal to finish linking your accounts.

If you want to buy on eBay using PayPal, you will also need to confirm your address with PayPal. If you want to sell on eBay and accept PayPal payments, you will also need to accept PayPal on your eBay listings.

7.2 Buying on eBay

When searching for and bidding on an item on eBay, be aware that this site has been designed to encourage you to act without thinking. A good way to counteract this manipulation is to identify all the possible ways that eBay lures you into spending more than you might otherwise have. Some examples are:

- When there is not much time left on an auction, the time is displayed in a red font to create a sense of urgency.

- eBay will use every opportunity to prompt you to spend more, using words such as "risk" and "lose" to make you feel that you might lose out on a bargain if you don't act quickly.

Getting the best out of eBay requires a contradictory approach. You may feel that you will "lose out" if you don't act quickly, but the best way to ensure success is to spend as much time as you can researching the item and the seller. Always remember that "success" does not mean winning an individual auction. Rather, you succeed on eBay when you acquire the items you want for a reasonable price. It is easy to lose sight of this in the rush of bidding and competing for an item.

7.3 Finding items

To find an item you wish to bid for:

1. You can use the search bar at the top of the site to search for keywords. Notice the "Categories" dropdown menu, which can be used to narrow your search.
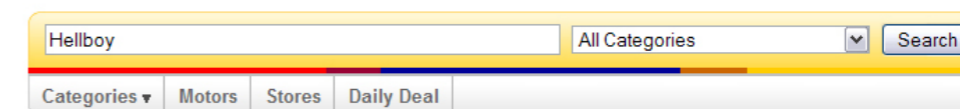
Figure 7: Search bar.

2. You can also browse the categories available. Click on the "Categories" tab below the search bar and select the category of your choice from the dropdown menu.

TRY THIS

As you read these notes and browse eBay, see if you can find examples of how eBay creates the exciting "buzz" that so many people find addictive.

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Figure 8: Categories.

3. A page will open which displays more category options that you can use to browse. Click on the "more" link to expand a section.

Figure 9: Categories.

4. Once you have sufficiently narrowed your search, a page with your search results will appear.
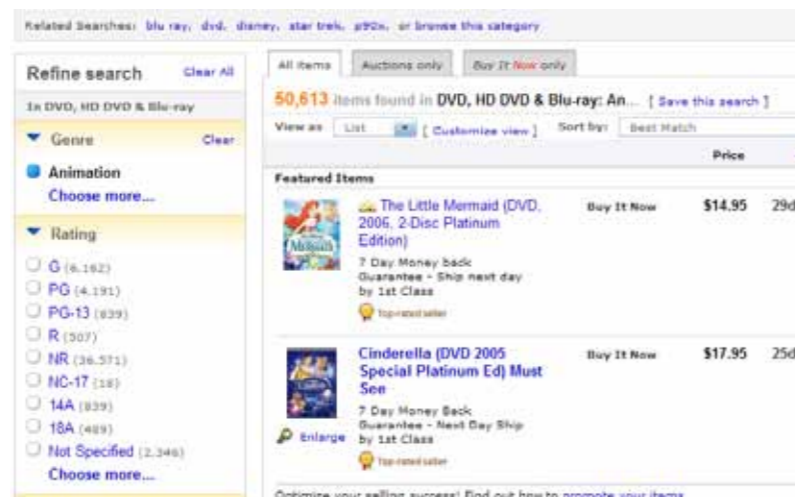
Figure 10: Search results.

5. Each item on this list should have:

    a) A thumbnail picture of the item

    b) A descriptive title

    c) An indication of how many bids have been placed

    d) The minimum price that the seller will accept

    e) The time left before the auction is over
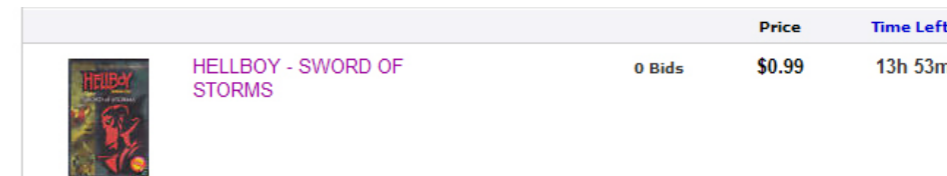
Figure 11: Item listing.

6. To find out more about this item, click on the thumbnail or the title. A page will open with more information. On the right side of the page you can see information about the seller.
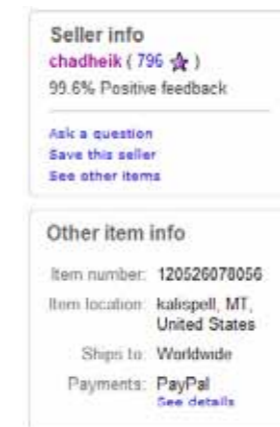
Figure 12: Seller info.

7. On the left is the interface that you use to place a bid.

Figure 13: Placing a bid.

8. On the right is a column that indicates who the seller is. Find out more about this seller by clicking on their username. This opens their feedback page. The linked number in brackets at the top of the page indicates the amount of feedback this seller has received.
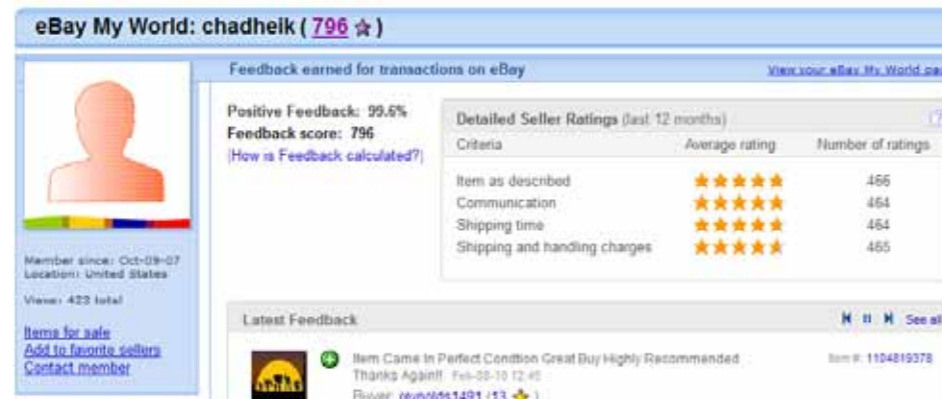
Figure 14: Seller info.

To see some of the feedback left by past buyers, click on the linked number.
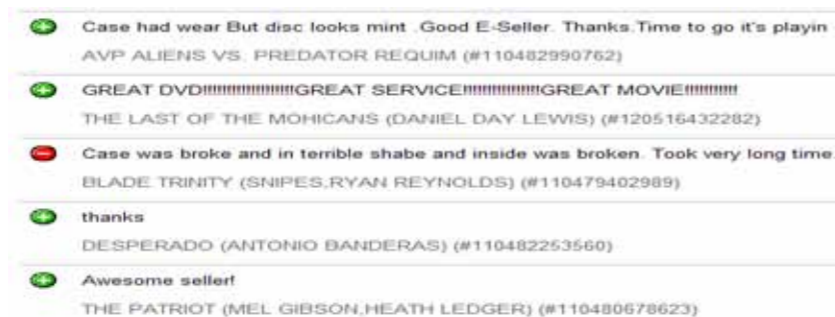
Figure 15: Seller's past feedback.

7.4 Bidding for items

7.4.1 Buy it now

Before bidding for an item, check if it has a "buy it now" price. If you are happy with that price, you can buy the item immediately without going through the auction process.

If you decide to bid for the item, go back to the items page, and click on the "Place bid" button.
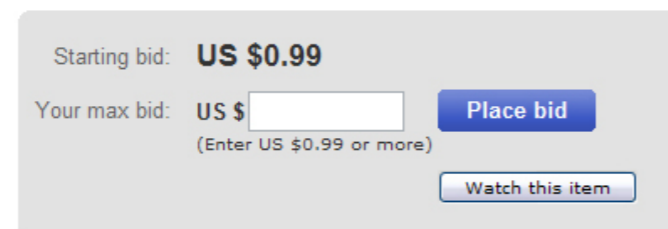
Figure 16: Placing a bid.

7.4.2 How automatic bidding works on eBay

1. To start bidding, you specify the maximum price you are willing to pay.

2. If no one else has placed a bid, eBay will place a bid for you, starting at an amount just above the minimum price.

3. If another buyer has already placed a bid, eBay will place a bid for you that is just a little bit more than that amount.

4. If the other buyer has not yet exceeded their maximum price, eBay will place a bid for them that is just a little higher than the bid it placed for you. And so on, until the bidding reaches your maximum limit or the auction time runs out.

There is no way to see what the latest bid is. All you can do is specify a limit above which you are not willing to go: your maximum bid. The amount by which eBay increases bids at each step depends on the price of the item. For low-price items, the increment will be about US$0.05.

When the auction time limit runs out, the item is sold to whoever placed the highest bid. If that buyer is lucky, they can end up paying less than the maximum bid price they set in the beginning.

If someone else places a bid that exceeds your maximum bid, you "lose" the auction. However, you will be notified and given the chance to "increases your maximum", and so stay in the running to buy the item.

Here is a screenshot where you can see somebody setting the maximum amount they are willing to bid for an item. Notice the "Confirm bid" button. By clicking this button, you are entering into a legally binding agreement to pay the seller if you are successful in your bid.

Figure 17: Placing a bid.

Once you have confirmed your bid, you will be taken to a page that confirms the details. This page will also attempt to get you to increase your maximum bid. Don't let eBay manipulate you into acting against your better judgment. eBay will usually prompt you to increase your maximum, with warnings that

you may be about to lose the sale. If you are sure about your maximum, stick to it.
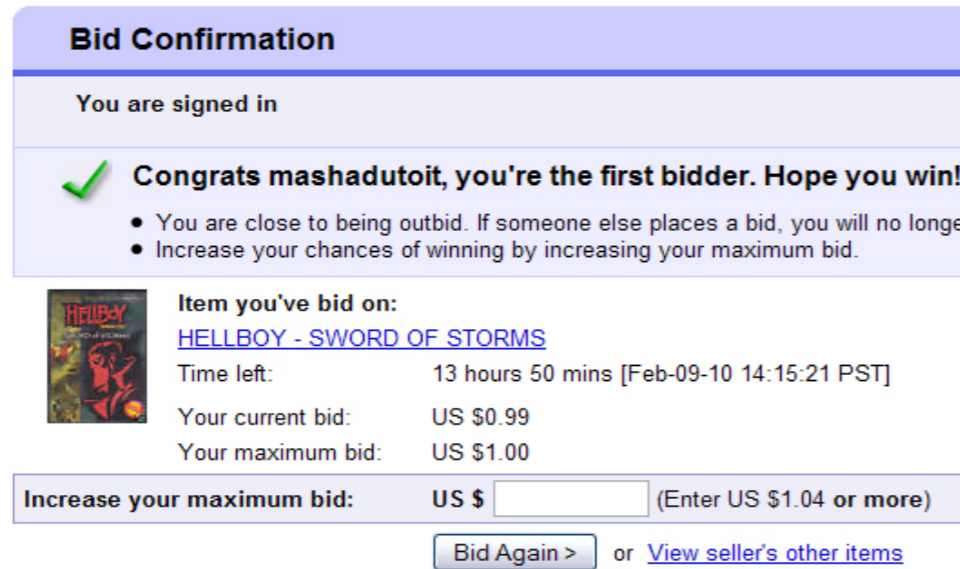
Figure 18: Placing a bid.

Once you have placed your bid, you can sit back and watch the bidding happen. You can check the status of the items you are bidding for by looking at your personal "My eBay" page, which displays a summary of all your activities.

Figure 19: My eBay page.

You will receive an emailed notification from eBay, informing you of the progress of your bid. Notice that, once again, eBay will attempt to get you to increase your maximum with emotive messages such as "don't risk being outbid".

This is the stage when you may be vulnerable to being manipulated into losing sight of your original intention – buying something affordable – and get sucked into the excitement of "winning" the auction.

7.4.3 Avoiding being swept away by the excitement of the auction

When temptation bites, do the following before increasing your bid:

1. Check whether the item is available elsewhere online, and what it costs. Chances are it is not as unusual or as expensive as you thought.

2. Be clear with yourself about how much you are willing to spend before your first bid.

3. Be honest with yourself about your motivations. Are you allowing eBay to bully you, or are you responding to the thrill of the auction and simply want to "win"?

Remember that when you increase your price, the only true winners are eBay and the seller. Here is a screenshot of a typical email sent by eBay.
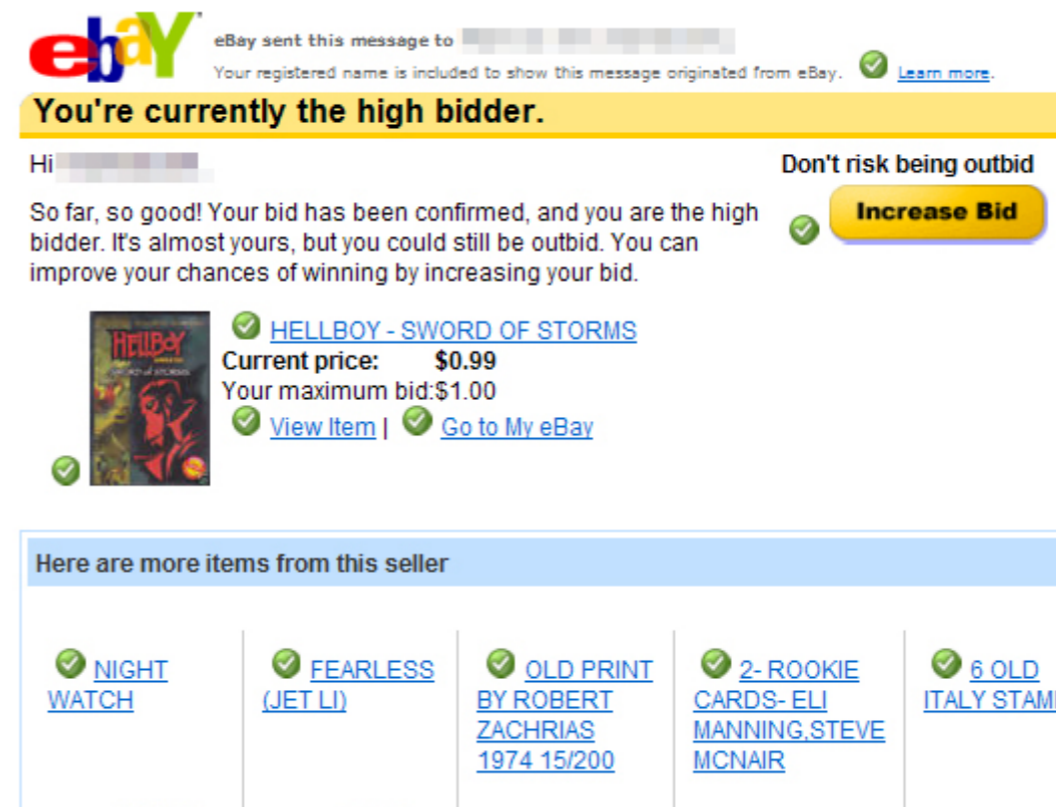
Figure 20: An emotive eBay email.

If you are outbid, you will receive a notification attempting to get you to increase your maximum.
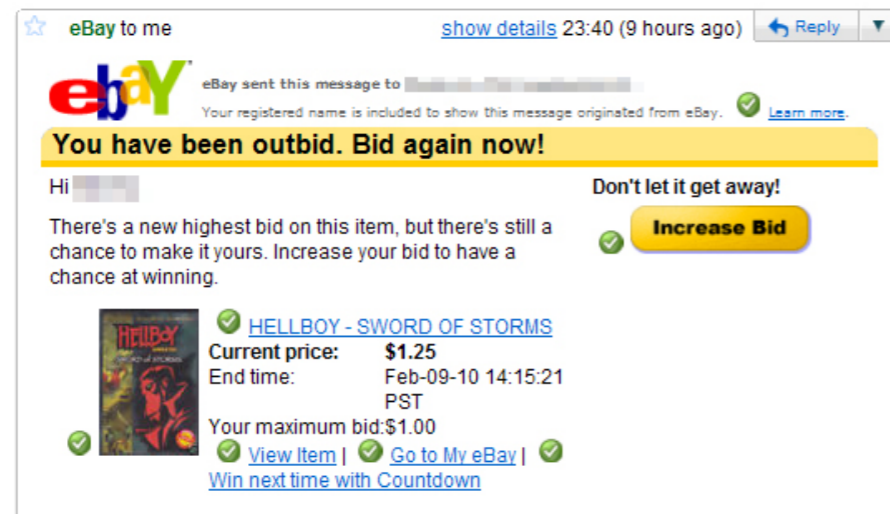
Figure 21: Being outbid.

7.5 Paying for items

1. If you win an auction, you will be notified.

2. Always check that the notification is genuine by visiting your "My eBay" page.

3. Pay the seller according to the agreed payment method.

7.6 Safety on eBay

7.6.1 Don't fall for the "second chance" hoax

The most common form of eBay fraud is an email that appears to come from eBay, offering a "second chance" on an item that you tried for and failed. This is a hoax. Only accept communications that appear in your "My eBay" page.

7.6.2 Keep your eBay relationships inside eBay

Another common practice is for a buyer or seller to attempt to establish a commercial relationship with you outside of eBay. If you do this, you do not have recourse to any of the protections offered by eBay. You can read more about eBay's "buyer protection" here: pages.ebay.com/coverage/index.html.

7.7 Staying safe when buying

7.7.1 Research the item

Answer the following questions before bidding:

1. How common is this item?

2. What does it usually sell for?

3. Are there any special concerns you should watch out for when buying it?

4. Look closely at any photographs. If there are none, avoid the item.

5. Contact the seller with any questions you have about the item. If they do not respond, or are rude, it may be a hoax.

6. Don't click on links that sellers provide in their listings as they may link to a page with false information.

7.7.2 Research the seller

Look carefully at the seller's profile page:

1. Avoid buying from sellers who have not been on eBay for long. This is not fair, but it's safer for you.

2. Avoid buying from sellers who list the same item multiple times. This may be a hoax.

3. Check if you can pay according to the seller's preferred payment method. Avoid sellers who specify "cash only".

4. Always check a seller's return and refund policy.

5. Have a close look at a seller's feedback. Some hoaxers write glowing feedback for one another. Does it look real or contrived?

7.7.3 If you win

1. Don't agree to deal with a buyer or seller outside of the eBay trading environment. This is how most eBay hoaxes happen.

2. Ask for the seller's full contact details before paying.

3. Don't use an untraceable payment method such as cash transfers or Western Union. Services such as PayPal are not perfect, but do offer fraud protection and are traceable.

7.8 Selling on eBay

7.8.1 Cost of selling

Selling on eBay is not free. You will be charged an "insertion fee" whenever you list an item. If you sell the item, you will be charged an additional "value fee". For a full list of the fee structure, go to pages.ebay.com/help/sell/fees.html.

When you join eBay, the first five items you list for auction will not be charged an insertion fee. This is only valid for the first thirty days of your membership, and only for certain categories.

7.8.2 Doing your research

- Check what the item is sold for on eBay and elsewhere.

- Do an advanced search on eBay, and choose the "Complete Listings" option to see examples of other similar items, how they were categorised and how much they sold for.

- Determine your preferred payment method.

- Find out how much you should charge to ship the item.

You can find eBay's guidelines for listing an item here: pages.ebay.com/help/sell/ listing_ov.html, and more advice here: pages.ebay.com/help/sell/sell-getstarted.html.

7.8.3 Crafting your listing

1. Choose at least three keywords to describe your item. These will be required during the listing process.

2. Create a brief but enticing title.

3. Write a good description. It should be concise and easy to read, and include all the details that a potential buyer might want to know, like the age and condition of the item.

4. Be honest!

5. Take photos of the item. Although you can use some default images supplied by eBay, a buyer will appreciate being able to inspect the actual item they are bidding for. You can include several photos with one item listing.

7.8.4 Listing your item

Click on the "Sell" tab at the top of any eBay page.
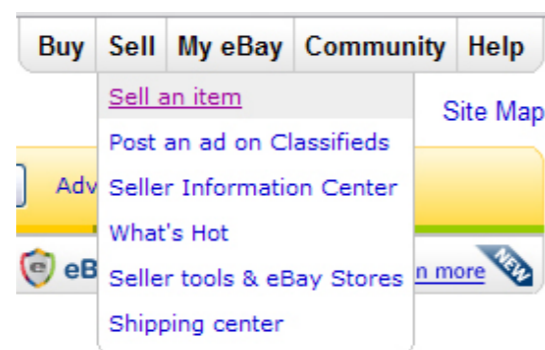
Figure 22: The "Sell" tab.

A series of pages will take you through the listing process. You will be asked to choose at least three keywords to help eBay categorise your item, and to select

one (or more) category from a suggested list. The number of categories you choose will affect your listing fee.

You will be asked to supply some details of your item to help eBay search its database for information about the item. For example, if you are selling a DVD, you will be asked to enter the title or name of the director. If the DVD is listed in eBay's database, eBay can insert an image of the movie as well as information about it, like the actors in it, when it was made, its genre and so on.

Next you will be asked to choose between two listing types.

1. A short form with selling essentials

2. A longer form that includes more options

You can customise your listing on this form. This is where you fill in the title and description you created, and choose which photographs to display with your listing. You will have the option to preview the listing to see how it appears before finally submitting it.

7.8.5 During the auction

Be ready to respond quickly to any questions from buyers.

7.8.6 When an item is sold

1. Contact your buyer and establish how payment will be made.

2. Don't ship an item before you have received payment.

3. Take extra care in packaging the item well – this makes a great impact on your buyer feedback.

4. Make sure you use the correct and most secure shipping method. You can find advice on that here: pages.ebay.com/sellerinformation/ shipping/calc.html.

5. Let your buyer know when you have shipped the item, and provide them with all details they need – possible arrival time, tracking information, etc.

6. Once the process is complete, leave feedback about the buyer. This also prompts them to leave feedback about you, and can help to build your reputation.

7.9 Some advice on selling

- Be aware of eBay's regulations on what is permissible to sell. You can check the list here: pages.ebay.com/help/policies/items-ov.html.

- Start with inexpensive items to build your positive reputation and feedback record.

- Avoid setting the end of an auction on days when people are unlikely to be bidding – Fridays and Saturdays are not good days.

- Always respond to any communications from potential buyers promptly, courteously and thoroughly.

- Make sure you thoroughly understand the agreed-upon payment method. Don't use an untraceable payment method such as cash transfers or Western Union. Services such as PayPal are not perfect, but do offer fraud protection and are traceable.

- Don't attempt to establish a commercial relationship with a buyer outside of eBay. This is a well-known trick employed by hoaxers, and even if you have the best of intentions, it may sully your reputation.

- Don't accept overpayment with the agreement to remit the difference. This is a known scam.

7.10 Further reading for section 7

1. A glossary of common eBay terms: pages.ebay.com/help/account/glossary.html
2. More tips on staying safe: www.scambusters.org/ebayscams.html
3. eBay's guidelines for listing an item: pages.ebay.com/help/sell/listing_ov.html
4. eBay's fee structure for selling: pages.ebay.com/help/sell/fees.html
5. Tips for selling: www.wikihow.com/Sell-on-eBay

8. Summary of chapter 8

In this chapter, we looked at:

- The types of transactions you can do online

- The flow of a typical online transaction

- The process of an online credit transaction – how it works behind the scenes

- How a payment gateway works

- How to use PayPal to make and receive payments

- What online banking is, and how to manage your own online bank account

- What mobile payments are

9. References

9.1 How an online credit transaction works

1. How credit cards work: money.howstuffworks.com/personal-finance/debt-management/credit-card.htm
2. How online transactions work: www.epnetwork.co.za/it-security/credit-card-processing.asp
3. How electronic payments work: communication.howstuffworks.com/electronic-payment.htm
4. For more advice on selling on Etsy, have a look at the "Etsy Seller's Handbook": www.etsy.com/storque/how-to/the-etsy-seller-handbook-all-our-how-tos-about-selling-2383

9.2 Online banking

1. What is online banking? www.wisegeek.com/what-is-online-banking.htm
2. Does online banking work? www.allbusiness.com/technology/technology-services/607944-1.html

9.3 Payment gateways

1. What is a payment gateway? credit-card-processing-review.

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toptenreviews.com/what-is-a-payment-gateway.html

2. How PayPal works: money.howstuffworks.com/paypal.htm

3. What is PayPal? netforbeginners.about.com/od/ebay101/ss/paypal101.htm

4. About PayPal: www.paypal.com/cgi-bin/webscr?cmd=xpt/Marketing_CommandDriven/bizui/WhatIsPayPal-outside

9.4 Mobile Payment

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2. Mobile payment in India: www.livemint.com/2008/02/13232657/Mobile-commerce-gets-ready-for.html

3. What is mobile payment? www.justaskgemalto.com/us/tips/what-mobile-payment
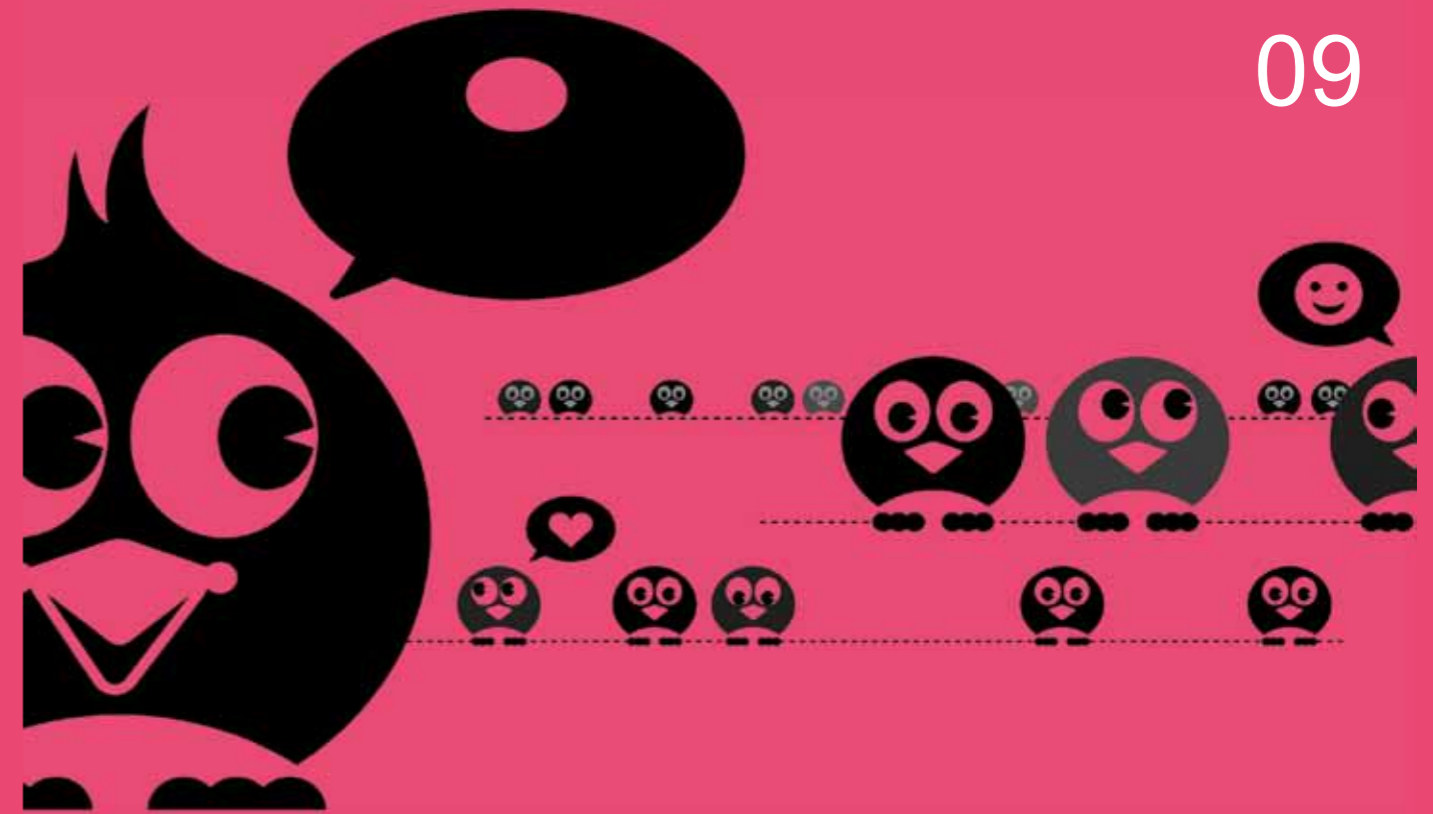
Social networking

- What is an online social network?
- Facebook
- Twitter
- LinkedIn
- Your Google CV

Introduction

By the end of this module, you will:

- Understand what an online social network is (section 1)

- Understand the scope of social networks available today (section 1)

- Be familiar with Facebook, Twitter and LinkedIn, and will know how to use each network (sections 2 to 4)

- Understand what a Google CV is, and know how to mange your online reputation (section 5)

1. What is an online social network?

Since the very beginning of the internet, people have been trying to push the envelope, to find new ways of communicating with one another. The first truly interactive online space, the "bulletin board", was in place long before the invention of the World Wide Web. Users of a bulletin board could use a simple interface to leave messages for one another. These bulletin boards were very popular, even though they were often slow and unresponsive.
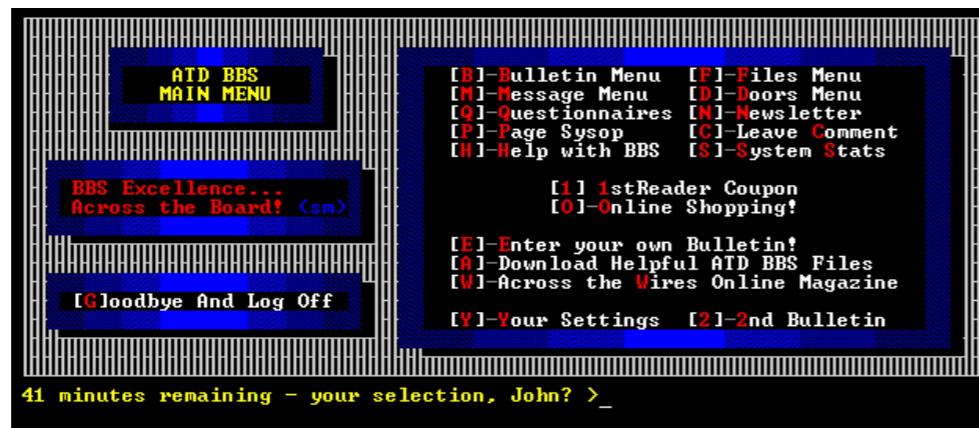
Figure 1: The Bulletin Board System, created by Ward Christiensen and Randy Suess in Chicago in 1978.

The invention of the World Wide Web made it easier to be online, but most websites were the online equivalent of magazines. Interaction was limited to reading and moving from page to page. For many people, this was not enough. They wanted to be active participants, but making websites required specialised technical knowledge that was beyond the reach of many.

A new trend emerged. People were fascinated by the idea of making their mark online. Sites appeared that allowed users to create their own pages that reflected their style and opinions. These services allowed them to link their own bit of personalised space to a friend's space, and to communicate with

that friend through forums or chat rooms. Some examples of early online social spaces were GeoCities and Angelfire.

Here are some screenshots of typical pages from GeoCities.
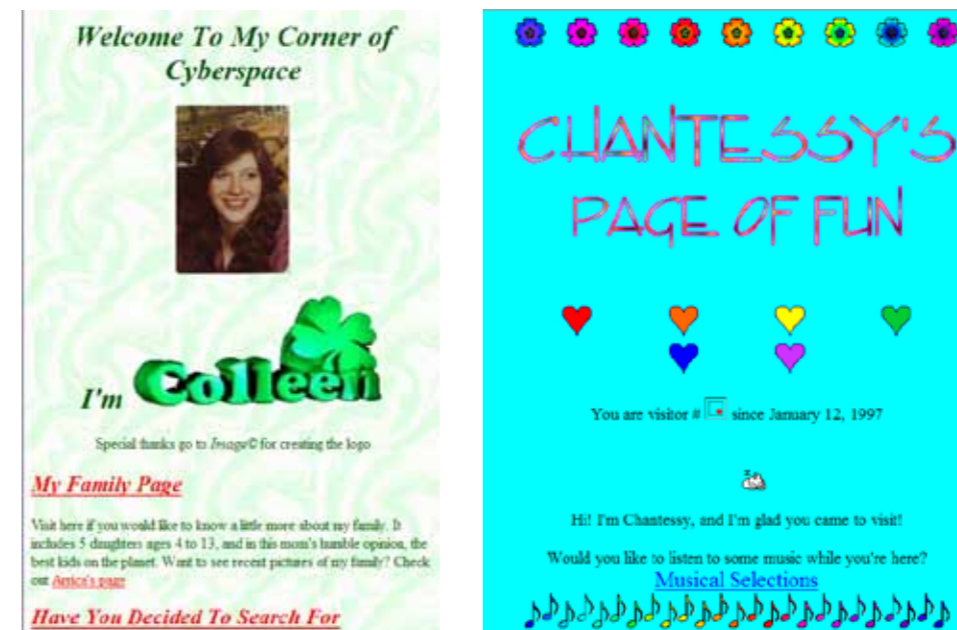
Figure 2: GeoCities pages.

Social networking as we know it today requires no specialised knowledge. Anyone can participate and create their own online "presence". Every year, someone figures out new ways to apply this technology to create social spaces in which people can interact online. MySpace, Facebook, Twitter, Flickr and many more have all made an enormous impact on our society; we are still discovering how we can use them, and how they will change our lives.

1.1 Some examples of social networks

1.1.1 What is a social network?

A typical social network is a website that allows its members to:

- Create an online "profile" that contains information about its creator, and can often be personalised.

- Find other people on that social network, and keep track of one another by creating their own lists of contacts.

- Communicate with fellow members through a variety of technologies, including chat rooms, online forums, email or instant messaging.

In this module, we will be looking at the "big three" social networks: Facebook, Twitter and LinkedIn. But first, let's spend some time looking at the other possibilities out there – social networks that focus on particular areas of

interest.

1.1.2 Flickr

www.flickr.com

Flickr is an online social network for storing and sharing photos.
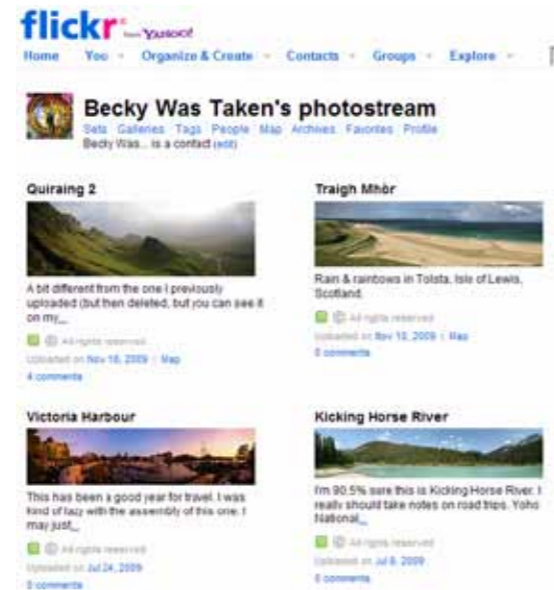
Figure 3: A Flickr page.

1.1.3 Google Buzz

www.google.com/buzz

Google Buzz, which is part of Gmail, is a social network that is all about having conversations. Users can post images and videos, and respond on one another's posts.

Figure 4: A Buzz page.

1.1.4 LastFM

www.last.fm/about

LastFM is a social network centred on music. Members create lists of their favourite musicians and albums, and write reviews and recommendations. We covered some aspects of using LastFM in chapter 5.

Figure 5: A LastFM page.

1.1.5 Flixter

www.flixster.com

Flixter is a social network for movie lovers. Members rate, review and discuss movies.

Figure 6: A Flixter page.

1.1.6 LibraryThing

www.librarything.com

On LibraryThing, book lovers create online "libraries" of their favourite books, post reviews and discuss books.

Figure 7: A LibraryThing page.

1.1.7 DoggySnaps

www.doggysnaps.com

On DoggySnaps, dog owners share pictures, stories and advice.

Figure 8: A DoggySnaps page.

1.1.8 Innocentive

www.innocentive.com

Innocentive is a social network for solving problems that affect the entire human race. "Seekers" post problems and offer rewards and "Solvers" compete to find a solution.

Figure 9: An Innocentive page.

1.1.9 Critique Circle

www.critiquecircle.com/default.asp

Writers submit work to Critique Circle to be critiqued by other writers, and critique other people's writing. You can also get advice about how to get published, or any other aspect of being a writer. Critique Circle is a good example of how an online forum can also be a social network.

Figure 10: A Critique Circle page.

1.1.10 DeviantArt

www.deviantart.com

DeviantArt is a community of artists, designers, photographers and other visual artists who showcase their own work and comment on one another's creations.

Figure 11: A DeviantArt page.

1.2 Sharing personal information

You may be tempted to put a lot of personal details into your social networking profiles. Remember this simple principle: treat whatever information you put on the web as public information. Include things in your profile that you don't mind a potential stranger reading – your hobbies, your birthday or your job. Exclude private or very personal things that you would only share with your close friends and wouldn't want a stranger to see – your address, embarrassing photos or stories, financial information.

While most social networking sites will protect your data, it is possible that a change in the terms and conditions – or even a hacking attack – will reveal some of this information against your will. It's important to be aware and careful of what you add to your profile, but don't be afraid to share and engage with others.

2. Facebook

Facebook is one of the largest and best-known social networks. It has more than five hundred million members worldwide, and it is still growing. It was created by Harvard student Mark Zuckerberg as a way for students to stay in touch with one another. As it grew in popularity, other universities and schools were added to its network. In 2006, Facebook opened its membership and became accessible to anyone with an internet connection.

Figure 12: Mark Zuckerberg's Facebook profile.

2.1 New to Facebook?

These notes assume that you know the basics of using Facebook. If you do not, and want to learn more, here is a quick overview followed by a list of links to resources on how to set up and fine-tune your Facebook account.

2.1.1 What can you do on Facebook?

Some of the many things you can do on Facebook:

- Find friends who are already on Facebook, or invite friends to join.

- Comment on your friends' photographs, notes or videos and share your own.

- Write on you friends' "walls" – the part of their profile page that is visible to all their friends – or send them a private message.

- Edit your "status", a small message that is visible to all your friends. You can type a simple text message, or include images or a link to another website.

- Create a page for an event such as a birthday party, concert, fundraiser or workshop, and invite your friends.

2.1.2 Helpful links to get you started on Facebook

1. An introduction to Facebook: What is it, and what can you do there? news.cnet.com/newbies-guide-to-facebook

2. Facebook's help centre: www.facebook.com/help/?ref=pf

3. Signing up: www.facebook.com/help/?page=173

4. Creating a profile: www.facebook.com/help/?ref=pf#!/help/?page=402

5. Finding friends: www.facebook.com/help/?page=441

6. Facebook 101 guide: mashable.com/guidebook/facebook

7. Getting started: www.ehow.com/how_4581117_started-facebook.html

8. Adding friends: www.ehow.com/how_4562042_friends-add-new-friends-facebook.html

9. Facebook tips: personalweb.about.com/od/makefriendsonfacebook/a/9_facebook_tips.htm

2.1.3 Exercise 1: Create a Facebook profile

Visit the Facebook home page and sign up for an account. Can you figure out how to do this?

2.1.4 Exercise 2: Add profile information

Once you have an account, you can edit all your personal information. Include as much or as little as you like. Note that Facebook has recently changed the way this part of your profile works. Now, to add an interest or hobby, type its name in the relevant field, and Facebook will automatically link that name to a Facebook Page related to that topic – for example, the official page of a musician or actor. Can you figure out how to add your birthday, your hobbies and your contact information?

2.1.5 Exercise 3: Add a picture

Until you add a photo, your profile picture will be a generic icon. Can you figure out how to add a photo to your profile?

2.1.6 Exercise 4: Add a friend

Facebook is all about building social networks and connections. Can you find any of your friends, and can you figure out how to add them?

NOTE

Facebook "Pages". Some Facebook Pages aren't centred around a specific person, brand or company, but rather around a much wider and more general field – for example, topics like baseball, cooking, yoga or recycling. Anybody can create a new Page, and it often includes information from Wikipedia, other people's comments, links and other resources.

2.1.7 Exercise 5: Send a message

Once somebody has accepted your friend request, you can send each other private messages or write on each other's walls. Can you send your friend a message?

2.2 Managing your Facebook profile

Here are some guidelines to some common tasks that help you get the most out of Facebook.

2.2.1 Understanding the "Account" dropdown menu

The "Account" menu in the top right corner has some convenient links. You can access most of your settings from this menu. It is worthwhile spending some time browsing through these settings.
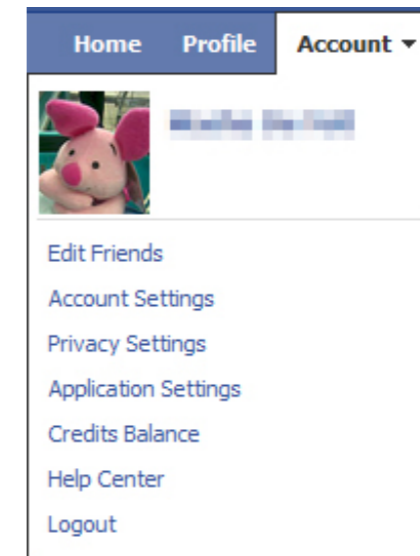
Edit Friends: This is where you can search for new friends, manage your friend lists and get information about current friends.

Account Settings: You can access settings such as changing your username and password, controlling which notifications you receive and managing Facebook credits (this is the same page that the "Credit Balance" menu option links to). You can use Facebook credits to pay for virtual gifts or games, or if you wish to place advertisements on Facebook. There is also a link to the "Privacy Settings" menu.

Privacy Settings: Control who can see your profile and who can post to your wall, who can contact you on Facebook and see your contact information and email, what information is available to Facebook, enhanced applications and websites, who can see your search result on Facebook and in search engines and who can interact with you on Facebook.

Application Settings: Edit the settings of applications such as "events" and

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"groups".

Credits Balance: Here, you can manage Facebook credits and buy more.

Help Center: A page with many links that help you to use Facebook.

Log out: Allows you to log out of Facebook.

2.2.2 The other menu

It's easy to miss, but at the bottom of every Facebook page there is another menu. Most of these options are unlikely to be relevant to you, apart from the "Advertising" option, which you need to access if you wish to create a "Page" on Facebook.

About · Advertising · Developers · Careers · Privacy · Terms · Help

The options are:

- About: A link to Facebook's own information page.

- Advertising: This is where you manage any Facebook Pages or advertising you are running on Facebook.

- Developers: A collection of pages with information for anyone who wants to develop applications that work with Facebook.

- Careers: A listing of available positions at Facebook.

- Privacy: A page displaying Facebook's privacy policy.

- Terms: The terms of service that you agree to abide by when you join Facebook – if you contravene these, Facebook can suspend your account.

- Help: A page with many links that help you to use Facebook.

2.3 Privacy settings

In the past, your Facebook content stayed inside Facebook. Only your Facebook friends, and in some cases their Facebook friends, could see your information. That has changed. Unless you have the correct privacy settings, some aspects of your Facebook profile could be accessible to anyone.

2.3.1 The new meaning of "everyone"

In the past, the Facebook privacy setting "Everyone can see" meant "everyone on Facebook, even if they are not my friend". These days, it means "everyone who uses a search engine". In other words, everyone who uses the web.

2.3.2 Information you cannot hide

While you can use the new Facebook security settings to hide or control some of your information, there are some aspects you cannot control. For example:

- If you use an application, it has complete access to any information you have made visible to "everyone", as well as to your publicly available information. This includes your name, profile picture, gender, current city, networks, friends list and Pages.

- The new profile personalisation feature makes your publicly shared information visible to affiliated application. This happens automatically. You can only turn this aspect off if you visit each individual affiliated application and block it from viewing your information.

2.3.3 How to adjust your privacy settings

As already mentioned, you can access your privacy settings from the "Account" dropdown menu at the top right of any Facebook page. The "Privacy Settings" page has several features.

Figure 13: Facebook privacy settings.

Each of these headings leads to a page that lists different aspects of your Facebook profile, allowing you to choose how private you want each aspect to be.

To specify a privacy setting:

1. Go to "Privacy Settings" in the "Account" dropdown menu on the top right.

2. Click "Customise settings".

3. A page will open on which you can see your current settings for all the categories.

4. Click on the button next to the information you want to change, and choose an option from the dropdown menu.

For example, in the screenshot below, a change is being made to the visibility of a person's family members. According to the new setting, only Facebook friends will be able to see this person's family information.
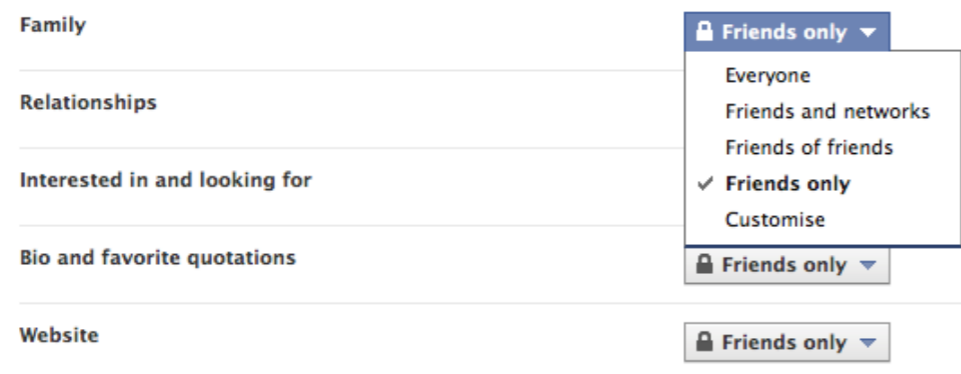
Figure 14: Changing privacy settings.

2.3.4 Customising your privacy settings

As you can see in the previous screenshot, the "Privacy Settings" dropdown menu has a "Customise" option. This option lets you fine-tune who can and cannot see specific content. For example, if you only want your close friends and family to know when your birthday is, you can add their names here.

1. If you click on "Customise", a dialogue box opens.
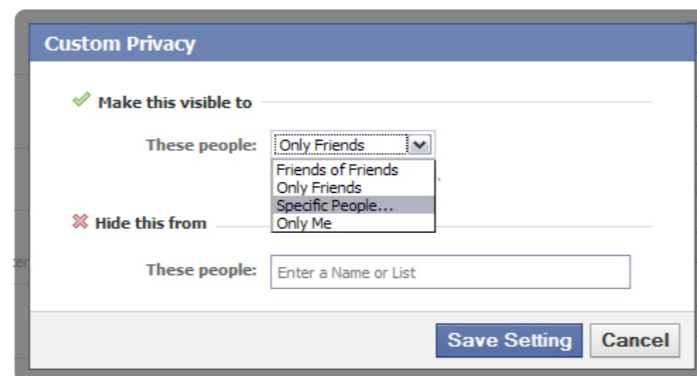
2. If you choose "Specific people", Facebook allows you to enter a list of names of friends, or the title of a friends list.
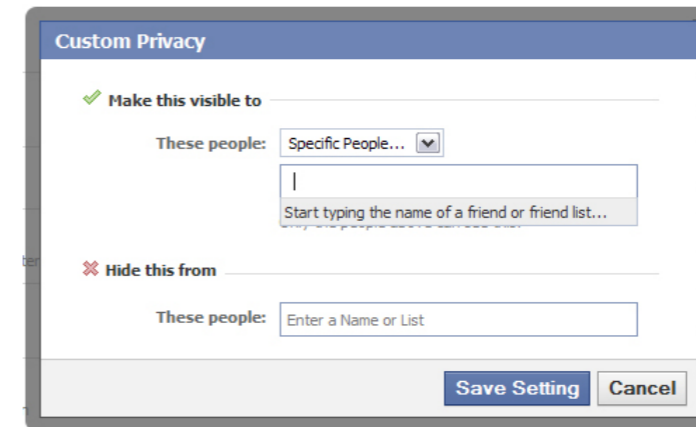
2.4 Friends lists

Facebook is great at connecting you with people from all parts of your life. In which other context can you interact with people from the primary school you used to go to, your lovers and ex-lovers, your boss, your clients and your distant relatives all in the same space? Sometimes, that can be awkward.

Facebook makes it possible for you to group your Facebook friends into categories called "friends lists" and then choose which list can see which aspect of your Facebook life.

2.4.1 Creating a friends list

1. Go to the "Edit Friends" option in your "Accounts" dropdown menu.

2. Your "Friends" page will open. Notice that the "Friends" tab has been selected automatically.

3. Click on the "Create New List" button.

4. A dialogue box will open where you can:

- Specify a name for your list by typing it into the text box on the top left.

- Select the friends who should be part of this list by clicking on their thumbnails.

5. Click on the "Create List" button when you are done.

You will see that all your friends lists are visible on the left of your profile page, in the "Lists" category.
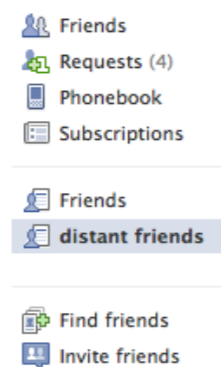
Figure 15: Friends lists.

2.4.2 Adding or removing friends from a list

1. Open the list by clicking on its name in the "Lists" category.

2. Choose the "Edit List" button.

3. You can select and deselect friends in the dialogue box to edit the list.

2.4.3 Specifying which friends list can see what

1. Go to the "Accounts" dropdown menu on the top right, and choose "Privacy Settings".

2. Choose the category of information you want to adjust.

3. Click on the lock icon next to it, and choose "Customise".

4. A dialogue box will open. Choose the "Specific People" option from the "Make this visible to" or "Hide this from" options.

5. Type the name of the friends list.

6. Click "Save Settings".

2.4.4 Editing your profile information

Your "info" page is the page that appears when you click on the "Info" tab on your profile. This is where people can see:

• Your relationship status – are you single, married or engaged?

• Your political and religious views

• Your employment status

• Your favourite books, movies, music

2.4.5 Editing this profile information

1. Go to your profile page.

2. Click on the "Edit My Profile" link below your profile picture.

2.5 Using Facebook to promote yourself or your business

While Facebook is great for connecting with friends, it is also useful for furthering your career or promoting your business.

According to Facebook's rules, only an individual can create a Facebook

profile. In other words, you cannot create a standard Facebook profile for an organisation. This does not mean that organisations cannot have a presence on Facebook – they can use a Facebook Page or a Facebook Business Account.

There are two options.

1. A Facebook Page is an extension of an existing Facebook profile. In other words, you cannot create a Facebook Page unless you also have a personal account on Facebook.

2. A Facebook Business Account is a "stand-alone" Facebook Page. You can create and manage a Facebook Business Account even if you do not have a personal account on Facebook.

Apart from the fact that a Facebook Business Account can be created and administered without a personal Facebook profile, there is no difference between a Facebook Page and a Facebook Business Account.

2.5.1 Facebook Pages

To create a Facebook Page, you need to have an existing personal profile on Facebook. You can administer your Facebook Page from your Facebook profile. More than one person can administer a Facebook Page, but each administrator needs their own personal profile on Facebook.

To create a new Facebook Page, log in to your Facebook account.

1. Click on the "Advertising" link at the bottom of any Facebook page.

2. The "Facebook campaigns" page will open.

3. Choose the "Pages" link on the left of the "Facebook campaigns" page.

4. Click on the "Create a Page" link at the top.

5. The direct link is www.facebook.com/pages/learn.php.

2.5.2 Facebook Business Account

You do not need to have a personal Facebook profile to create a Facebook Business Account. A Business Account member has limited ability to interact with other Facebook users' personal accounts. A Business Account can easily be administered by more than one user.

To create a Business Account:

1. Click on the "Advertising" link at the bottom of any Facebook page.

2. The "Facebook campaigns" page will open.

3. Choose the "Pages" link on the left of the "Facebook campaigns" page.

4. Click on the "Create a Page" link at the top.

5. Fill in the relevant information.

NOTE

You cannot create a Facebook Business Account if you already have an existing personal account with Facebook. There are several reasons for this.

1. If you already have a personal account on Facebook, you should create a Facebook Page. You can administer all aspects of the account from your personal account, so there is no advantage to creating a separate Business Account.

2. From the public point of view, there is no visible link between your personal profile and the Facebook Page, so there is no advantage to having more than one account.

3. Facebook considers users with more than one account to be in violation of their terms of use. If discovered, they may close all of your accounts.

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6. You will be taken to the "Facebook Login" page and asked if you have a Facebook account.

7. Choose "I do not have a Facebook account".

8. You will then need to enter your email address and date of birth.

2.6 Using a Facebook Page or Business Account

A look at the features available on a Business Account profile page suggests many ways in which an organisation can use Facebook to promote itself and communicate with others.

1. Information: Share the organisation's details – contact information, mission statement and so on.

2. Discussion boards: Get feedback from clients or customers.

3. Reviews: Allow customers to post reviews of your products or services.

4. Wall: An open forum where customers can leave messages.

5. Events: Notify people about, and invite them to, upcoming events.

6. Notes: Post small articles.

7. Photos: Upload images to the page, which can be viewed by fans.

8. Video: Upload videos.

Anybody can view a Facebook page, write on the wall, upload photographs and perform other actions. If you enjoy or want to support a page, you can "like" it by clicking on the thumbs-up button near the top. This will automatically add it to your likes and interests on your profile page.

2.7 Some tips

2.7.1 Keep it live

Ensure that your profile page is up to date and filled with the latest photographs and information. It is easy to see when a profile is "dead" – when it has not been updated for a while.

2.7.2 Keep it responsive

The profile administrator should check and update information regularly, and respond to any queries received through the wall or other communication devices on your profile.

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2.7.3 Add tabs

Tabs are like additional pages on your business profile. You can choose specialised pages on which to list external links, for example to a website or blog, to list events, create more photo galleries, and so on.

1. Click on the blue "plus sign" near the top of the profile page.

2. Choose the type of page you want from the dropdown menu.
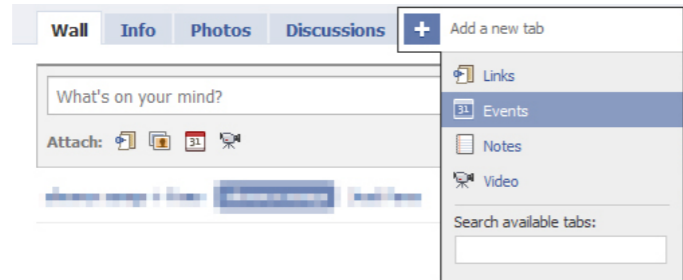
2.7.4 Set the default tab

When visitors arrive at your profile, the first page they will see is your "wall". You can change this to any of your tabs. For example, you may prefer to have visitors see a page of photographs of your products, or the info page with your contact information.

1. Go to the "wall" of your profile.

2. Click on the "Settings" link under the blue "Share" button.
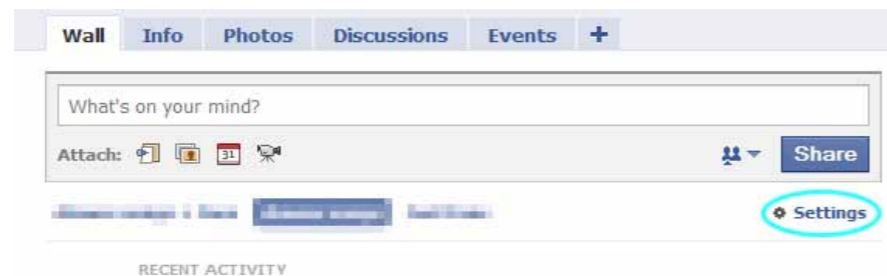
3. Use the dropdown menu next to "Default Landing Tab for Everyone Else" to choose which page should open first.
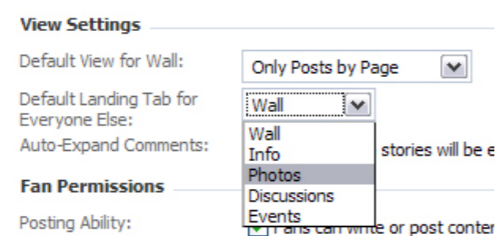
2.8 Exercises

2.8.1 Exercise 1: Create a Facebook Page

You can use Facebook to help promote your business, your personal skills or yourself in general. Don't worry if you don't have a business to promote for these exercises – feel free to create a made-up cause or company. As you probably already have a Facebook account, create a Facebook Page. Can you follow the instructions on how to do this?

2.8.2 Exercise 2: Add contact details

The most important thing in marketing yourself is that people know how to get hold of you. Can you add your contact details to your page?

2.8.3 Exercise 3: Add content

Now it's time to add photos, links, text and other media to your page. Can you figure out how to fill it with content?

2.8.4 Exercise 4: Promote yourself

Once your page has been built, encourage others to visit it and "like" your work. Can you figure out how to promote your page?

2.8.5 Exercise 5: Create an update

Can you figure out how to create a new update on your page? This could be a wall post, a new link, new photos, or whatever else suits your page.

2.9 Further reading for section 2

1. How to use Facebook to do good: mashable.com/2009/09/03/facebook-good

2. Ten tips for an effective non-profit Facebook Page: www.blogher.com/10-tips-effective-nonprofit-or-do-good-facebook-fan-page?wrap=blogher-topics/non-profits

3. Five case studies of successful Facebook Pages: mashable.com/2009/06/16/killer-facebook-fan-pages

4. Facebook users ask "Who owns information?": www.nytimes.com/2009/02/17/technology/internet/17facebook.html?_r=1&scp=8&sq=facebook&st=cse

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3. Twitter

3.1 What is Twitter?

Simply put, Twitter is an online service that allows you to share short status updates with your friends. It's rather like Facebook with only its status messages.

That doesn't sound too exciting, does it? Let's look at some examples of how people use Twitter.

It is the final game of the World Cup soccer tournament and a referee makes a controversial decision. In the stadium, fans are on their feet, shouting in outrage. But not all of them are taking part in the noise. Many have taken out their cellphones and are posting their opinions on Twitter. All across the world, people turn away from their television sets to check their Twitter accounts.

A young woman is straining in a hospital bed, her hair damp with perspiration. A young man holds her hand in a vain attempt to comfort her and ease the pain. At last, the doctor straightens and smiles. "Almost there… And she's a lovely, healthy baby girl!" The father holds his daughter in the crook of one arm, sending tweets with his phone to spread his news to the world. Soon, friends and family are tweeting name suggestions, jokes and advice to the new parents.

The protestors march down the street, carrying banners and shouting slogans. They are angry but orderly; men, women and children, young and old. At the end of the street, a line of armoured vehicles blocks the road. A sharp noise cracks through the air, and a woman starts screaming near the back of the crowd. Then the soldiers open fire. Hidden behind a car, a young woman takes out her phone with shaking hands and starts tweeting. The official proclamation: "Rioting mob subdued with rubber bullets". But on Twitter, the truth is exposed.

It is the very simplicity of Twitter that has made it so effective. Messages are short – not longer than 140 characters – and change quickly as new "tweets" appear. Twitter is not a conversational medium like Facebook. Nor does it have space for in-depth analysis like a blog does. It is immediate, chaotic and fast – a barometer that reflects the tides of opinion and news.

Twitter calls itself a "microblogging" service. It fulfils many of the same functions that blogs do, but does not need the same investment of time and energy. Tweets are created quickly and sent out immediately.

Some more examples:

- People can tweet their opinions on the latest blockbuster movie, telling everyone else whether it is worth watching or not.

- You can sign up to receive tweets from your favourite restaurant, to find out about specials and events.

- You can follow the opinions and musings of a famous musician, writer or politician.

3.2 How does Twitter work?

Before we dive into the specifics of how to create and use a Twitter account, let's look at the different parts of a Twitter account. This will help you understand how Twitter works.

3.2.1 What is a profile page?

Each member of Twitter has their own profile page. Reach a user's profile page by clicking on their username or profile picture.

On the main part of the profile page is that user's "tweet stream": a list of the latest messages they have posted.

Figure 16: A Twitter profile page.

To the right of the page is a list of everyone this user is "following".

Figure 17: Following on Twitter.

If you click on any of the profile pictures in the screenshot above, you will be taken to the profile page of that user, and will see all their tweets.

A profile page is customisable to some extent: you can change the colours and the background image.

3.2.2 What does it mean to "follow" someone on Twitter?

If you follow a Twitter user, all tweets they publish will appear on your "home page".

3.2.3 What is a Twitter home page for?

Your home page on Twitter is:

- Where you can post your own tweets

- Where you can see all the tweets of everyone you are following

- Where you can see your own tweets

Nobody but you can see your home page.

Here is an example of a home page. Notice the mix of tweets from different individuals that this person is following, called the "tweet stream". Also notice the text box at the top – this is where you will be typing and sending your tweets on Twitter.

Figure 18: A Twitter home page.

3.3 Creating a Twitter account

1. To sign up for a Twitter account, go to twitter.com/signup.

2. You will be asked to enter your full name, which will not be displayed.

3. You must also choose a unique username that will be used to create your Twitter URL. For example, if you choose "mouse" as your username, your Twitter URL will be twitter.com/mouse.

Next, you will be taken to a page where you choose some people who you would like to follow.

Figure 19: Suggestions.

If you click on any of the suggested categories, a list will appear. These are people or organisations that you ay like to follow.
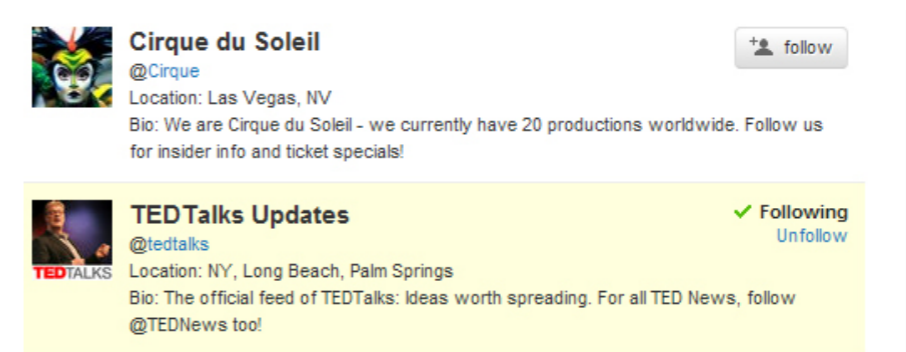
Figure 20: Suggestions.

Spend some time on this page finding people to follow. You can come back to this page at any time. When you are done, click on the "Next step" button at the bottom of the page.

This will take you to a new page, where you can let Twitter scan your email address book or contacts to discover which of your friends are already using Twitter. Select an email service from the list to the left, and enter your email address and password.

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Figure 21: Finding email contacts on Twitter.

Click on the "Next step" button when you are done.

This takes you to a page where you can search for anyone you would like to follow, using a simple search bar.

The next page will guide you through the basic steps of setting up your profile page and customising your account.

3.3.1 Your Twitter settings

The navigation bar at the top right of each page allows access to all parts of your Twitter account.

- "Home" takes you to your home page, where you can see all your tweets or write some tweets of your own. Only you can see your home page.

- "Profile" takes you to your profile page, which is the page everyone will see if they click on your username or profile image.

- "Messages" takes you to a page that displays all direct messages that were sent to you.

- The downward-pointing arrow next to your username takes you to a further menu. The most important of these is "Settings". This link takes you to the place were you can:

> Change your username or password
>
> Change your email address
>
> Insert a small description of yourself
>
> Set up your cellphone
>
> Customise the look of your account

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3.4 Using Twitter

3.4.1 How do I tweet?

You can use the text box at the top of your home page to post your own tweets. Notice the grey number at the top right: this indicates how many characters you have left. You can only use 140 characters in a tweet. Remember, spaces count as characters.

In the example below, 11 characters have been used.
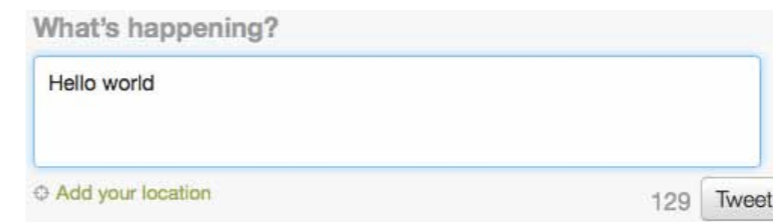
When you have fewer than 10 characters left, the number changes to red.
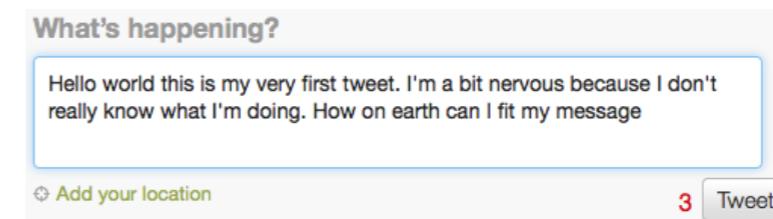
If you have used more than 140 characters, the number changes to a negative number, indicating how many extra characters you have used. In the example below, there are 161 characters – 21 too many.
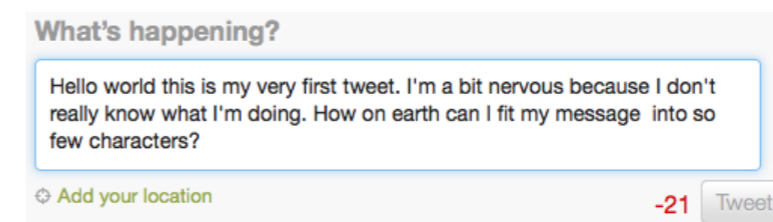
If you have too many characters, you cannot post the tweet. You will have to make your message shorter.

When you are happy with your tweet, click on the "Post" button and it will become visible to everyone who follows you.

3.4.2 Where can I see other people's tweets?

You can see:

- All tweets on Twitter at the public timeline (twitter.com/public_timeline).

- The tweets of people you follow on your home page.

> **NOTE**
>
> You can send tweets from your cellphone. Using Twitter from your cellphone will be covered in chapter 11. These notes cover how to use Twitter from a computer.

3.4.3 What are "trending topics"?

On the right side of any Twitter page, there is an area labelled "Trending".

This is a list of popular topics that people are tweeting about at that moment. Clicking on one of the links in this area will take you to a page with a tweet stream about that topic.

3.4.4 Why do people use the "#" symbol in their tweets?

The # symbols is called the "hashtag". It is used to identify the topic of a tweet. Hashtags make it possible to "group" tweets in the same topic, and to find them easily.

Once it is published in a tweet, the hashtag becomes a clickable link to a page with all the other tweets that include that hashtag.

For example, a person writes about the earthquake in Haiti. They want their tweet to be included in the tweet stream of everyone else who is writing about Haiti, so they put the #Haiti tag in their post.

Figure 22: Example of a hashtag.

Anyone who clicks on that #Haiti hashtag will be taken to a page that displays all other tweets that share that hashtag.

Figure 23: Real-time hashtag results.

3.4.5 Who decides what a hashtag for a topic should be?

You do. Hashtags are not a standardised search mechanism, but are created by the Twitter community. Most of the time, people will use hashtags that they notice in other people's tweets to avoid too much duplication. Often a single topic will have several related hashtags. For example, tweets about the Haiti earthquake could be found under #Haiti, #SaveHaiti, #HelpHaiti, #Earthquake, #DisasterHaiti and many others.

3.4.6 Why do people use the "@" symbol in their tweets?

The "@" symbol is a way of indicating that you are "speaking" to a particular Twitter user. For example, if one of your followers has the username "Sweetypie", you might create a tweet that says:

@Sweetypie – I went to see that movie you recommended. It was great!

You can see any tweets directed at you with a "@" sign by clicking the "@" link on the right of your home page. They will also appear in your tweet stream on your home page.

3.4.7 Can I send a private message?

Private messages can only be sent to users who are already following you. You can send a private, or "direct", message to a user in this way.

1. Go to the person's profile page. Click on the "Message" link above their tweet stream. A window will open that allows you to write and send a private message.

2. Write your tweet. This will send a private message to that user.
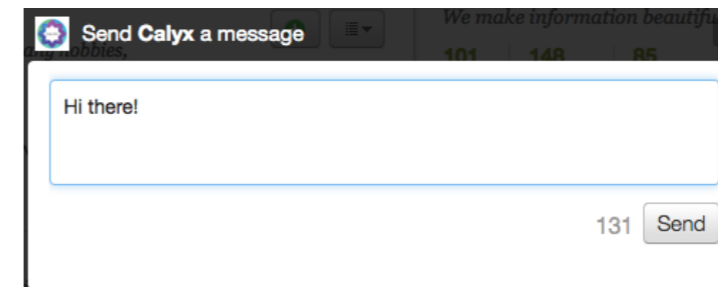
You can see any direct messages sent to you by clicking on the "Messages" link at the top of your home page. Depending on your user settings, direct messages can also arrive in your email.

3.4.8 Can I reply to a tweet?

Yes, you can.

1. Hover over the right hand side of the tweet, and you will see the "Reply" link appear.

2. When you click "Reply", a window will pop up and Twitter will automatically start writing a new tweet that starts with the "@" symbol and the appropriate username.

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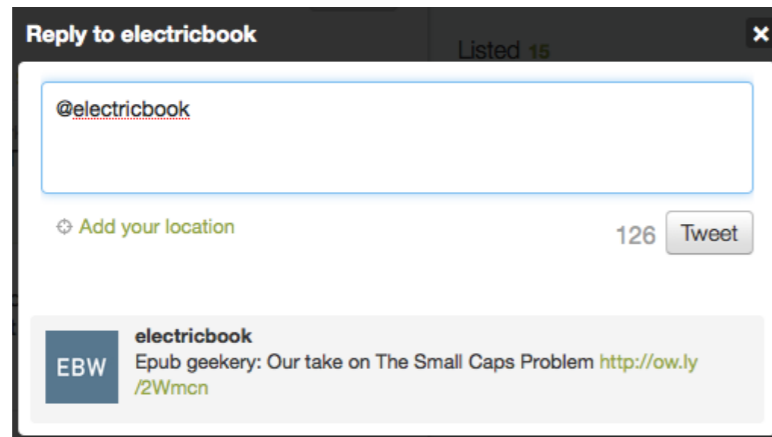
3. Type your message after the username and publish your tweet.

3.4.9 What does "RT" or "retweet" mean, and how do I do it?

The tweet stream on your home page is limited to tweets published by people you follow. People who follow you have different tweet streams on their home pages. Their tweet streams include your tweets (because they follow you), and the tweets of everyone else they follow – a completely different group of people to the one you follow.

When you "retweet" a tweet, it means you take a tweet that you can see in your tweet stream and republish it so that all the people who follow you can see it in their tweet streams, too.

3.4.10 Retweeting a tweet

1. Hold your mouse pointer over the right hand side of the tweet.

2. A green "Retweet" link will appear. Click on it. Twitter will confirm the action with you.

3. Notice that Twitter has inserted the letters "RT" in front of the retweeted message.

3.4.11 Shortening a link

Because tweets have a character limit, including a long link is difficult. To remedy this, there are several link-shortening services available, like Bit.ly (http://bit.ly). These services take your long link and convert it into a very short

one, usually less than 20 characters long. They keep a record of the short links and the corresponding longer links. When somebody clicks on your short link, the signal goes first to the link-shortening site, finds the longer link, and then sends the person to the page you want them to find. Here's how to shorten a link:

1. Find a link you want to post:

   http://jwikert.typepad.com/the_average_joe/2009/02/five-important-points-about-Twitter.html

2. Go to the Bit.ly website and paste your link into the text box.
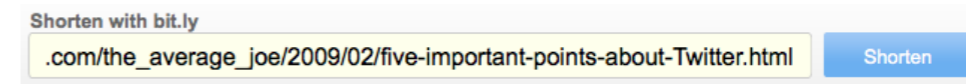
3. Click "Shorten" and the service will create a shortened link for you:

4. You can now post your new, shortened link (http://bit.ly/9ObDGJ) and anyone who clicks on it will be taken to the original page.

3.5 Tips to get the most out of Twitter

- Keep it interesting. Be honest, have fun and don't be boring.

- Don't be a spammer. Keep it real. Don't just tweet to sell stuff or push a certain point of view.

- Read and respond. Don't tweet only about yourself. Add interest by sharing content others might find interesting. Ask questions, and answer them.

- Keep it live, but don't overdo things. Tweet often, but don't drown your followers in a stream of tweets. Opinions vary, but some say that "not more than once an hour" is generally a good rule of thumb.

- Be discrete. Don't post things about friends, co-workers, your employer or anyone else that you would not want them to see.

- Include URL links to interesting web pages. Ensure that you include the entire URL, with the "http://" in front.

- Shrink your links. To save characters, long links can be "shrunk" by using a URL shortening service like bit.ly (bit.ly) or TinyURL (www.tiny.cc).

- Indicate what the link points to. If you post a link, always let people know where they are going before they click.

- Keep private conversations private. Be careful when using the @ symbol to

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communicate with another user. Whenever possible, rather use a private message.

- Retweet with care. Be careful when retweeting. Are you sure this person is okay with all your followers seeing their tweet?

- Keep it manageable. Don't follow more people than you can keep track of. Some people suggest that 150 is an upper limit, but this depends on you and how much time you have to spend on Twitter.

- Follow who you want to, not who you feel you should. You do not have to follow everyone who follows you.

- Use your profile to promote yourself. If you have a blog, Google profile or any other online profile you find useful, include a link to it on your Twitter profile.

3.6 Exercises

3.6.1 Exercise 1: Create a Twitter account

Visit the Twitter home page and sign up for an account. Think carefully about the username you choose. Can you figure this out?

3.6.2 Exercise 2: Follow somebody

Twitter will suggest some people for you to follow. Choose a few of these and follow them. If you're lucky, some may follow you in return.

3.6.3 Exercise 3: Write a tweet

Now, the important part: compose your own tweet. Sticking to the character limit can be tricky at first, but you'll soon get the hang of it.

3.6.4 Exercise 4: Retweet somebody else's tweet

The tweets of the people you're following will show up on your home page. Find one that you think would interest your followers and retweet it. Can you figure out how to add a comment to the tweet before retweeting?

3.6.5 Exercise 5: Use a hashtag

Search for a topic you're interested in, or click on one of the trending topics to the right of your page. You'll see many posts using the same hashtag. Can you add your own tweet to this stream by including a hashtag in your message?

3.7 TweetDeck

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There are many applications designed to enhance your use of social networks, but TweetDeck is worth a special mention. TweetDeck is a desktop application that you download to your computer. This means you can use Twitter (through TweetDeck) even if your web browser is closed. When you open TweetDeck, it logs in to your Twitter account and organises all the tweets that normally appear in your home page according to your specifications.

Being able to sort your tweet stream into several columns can help you to:

- Separate your favourite contacts into a separate column so you can follow their tweets more easily.

- See if someone sent you an "@" reply or direct message, because it appears in its own column.

TweetDeck is also useful for:

- Searching Twitter

- Uploading pictures to tweets

- Finding the most popular tweets

- Interacting with other Twitter users more easily than doing so directly from the Twitter website

Of course, you can also tweet directly from TweetDeck.

3.7.1 Linking your social networks

You link to your Facebook, LinkedIn and MySpace accounts to TweetDeck. This means you can keep track of all those accounts from one location – TweetDeck – and you can also publish tweets and status updates to all your accounts simultaneously.

You can download TweetDeck from www.tweetdeck.com.

3.7.2 Exercise 1: Create a column

Create a new column to show the tweets of your favourite tweeters only.

3.7.3 Exercise 2: Reorganise columns

Reorganise the order that the columns are displayed in.

3.7.4 Exercise 3: Add a filter

Add a filter to one of your columns so that it only shows tweets that contain a

NOTE

This is a section for intermediate users. If you're feeling confident, try TweetDeck out!

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certain word.

3.7.5 Exercise 4: Add a retweet filter

Add a filter to one of your columns that removes all retweets.

3.7.6 Exercise 5: Publish a tweet

Publish a tweet from TweetDeck.

3.7.7 Exercise 6: Add a photo

Add a photo to a tweet from TweetDeck.

3.7.8 Exercise 7: Customise the notification window

Change the position of the pop-up "notification window" that displays new tweets, and adjust the volume of the notification sound.

3.7.9 Exercise 8: Link other accounts

Link TweetDeck to some of your other social networks, like Facebook, LinkedIn or MySpace.

3.7.10 Exercise 9: Customise your settings

You can customise many aspects of TweetDeck. Can you figure out how to change your default language, change your URL shortening service and specify the maximum number of visible tweets?

3.8 Further reading for section 3

1. Criticism of Twitter: www.newyorker.com/online/blogs/georgepacker/2010/01/stop-the-world.html

2. Praise for Twitter: www.nytimes.com/2010/01/03/weekinreview/03carr.html?scp=1&sq=carr%20Twitter&st=cse

3. CEOs who tweet: images.businessweek.com/ss/08/09/0908_microblogceo/index.htm

4. How to use Twitter to do good: mashable.com/2009/09/01/how-to-do-good-on-Twitter

5. How to post to Facebook and Twitter in one go: mashable.com/2009/05/25/Twitter-to-facebook

6. How to use TweetDeck: edgehopper.com/how-to-use-tweetdeck-the-ultimate-Twitter-client

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4. LinkedIn

4.1 What is LinkedIn?

LinkedIn is a social network aimed at professionals who want to connect with one another to build their careers. According to LinkedIn:

> LinkedIn is the world's largest professional network with over 60 million members and growing rapidly. LinkedIn connects you to your trusted contacts and helps you exchange knowledge, ideas, and opportunities with a broader network of professionals.

Where Facebook creates a relaxed social space that encourages communication between friends, LinkedIn strives to create a credible professional network between its users.

One of the reasons why LinkedIn can be a useful business tool is because it collects information appropriate to a person's professional life in standardised categories. For example, you can search for individuals based on which university they attended, what their qualifications are, or which companies they have worked with in the past.

4.2 What can you do in LinkedIn?

Every LinkedIn member has a profile page that lists:

- Work experience

- Qualifications

- Contact information

- Personal interests

It may also include a brief personal statement highlighting the user's skills and accomplishments, an indication of what opportunities they are looking for and any recommendations the user has received from other LinkedIn users.

You can use LinkedIn for the following:

1. Curriculum Vitae: LinkedIn can act as your online CV. You can direct prospective employers to your LinkedIn profile with a simple link in an email. This also ensures that all your contacts see only the most recent and up-to-date version of your CV.

2. Finding people: Just like Facebook, LinkedIn can help you get find other people you know who are also on LinkedIn.

3. Getting introduced: You can get in touch with people you don't know yet – potential clients, employers or colleagues – by asking a mutual

LinkedIn contact to "introduce" you through LinkedIn.

4. Finding jobs or employees: Employers can list potential positions, and you can search these listings to find a position that suits you.

5. Collaborating: LinkedIn allows you to create "Groups" in which a number of people can share expertise on a specific topic.

6. Finding recommendations: It is possible for LinkedIn users to write "recommendations" for one another. For example, if a former employer or teacher has a LinkedIn account, you can request that they write a note in which they share their opinion of you. This will be displayed on your profile, and viewers can easily check the source of the recommendation.

7. Networking: As you connect with other LinkedIn users, your "network" or list of contacts will grow. This is convenient for you, and may enhance your reputation as a knowledgeable and connected individual.

8. Professional groups: LinkedIn groups are a great place to discover people who share your interests or profession. LinkedIn members create groups around a specific events or project, or around certain areas of interest such as a technology, profession or cause.

4.3 Creating your profile

To sign up for a LinkedIn account, go to www.linkedin.com/reg/join. Once you have created your account, you must create a professional LinkedIn profile.

Here is a typical LinkedIn profile page.
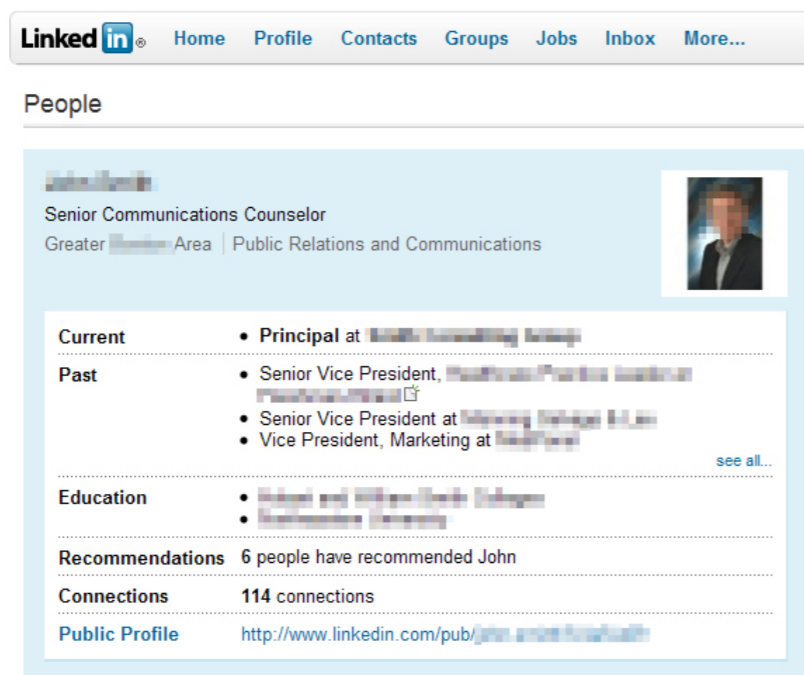
Figure 24: A LinkedIn profile.

4.4 Building your profile

Once you have created a profile, it's important to fill it with relevant, accurate and interesting information to show your skills off to your advantage. Here are some tips to ensure that your profile creates a good first impression.

4.4.1 Define yourself in the headline

Your profile "headline" appears directly under your name. Choose these words carefully, as they will determine whether the right people can find you and understand what you are about.

• Keep it short and informative.

• Use keywords that will ensure that the right people find you when searching.

4.4.2 List your experience

Inserting your qualifications, where you studied and where you worked will help others find you. Of course, this will also act as an online CV.

• Help others figure out what is important to you by writing clearly and putting the most pertinent information near the top.

• Consider listing not just what you have done, but what skills you have and what you have learned from each experience.

• Use the "About" section to specify what you want to do in the future.

4.4.3 Include a picture

A well-chosen profile picture will enhance your profile. People are not likely to trust a faceless profile.

4.5 Building your network

The more contacts you have, the more likely it is that you will be found, and the more credibility you will have. Remember to add links to any other relevant social networks that you want to showcase here – for example, your Twitter account.

4.5.1 Adding connections

There are many ways to build your network. One is to allow LinkedIn to search your email address book to identify which of your current contacts have a LinkedIn account.

1. Click on the "Contacts" button at the top of any LinkedIn page.

2. Choose "Add Connections" from the dropdown menu.

3. You can give LinkedIn access to your webmail account, or you can click on the "Import your desktop email contacts" link, which will instruct you how to make your contacts available to LinkedIn. Your contacts will not be stored or reused by LinkedIn.

4. LinkedIn will generate a list of your contacts who have LinkedIn accounts. You can tick the ones you want to invite to join your network.

5. Click on the "Invite" button to send an email invite to your contacts asking them to become part of your LinkedIn network.

6. If a person accepts, you will receive an email confirming their acceptance.
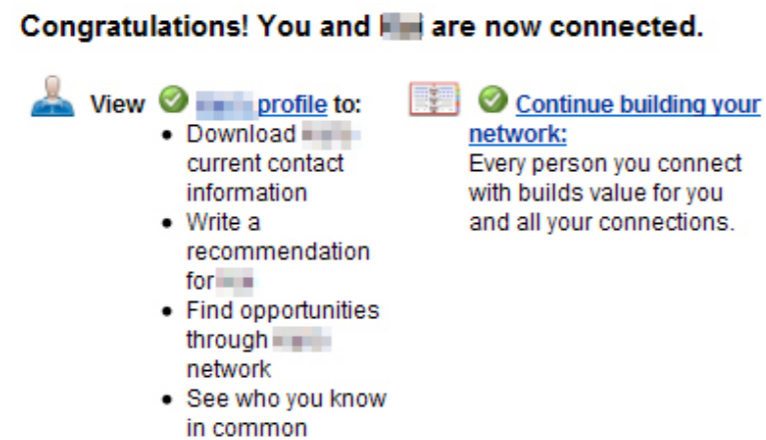
Figure 25: An accepted invitation.

4.5.2 Advice on building your network

- Only send invites to, and accept invites from, people you know and trust or who have been recommended by people you know and trust.

- Don't wait until you are looking for work before you start building your network. It takes time to create a useful network and you never know when you will need it in the future.

- Join and participate in LinkedIn groups. This is a good way of introducing yourself to other members.

- If possible, get a LinkedIn member to "introduce" you to a contact that you don't know personally, rather than connecting to them directly.

4.5.3 Getting introduced

Use the LinkedIn search bar at the top right of the page to search for a person's name. A list of possible contacts will appear, with an indication whether this person is connected to any of your current LinkedIn contacts.
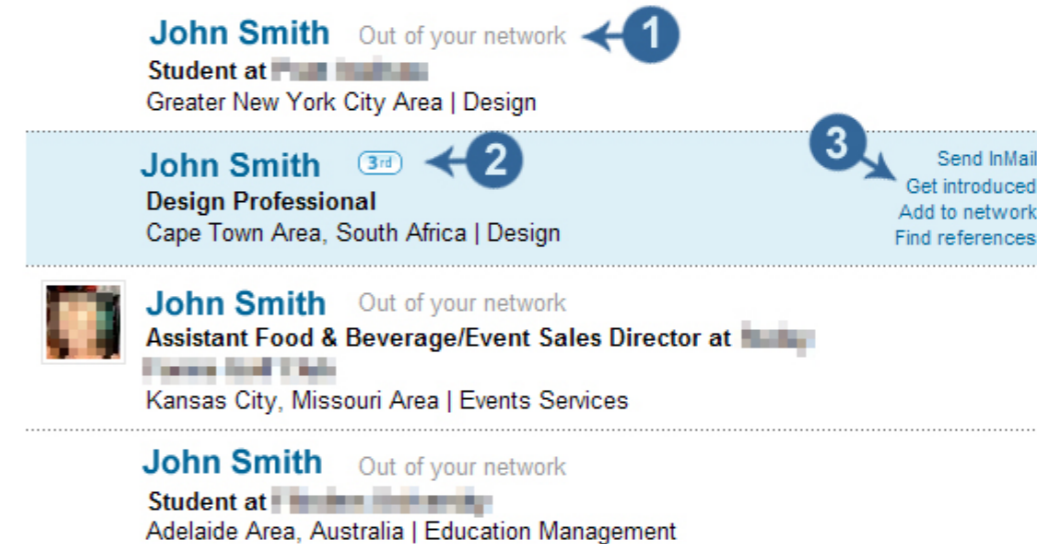
1. This person is not the contact of any of your contacts.

2. This figure indicates that this person is in your network, and shows the degree to which they are connected to you.

3. Here are the options for how you can communicate with this person. If you choose the "Get introduced" option, a message will be sent to a mutual contact to request that they introduce you to this person.

4.5.4 Getting recommended

1. Click on your "Profile" tab at the top of the page, and choose "Recommendations" from the dropdown menu.

2. LinkedIn will list all the institutions you have worked or studied at. To ask for a recommendation from one of these, click on the "Request recommendation" link next to the appropriate item.

3. To request a recommendation from a contact or an institution that is not listed, click on the "Request recommendation" at the top of the page. A form will open, allowing you to specify:

    - What you want to be recommended for

    - Who you wish to ask

    - The message that will be sent

Figure 26: Getting recommendations.

4.6 More advice for LinkedIn users

- Think twice before leaving negative feedback. Your recommendations and other communications will be visible for a long time. Negative feedback can make a very bad impression.

- Never lie. Be honest about your experience, who you've worked with and what you've done. Remember: this information is publicly visible. Any bending of the truth will soon be noticed, and can harm your reputation.

- Never spam. Avoid using your LinkedIn contacts to push your own marketing on others.

4.7 Exercises

4.7.1 Exercise 1: Create a LinkedIn profile

Go to the LinkedIn profile page and create a new account for yourself. Can you work through all the steps?

4.7.2 Exercise 2: Fill out your online CV

Once you've registered, go to your personal profile and start adding your professional information. You'll see that there is a lot that you can customise in each entry. Can you add at least one education institution and one job description?

4.7.3 Exercise 3: Add a connection

LinkedIn will help you find contacts by scanning your email address book. Find and add some contacts.

4.7.4 Exercise 4: Request an introduction

Browse your contacts' pages and find a 2nd degree connection who you think you'd like to be connected to professionally. Ask your 1st degree connection for an introduction.

4.7.5 Exercise 5: Request a recommendation

If you are connected to a current or previous employer, colleague or teacher, ask for their personal recommendation. Can you find where to ask for one?

4.8 Further reading for section 4

1. Use your LinkedIn account to do good: mashable.com/2009/09/08/linkedin-good

2. The LinkedIn learning centre: learn.linkedin.com

5. Your Google CV

Social networks make it possible for people to make their mark online. Anyone can publish content that is – at least potentially – available across the entire world.

Take this ability to publish anonymously and combine it with the powerful search engines that can track down any word or phrase – including your name. Does that make you feel uncomfortable?

These days, doing a web search for an applicant's name is as much part of the hiring process as conducting an interview. You cannot control what others say about you (or about people who share your name) but there are some things you can do to manage your "Google CV".

5.1 Be aware of the traces you leave online

Unless you go out of your way to stay anonymous, every piece of content you create – every comment, status report, tweet and blog post, every photograph of you, every photograph you are tagged in, every video you post, every note you write – is linked to your name.

It can all be found by your new boss, by the boy you have a crush on and are trying to impress, by your children – or by a rival who is looking for a way to harm your reputation.

By the time you try to delete this content, it has already been cached by a search engine such as Google, which means it has been copied and stored out of your reach to delete and can turn up in an internet search.

5.2 So, who cares?

This may or may not be a problem for you. Some people argue that the photograph of you drunk at a birthday party may harm your chances of being employed. Others say that "things change". They say that by the time you apply for a job, anyone who finds that photograph will understand its context and will not use the same "old-fashioned" criteria when deciding whether it matters. They say that the division between public and private, between professional and social, is blurring.

That may very well be true, and that is why the title of this section is not "beware", but "be aware". Be aware that your social network may be private in some senses, but that privacy is at the mercy of the company that controls it. Be aware that what you do online leaves traces, and that those traces may have consequences later in your life.

5.3 Tracking your reputation

Apart from doing a search for your name or other relevant keywords, you can

use the following tools:

- Google Alerts (www.google.com/alerts) will send a regular email with Google search results for specified keywords. You can set this keyword to be your name, for example.

- Tweet Beep (tweetbeep.com) will track any mentions of specified keywords on Twitter.

- BackTweets (backtweets.com) will keep track of specified URLs mentioned in Twitter.

- BackType Blog Comments Manager (www.backtype.com) will keep track of mentions of specified keywords in blogs, social networks and other social media.

- Board Alerts (www.boardtracker.com) can be used to send email alerts for any specified keywords that turn up on forum discussions.

5.4 Owning your reputation

Rather than relying on chance or the actions of others, you can create your own online presence.

1. Create and maintain a profile on all the major social networks like Twitter, LinkedIn and Facebook. These rank highest in search results.

2. Consider registering any domain names that could be linked to you, such as the name of your business or your own name.

5.5 What do I do if I find damaging content?

While you cannot control the actions of others, there are some things you can do to deal with potentially damaging content. Whatever course of action you decide upon, act quickly.

5.5.1 Respond appropriately

How you respond to damaging information online depends very much on the context. A CEO of a high-profile company will have different challenges to a young freelance designer. The following advice holds true for individuals as well as organisations.

- Ignore the trolls. Many people who write untrue or insulting things about you online are "trolls" who are looking for an argument and hope that you will lose your temper. Engaging with one of these is a hopeless pursuit, and merely encourages them.

- Keep your cool. If you feel that you need to "set the record straight", do so

professionally, calmly and as briefly as possible.

- Keep it private. Whenever possible, keep any conversation with the original author out of the public eye in personal emails. Above all, don't exacerbate the situation by trying to "win" an argument. Remember: content from private emails becomes public if it is copied into blog or forum posts.

- Own it. Whether or not a complaint against you is fair, meet it head on. Do what you can to clear up any misunderstandings, be fair and communicate honestly.

- If you were wrong, apologise. If a complaint against you is legitimate, own up. Apologise sincerely, and do what you can to set right any damage you did.

5.5.2 Request a takedown notice

When the law has been broken, you can request a "takedown notice" from the Internet Service Providers Association (ISPA). This means that you notify the ISPA of unlawful content on one of its member networks, and they act to remove that content if they agree that their code of conduct has been broken.

When can I request a takedown notice? You cannot issue a takedown notice unless the ISPA's code of conduct has been broken. Examples of situations when the ISPA may act include:

- Public sharing of private information such as your name, contact details and credit information

- Plagiarism of content that belongs to you

5.5.3 Where do I request a takedown notice?

You can issue a request for a takedown notice here: www.ispa.org.za/code-of-conduct/request-a-take-down.

What is the procedure? A takedown notice requires you to fill in the name of the offending party's internet service provider. You can find this information by using a service such as "whois lookup" (whois.domaintools.com), or you can do a "DNS lookup" (dns-tools.domaintools.com).

You can find a complete guide to the procedure here: www.ispa.org.za/code-of-conduct/procedure.

5.6 Exercise 1: Search for your Google CV

Do a Google search for your name and see what sorts of results show up. Are all of them positive? Are there entries about you that you didn't know existed?

Do any of your social network profiles show up?

5.7 Further reading for section 5

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2. How to tell if it's a troll: www.flayme.com/troll/#How

3. What Dell learnt from "Dell Hell": www.customerthink.com/article/you_can_learn_dell_hell_dell_did

4. Case study: Should a CEO worry about his online image? www.bnet.com/2403-13058_23-358555.html

5. Thirteen tips to boost your online reputation: www.itworldcanada.com/news/thirteen-ways-to-boost-your-online-reputation/108997

6. Summary of chapter 9

In this chapter, we looked at:

- What is meant by the term "social network", and why social networks are so popular

- The large range of different types of social networks available today

- How to use Facebook, Twitter and LinkedIn, the social networks of the moment

- How to manage your online reputation and keep track of your Google CV

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2. History of social networking: www.digitaltrends.com/features/the-history-of-social-networking

7.2 Facebook

1. History of Facebook: mashable.com/2006/08/25/facebook-profile

2. Facebook Business Accounts: www.facebook.com/help/?page=721

3. Tips for businesses on Facebook: www.krishnade.com/blog/2009/getting-started-with-facebook-pages

4. Closer look at Facebook's privacy options: www.readwriteweb.com/archives/a_closer_look_at_facebooks_new_privacy_options.php

5. More about Facebook's privacy settings: www.vococreative.com/bIog/2009/12/10/why-should-you-care-about-facebook-privacy-changes-because-facebook-wont-care-on-your-behalf

7.3 Twitter

1. Time Magazine on Twitter: www.time.com/time/business/article/0,8599,1902604,00.html

2. Five important points about Twitter: jwikert.typepad.com/the_average_joe/2009/02/five-important-points-about-Twitter.html

3. Don't Twitter like a noob: www.brianoberkirch.com/2007/08/29/advanced-Twitter-dont-tweet-like-a-n00b

4. Twitter guide: www.caroline-middlebrook.com/blog/Twitter-guide-3-using-Twitter-properly

5. Twitter best practice: blog.ogilvypr.com/2008/08/the-creation-of-Twitter-best-practices-round-1

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1. Bnet's guide to LinkedIn: www.bnet.com/2403-13070_23-219860.html

2. What is LinkedIn? windmillnetworking.com/2009/08/26/what-is-linkedin-and-why-should-you-join

3. How does LinkedIn work? www.jumpstartsocialmedia.com/howtouselinkedin.htm

7.5 Your Google CV

1. Manage your online reputation: www.itworldcanada.com/news/what-google-says-can-make-or-break-your-career/108998

2. Tools for managing your online reputation: www.sitepoint.com/blogs/2009/05/21/tools-manage-online-reputation

3. Online reputation: www.quirk.biz/resources/article/4294/orm-average-joe

Browsing the web on your cellphone

- Why mobile?
- Simple phones
- Smartphones
- Mobile online transacting
- Mobile social networking
- Mobile web safety

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Introduction

By the end of this chapter, you will:

- Have an understanding of the scope of the mobile web (section 1)

- Have a basic understanding of the technologies involved in connecting a cellphone to the web (section 1)

- Know how to use a cellphone to browse the web (section 2)

- Understand what a mobile application is, and how to access and use it (section 2)

- Learn how to transact online using your cellphone (section 4)

- Know how to use a cellphone to interact with Twitter and Facebook Mobile (section 5)

- Understand how to keep yourself safe while using a cellphone online (section 6)

1. Why mobile?

One of the most significant trends in internet technology today is the growth of the "mobile web" – the practice of accessing the World Wide Web through a handheld device such as a cellphone. Accessing the web through a phone has opened up whole areas of possibility for internet users.

The mobile web is relatively new, and there are still many challenges. For example, many websites are not "phone ready" – they are difficult to view and navigate on the much smaller screen of a cellphone. It is difficult to input information with the small phone keypad. Connections can be slow and unreliable.

Nevertheless, the mobile web is growing: for example, the number of people using cellphones to connect to Facebook has grown from 20 million to 65 million in less than a year. The mobile web is particularly popular in countries in which the traditional wired infrastructure is lagging: in Africa, the cellphone is by far the most popular method of getting online. To give an indication of this, research done in 2009 revealed that 85% of small businesses run by black people in South Africa rely solely on cellphones, and 97% of people in Tanzania have access to a cellphone compared to 28% for fixed lines. Google has also revealed that one sixth of all Google searches in South Africa are done on cellphones – the highest ratio in the world.

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1.1 Why would I use the mobile web?

There are several reasons to use the web on your cellphone over using a desktop computer or even a laptop. Most notably, many people don't have access to a computer at all, and those who have a desktop machine may not have a laptop. Cellphone web browsing is possible when you're on the move – travelling for work, commuting by public transport, going out to a restaurant or visiting friends – so it provides an alternate mobile platform to laptops. Even if you have a laptop, it's not always easy to carry it around, and there are many things that are easier to do on a cellphone. For example, you can snap a photo of your friends and instantly upload it to Facebook with your cellphone, something that isn't practical to do with a laptop and onboard webcam. Lastly, for those who are ecologically conscious, mobile web browsing is much more environmentally friendly: one computer-based Facebook status update uses as much power as 50 cellphone-based ones.

1.2 What can you do on the mobile web?

The mobile web experience is fundamentally different from the traditional, desktop computer-based web. The small screen and keyboard size, the challenges of slow download speeds, unreliable connections and incompatible websites mean that it can be difficult to do tasks that require a lot of text input or browsing from page to page. On the other hand, the freedom of being able to connect instantly from wherever you happen to be offers a very different user experience.

In general, mobile web browsing is useful for tasks that do not require the user's full attention for a long period. It is often used in parallel with other activities, for example while using public transport, watching TV or in a social situation.

Some examples how people use the mobile web:

- Check reviews of restaurants

- Compare airline prices

- Look up facts on Wikipedia

- Check the latest updates on a news or sports site

- Read and send emails

- Participate in online communities like Facebook and Twitter

- Keep track of appointments with an online calendar

Tasks that are not easily achieved on the mobile web:

- Researching complex issues, which requires comparing different facts and

sources

- Any activity that requires extensive text input, such as long emails

1.3 Mobile web technologies

Like all emerging technologies, the mobile web has spawned a wealth of confusing acronyms and jargon. As each new wireless innovation occurs, a new set of protocols is created to govern its use. The adoption of a new technology happens at different speeds in different places. Often the technology that is most easily available is not the latest or the best. What you will use depends on where you are in the world, and what type of cellphone you have.

1.3.1 2G, 3G and 4G

Below are several ways in which your phone can connect to the web. There are a number of different systems and techniques. Because this is a rapidly changing system, some are better or more advanced than others. To make things simpler, technologies are grouped together according to how advanced they are. Each group is called a "generation". For example, 3G – or "third generation" – is more advanced than the 2G, "second generation".

- 2G technologies were the first standards that used digital radio transmissions. They are generally less advanced, but more widespread.

- 3G technologies are faster and more useful. For example, they allow simultaneous use of speech and data services, so that you can use your phone for more than one activity at a time.

- 4G technologies are brand new and contain some amazing capabilities, like streaming media, gaming services and fast broadband internet access.

1.3.2 GSM

GSM is one of the most widespread standards. It stands for "Global System for Mobile Communication", and is part of the 2G family. GSM controls how your phone connects to the web. GSM was the first wireless protocol to use digital radio transmissions. One of the features offered by GSM is international roaming – you can use your phone from anywhere in the world.

1.3.3 GPRS

GPRS stands for "General Packet Radio Service". It is part of "2.5 G" – a family of standards halfway between 2G and 3G. It is an upgrade from the basic GSM standard, with a faster data rate. It provides an uninterrupted connection, and data transfer rates between 56 and 114KB per second – fast enough so that you can watch online video and listen to audio. It made multimedia messages (MMSes) possible. GPRS also makes it possible for your service provider to

charge for the amount of data transferred rather than the amount of time you spend online.

1.3.4 EDGE

EDGE stands for "Enhanced Data GSM Environment". It is officially part of the 3G family of standards. Many people consider it to be "2.75G" because it is not an entirely new standard, but rather an advanced form of the GPRS standard. It offers data transfer rates of up to 384KB per second. Because of its speed, EDGE is better at providing a satisfactory user experience of browsing the web and watching video.

1.3.5 WAP

WAP stands for "Wireless Application Protocol." It is a protocol for how content is delivered to a phone; in other words, how the data in a website is formatted so that it is viewable on a phone. If each device acquired content in a different way, content providers would have to create a version of their site for every device out there. WAP was created to avoid this problem.

WAP uses a specialised form of markup language called WAP Markup Language (WML), the WAP version of HTML. Remember our discussion of HTML in chapter 1? WAP is a similar technique, a language used to "mark up" web content so that it can be displayed on a cellphone.

WAP ensures that the content provided to a cellphone:

- Is presented at the correct size for a cellphone's screen

- Can be downloaded quickly

- Can be navigated easily from a cellphone's interface, using phone buttons rather than a mouse and keyboard

Here is how a WAP enabled phone connects to the web.

1. You open the browser software loaded on your phone.

2. Your phone sets out a radio signal, searching for a connection with your service provider.

3. You use the browser to choose a website.

4. The phone sends a request for the site to a gateway server, using WAP.

5. The gateway server requests the site information in the standard HTTP protocol.

6. The gateway server encodes the HTTP data as WML.

7. The WML-encoded data is sent to your phone.

8. You see the WAP version of the site you requested.

1.3.6 Wi-Fi

Some cellphones such as the iPhone can use Wi-Fi to connect to the web. Wi-Fi stands for Wireless Fidelity, and is a system that allows wireless communication between mobile devices and the web. A Wi-Fi connection works like this:

A Wi-Fi router is a device that acts as a wireless gateway to the web. It broadcasts radio waves that allow wireless devices to connect to it. Because the Wi-Fi router itself is connected to the internet, devices can access the internet via the router. A Wi-Fi router can create a "hotspot" around itself – an area in which devices can pick up its radio waves. Because Wi-Fi routers are usually not very powerful, a typical hotspot is about 60 meters across.

Any Wi-Fi capable phone or a laptop with the correct network card installed can communicate with a Wi-Fi router through the radio waves it sends out. Because the router is connected to the web, the phone or laptop can access the web through the router.
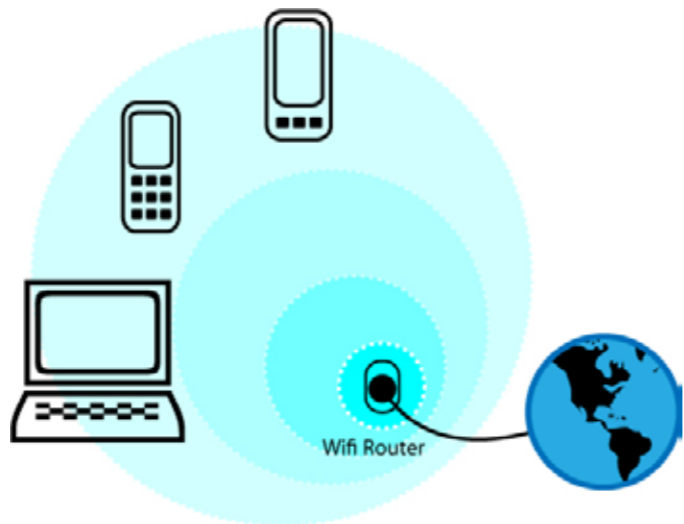
Figure 1: A Wi-Fi hotspot.

Wi-Fi communication is only possible inside the hotspot. A Wi-Fi network can be accessible to all, or it can be password protected.

Many public spaces such as airports, coffee shops, libraries and hotels have Wi-Fi hotspots. You may need to pay or ask for a Wi-Fi password to connect.

Connecting to Wi-Fi is extremely simple – if your device is Wi-Fi capable, it should automatically pick up a Wi-Fi signal and alert you to its presence.

1.3.7 Bluetooth

Bluetooth is a protocol that describes how cellphones, computers, and other devices can connect to one another with a short-range wireless connection. A typical use of Bluetooth would be to upload pictures from a camera-phone to

a computer, or to send a text message.

1.4 Types of phones

What you are able to do online depends largely on the type of phone you have. There are two categories of phones:

	Simple cellphones: Devices with small screens and limited ability to go online. Such phones can be used for basic tasks such as sending MMSes, viewing mobile sites, downloading music or games and checking email. They usually use GSM or GPRS.
	Smartphones: These are essentially small mobile computers that can also be used as phones. They often have touch screens or full keyboards. They can be used for any online task that a desktop computer can perform. These phones use 3G technologies and Wi-Fi.

1.5 Some examples of smartphones

1.5.1 iPhone

iPhone is Apple's smartphone. It functions as a music player (just like an iPod), has a touch screen and a camera, and can be used to connect to the web. Because of its relatively large screen and touch-screen interface, the iPhone is a good option for online browsing.

1.5.2 Android

Android phones are very similar to the iPhone in terms of their usability and the ease with which they can browse the web. Unlike the iPhone, an Android phone is not a particular model of phone. Android is an "open source" operating system used by a number of smartphone manufacturers. This operating system is not linked to any particular brand of phone. Many smartphones created by companies such as Nokia or Motorola can be bought with the Android software pre-installed. Android is owned by Google.

1.5.3 Symbian

Like Android, Symbian is an open source operating system designed to be used on a smartphone. Unlike Android, which is not linked to any particular phone brand, Symbian is primarily used by Nokia, but is also used by the following

NOTE

What does "open source" mean? Most software manufacturers keep the code on which their programs are based – the "source code" – top secret. "Open source" software is the practice of freely sharing the source code so that developers can study the code to ensure that the devices and software they create work properly. It also allows developers to modify the code to improve it or customise it for a particular use.

The open source community also subscribes to a list of guidelines that are designed to encourage progress in developing technologies. You can have a look at these guidelines here: www. opensource.org/ docs/definition.php.

manufacturers:

- Fujitsu

- Huawei

- Samsung Electronics

- Sharp

- Sony Ericsson

1.5.4 BlackBerry

The BlackBerry smartphone is specifically designed for business users. It has a full keyboard, much like the one you have on your computer, and it has been optimised to be a mobile email platform. This means that it has been specially developed to make accessing, reading and sending emails very easy. There are several versions of the BlackBerry, each with its own set of features.

1.5.5 HTC

HTC is a company that manufactures smartphones that use the Android operating system. HTC makes a huge variety of phones, from very simple ones to ones that function as PDAs (personal digital assistants). HTC smartphones can vary widely in features and appearance, but most have touch screens and other useful features. They are favoured both by business and private users.

1.6 Working with your cellphone

The content of this module is divided according to what you can do with simple and smart cellphones. If you have a simple phone, section A is relevant to you. Here you'll find all the information you need for setting up your internet connection and doing some basic browsing. If you own a smartphone, everything in sections A and B is relevant to you: section A walks you through the basics and section B shows you how to do more powerful and advanced tasks on your smartphone. Of course, for the purpose of this module, everybody should read and learn both sections.

A. Simple cellphones

2. Using your simple cellphone

There are four key things that you can do with a mobile web connection and a simple cellphone. You can send MMSes, use GPS tracking, download applications and do basic web browsing, which includes visiting websites and using email.

2.1 Setting up your connection

If you own a simple cellphone, you first need to find out if it contains any of the internet technologies from the previous chapter. You can find out by doing a Google search for your handset, by contacting the manufacturer or by checking in the manual. If it does, you will need to enable it to use the web. The exact process for doing this depends on your cellphone service provider, but the basics are the same whether you use Vodacom, MTN or Cell C.

1. Purchase a data bundle or broadband package from your operator. All of them have special bundles depending on how much data you want to buy. Be aware that cellphone data bundles are much more expensive than the equivalent computer ones.

2. Dial a special number (unique to each operator) to request that your internet settings be enabled. If you use Cell C, dial *147# and follow the prompts. For Vodacom, dial *111#. MTN users can dial *123*1#. You will receive an SMS that contains the necessary files and settings. Download and install these files.

3. Your phone should be web-enabled. If you encounter any trouble, get in touch with your operator.

2.2 Sending MMSes

MMS stands for "multimedia messaging service" and is a way of sending media-rich messages from one cellphone to another. MMSes are identical to SMSes, except that you can include images, sounds, animations and other media content. If you've activated your cellphone's internet connection settings, as described above, MMSing should also be active. If it isn't, contact your cellphone network operator.

To send an MMS, simply create a new message and attach an image or media file that is stored on your cellphone. The process for doing this varies for each brand and variation of cellphone, but you should be able to figure it out easily by browsing your messaging options. The person receiving the MMS must also have MMSing enabled on their cellphone.

2.3 Using GPS tracking

GPS stands for "global positioning system". Essentially, it is a global navigation system that is based on satellite signal tracking. Satellites in space can communicate with a GPS device on the ground and tell it exactly where it is on Earth. This system has many uses. Most of these are scientific, like land surveying and earthquake tracking, or military, like monitoring the location of troops or vehicles, but there are many ways in which you can use GPS too. For example, you can use it in conjunction with a service like Google Maps to plan a route between two locations, or to find out where you are if you get lost while driving. It can also help to pinpoint you in case of an accident.

To use GPS navigation, you must have a cellphone that has special GPS hardware built in. You can find out if your phone has this by doing a Google search for your handset, contacting the manufacturer or checking in the manual. If your cellphone is GPS capable, you should have no trouble opening and using the GPS software on your cellphone. Some companies provide a paid tracking service that you can subscribe to. There are also free applications available that can do the same. The service that you use depends on the cellphone you have and whether you are prepared to pay for it.

2.4 Applications

Applications, also called "apps", are small programs that you can download to your phone to expand its use. Applications make it easier to do all kinds of things on your phone. You can use applications to access your email and social networks, keep track of your calendar, browse online stores, keep track of the weather, play games, search for music, watch videos – if you can imagine it, there is probably an application for it.

Applications are designed with specific cellphones or operating systems in mind. That means that you will have to search for, and download, applications suitable for your phone. Luckily, there are applications available for most types of phone, both for simple cellphones and smartphones. Visit the home page of your cellphone manufacturer or do a Google search for your cellphone to find suitable applications.

2.5 Using the mobile web

2.5.1 What software do you need?

Most cellphones that are capable of going online will have an onboard browser. How to access this depends on the make of your phone. You can also download and install a browser. A widely recommended browser is Opera Mini.

2.5.2 How much will it cost?

Connecting to the web from your cellphone does cost money. You will pay your

service provider, exactly in the same way as you pay for making phone calls or sending SMSes. How much it costs depends on the plan you have signed up for with your service provider. You can use prepaid or contract phones to go online.

2.5.3 Mobile sites

If you phone is capable of browsing the web, you can view almost any website. Many sites are very difficult to operate through the small screen and limited keyboard of most cellphones. That is why many sites have "mobile" versions.

2.5.4 Some examples of mobile-adapted websites

Amazon Anywhere (www.amazon.com/gp/aw/h.html)

eBay Mobile (wap2.bonfiremedia.com)
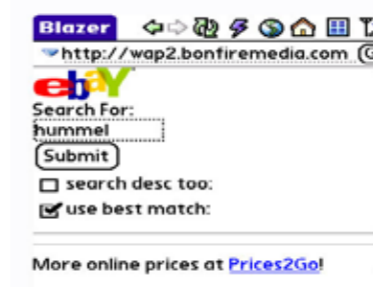
Wapipedia, the mobile Wikipedia (www.wapipedia.org/wikipedia/mobiledefault.aspx)

Google mobile search (wap.google.com)

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2.6 Using mobile email

There are, typically, three ways to access email from your cellphone:

1. Through the phone's browser, using a mobile version of the email website.

2. Through an application installed on your phone.

3. Your phone may have email software installed.

2.6.1 Email through the browser

There are a number of "mobile-friendly" email services available:

- Gmail for mobile (m.gmail.com)

- Yahoo for mobile (mobile.yahoo.com/mail)

If you do not use webmail, contact the ISP that hosts your email service and ask them for instructions on accessing your email on your cellphone. They should provide you with a URL.

To access the site:

1. Open your phone's browser and enter the relevant URL (or use a bookmark).

2. You will be asked to log in with your username and password.

How much you can use mobile email depends on your phone. Some smartphones have the capacity to store and open attached documents and images, while lower-end phones will only be able to read and send simple mails.

2.6.2 Email through an application

Depending on the email service you use, you may be able to install an application to access email from your phone.

Just like their desktop equivalents, some applications allow you to access webmail and others act like a "local client" – that is, you send and receive mail directly from your phone.

An example of a webmail application is the "Gmail for mobile" application. Many Android phones come pre-installed with this application. You can download it from m.google.com/mail.

An example of a local client application is the "Ovi Mail Setup" for Nokia phones, available from the Ovi site.

2.6.3 Email directly from your phone

Your phone may have email software installed as part of its operating system. An example of a phone that has this capacity is the iPhone.

You will need to configure the connection settings exactly as you would do on a desktop computer. Typically, this involves:

1. Specifying your ISP

2. Entering your username and password

3. Setting the outgoing and incoming server addresses

Contact your ISP for help on how to configure your phone's built-in email client.

Some email services allow you to set up "SMS notifications". This means that you can receive an SMS when an email arrives in your inbox. You should be able to set up notifications so that only certain emails trigger an SMS message. In most cases, you will also be able to turn this service temporarily off or on by sending a SMS from your phone.

2.7 Using mobile instant messaging

Instant messaging is ideal for use with your cellphone. There are two ways of using IM on your phone:

1. Through an application that you can install, which connects to any instant messaging service you already use.

2. Through your phone's browser, using the website of any instant messaging service you already use.

An example of a browser-based application is Fring. You can use this application to connect to any IM platform you use, such as Windows Live Messenger or iChat.

You can download Fring from www.fring.com/default.php. Once it is installed, you will need to configure the application for use with your phone. You can download the user guide for your type of phone here: www.fring.com/support/index.php?_m=downloads&_a=view.

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B. Smartphones

3. Using your smartphone

If you own a smartphone, you can do everything in the preceding chapter with ease. You can browse the web, send emails, use GPS and so on. However, smartphones are much more powerful and are designed to be more web capable than simple cellphones. This means that a smartphone can do more complex tasks and can draw on more resources to make the web surfing experience more enjoyable. All of the activities in section B are intended for smartphone users. Of course, you can perform many of the same tasks on a simple cellphone, but the process may be much trickier and less user friendly, so this is not recommended. Remember that all students are required to read this section as part of the course.

3.1 Applications

Applications are a significant part of using a smartphone. Depending on the brand of smartphone and on its operating system, there is a wide range of available applications and the number is growing daily. Here are some suggestions of where to find applications:

- iPhone applications can be found on the "Applications" section of the iTunes store

- Symbian: www.symbian.org/applications

- Android: www.android.com/market/free.html

- Blackberry: appworld.blackberry.com/webstore

- Nokia: store.ovi.com

3.1.1 Google mobile applications

www.google.com/mobile

Google offer a range of applications that work on both iPhone and Android phones. These allow you to interact with the various Google services. Below are some examples of Google applications. To see the full list of applications, visit www.google.com/mobile/more.

Gmail: Download, read and reply to mail.

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Google Maps: See where you are, get directions to where you want to go, and find out more information about the places around you.
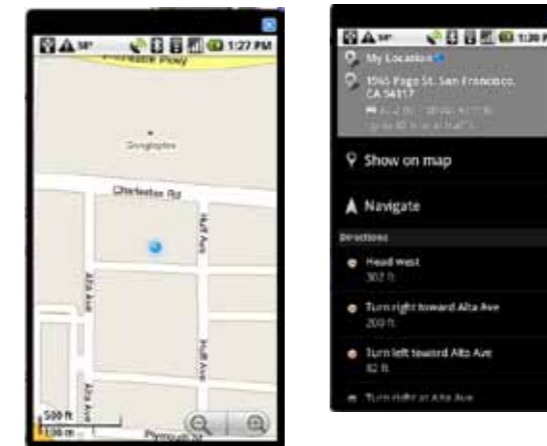
Google Shopper: Gather information about products, including the ability to scan barcodes and the covers of books and other media.

3.1.2 iPhone applications

Available from the iTunes store.

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Google Voice: Searches Google, or your phone, using either voice recognition or text.

Jott: A recording application that transcribes what you say into text. You can use it to take short notes, record phone numbers, addresses and names.

TED talks: Keep up with the latest broadcasts from TED (Technology, Entertainment, and Design). TED talks are informative videos that showcase presentations on the cutting edge of technological innovation.

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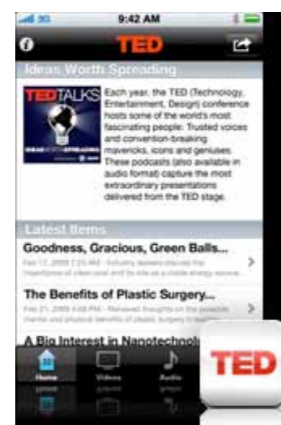
Midomi: Identifies music – you can hum a tune, and the application will identify the song and give you additional information such as its album, artist and lyrics.

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4. Mobile online transacting

You can do any of the usual online transacting processes that you learned in chapter 8 on your cellphone. For example, you can visit your bank's home page, log in and use the online banking tools as you would on your computer. You can also visit an online store and purchase products. This section explores some of the unique things you can only do on your cellphone.

4.1 Cellphone banking

Every major bank in South Africa offers cellphone banking. The principle behind cellphone banking is exactly the same as online banking: making banking as accessible, easy and immediate as possible. Cellphone banking allows you to view bank statements and balances, transfer money between accounts, purchase airtime and make payments.

You can find out more about the services that individual banks offer here:

- ABSA: www.absa.co.za/absacoza/content.jsp?/Home/Personal/Banking-with-Us/Cellphone-Banking

- FNB: www.fnb.co.za/cellphone-banking/cellphone-banking-faq.html

- Nedbank: www.nedbank.co.za/website/content/Products/product_detail.asp?SubSubcatid= 1865&Subcatid=501&ProductID=102

- Standard Bank: www.standardbank.co.za/SBIC/Frontdo or_02_02/0,2454,3447_4416611_ 0,00.html

4.2 Mowaly

Mowaly is a service that calls itself a "virtual mobile wallet" and works in conjunction with Standard Bank's MiMoney service. Users pay for and load MiMoney credits into Mowaly "wallets" on their cellphones, and can then spend these credits at Mowaly-approved vendors. Here is how you can get connected to Mowaly.

1. Sign up for a Mowaly account at www.mowaly.co.za. You can use any web-enabled cellphone with Mowaly.

2. Purchase MiMoney credits to put into your Mowaly account. You can do this with an EFT, a debit card or you can transfer MiMoney from another Mowaly wallet for a small fee.

3. Visit a vendor that accepts Mowaly payments and choose a product. You can find a list of vendors on the Mowaly website.

4. At checkout, go to Mowaly on your cellphone and choose the "Pay Now" option. Enter the correct amount to generate a MiMoney voucher.

5. Give the cashier your MiMoney voucher. This completes payment.

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5. Mobile social networking

5.1 Facebook mobile

There are a several ways to interact with Facebook from your cellphone.

1. Email: You can use email from your phone or from your computer to update your status or upload images and videos to Facebook.

2. Mobile web: You can browse the mobile version of the Facebook website with your phone.

3. Applications: There are a number of applications that allow you to interact with Facebook.

5.1.1 Upload content through email

You can upload images, videos and text messages to Facebook through email. The uploaded content will appear in your "Mobile Uploads" album. Of course, to use this service from your phone, you will need to be able to send email from your phone.

Facebook will send you a personalised email address to use. To find out what your personal upload email address is, visit the Facebook mobile page.

1. Sign into you Facebook account.

2. Go to the "Account" menu, and choose "Account settings".

3. Choose the "Mobile" tab. The direct link is www.facebook.com/mobile.

Your email address will be displayed in the "More Facebook Mobile Products" section. Note that this is your personal address. You should not share it with anyone.

- The email subject will be used as the caption of your photo or video if your email contains photo or video.

- The email subject will be used as your updated status if your email contains no photo or video.

- Save your upload email as a contact for easy access.

- Photos and videos uploaded through email are visible to everyone by default. You can change this for any album from the site itself.

5.1.2 Facebook through mobile web

To interact with Facebook using its mobile website, you need a phone with a web browser that is set up to go online. Point your phone's browser at m.facebook.com.

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The site will look different depending on what type of phone you are using – some mobile browsers cannot display the full Facebook site.
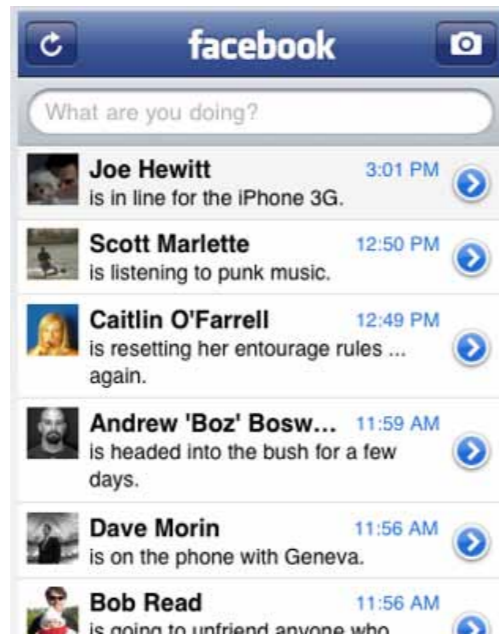
Figure 2: Facebook's mobile website.

Once you have accessed the Facebook mobile site, you can do just about anything that you would on the regular site.

5.1.3 Facebook through applications

There are a number of mobile applications that allow you to interact with Facebook from your phone. Some examples:

• iPhone application: www.facebook.com/iphone

• Android comes with a pre-installed Facebook application

• Nokia: an example from the Ovi store: store.ovi.com/content/7907

5.2 Twitter mobile

You can interact with Twitter via your cellphone in two ways:

1. Through an application.

2. Through the Twitter mobile website.

5.2.1 Twitter through an application

This is the most popular and user-friendly way of using Twitter on a cellphone. There are many applications available. Some examples:

• Fring: www.fring.com/default.php

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• Tweetie (for iPhone) is available from the iTunes store

• Twidroid (for Android phones): twidroid.com

• Jtwitter: www.jtwitter.com

These applications will streamline the process of creating new tweets, replying to messages and reading your tweet stream.

5.2.2 Twitter via mobile web

You can access Twitter through your phone's browser. There are several mobile sites for Twitter that offer different levels of functionality. Some mobile versions of the Twitter site:

• m.twitter.com: The original mobile site, a stripped-down version with limited functionality (for example, you cannot see @replies)

• mobile.twitter.com: A better-looking and more user-friendly version of the Twitter mobile site

• twittme.mobi: Another full-featured mobile version of Twitter

6. Mobile web safety

These days, many cellphones are actually small computers with the capacity to phone and perform many other functions. This has obvious benefits for convenience and productivity. However, there are also drawbacks. As our phones become more like computers, they can also be harmed by viruses and hackers.

In fact, it could be argued that cellphones are even more vulnerable to attack than desktop computers. It very convenient to do financial transactions on your cellphone, but a phone is easy to lose, and can be stolen.

There are a number of ways in which a cellphone can be used to annoy you, compromise your safety or cost you money.

- Spam: Some companies make a practice of sending unwanted SMSes to your phone, advertising their products. Be very careful who you share your cellphone number with. In many cases, you will be asked to fill your number in on a form even if there is no reason for the company in question to have this information.

- Stranger danger: There are people out there who will attempt to trick you into meeting them by contacting you over your cellphone. They may be sexual predators or may be trying to get you to divulge personal information that they can use to hack your bank account.

- SMS scams: It is possible to sign up for SMS notification services that send you messages for a small amount of money per SMS. While some of these are legitimate, some are not. A typical scam will involve a misleading message informing you that you have won a prize or that a family member is sick. Replying to such a message automatically signs you up for the service – and from then on, each SMS your receive from the service costs you money. In some cases, a person may call you to persuade you to sign up for the service. It can be very difficult to unsubscribe from such a service, and it can end up costing you a lot of money.

- Lost and stolen phones: Every day, cellphones are lost or stolen and get into the hands of unscrupulous individuals. If you do not block your phone, you will be charged for any calls made. It is also possible for criminals to commit further crimes.

6.1 Safety tips for cellphone users

You can protect your phone by installing antivirus software and firewalls, like you would on your desktop computer. Also:

- Only give your cellphone number out to people you know and trust.

- Do not share personal information such as your address, workplace or school over the phone.

- Never display your phone number on an online profile such as Facebook or Twitter.

- Be very careful of meeting people who you have only interacted with online or via your phone. You might not feel they are strangers because you have chatted with them online or on your phone, but until you meet them, you don't know who they are or what they want. NEVER arrange to meet such a person without having a friend with you.

- Keep a close eye on your phone account, and act if there are unexpected charges for calls you don't remember making.

- Never reply to text messages from people you don't know.

- Make sure you know how to block others from calling your phone.

- Make a record of your Electronic Serial Number (ESN) and your International Mobile Equipment Identity (IMEI) number. You can find out your IMEI number by pressing *#06# on your cellphone's keypad: it will display a 15-digit number, which is your IMEI number.

- Mark your phone with a security pen so that it can be identified if recovered.

- If your phone is lost or stolen, report it to your local police station and your network operator immediately.

6.2 Backing up data

Another aspect of losing a cellphone is the loss of the data on that phone. Even the simplest phone contains a list of contacts that may be difficult to recreate, and more advanced smartphones contain diaries, documents, music and ebooks.

You can download software to back up your phone data to a computer or other storage device. Such software often offers additional features, such as allowing you to upload photographs taken by your camera phone or synchronising the calendar on your phone with another copy on your computer.

The software you need depends on the make of your phone, and is usually available for free from their website.

6.3 Exercise 1: Learn about your cellphone

What technologies does your phone use, and what is it capable of? Contact your service provider, or browse the website of your phone manufacturer, to

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find out as much as you can about the mobile capabilities of your phone.

6.4 Exercise 2: Surf the web

Get online with your phone. Can you visit any of the suggested sites with your phone? Explore what your phone can do online.

6.5 Exercise 3: Install a new browser and try it out

Try a different browser. While many phones come with pre-installed browsers, they are not necessarily the best for your phone. Download another browser like Opera Mini and install it on your phone.

6.6 Exercise 4: Use Facebook Mobile

Set up your Facebook account for use with your cellphone. Can you update your Facebook status through your phone? What else can you do on Facebook with your phone?

6.7 Exercise 5: Interact with Twitter

Set up your phone for use with Twitter. Send a tweet to Twitter from your phone.

6.8 Exercise 6: Download an application

Find an appealing application that works on your phone, and download it.

6.9 Exercise 7: Record your IMEI number

Find out what your phone's IMEI number is, and make a record of it in case your cellphone is stolen.

6.10 Exercise 8: Back up your contacts on your computer

Download the software needed to back up your list of contacts on your phone, and create a backup on your computer.

7. Summary of chapter 10

In this chapter, we looked at:

- What is possible when accessing the World Wide Web through a cellphone

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- The various technologies and terminology involved in connecting your phone to the web

- What cellphone applications are for, and where to find them

- Using your phone to browse the mobile web

- Using email and instant messaging services on your phone

- Transacting with your cellphone

- Interacting with Facebook and Twitter via your phone

- Avoiding the various risks involved in accessing the web with your phone

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2. iPhone applications: techcrunch.com/2009/08/15/the-35-best-iphone-apps-of-the-year-so-far

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3. Nedbank cellphone banking: www.nedbank.co.za/website/content/Products/product_detail.asp?SubSubcatid=1865&Subcatid=501&ProductID=102

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2. Scam watch for mobile: au.todaytonight.yahoo.com/article/36423

Publishing yourself online

- Blogs
- Planning your blog
- Creating engaging content
- Interacting on your blog
- Spreading the word
- Creating and maintaining a blog
- Video blogging
- Creating your own website
- Podcasting

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Introduction

By the end of this chapter, you will:

- Understand what a blog is, and have a basic understanding of the scope of the blogosphere (section 1)

- Be able to plan and set up a blog (section 2)

- Know how to create engaging content on a blog (section 3)

- Be able to use various platforms to publicise your blog (section 5)

- Know what vlogging is, and understand the difference between pre-recorded vlogging and streaming video (section 7)

- Know how to record and upload your own video, and how to insert it in a blog post (section 7)

- Know how to use Ustream to create streaming video (section 7)

- Know how online shopping sites like Etsy work, and know how to buy and sell on Etsy (section 8)

- Know how to set up your own online store with Yola (section 9)

- Be able to create a podcast and upload it to a podcast directory such as Mevio (section 10)

1. Blogs

Facebook and LinkedIn make it possible for you to create an online presence, but these are only the tip of the iceberg when it comes to carving out your own online space. Before the World Wide Web, the only way to reach a larger audience was to work through the traditional intermediaries: newspapers, publishers and television or radio stations. While these media are still powerful players, the internet has changed our world irrevocably.

Musicians are bypassing the mechanics of the music industry and making their work available through sites like MySpace; writers are releasing their work as ebooks; aspiring filmmakers are creating their own "channels" on YouTube and Vimeo. There are many ways to reach a worldwide online audience, and one of the easiest is to create your own blog. This chapter looks at the traditional written blog, as well as related concepts such as video blogging (called "vlogging") and podcasting – a version of blogging using audio or video.

1.1 What is a blog?

The word "blog" is a contraction of "web log", the log in this case being a record of events, like the logbook kept by the captain of a ship. A typical blog

is a collection of short articles organised according to the date when they were written. Usually, the articles – called blog posts – appear below one another on one long page, with the newest post appearing at the top of the page.

One reason blogs have become such a popular medium is because they are so easy to create and maintain. Another is that the blog interface allows for a conversational relationship between the blog author and audience. Most blogs have the capacity to accept "comments" from readers, who add to, argue with or expand upon the post they have just read.

1.2 What are blogs used for?

Some people use their blogs as records of their personal lives – a sort of online diary. Others choose a specific "niche" to write about. From books to fashion, beauty tips to social justice, there are blogs that focus on just about any topic you can imagine and many you may never have considered. The White House maintains a blog – www.whitehouse.gov/blog – as do many businesses and charities.

Blogs can state a point of view, share information, entertain and educate.

While not quite as fast as microblogging sites like Twitter, the ease of publishing a blog post means that a blogger can respond quickly to events. Creating a blog is an excellent way to maintain an online community of like-minded people.

1.3 The parts of a blog

Let's have a closer look at a typical blog.

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1. The title of the blog, often called the "header".

2. The most recent blog post.

3. The second most recent blog post.

4. The title of a post, specifying the date and the author. A title is often a link to a page with a more complete version of that post.

5. The blog's "categories" – a list of topics covered in this blog. Clicking on a category opens a page where all posts on that category are listed. Remember the discussion of tags and folders in chapter 6? Categories are an example of tags in action.

The screenshot above shows a typical "blog post". Notice the following:

1. The "education" link specifies the category this post belongs to. If you click on that link, you will see more posts in that topic area.

2. There is often a "read more" link to a more complete version of the post. You usually have to click on this link if you wish to access the "comment" area.

3. The list of links at the bottom of the post are the "tags" that are associated with this post. Clicking on these links will open a page with other posts on the same topic.

4. Here is an indication of how many comments have been made on this post. Clicking this link will display the comments, and allow you to add your comment.

At the bottom of most blog posts, you will find the comment area. If you wish to comment, you have to fill in a name and an email address. Notice that the commenter's name becomes a link, which in many cases links back to a personal profile or blog.

2. Planning your blog

Before you dive into creating a blog, it is worth spending some time planning your blog. Here are some questions you may want to consider before you start.

- What are you hoping to achieve? Are you sharing a spiritual journey of self-discovery? Protesting injustice? Helping others to gain new skills? Raising money for a worthy cause? Showing off your talent for comedy? Decide what the purpose of your blog is and stick to it. Trying to achieve too many things with a single blog is a recipe for failure.

- Is it personal or professional? Your blog does not have to be a confessional in which you share the details of your private life. It can be a platform to display your knowledge as a professional in your field. However, be aware of your audience's expectations. It can be a mistake to include "diary-style" notes on your personal life with more formal posts.

- What's your niche? It is helpful, but not essential, to determine what niche you wish to fill. People are more likely to return to your blog if they know what to expect. Some examples of popular niches are:

  Promoting a worthy cause: Fake Plastic Fish (fakeplasticfish. com/2009/08/ outside-lands-rocks-with-less-plastic)

  "Do it yourself" tips and techniques: The Inadvertent Gardener (www.theinadvertentgardener.com)

  Lifestyle topics like fashion, health, new technology, beauty tips or interior decorating: The Sartorialist (thesartorialist.blogspot.com)

  Reviewing books, movies or music: Things Mean a Lot (www. thingsmeanalot.com)

  Analysing relationship and sexuality: Hugo Schwyzer (hugoschwyzer. net)

  "Mommy blogging" – sharing experiences as a parent: Her Bad Mother (herbadmother.com)

- What's your style? There is no "correct" way of writing a blog. Whether you are snarky, serious, quirky or formal depends on the context and on your personality. Familiarise yourself with a range of popular blogs and study their approach. What works, and what does not?

- Read, read and read! Keep track of blogs you admire, and make a note of what works and what doesn't. How often do they post? How do they reply to comments? What makes you go back to a blog and look for more?

2.1 The title

Your blog's name is the first thing anyone will see when looking at a page of search engine results. It is what will help them decide whether to click on your link or not. It's worth doing some research on what other blogs in your "niche" are named and to avoid anything that is too similar. Your blog's name should stand out from the list – it should be memorable.

2.2 The "elevator pitch"

An essential part of planning for a new blog (or rejuvenating an existing one) is to create an "elevator pitch".

An elevator pitch is a concise explanation of who you are and what you are about. It must be as memorable as possible. If you were to find yourself in an elevator with an influential person who you admire and want to impress, would you be able to explain what you are about before the end of the ride?

2.2.1 What can you do with an elevator pitch?

An elevator pitch is very useful. It helps you achieve clarity about your goals. It also helps others to decide if you are worth their attention.

You can put your elevator pitch on your blog's "about" page, and if it is short enough, you can even incorporate it as a "tag line" at the top of every page.

It will also come in useful when you are publicising your blog: you can use it as a website description when you list your blog with search engines or blogging communities.

2.2.2 Questions to guide your elevator pitch

- Who are you?

- What is unique about you or your blog?

- Why should anyone care about your blog?

- Who is your audience?

- What problem are you solving, or what need are you addressing?

2.2.3 Some pointers for creating an excellent elevator pitch

- The shorter, the better. It should not be longer than about 100 to 150 words, and much shorter if possible. It should take less than a minute to say out loud, and you should be able to write it on a business card.

- Keep it clear. Don't be vague or use jargon.

- Stand out. Use words and imagery that display what is unique about you.

- Entice rather than explain. You cannot use an elevator pitch to describe every aspect of yourself or your blog, but you can use it to intrigue your audience and get them to be curious about you.

2.2.4 Three examples of elevator pitches

"This is my highly personal take on my two favourite topics: the care and training of Rottweilers, and the care and taming of technology. Remember: don't let either of them know that you're scared!"

"Adventures of a twenty-something Pacific Northwester who ditched her marketing job and MBA for a year-long trip around the world. Call it a quarter-life crisis or just the travel bug; either way, this blog documents the adventure."

"Everyday Goddess is my personal blog where I write about all the things I'm passionate about: television, reading, cooking. I'm an aspiring director living the dream in Los Angeles, so I write a lot about that, too."

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3. Creating engaging content

Nothing beats good content. A clever name and snappy tag line will get a reader to visit your blog, but they will come back and recommend your blog for good content. Knowing how to create engaging content is the secret to a successful blog.

3.1 Writing well

Blogging is all about writing. Which style you use depends on your personality, your audience and the context of your blog. Nevertheless, some things transcend style.

- Always put the most important information first.

- Tell us why we should care.

- Keep to a single topic. Do not meander from one story to another in a single post.

- Write what you mean. Choosing the right words to communicate what you mean is a valuable skill.

3.2 Preparing your posts for easy reading

Never underestimate the importance of presentation. Your audience is fickle, and always a single click away from leaving your blog. While the styling of your blog – the background colours, fonts and images – is very important, knowing how to format your text is even more essential. A well-formatted post is easy to read: it communicates at a glance.

3.2.1 Keep it short and sweet

The ideal length of a post depends very much on the purpose of your blog. A book review is necessarily going to be longer than a gossip piece. Even so, less is more. Don't try to say everything on a topic – keep it fresh, short and snappy.

3.2.2 Use short paragraphs

This is probably the most common error of the novice writer. There are few things as off-putting as one long, continuous block of text. Separate text into a new paragraph every time a new thought is introduced.

3.2.3 Use sub-headings and bullet points

Consider breaking your post into separate sections with distinct headings and bullet points to help your readers find the information they are looking for.

3.2.4 Use graphics

Consider using graphical elements like images or line breaks to add visual interest to your story. However, be careful not to overwhelm your page with distracting content.

3.3 Some tips for creating engaging content

- Link, link and link again. Don't think of your blog as a stand-alone entity like a book or essay – it is part of a web of other sites. Turn each blog post into a valuable resource by inserting links to related content on other sites.

- Add, don't echo. Some blogs are just collections of interesting content found on other blogs. Instead of simply regurgitating "cool" content found online, add your own. Take your own photographs and express your own opinions.

- Don't be afraid to wonder. Nobody expects you to know all the answers, and asking questions is a better way to start a conversation that expounding facts or opinions.

- Help your audience find what they are looking for. Use tags and categories to direct your audience to the content on your blog that will interest them.

- Craft your titles. Take the time to create informative and interesting titles for each blog post. They show up in search engine results and RSS feeds and can help to drive traffic to your blog.

- Pace yourself. Don't feel you have to publish every post as soon as you've written it. Save posts and publish them later in the week.

3.4 Blogger beware!

3.4.1 Don't plagiarise

It is so easy to simply copy and paste content from elsewhere in the internet. Beware. Any content that you did not write yourself is the property of the original author. Republishing this on your blog is stealing. This is true even if you rewrite the content in your own words. Using your own words to present someone else's ideas as if they are your own is plagiarism.

If you must use someone else's words or ideas, say so. Link back to the source. Apart from the fact that this is the polite (and legal) thing to do, links to useful resources add value to your blog. The same law against plagiarism applies to photographs and other images.

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3.4.2 Don't hotlink images

There are two ways of inserting images in a blog post. You can upload the image file into your own database and insert it into the post from there. Or you can insert the URL of an image that saved is elsewhere on the internet directly into your blog.

The latter is called "hotlinking". It's a very convenient way of inserting images, as it means you don't have to upload the images yourself – they are already stored in somebody else's database. Don't do it. Hotlinking is considered extremely rude and can result in some very angry comments on your blog.

3.5 Further reading for section 3

1. How to write an "about" page for your blog: www.blogher.com/how-do-i-write-about-page

2. The basics of writing a blog post: lorelle.wordpress.com/2009/11/21/blog-struggles-how-do-you-know-when-to-stop-writing-a-blog-post

3. How to create excellent titles for your posts: lorelle.wordpress.com/2008/05/02/writing-better-blog-post-titles

4. How to make your blog post "scannable": www.problogger.net/archives/2005/08/19/writing-blog-content-make-it-scannable

5. How to write original content: www.problogger.net/archives/2007/02/22/how-to-add-to-blogging-conversations-and-eliminate-the-echo-chamber

6. Choosing copyright and Creative Commons licenses: www.blogher.com/choosing-copyright-or-creative-commons-your-intellectual-property#comment-104111

7. How to avoid plagiarism: www.plagiarism.org/plag_article_what_is_plagiarism.html

4. Interacting on your blog

One of the most exciting parts of being a blogger is the conversation that can start in the comment section of your blog. How can you encourage people to comment, and how can you keep the conversation going?

4.1 Comment on other bloggers' posts

The best way to get people to comment on your blog is to comment on their blogs. This does not mean that every blog you comment on is obliged to repay you with a comment, or that you should "spam" blogs with irrelevant comments. Instead, think of it as starting a relationship or opening a conversation. If your comments are interesting and add to the conversation, it is very likely that other bloggers will follow your link back to your blog to see what else you have to say.

4.2 Include "calls to action" in your blog post

It seems like a no-brainer, but if you want your audience to do something, why not just ask them to do it? End your post with a question or a request – "Help me figure this one out. What am I missing?" – or use it to open a conversation – "What do you think?". Ask for suggestions or opinions, or have a competition for the most useful comment.

4.3 Acknowledge comments

Whenever possible, respond to a comment, even if it's just a quick "thanks" or a smiley. Many blogging platforms allow you to respond in a private email directly to the commenter, or to respond with a comment of your own.

4.4 Turn comments off

Most blogging platforms allow you to turn off comments on a particular post – or even on an entire blog. With comments turned off, no one will be able to add comments. If you write a post that won't be enhanced by comments, or if you don't feel up to managing a flame war, this is a good option.

4.5 Be civil

Sometimes, comments can get out of hand and a flame ware ensues. Remember the guidelines to online interaction from chapter 3? It's worth recapping them here.

1. Be polite. Would you say the same if you were face to face with the person you are writing to?

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2. Be concise and clear. Vagueness and generalisations cause misunderstanding. Refer to specific examples and actual people – ideally things that you have personally experienced.

3. Respond to the words on the page, not to what you believe the author's intention was. Base your assumption on what has actually been written, rather than reacting to what you think the writer believes or means to say.

4. Stay away from making blanket statements and referring to broad groups of people (either positively or negatively). Blanket statements expose your prejudices but don't add useful information to a discussion.

5. Be open minded. You don't have to agree with everybody out there. Having an open mind means that you are willing to listen to others and respond in ways that are not intended to silence them.

6. Watch your emotional levels. If you find yourself responding emotionally – even with the greatest of justification – step away from the keyboard. Allow yourself time to cool down before responding.

7. Be aware of your motivation. Why are you writing? Are you trying to prove that you are right, or to "win" an argument? Or do you care about persuading somebody or changing their mind about something? Look at what you have just written. Does it just serve to stamp your opinion, or have you added to the conversation?

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5. Spreading the word

There are millions of blogs out there. How can you make people aware of your blog?

5.1 Index your blog in a major search engine

While most of the major search engines will index your site automatically, you can help the process along. Google, Bing and the other search engines allow you to list your blog.

- To index your site on Google: www.google.com/addurl.

- To index your site on Bing: www.bing.com/webmaster/SubmitSitePage.aspx.

5.2 Join a "blog community"

There are a number of blog aggregators, portals and communities that will help get your site noticed. Some examples are:

- Mybloglog: www.mybloglog.com

- Blogher: www.blogher.com

- Technorati: technorati.com

5.3 Use social media

You can post links to your latest blog posts in your Facebook status, tweet them on Twitter, or insert them in a Buzz post. You can even insert links as comments on other blogs or in online forums. Be very careful when publicising your blog in social media.

- Don't spam. Never insert a link on a comment or forum unless it's relevant to the discussion that is taking place. Even then, do so with discretion.

- Don't be boring. If every single one of your Facebook updates, tweets and Buzz posts are about your own blog, and never about anything else, people are very likely to stop following you.

5.4 Insert your blog link wherever you can

Put a link to your blog in your email signature, on your business card, in your Facebook profile, and anywhere else that you have an online profile.

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5.5 Use search engine optimisation (SEO)

Make it easy for search engines to find your blog:

- Notice which keywords people are searching for to reach your blog (most blogging software can display these results).

- Create tags for each post that use the best keywords for that post.

- Include keywords in the title of your post.

5.6 Further reading for section 5

1. How to use tags and categories: www.blogher.com/understanding-and-using-blog-categories-and-tags-effectively

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6. Creating and maintaining a blog

6.1 Which blogging platform should I choose?

There are a number of blog platforms to choose from. Some examples are:

- Blogger
- WordPress
- Typepad

For demonstration purposes, this section describes how to create and maintain a WordPress blog. Even though there are differences between the platforms, if you know how to use one of them, you will be able to figure out the others easily.

6.2 Hosted or self-hosted?

Your blog is a website, and like any other website it must be saved on a server somewhere. There are many businesses that will "host" your blog – that is, save it on their server in such a way that people can view it through a web browser.

You can take advantage of any of the many free hosting services available – such as wordpress.com – or you can maintain and host your own blog – as offered by wordpress.org.

6.2.1 Hosted blogs

Your blog's database is stored, maintained and kept up to date by the company that does the hosting (e.g. wordpress.com or Blogger).

Hosted blogs come with some limitations. For example, a wordpress.com blog allows you to customise the look to some extent, but you won't have as much control as you would with a self-hosted site.

6.2.2 Self-hosted blogs

You download the relevant database, find your own hosting (which you may have to pay for) and are responsible for backing up, updating and maintaining your blog's database yourself.

Some people enjoy the complete freedom and control offered by self-hosting. Others find the responsibility frightening. For most beginners, it's best to start on a free, hosted blog. It is always possible to move your content to a self-hosted option if you change your mind.

6.3 Signing up with WordPress

These instructions describe how to create free, hosted blog at wordpress.com.

Remember, this is different from a wordpress.org blog, which is self-hosted.

6.3.1 Create your WordPress account

Start the sign-up procedure for your WordPress blog here: en.wordpress.com/ signup.

During this sign-up procedure, you will be asked to specify your blog's domain. Remember what a domain is from chapter 1? Your domain is part of your blog's URL (for example, www.momsdiary.com).

Be sure to choose something that is easy to remember and that has some relation to the purpose of your blog.

6.4 The WordPress dashboard

Your "dashboard" is the online editor that you will use to create blog posts and maintain your blog.

Once you have signed up for a blog, you will be directed to a page with two links. One is called "View your site" and the other "Log in". Bookmark both of these URLs.

The "View your site" URL points to the home page of your blog. This is the link you will share with your friends, family and colleagues who want to visit your blog. The "Log in" link points to the administrative area of your blog. This is called your blog's "dashboard". It is the control panel that you will use to create blog posts and maintain your blog.

To see your blog's dashboard, you will need to go to your WordPress login page and insert the username and password you chose during the signup procedure. Here is the dashboard of a blog that has been active for a while.

Figure 1: A WordPress dashboard.

The dashboard changes with each version update. The screenshot above is of

the latest version at the time of writing – WordPress version 2.9.2.

Notice the following:

1. The main area of the dashboard displays general information about your blog – the number of posts, recent comments, and a small view of the "Stats" – the number of people who have viewed your blog that day.

2. The QuickPress area allows you to create a post directly from your dashboard's homepage.

3. At the top of the page is a "New Post" button, which opens more extensive controls for creating a new blog post.

4. On the left of the dashboard is a menu with links to all the dashboard controls, including Dashboard, Upgrades, Posts, Media and others. Most of these links have sub-menus that can be expanded and collapsed.
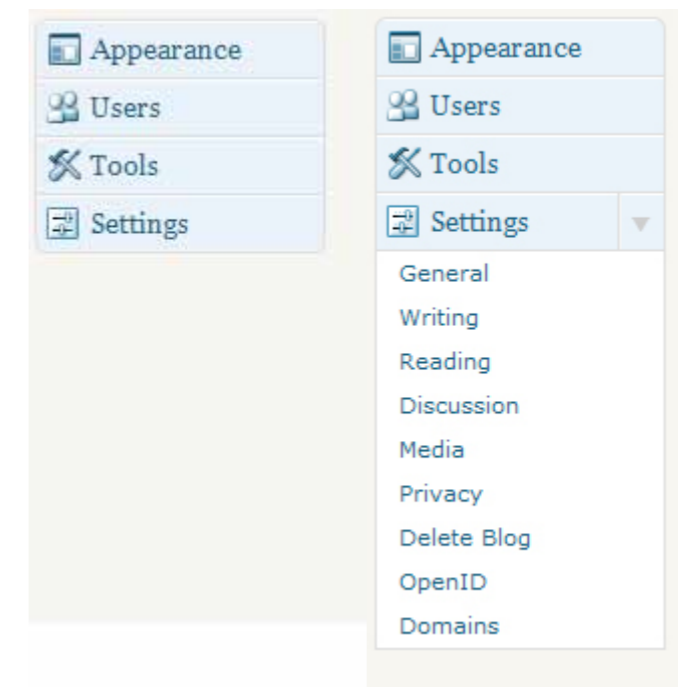
Figure 2: Dashboard sub-menus.

6.5 Using the WordPress dashboard

To help you learn how to use your dashboard to set up and maintain your blog, you can work through the following exercises.

6.5.1 Exercise 1: Fine-tune your title and tagline

WordPress automatically creates a title and tagline for your blog. This is what will appear at the top of each page and in search engine results. By default, it will be something like "Your Username's Blog – Just another WordPress.com weblog". It is a very good idea to change this. Choose the title yourself, and use

a phrase from your elevator pitch for your tagline.

Can you figure out where to do this? Hint: it's somewhere in the "Settings" menu. Editing the title will not affect your blog's URL. If you don't want a tagline, leave that field blank.

6.5.2 Exercise 2: Check the email address

WordPress will send you email whenever anyone comments on your blog, or whenever something significant happens. By default, WordPress will use the address you specified when you signed up. You may want to change this address some day. Can you figure out where this setting is? Hint: this is also somewhere in the "Settings" menu.

6.5.3 Exercise 3: Specify how many posts should show on a page

By default, each page on your blog will display the ten most recent posts. Can you adjust this number? Hint: look in the "Reading" menu.

6.5.4 Exercise 4: Decide what your front page should be

There are two types of pages on your blog – the standard page, which changes each time you add a new post, and a "static" page, which contains only one post. An example of a static page is an "about" page which explains who you are and what your blog is about.

By default, your blog's home page displays a standard page with the list of most recent blog posts. You may want to change this to a static page. Can you figure out where this setting is? Hint: this is also in your "Reading" settings.

6.5.5 Exercise 5: Specify comment settings

You can control exactly who can comment, and whether comments appear as they are added or if only appear once you have approved them. Look for the comment controls. Hint: you will find them in a section called "Discussion".

Some advice on comment settings:

- It is a good idea to require readers to fill out their name and email when commenting. This discourages "trolls" and other unpleasant anonymous commenters.

- If you tick "A comment is to be held for moderation" or "An administrator must always approve the comment", that means that you must approve all comments before they appear. This can slow down the conversation on your blog and often stops people from commenting at all. The same applies to "The comment author must have a previously approved comment".

6.5.6 Exercise 6: Specify privacy settings

You can hide your blog from search engines or specify that only certain users

can view your blog. Can you figure out where to find your privacy settings?

6.5.7 Exercise 7: Create an about page

An "about" page is a static page. For every static page you create, a link with that page's title will appear on your blog's home page. Every blog should have an "about" page. This is the page people will look for when they want to find out more about you. You may wish to insert your elevator pitch into your about page. To create a static page, look for the menu item that specifies "Pages".

6.5.8 Exercise 8: Create a new post

At last, the most important part of blogging – creating and publishing a post. Can you find the "New Post" button?

Once you have opened the interface to create a new post, try the following:

1. Create a title for your blog post.

2. Insert some text.

3. Upload a picture. Look for the row of buttons just above the text area. One of them allows you to upload an image from your computer.

4. Insert a hyperlink.

5. Create a category. Each time you add a new category in this interface, it adds to the list of categories that automatically appear on your blog's sidebar.

6. Insert tags. Tags are essential for helping people find your blog in search engines.

7. Preview the post without publishing it.

8. Save the post as a draft if you want to carry on writing it at a later date.

9. Publish the post.

10. Edit the published post. There are a number of ways to do this. One is to look for the menu item on the left of your dashboard called "Posts".

6.5.9 Exercise 9: Schedule a post

It's possible to schedule a blog post so that it will be published at a preset time and date. This allows you write a number of posts when you have time, and then space their publication out to the best times during the rest of the week. Hint: you will find this setting near the "Publish" button.

6.5.10 Exercise 10: Check your media library

If you have completed exercise 8 and uploaded an image from your computer, it will be saved in your "Media Library". You can use this library to find all the items you have uploaded, rename them or delete them. Can you find your Media Library?

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6.5.11 Exercise 11: Change the look of your blog

The look of your blog – the colours, fonts and layout – is defined by its "theme". By default, your blog has a very bland theme. You can choose from hundreds of pre-made themes and headers. Where are the settings to allow you to choose a new theme? Hint: it has something to do with "Appearance".

6.5.12 Exercise 12: Back up your blog posts

While you cannot back up your Media Library on WordPress, you can back up all the text of every blog post. Find the "Export" setting to help you do this.

6.5.13 Exercise 13: Find help

Browse the support forum at en.support.wordpress.com. You will find answers to most of your questions there.

NOTE

Some themes allow you to upload a "custom header" – that means you can upload your own header image.

It is also possible to customise a theme and change almost everything about it. To do this, you must purchase a "Custom CSS Upgrade" for a small fee. To customise a theme, you will need to know how to edit CSS.

7. Video blogging

7.1 What is "vlogging"?

There are two approaches to video blogging, or "vlogging". One is to use videos to add another dimension to a blog. Such a blog could be a mix of written and video content, or be a video-only blog with no written content. In both cases, the video is pre-recorded, edited and uploaded onto a blog to be watched whenever the audience accesses the relevant post.

Another is the "streaming" video approach, in which the video is broadcast on the web as you record it. Just like a live broadcast on TV, the video "stream" can be watched by anyone who is logged into the correct video stream. This is a far more interactive approach to vlogging: the audience sees the footage as it is being recorded, and can respond in real time.

Vlogging is an advanced practice that requires a lot of time, skill and equipment to perfect. Don't worry if this section is too complex: it's included here for the sake of completeness and for your interest.

7.1.1 Why add pre-recorded videos to a blog?

A video of you explaining or demonstrating something is very different from a written description. Some topics lend themselves to vlogging. Demonstrations of complex techniques – for example craft or cooking – often work better as a vlog. Vlogging also presents you directly to your audience: your face, voice and surroundings.

7.1.2 Why stream video?

Streamed video creates a direct connection between you and your friends or family. It can be used as a way to communicate, or to share an experience. It can also be used to connect an audience to an ongoing event, such as a sports event, a protest march or a celebration. Some zoos have video feeds so that the public can keep track of their favourite animals. Schools can use streaming video to make classroom sessions available outside of the classroom.

In this chapter, we will deal with both these approaches to vlogging – pre-recorded video and streaming video.

7.2 Planning your vlog

Some vloggers spend time scripting, preparing, editing and fine-tuning each video before they upload it. Others grab the camera and roll, making it up as they go along. For these vlogs, the fact that the video is rough and unedited is the whole point – it enhances the vlogger's integrity.

REMEMBER

Video consumes bandwidth. If you vlog, you will be uploading and probably downloading quite a large amount of video. If you have a slow internet connection, or a bandwidth "cap", this is something you will need to keep a close eye on.

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7.2.1 Planning for pre-recorded vs. streaming video

Remember that a streaming broadcast is live. You cannot go back to edit out mistakes or redo a take. Your audience sees what you do as you are doing it. While the direct quality of streaming videos is part of their attraction, it is a good idea to spend some time planning what you are going to do or say, and preparing your video setup before you hit the "start broadcasting" button.

7.2.2 Planning tips

A vlog requires rather more planning than a written blog post. A streaming video broadcast requires even more fine-tuning. The amount of planning required depends on your approach.

- Know your tools. Get familiar with your equipment before diving in to record or broadcast.

- Decide what you are going to say. This does not mean that you have to create a complete script of every word and action – although you can certainly do that. An alternative approach is to create a rough list of the main points you wish to cover, to help you figure out the best structure for your show. The more you think about what you wish to say, the more confident you will be and the less time you will waste.

- Rehearse demonstrations. If you are going to be doing anything apart from speaking, practice it a couple of times before you start filming.

- Practice in front of a mirror. This will help you gain confidence and fine-tune the way you speak and move.

- Time yourself practicing. The ideal time for a pre-recorded vlog is between three and five minutes.

7.2.3 How to create a professional vlog

Unless you are happy with a rough, hand-held style, you should be prepared to spend a fair amount of trial and error getting your look right. Achieving studio-quality lighting and audio is an art beyond the scope of this course. However, you can improve your video quality by following these common-sense tips.

- Be aware of noise. Choose a quiet spot to record in. Your microphone will pick up everything in its range.

- Use a tripod. Find a way to fix your camera securely so that it does not move. Hand-held filming is only suitable for a limited number of topics.

- Choose a well-lit area. Filtered or reflected natural light is best – avoid direct sunlight that will cast harsh shadows. If you are shooting indoors, boost the light level as much as you can. Make sure the light comes from behind the camera, otherwise your subject will become a silhouette.

- Be aware of your background. Make sure that you are happy with everything your viewers can see in the background. The plainer, the better. A cluttered background will distract from your presentation.

- Hold the shot. To help with editing pre-recorded content, always add at least ten seconds to the end of every shot.

- Speak, don't read. While it's a great idea to write a plan for what you wish to say, use it for planning only. Don't read it out loud, and don't try to memorise it. Pretend that you are speaking to a friendly audience.

- Be aware of vocal time fillers. Do you say "um", "like" and "uhuh" all the time? Small tricks of speech can become irritating mannerisms in a video.

7.3 Producing pre-recorded video

7.3.1 Which host?

Most blog platforms allow you to insert video content into a blog post. Some allow you to upload the videos to your own account, although you usually have to pay for that privilege. The usual method is to upload your videos to a YouTube account and embed them into your blog. This means the video files are stored (for free) in a YouTube account, but can still be visible in your blog.

7.3.2 What equipment will you need?

The low resolution of video for web means you can get away with the most basic of cameras. A standard web video is 320 x 240, which means it is 320 pixels wide and 240 pixels high, a resolution that can be achieved even by a small webcam.

Figure 3: An illustration of an online video's size.

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The equipment you need depends on the approach you choose. A standard laptop with a built-in microphone and webcam is sufficient for many uses. Of course, a built-in laptop camera has some severe limitations – it's difficult to move around or position. You can buy a cheap digital webcam from most computer shops.

7.3.3 Editing your video

Once you have recorded your video, you may wish to edit it. Some things you can do in a basic video editor:

- Add titles, subtitles and credits

- Rearrange the sequence of events

- Cut out mistakes, or add in extra footage

- Increase or decrease brightness, or adjust the colours

- Insert effects like fade outs, transitions or blurring

- Add music or narration

There are many software applications for video editing. The most common are Windows Movie Maker for a Windows PC, or iMovie for Mac. Both of these are free.

You can find instructions on editing with Windows Movie Maker here: www. microsoft.com/ windowsxp/using/moviemaker/default.mspx.

Instructions for editing with iMovie can be found here: www.apple.com/ support/imovie.

7.3.4 Compressing video

Whether or not you edit your movie, you will have to compress it, to change it to the correct format and file size for online use. A video's format is the file type it is created as – for example, some common video formats are QuickTime movie (.mov) an MP4 (.mp4). Compression is an essential part of creating online videos. Video files are large, which makes them difficult to upload and download. A well-compressed video file will have a much smaller file size while keeping an acceptable image quality. For example, an uncompressed three-minute video will have a files size of around 660MB. In compressed form, the same video can be taken down to about 15MB.

Sites like YouTube or Blip.tv – both of which can be used to store your videos online so that you can embed them in your blog – have limitations on the sizes and formats they will accept.

There are hundreds of video formats and many more compression options. The most common formats used in online video are:

- WMV, produced by Windows Movie Maker

- MPEG4 or MP4 files, produced by iMovie

In Windows Movie Maker, choose the "Send to Web" option, and then choose "DSL, Cable Modem or higher". This will produce a video at the required size of 320 x 240.

You can find more instructions here: www.microsoft.com/windowsxp/using/ moviemaker/ create/saveforweb.mspx.

In iMovie, choose the iPod setting, and change the file extension from .m4v to .mp4 after it has been saved. The file extension is the bit that comes after the dot in the file name. For example, if your video file is called "Mymovie. m4v", the file extension ".m4v" must be changed to ".mp4" so that the final file name becomes "Mymovie.mp4". For instructions on how to publish directly from iMovie to YouTube, see this page: docs.info.apple.com/ article. html?path=iMovie/8.0/en/10338.html.

7.3.5 Uploading to YouTube

To upload a video to YouTube, you will need to create a YouTube account. Sign up for a YouTube account at www.youtube.com/create_account?next=%2F.

1. Ensure that your video is the correct format – WMV or an MPEG4 file should be safe.

2. Click the "Upload" button in the upper right hand corner of any YouTube page.

3. Enter the relevant information in the form provided.

4. Click the "Upload a Video" button.

5. In the next window, click the "Browse" button to find the video file on your computer. Select the file that you want to upload.

6. Click the "Upload Video" button. Large videos may take some time to upload.

7.3.6 Embedding a YouTube Video in a WordPress blog

To embed a video in a blog post takes two steps: copying the YouTube URL, and embedding it in the blog.

To copy the YouTube URL:

1. Go to the video's YouTube page.

2. Find the video's URL. You can find it in one of two places. You can copy the URL of the video from the sidebar on the right side of the page, or from the address bar at the top of your browser.
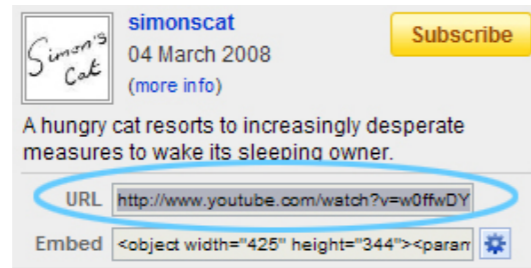
3. Select and copy the URL. It should look something like this:

> http://www.youtube.com/watch?v=w0ffwDYo00Q

To embed the URL in a WordPress blog:

1. Go to your WordPress dashboard.

2. Create a new post.

3. Type the following code in the post:

> [youtube=]

4. Paste the URL between the brackets, so it looks like this:

> [youtube=http://www.youtube.com/watch?v=w0ffwDYo00Q]

The video will not be visible unless you either preview or publish the blog post.

7.4 Broadcasting streaming video

There are quite a few online "streaming" services available. Two popular examples:

- Ustream (www.ustream.tv)

- Qik, which specialises in mobile streaming video (qik.com)

The following notes describe how to use Ustream.

7.4.1 What will I need?

To use Ustream to broadcast live video, you need a computer with an internet connection, a microphone and a webcam or connected video camera. You also need to create a Ustream account. Create one at www.ustream.tv/login-signup.

7.4.2 How will people know to watch?

Ustream has a built-in notification system that sends messages to your Twitter and Facebook accounts whenever you broadcast a new episode.

As you become more experienced, you can build a following within the Ustream community. Other Ustream members who decide to "follow" your show will be notified whenever your show is live.

7.4.3 What is a show?

At the end of the account sign-up process, you will be asked to name your show. Your show is your live video feed, usually on a specific topic. For example, a show might be "The view from my window", which could have many episodes. You can have more than one show in your Ustream account.

7.4.4 Broadcasting on Ustream

1. Connect your camera and microphone to your computer.

2. Log in to your Ustream account.

3. Click on the "Your Shows" button.

A page will open with the information about your show. This is the page where you can add or edit the show's name, description and category, and attach tags and a logo.
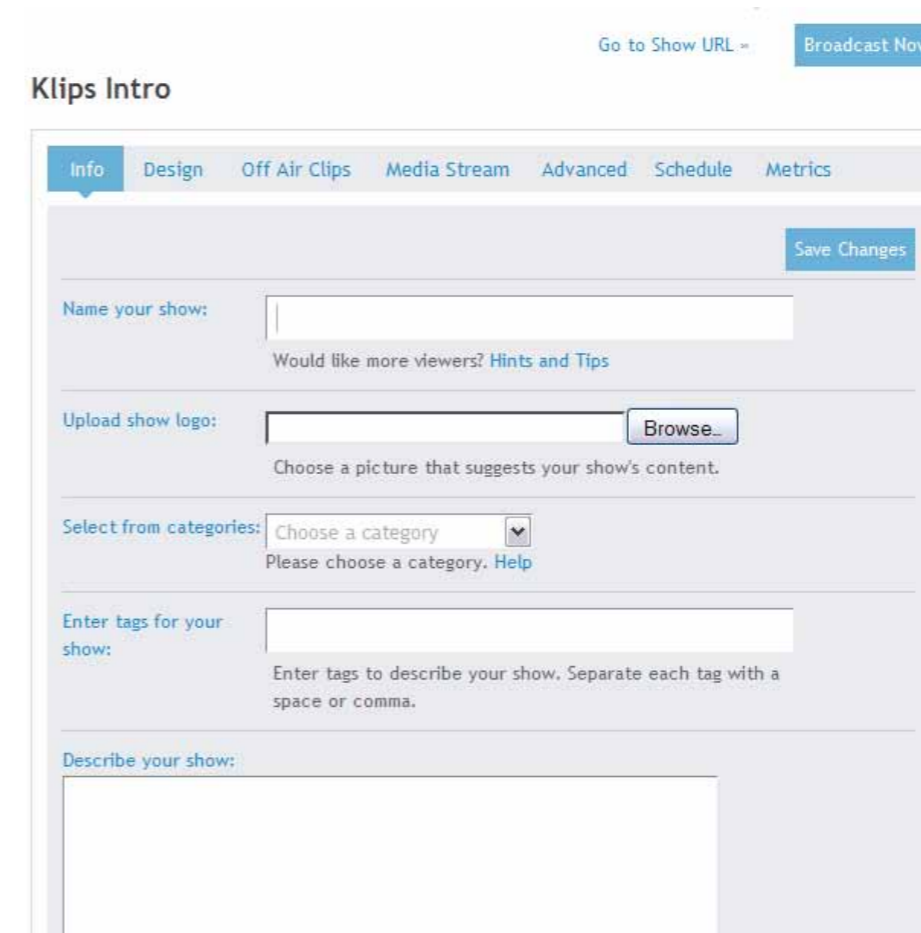

Figure 4: Creating a show.

Notice that if you have more than one show, a dropdown menu will appear near the top of the page, allowing you to choose which show you want to broadcast.
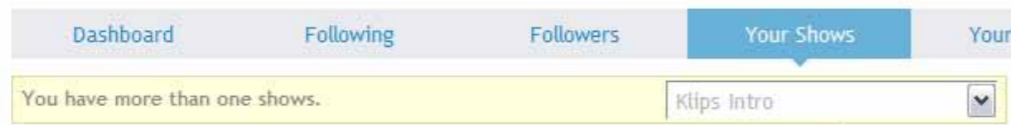
Figure 5: Dropdown menu for your shows.

4. To start broadcasting the show, click the "Broadcast now" button at the top of the page.

5. The broadcast interface will appear. It will request permission to detect your camera and microphone.

6. Click "Start Broadcasting", and your broadcast will start recording and transmitting.

7. At the end of the session, click on the "Stop Broadcast" button. Ustream will give you the option to save the video you just recorded, so that it can be viewed later.

7.5 Further reading for section 7

1. The Ustream help centre: helpcenter.ustream.tv

2. Uploading pre-recorded videos to Ustream: helpcenter.ustream.tv/content/how-do-i-stream-pre-recorded-videos

3. Lighting for video: www.videoccasions-nw.com/volitbas.html

8. Buying and selling with Etsy

8.1 What is Etsy?

There are online services that allow you to set up an individualised online shop. A well-known example is Etsy, an online community of shops that specialise in handmade items. You can find Etsy at www.etsy.com.

Etsy describes itself as an "online marketplace". Here is a quote from their site description:

> We connect buyers with independent creators and shop owners to find the very best in handmade, vintage and supplies.

You can find just about anything on Etsy, as long as it is made by hand and not mass-produced by machines. Furniture, dolls, jewellery, small robots, perfume, biscuits, toys, plants – you can find them all on Etsy.

Etsy makes is possible for individuals who create handmade goods to set up their own "online shop" within the Etsy website. Etsy provides sellers with the infrastructure to display and advertise their products, communicate with potential customers and accept payment.

Setting up an online shop on Etsy does not require any technical knowledge.

8.2 The challenges of buying and selling online

8.2.1 Browsing vs. searching

Shopping online may be convenient, but it has some limitations. It's great if you already know what you are looking for – but what about all the marvellous things which are available but hidden away on pages that you may never think to search for? In a brick and mortar shop, you can browse the shelves and racks and find items by chance. How can an online shop reproduce the sensory experience of browsing for intriguing items that might catch your eye?

8.2.2 The human touch

Another aspect of online shopping is its impersonal nature. Many people enjoy shopping for its own sake, spending time with familiar people and looking at beautiful objects. In a "real" shop, you can ask advice from a helpful salesperson, or simply enjoy a friendly chat. How can an online shop meet this need?

8.3 A shop on Etsy

Below is a screenshot of a shop on Etsy. This shop is called "For Strange Women" and it specialises in perfumes and gothic jewellery. The user has customised her shop by adding a banner image across the top of the page, and creating a

text description of her products.

Figure 6: An Etsy shop.

On the right of the page are buttons that lead to all the product categories that this shop offers.

Figure 7: Product categories.

Further down on the page are links to more information about this seller, including their return and shipping policies, a list of their favourite products from other Etsy sellers, and feedback from past customers.

Figure 8: Seller information.

You can add this shop to your list of favourites so that it is easy to find and you can see which other Etsy members liked this shop. Chances are that there may be other shops in their favourites that you might like.

Figure 9: Favorites.

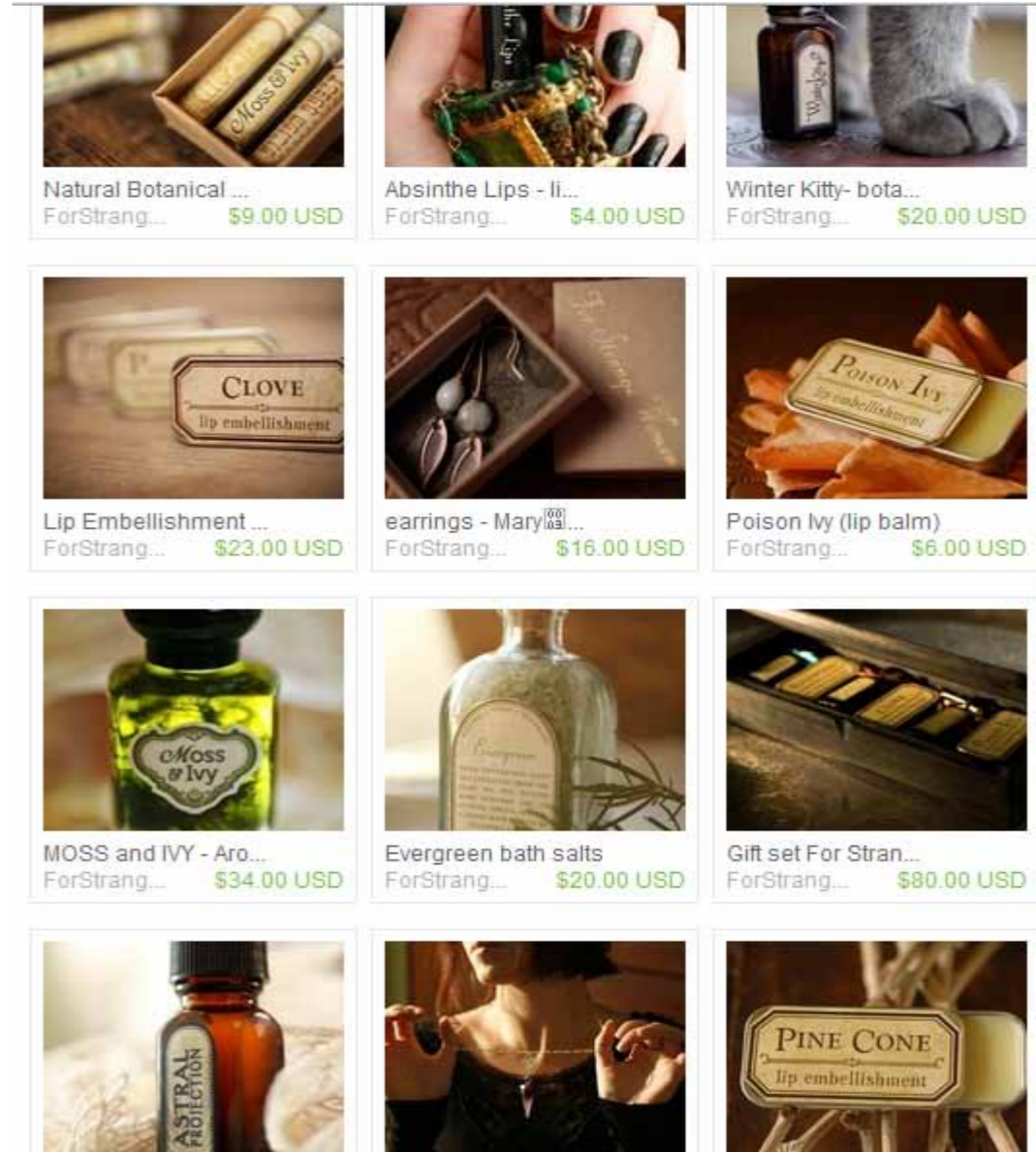If you scroll down the page, you will find images of the products for sale in this shop.

Figure 10: Products for sale.

Clicking on one of these images will take you to that product's page. As you can see from the screenshot below, this is where you can find out all about the product and buy it by clicking on the "Add to cart" button.

MOSS and IVY - Aromatherapy Meditation and Perfume Oil

$34.00 USD 3 in stock

ADD TO CART

ForStrangeWomen's info

ForStrangeWomen
shop . profile . contact

rating: 1823, 100% pos.
joined: January 20, 2009
location: Kansas City

seller's other items

38 items for sale

favorites

Add item to Favorites
Add seller to Favorites
See who hearts this shop
See who hearts this item

page tools

Email
Share
Subscribe to shop feed

Description

Moss and Ivy has a deep green, earthy base with sweet herb garden top

Figure 11: Looking at a product.

8.4 Buying on Etsy

You have to register an Etsy account to make purchases on Etsy. Click on the "Register" link at the top of every page and follow the sign-up procedure.

In essence, Etsy is no different from any other shopping site. You already know enough about searching online to use the Etsy interface to find what you need. However, Etsy has some unique and interesting ways to help you find what you are looking for.

8.4.1 Search by colour

On Etsy, you can search for objects in a specific colour range. There are two colour search interfaces. The first one is available from the home page. Click on the "Colors" button on the left of the Etsy homepage.

On the page that opens, you can drag your mouse pointer to create differently coloured bubbles. If you click on a bubble, small thumbnails appear of Etsy products in that colour.

Figure 12: Searching by colour.

You can keep clicking to add more colours to your collection, and you can drag the thumbnails around so that you can see them properly.

Figure 13: Dragging thumbnails.

Clicking on a thumbnail expands it to reveal more detail on that item.
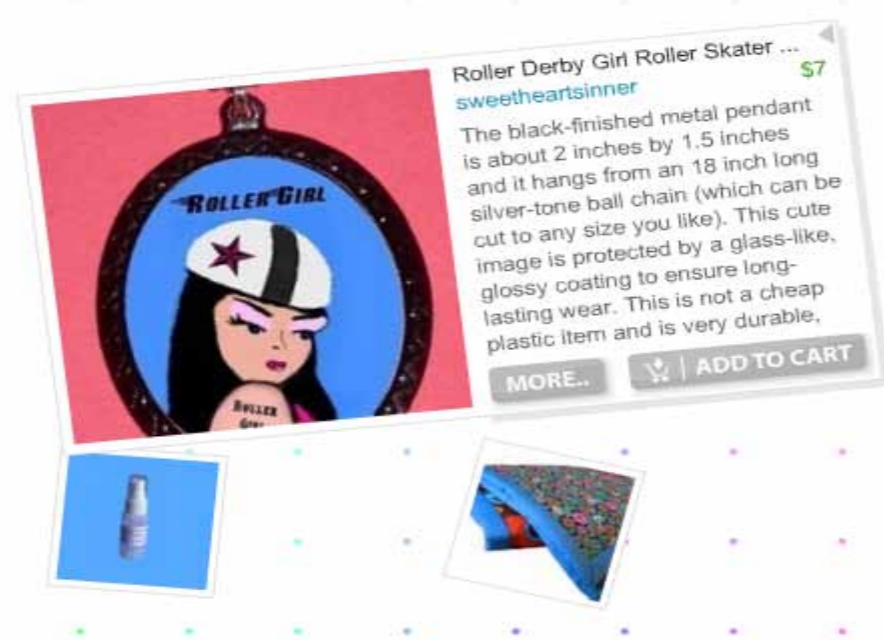
Figure 14: Product details.

You can click on this item again to visit its page, or add it to your cart to buy it.

The other colour search is available from a link at the bottom of the first colour search page. It features a simple colour bar that you can click on to specify which colour you are looking for.
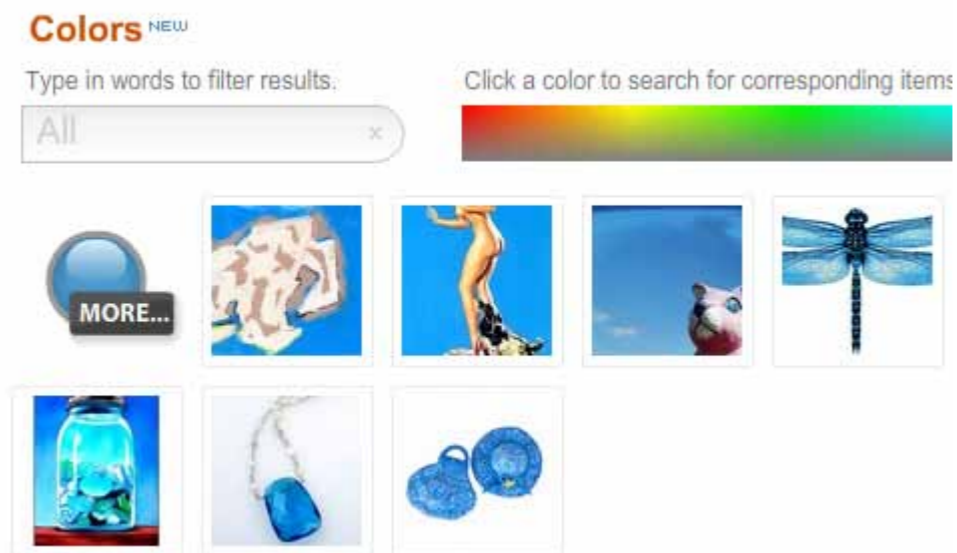

Figure 15: The other colour search.

8.5 Selling on Etsy

You need to register for an Etsy account to sell on Etsy. Click on the "Register" link at the top of every page, and follow the sign-up procedure. Here is a quick step-by-step guide to creating your own Etsy shop and listing some products.

8.5.1 Upgrading your Etsy account to "Seller" status

1. Click on the "Sell" tab at the top of any page. This takes you to a page with information on all aspects of selling on Etsy, such as what you may and may not sell.

2. Once you are ready to proceed, click on the "Get started" button.

3. You will be taken through a series of pages in which you will be asked to fill in your name and other contact information.

4. You will also have to specify a credit card to verify your identity.

8.5.2 Customising your shop

You can find the controls for customising the appearance of your shop in your profile page. To access this, click on the "Your Etsy" button at the top of any page, and click on the "Public profile" link.

Here you can:

1. Create a title for your shop – the shop's name

2. Insert a banner image that will display at the top of your shop's page

3. Write descriptions of yourself and your products

4. Create categories to organise your products

5. Rearrange how items are listed and displayed

8.5.3 Listing an item

1. To create a listing, go to Your Etsy > Add new item.

2. A page will open asking you to create a title and description for your item. A short and attractive title is essential to attract buyers.

3. Next, you will be asked to "sort" your item by choosing which categories it will be listed under. You can also add descriptive "tags" that will help buyers find this item.

4. In the next step, you will have to choose a price and specify how many items are available. For advice on how to price an item, have a look at this page: www.etsy.com/storque/search/title/art-of-pricing.

5. You will be taken to a page where you can upload one or more images of the item. All images must be at least 430 pixels wide, and not more than 1000 pixels wide or high.

8.5.4 Fees

You must pay Etsy for each item you list, and Etsy charges a small fee for every sale you make. You can see the details of the fees on this page: www.etsy.com/fees.php

8.6 Advice on selling

Making money by selling products online is not easy. The skills you will need to succeed on Etsy are the same as those you will need on just about any other commercial online platform.

8.6.1 Research

1. Find out what items are selling well by searching through Etsy and other sites.

2. Find gaps. It is not a good idea to simply copy what is already available. Find an unusual angle.

3. Find a cohesive approach. To create a memorable online presence, you need to decide what it is you want people to remember about you. If you offer too many divergent products – for example, children's toys, sexy underwear and doorstops – your customers will be confused, less likely to trust you and less likely to tell their friends about you. On the other hand, if you focus on creating very unusual novelty doorstops, it is more likely that people will know what to expect from your shop.

8.6.2 Display

1. Spend some time crafting a look and identity that suits your "angle". Create a simple, easy-to-remember name that fits your product and your attitude. Make an eye-catching banner image that displays your name clearly and sets the tone for your products. Formulate a carefully written, concise description that communicates the essence of your product at a glance.

2. Ensure that the photographs of your item are as attractive as you can possibly manage. Learn the basics of photography and lighting techniques to show off your products.

8.6.3 Sell

1. Treat your customers well – be the seller who you would buy from yourself. You can read more about customer service strategies here: www.etsy.com/storque/how-to/service-tips-for-sellers-top-10-customer-service-strategies-2136.

2. Respond promptly and courteously to any questions from buyers. This page offers some in-depth advice on communication skills: www.etsy.com/storque/how-to/service-tips-for-sellers-communication-1913.

3. Take extra care in the presentation and packing of each item you ship. Etsy buyers expect some extra attention to detail and will leave comments about your packaging. See this page for some ideas: www.

etsy.com/storque/how-to/seller-how-to-packaging-ideas-2912.

9. Creating your own website

In the past, having a website meant creating one yourself or paying somebody else to create one. This has some obvious disadvantages. Not everyone has the time, aptitude or inclination to learn how to become a web designer. And if you do pay a web designer to construct your site for you, what do you do every time you wish to change a page or add some information to your site?

These days there are a number of "content management systems" that allow you to create a website based on a template system. Instead of creating every part of the site from scratch, you can construct a site from a number of existing pre-made parts, with an easy-to-use editor to add or remove content.

Because this chapter focuses on "transacting online", we have chosen to use the example of Yola. Yola allows you to make your own site and to link your site with PayPal – in effect, to create your own online store.

9.1 Making a Yola site

Go to the Yola home page, and create an account. Enter your email address and password in the form provided.

You will be taken to a page where you can choose a "website category". This step helps Yola to suggest what types of pages you will need in your site – for example, whether you need an image gallery, an "about us" page, and so on. Don't stress if you are unsure. You can always add or remove these at a later stage.

The screenshot below demonstrates the various categories you can choose. The "Blank Site" option allows you to skip the suggested categories step and choose your own combination.
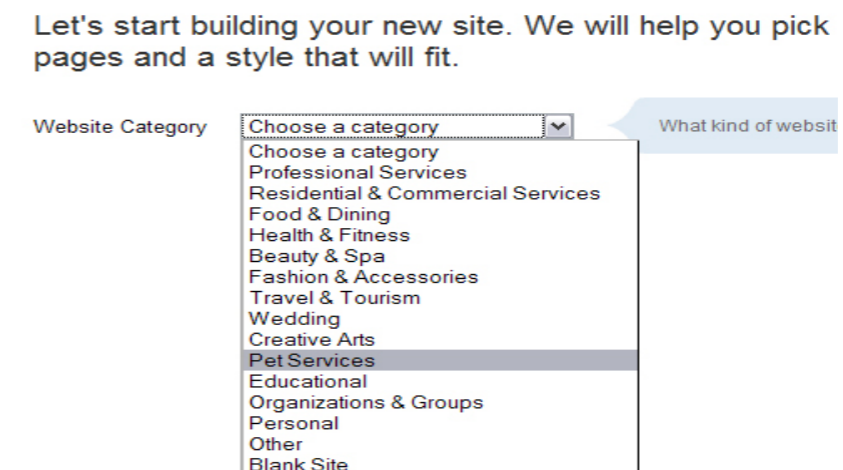

Figure 16: Choosing a category.

Below is an example of the suggested page categories, in this case for a "Pet Services" website. Note that you can check or uncheck the boxes if you wish to

customise this selection.

Figure 17: Website suggestions.

Next, you will be asked to choose a "Style" for your site. This is where you choose what your site will look like: for example, what the background colour will be.

Notice that the styles listed are only suggestions based on your category type. For example, the screenshot below shows the styles that Yola feels are appropriate for a "Creative Arts" site. There is nothing stopping you from picking a style from another category – simply click on the link on the left. Some styles are free; others must be paid for.

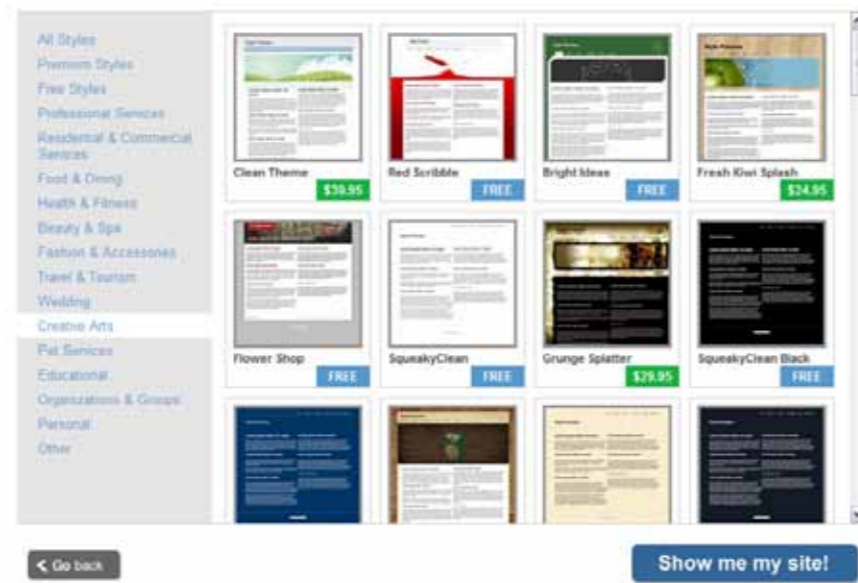Notice the "Free Styles" link, which displays all the styles you do not have to pay for.

Figure 18: Website styles.

Once you have chosen your style, you will be taken to the Yola site editor interface.
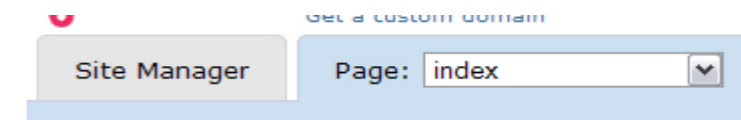
Notice the two tabs at the top left.

Figure 19: Yola tabs.

The "Site Manager" tab takes you to a page where you can:

1. Rename or delete any of your existing pages.

2. Create a new Yola site.

3. Choose which of your Yola sites you wish to manage.

The "Page" tab takes you to a page where you can control the look and feel of your site, and add more pages. Notice the sub-menu on the blue bar just under the tab. This includes:

- Change Style: This takes you to the page with all the styles so that you can choose a new one.

- Change Layout: Here you can choose how the page is divided into columns and rows.

- Change Background: This allows you to change the background colour, or choose a background image. You can upload an image from your computer, or get an image from iStockPhoto. You can choose whether the image should repeat to fill the page, and exactly how it is placed. You can apply this change to a single page, or all pages in the site.

- Add page: This lets you add a page to your site.

- Edit Navigation: This allows you to fine-tune the site's navigation bar by defining how many links it contains, and to which pages.

- File Manager: Here you can access any files you've uploaded to Yola. This includes pictures used in your site.

On the right of your Yola editor, you will see a sidebar with two tabs: "Widgets" and "Properties". The "Widgets" tab lists all the objects you can add to a page, for example, images and text boxes. The "Properties" tab displays the properties of whatever object you have selected in your page view.

9.2 Yola exercises

To help you get to grips with Yola, we've created a number of exercises to guide you through the various aspects of creating a Yola site.

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9.2.1 Exercise 1: Create a Yola account

Create a Yola account, and set up your site with a category and style.

9.2.2 Exercise 2: Edit your home page

Edit the home page of your site:

1. Change the background by changing the colour or inserting a background image.
2. Change the headline title.
3. Choose the layout style you want – how many columns?
4. Add a picture to the page.
5. Can you preview your page?
6. Can you publish your site?

9.2.3 Exercise 3: Fine-tune your page

Fine-tune your page elements:

1. How do you change the colour and size of text?
2. How do you insert a link to an external web page?
3. How do you turn a picture into a clickable link?
4. How do you remove a page element such as a text box?
5. Can you reorganise the page layout?

9.2.4 Exercise 4: Add a page

Add some pages:

1. Add more pages to your site.
2. What is the difference between a "web" and a "blog" page?
3. How do you move from one page to another to edit them?
4. How do you choose which pages are displayed in the navigation menu of your site?

9.2.5 Exercise 5: Add a widget

Understanding widgets:

1. What is the "HTML" widget for?
2. What is the purpose of the "file" widget?
3. How do you use the "Widgetbox Gallery" widget?
4. Explore the "Photo Galleries and Video" section of the widget sidebar. Is there anything useful there?

9.2.6 Exercise 6: Add a store

How do you add a store linked to PayPal on your site?

9.2.7 Exercise 7: View image properties

Select an image and look in the properties sidebar. What is the "alternative text" field for?

9.2.8 Exercise 8: Add a file

Whenever you wish to add an image or a file to Yola, you will be asked to choose between "Your Computer" and "File Manager".

1. What is the difference between these two options?
2. When should you choose which one?

Your Computer
Upload a picture to the File Manager. 15MB Max.
Increase your max

File Manager: Mashadu
Choose from a picture previously uploaded to this site

9.2.9 Exercise 9: Name and heading

When you add a page to your site, Yola gives you the option to choose a "name" for the page, as well as a "heading". What is the difference? What is the purpose of the "name", and of the "heading"?
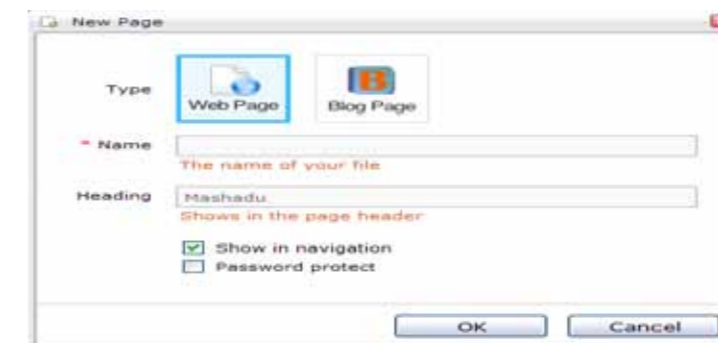
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10. Podcasting

A podcast is a method for making online audio of video content available for download. Podcasts originated as a method for providing content for the iPod audio player. As a result, the first podcasts were "sound only". However, podcasts these days can display video content, and podcasts can also be played on a range of different players, not just iPods.

The content of the podcast – the actual audio or video files themselves – are no different from any other recordings. When we talk about a podcast, we are not referring to the individual files themselves, but to a "stream" of files that can be subscribed to through an online syndication service.

In other words, a podcast is rather like a radio or TV show. You can use software to download each podcast episode as it becomes available. Because you are downloading the files, you can watch them again as often as you like.

10.1 What is a podcast directory?

There are a number of sites that allow you to search for podcasts according to topic, to subscribe to a podcast, and to upload your own podcasts. Examples are:

- The iTunes Store: itunes.apple.com/us/browse

- Podfeed: www.podfeed.net

- National Public Radio directory: www.npr.org/rss/podcast/podcast_directory.php

- The BBC podcast directory: www.bbc.co.uk/podcasts

10.2 How do you subscribe to a podcast?

There are a number of ways to keep track of podcasts. Here are just a few examples of the many applications you can use.

- iTunes (www.apple.com/itunes/download): You can use iTunes to subscribe to and download podcasts to your computer so that you can listen to or watch them at any time. You can download podcasts from the iTunes store and a number of other podcast directories.

- Juice (juicereceiver.sourceforge.net): Juice is a cross-platform application suitable for Windows, Apple or Linux. Juice lets you subscribe to podcasts, and downloads the files to your computer.

- Google Reader: You can subscribe to audio and video podcasts directly from your Google Reader. However, the reader does not download the

files to your computer. It just makes them available for live streaming over the internet.

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10.3 Creating your own podcast

Creating a podcast involves several steps.

1. Record the audio or video file.

2. Compress it to an appropriate format.

3. Upload the files to an online site called a "host".

4. Create an RSS feed.

5. Submit the RSS feed and URL of the uploaded file to a podcast directory.

Depending on the service you use, steps 4 and 5 are often automated and built into the process of uploading the file to a host.

10.3.1 Where can I find a host for my podcast files?

If you don't have your own online space, you can use any of the many hosting services available. An example of a free host that can deal with both audio and video content is Mevio.

10.3.2 Creating a podcast with Mevio

The steps below explain how to submit a file uploaded to the Mevio podcast directory. Before you start, you will need to have accounts with Mevio. You can create one at www.mevio.com/signup.

When you've created your account, you will be asked to create a "show". A show on Mevio is a podcast on a particular topic. One show can have many episodes. Each individual podcast file you upload is called an episode, and the stream of related podcasts is a Mevio show.

1. Record your content.

2. Save it to any of the following formats: MP3, M4A, 3GP, MPEG4, MPEG, MPG4, M4V, MOV, WMA, WMV. MP3 and M4A are sound-only formats. The rest are video formats, but you can use them for "sound-only" podcasts as well. They will just be videos with a soundtrack and no visual aspect.

3. Upload the file to Mevio. To do this, log in to your account at Mevio. Click on the "Upload" button in the top menu bar. A page will open where you will be asked to "Upload an episode". Click on the "Browse" button and select the file you wish to upload.

4. Enter information about the episode in the relevant fields. You will need to create a title and a small description.

Figure 20: Creating a podcast in Mevio.

5. If you scroll down on the page, you will see that there are also places to add "tags". It's a good idea to add some descriptive tags to your episode, as these help people to find your podcast.

6. When you are done, click the "Upload" button.

Figure 21: Uploading your podcast content.

7. This next step is optional: this is where you can publicise your new episode. You can insert your Twitter username and password and allow Mevio to "tweet" the location of your new episode. You can also send an email notification. You can skip this by clicking the "Skip this step" button at the bottom of the page.

Figure 22: Automatically tweeting your episode.

8. Mevio will take you to a page with an estimate of how long it will take for your episode to be publicly available. Once it is uploaded and available, a page will appear that allows you to view the episode yourself, upload another episode, and edit your episode to tweak the descriptions, titles and tags that you've already added.
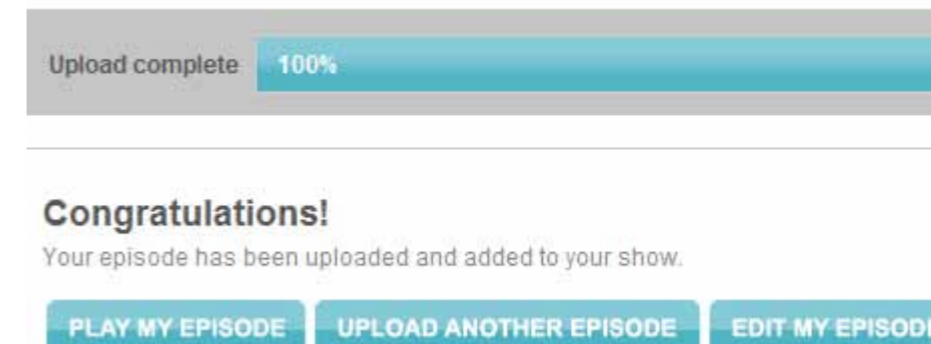
Figure 23: A finished upload.

11. Summary of chapter 11

In this chapter, we looked at:

- What a blog is, and why people blog

- Planning your blog

- Creating engaging content that will bring your audience back to your blog

- Creating and maintaining a blog

- Publicising your blog through social media networks

- Creating a video blog

- Using Ustream to create your own streaming video cast

- Creating your own online store with Etsy

- Creating a free website with Yola

- Creating a podcast, and uploading it to a podcast directory such as Mevio

12. References

12.1 Blogs

1. Blogging best practice: blog.webtastings.net/2008/04/04/blogging-

good-practices

2. How to write good content: www.problogger.net/how-to-write-great-blog-content

3. Tips for creating good blog content: www.problogger.net/archives/2009/04/11/tips-and-tutorials-for-bloggers

4. Setting up a blog: howto.commetrics.com/articles/blog-your-best-checklist

5. Tips for bloggers: theedublogger.com/2008/04/27/heres-my-first-five-tips-for-writing-better-blog-posts-what-are-yours

6. Avoiding the echo chamber: www.problogger.net/archives/2007/02/22/how-to-add-to-blogging-conversations-and-eliminate-the-echo-chamber

7. Getting your blog indexed: www.problogger.net/archives/2009/09/21/5-ways-to-get-your-blog-indexed-by-google-in-24-hours

12.2 Video blogging

1. Vlogging: desktopvideo.about.com/od/videoblogging/ht/howtovlog.htm

2. Windows Movie Maker: www.microsoft.com/windowsxp/using/moviemaker/default.mspx

3. How to upload to YouTube: www.google.com/support/youtube/bin/answer.py?hl=en-uk&answer=57924

12.3 Buying and selling with Etsy

1. Selling on Etsy: www.auctionbytes.com/cab/cab/abu/y209/m08/abu0244/s02

2. Selling on Etsy: www.kellbot.com/2009/05/the-secret-to-selling-on-etsy

3. Frequently asked questions on Etsy: www.etsy.com/faq_buying.php

4. For more advice on selling on Etsy, have a look at the "Etsy Seller's Handbook": www.etsy.com/storque/how-to/the-etsy-seller-handbook-all-our-how-tos-about-selling-2383

12.4 Podcasting

1. Podcasts: www.wisegeek.com/what-is-a-podcast.htm

Your future as an internet super-user

- Lifelong learning
- Web culture and being a responsible netizen

Introduction

By the end of this chapter, you will:

- Have revised all those aspects of the course so far that support lifelong learning (section 1):

    Where and how to get answers to questions

    How to validate the information you find online

    How to keep up to date with trends and breaking news

    How to contribute to the World Wide Web

- Have a broad understanding of the moral and ethical issues that surround online life (section 2):

    Cyber bullying

    Privacy

    Online relationships

    Piracy

    Hackers

1. Lifelong learning

One of the most profound changes that the growth of the web has brought about is the availability of information. It is at an enormous library of resources, and a meeting place where people can communicate with one another, asking and answering questions, debating ideas, sharing information.

Knowing how to access and use this world of information has become a vital life skill. Traditional forums for gaining skill and knowledge – studying at a school or university, enrolling for courses, doing workshops – will never lose their relevance. But in our rapidly changing world, the most important skill that you can gain is the ability to learn, the determination to be an active agent in your own learning. Do you know where to look for answers, or how to ask questions? Do you have the determination to keep going until you get it right? In the end, the passion for lifelong learning will get you there.

1.1 How do I find answers to my questions?

In chapter 4, we looked at how to find information on the World Wide Web using a search engine: we learned how to construct a search term and how to use keywords and operators to "focus" a search. Let's revise some of that information, and have a closer look at other, more refined ways of finding resources.

1.1.1 Answer sites

Some sites specialise in helping you find answers to questions. There are many examples, but we will look at two popular sites: eHow and About.com. Both of these sites feature a menu of categories into which topics are divided, and a search bar to help you find the content you need.

eHow (www.ehow.com) is a huge collection of short, to-the-point tutorials on any topic under the sun, from "How to create a PayPal account" to "How to remove mildew from your bath". These articles are created by:

- "eHow experts", a group of experts on various topics, employed by eHow to create content.

- An online community of writers who submit articles to eHow. Anyone can become an eHow writer, but eHow only publishes their articles if they meet certain standards.

A typical eHow article is short and to the point, and presented in an easy-to-read, step-by-step form. There is also a comment section. You can use this to communicate with the author, to share your experience or to ask for clarification.
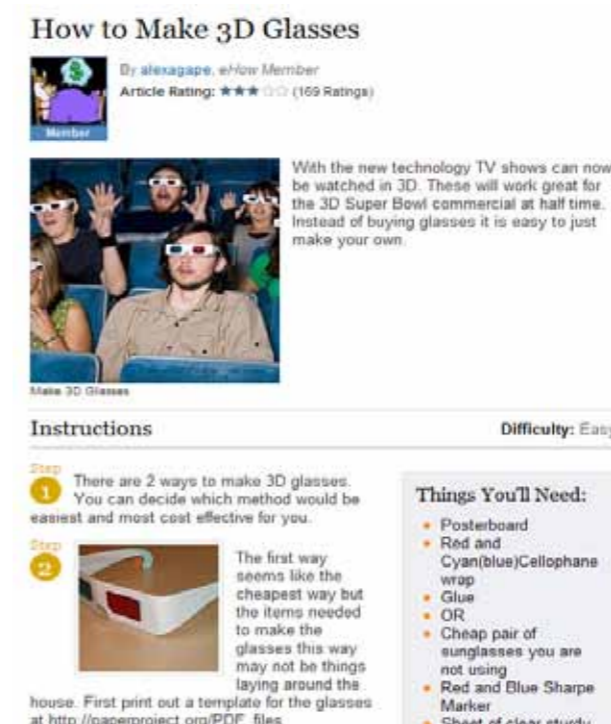

Figure 1: A typical eHow page.

eHow is a great place to go for tips and advice on practical matters. However, the short format of the articles means it's not the best place for in-depth analysis of complex matters.

Things to look for in an eHow article:

- How the article was rated by other users

- The indicated difficulty rating

- A list of related articles and tags to related topics

- A list of resources at the end of the article

About.com (www.about.com) is a great place to start looking for information on a range of topics. It specialises in in-depth topic analyses, and in providing you with many links to other references that have been hand picked by an expert. Just like eHow, About.com features many "channels" – topic areas ranging from business and finance to health, hobbies, games, spirituality and many more. Writers employed by About.com, called "guides", and freelance experts, called "contributing writers", create the articles. Guides actively collect the latest information in their topic areas and include many links to other helpful resources.

About.com articles are often well researched, in-depth and thorough, although some of the content is just as "hands on" and practical as an eHow article.

Things to look out for on an About.com article:

- The list of related links to other articles in About.com

- The list of "Elsewhere on the web" articles for hand-picked resources from other websites

- The list of tabs that lead to related topics at the top of each article

Figure 2: Tabs in About.com.

- The link to the author's profile page, listing their credentials

Figure 3: An About.com author.

1.1.2 Forums

In chapter 3, we had a close look at online forums. We discussed how to find them and the etiquette of using a forum. Forums are an important part of

online learning. Many forums are created by online communities who share a passion for a topic. You will also frequently come across "official" forums, created by companies as a useful and direct way to offer customer support. Let's quickly revise some of the most important points.

When should you use a forum? Forums are particularly helpful when you have a focused question about a specific task or concept, a question that a knowledgeable person can answer in a couple of paragraphs.

For example:

> "My Skype line quality is very poor, why is this?"

> "How do I stop my puppy from nipping?"

> "How can I get my story published?"

> "I'm scared, I think I have Aids. How can I tell?"

> "My two-year-old refuses to swim, is this normal?"

> "I would like to travel to Spain, any suggestions for good hotels?"

> "What is the difference between ADSL and broadband?"

> "How do I know when my compost is ready to use?"

Search before asking. People get tired of answering the same questions repeatedly. Use the "search" function provided by the forum to see if anyone else has asked your question already.

Know how to ask questions. It's best if you have a clear idea what your problem is before you post a question. Explain clearly and concisely what you are trying to achieve or what aspect you need guidance on. Be sure to include all information needed to solve your problem. End your question with an exact summary of the help you need.

Know how to take advice. A common phenomenon in forums is that the poster is not really asking for advice, but is simply looking for an excuse to vent their frustration. They counter any attempt to help them with bad-tempered faultfinding or defensive posturing. Take every answer you are given seriously, even if you do not agree.

Give back. Always try to find forum questions that you can answer yourself. Take the time to contribute to the community.

1.1.3 More options

There are also thousands of tutorials, blogs, wikis and online courses to answer your questions and extend your skills in any area you can imagine, and many that you've never considered. Keep a look out for lists of tutorials and courses as you browse the web.

1.1.4 Exercise 1: Learn a new skill

Visit the answer website of your choice and look for a tutorial on a skill you'd

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like to learn – anything from growing herbs to woodworking or drawing. Go through the steps and see if you can learn a new skill.

1.1.5 Exercise 2: Ask a question

You've probably been asking lots of questions on the GetSmarter forum, so you know how to do this one already. If you haven't yet, or if you'd like to revise something, now is a great opportunity to ask about something confusing from earlier modules. Can you frame your question properly, and take the advice you're given?

1.1.6 Further reading for section 1.1

1. YouTube how-to videos: www.youtube.com/videos?c=26

2. How to ask a question on a forum: support.microsoft.com/kb/555375

3. How to answer a question on a forum: www.freebsd.org/doc/en/articles/freebsd-questions/x218.html

4. How to get help online: evolt.org/node/60287

1.2 How do I know if it is true?

You've found an answer to your question, but how can you check if it is true or correct? The ease with which anyone can add information to the World Wide Web is both its strength and a challenge. Often, the information you find online has not been verified in any way. Social media networks are particularly prone to circulating the latest rumours or urban myths. How can you make up your mind what is true, and what is questionable?

In chapter 5, we covered several techniques for checking the validity of your source when researching online. Let's look at some more ways.

1.2.1 Rumour and scam-checking sites

If it's a simple matter of checking if something is true or just a rumour or scam, use a scam-checking site like Snopes (www.snopes.com), which allows you to search for keywords and check them against lists of known scams and rumours. Snopes is particularly useful for verifying email warnings. Next time you receive a warning about a computer virus, disease or confidence trick, verify it with Snopes.

1.2.2 Using social media as a sounding board

Wouldn't it be great if you had access to a panel of knowledgeable people who could act as a sounding board for your questions and ideas? Make a habit of "collecting" people who impress you with their expertise and willingness to contribute. These may be people you've met in forums, bloggers, people you follow on Twitter, or many others. By bookmarking their profile pages

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or following them on Twitter, you can build up your own database of trusted sources.

1.2.3 Checking the date of your source

A simple way to check the validity of online information is to check when it was first published, and how long ago it was modified. This could have a great influence on how valid that information is. Data about legislation, technology, politics and similar issues is particularly vulnerable to change, and knowing when an article was written, or how long ago it was last edited, can be very useful.

Blog and forum posts always display the date and time they were posted. Many websites display the time an article was created or published. Here are some ways to find out when a page was created or modified.

To find out when a page was published:

1. Navigate to the page in question.

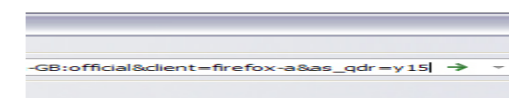2. Copy the URL in the address bar.
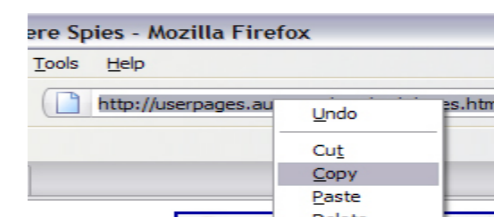
3. Paste the URL into a Google search bar, and perform the search.

4. Go to the address bar of the Google search page, and insert the following at the end of the URL. The "15" refers to the number of years in the scope of your search.

    &as_qdr=y15

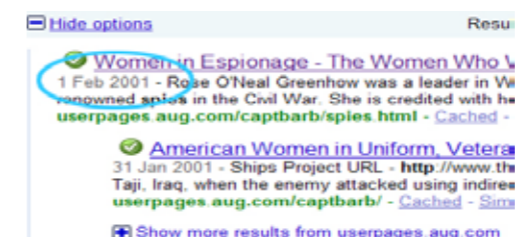A search results page will open that lists the date when the page was published.

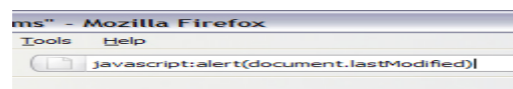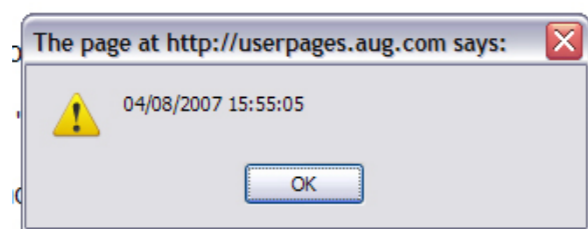**Figure 4**: Search results with dates given.

To find out when a page was last modified:

1. Navigate to the page in question.

2. Paste the following JavaScript into the address bar.

   javascript:alert(document.lastModified)

3. Press enter. This will bring up an alert box that displays the date when this page was last modified.

1.2.4 Wikipedia discussion page

Another great way to find alternative views on a topic is to look at the "talk" page of a Wikipedia article. Every page has a "discussion" tab, where you can read comments by various Wikipedia editors on the content of the page.

Figure 5: Wikipedia's discussion tab.

While these discussions are often trivial, in some cases they are also a great way to discover different points of view on a particular topic. It's also a good way to double-check the validity of the Wikipedia article in question.

1.2.5 Exercise 1: Visit Snopes

Go to Snopes and browse the topics to see if you recognise any of the scams listed there. Chances are good that a scam email was sent to you. Can you find it on Snopes?

1.2.6 Exercise 2: Check the date

Find a website you visit often and try checking its date of publication. Does it correspond to the date given on the page, if any?

1.3 How do I stay informed?

Getting answers to your questions is one thing. Knowing about the latest trends, fashions, controversies and debates in the world around you is quite another. How do you keep yourself informed?

There are many online tools to help you keep ahead of events and opinions. In chapter 6, we looked at using RSS feeds and news aggregators. In chapter 9, we touched on using Twitter to keep informed. Let's have a closer look at some of these topics.

1.3.1 Building your network of "human-filtered" information

Keeping up to date with the latest breaking news and trends in the areas that interest you requires preparation: you need to build a network of "informants". You can keep track of anything that interests you by collecting streams from blogs, news sites and social media networks. We will look at two services that can help you to create customised "information pipes": Twitter and Google Reader.

1.3.2 Twitter lists

Twitter allows you to organise the people you follow into groups, called "lists". For example, you can place all your close friends into a list called "friends". This is useful because instead of seeing the tweets of everyone you follow in one long stream, you can split this stream into separate lists, which may be easier to view.

Once you've created a list and added people to it, you can view that list on its own page. It's as though you've created your own "Twitter stream" that only shows the people you chose.

Your home page will continue to show your entire "tweet stream", and your lists become customised Twitter pages that only show the tweets of selected people.

Lists can be private, in which case you are the only person who can see your list, or they can be public, in which case they are visible in the sidebar on your Twitter page.

This screenshot shows a Twitter user's lists.

Figure 6: Twitter lists.

How to create your own list on Twitter:

1. Log in to Twitter, and go to your home page.

2. Click on the "New list" link above your tweet stream.

3. A dropdown list will appear. Click "create a new list"

4. A window will open in which you can name the list, insert a short description (optional) and choose whether it should be private (visible only to you) or public (visible to all). Click "Save list".

5. You will return to your home page. Click on the "Lists" dropdown menu again, and click on your newly created list. You will be taken to its page, and will have the option of adding people to it.
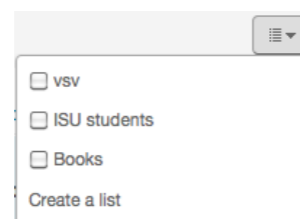

You can also add people from their profile pages:

1. Go to a Twitter user's profile page.

2. Click on the "Lists" button near the top right of the profile.

3. A dropdown menu will appear, displaying all your lists. Check the appropriate lists you wish to add this person to.

Who should you follow? Many novice Twitter users are put off the service

because they can't think of what to tweet: "I have nothing to say". What they don't realise is that you don't have to use Twitter to publish your own tweets. Many people use Twitter purely as a reader. By finding the right people to follow, you can create a rich content stream on a topic of your choice. So how do you find people who are worth following?

- Look for the Twitter button. Whenever you find someone online whose opinion you respect, look for the "follow me on Twitter" button. Many bloggers include these on their sidebar. You may also find these in online profile pages. Click on the button and follow them!

- Look who your favourite tweeters follow. If you have already found someone who is providing good content on Twitter, go to their profile page and check who they follow.

- Browse Twitter lists. You should certainly organise people you follow on Twitter into Twitter lists, and there is no reason why you should not take advantage of other people's lists. Sites like listorius.com share popular Twitter lists. Search for keywords you are interested in, and browse for recommended tweeters.

1.3.3 Tracking Twitter trends

If you are curious about the response on Twitter to a certain topic, do a hashtag or keyword search with the little search bar on the right of your Twitter interface. Some search tips:

1. Search for multiple keywords or hashtags using "OR".

   "Elvis Presley" OR "The King" OR "Elvis" OR "#Elvis"

2. Filter retweets out of your search results (which include the letters RT or via).

   "Elvis Presley" OR "The King" OR "Elvis" -rt -via

3. Search for what people are saying about a specific Twitter account.

   to:username

4. Limit search to tweets that contain links.

   "Elvis" filter:links

5. Search for tweets from or to a specific user.

   from:username

   to:username

6. Limit search to only display tweets from a specific user that contain links.

   from:username filter:links

7. Search in a certain time period.

#Elvis since:2010-02-01 until:2010-03-31

There are a number of sites that allow you to track Twitter trends.

1. Tweetstats (tweetstats.com/trends) displays trending topics, and allows you to view comparative graphs.
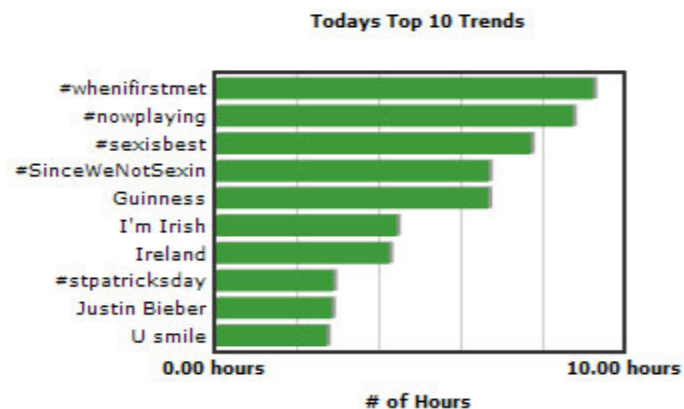

Figure 7: Tweetstats.

2. Trendistic (trendistic.com) allows you to search for keywords and hashtags, and displays graphs of their frequency of use. You can click on a date to see what people were tweeting at that time.

Figure 8: Trendistic.

3. StreamGraphs (www.neoformix.com/Projects/TwitterStreamGraphs/view.php) lets you search for keywords or hashtags, and displays a graph to show frequency of use, as well as the frequency of other words used with that keyword. You can click on the words to see the tweets.
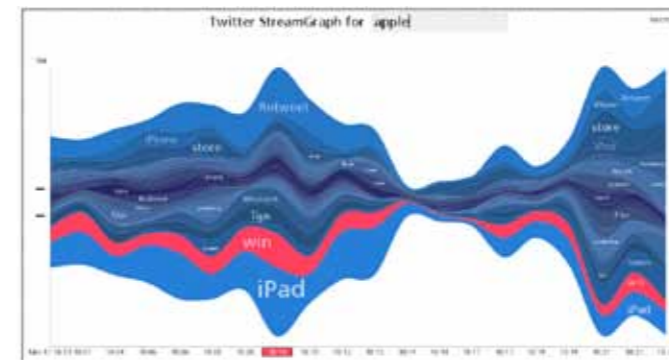

Figure 9: StreamGraphs.

4. Tweetmeme (tweetmeme.com) displays the most popular links being shared on Twitter.

1.3.4 Turn Google Reader into a personalised search engine

A well-organised Google Reader with many feeds can be a valuable resource. Apart from allowing you to receive updates from blogs and other sites without having to visit them to check for new content, you can use it as a personalised search engine. To do this:

1. Collect a number of subscriptions to sites that deliver high-quality content.

2. Organise your feeds according to the various topics you are interested in.

3. Use the search function in Google Reader to search for keywords through all the content of all the sites you are subscribed to.

4. Limit this search to a particular topic or tag, or search all feeds.

1.3.5 Building your subscriptions

• Never stop gathering: Whenever you find a meaningful blog or other site that offers a RSS feed, subscribe to it using your Google Reader. Often, all you have to do is copy the site's URL into the reader's "Add a subscription" field.

• Get suggestions from Google Reader: Use Google Reader's "Add a subscription" function to suggest new sites. Click on the "Add a subscription" button and insert a keyword or a site URL. A list of suggested feeds will be displayed in the main area of Google Reader.
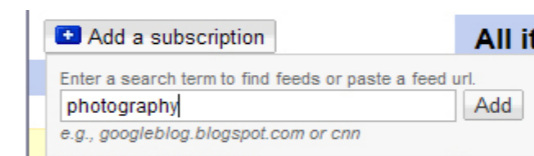

Figure 10: Adding a subscription.

- Click on the title to preview the feed to decide whether you want to subscribe, or click on the "Subscribe" button to subscribe immediately.

Figure 11: Google Reader search results.

**1.3.6 How to organise your Google Reader feeds**

It is essential to organise your feeds according to topic. You can organise them with folders and attach tags to them. Folders are useful for organising the feeds themselves, while tags can be attached both to entire feeds and to individual posts. Typically, you would only tag posts that you wish to find again.

For example, the feed from the "New York Times" can reside in the "news" folder. An individual post about a controversial painter can be tagged as "art", "controversy" and "Andy Warhol".

If you build your tag collection carefully by reusing existing tags as often as possible, your tags can become excellent ways to find posts grouped in certain categories.

To create a new folder using "Manage subscriptions":

1. Click on the "Manage subscriptions" link at the bottom left of the Google Reader page, or click on the small down arrow next to the "Subscriptions" heading, and choose "Manage subscriptions" from the dropdown menu.
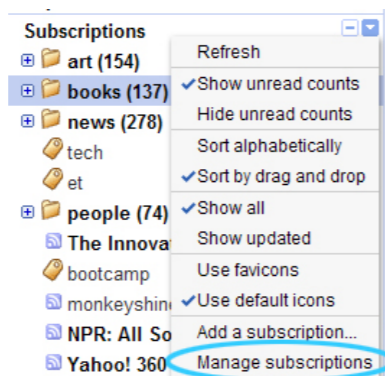
2. The "Manage subscriptions" page will open.

3. Click on any of the "Change folders" buttons, and choose "New folder" from the dropdown menu.

To create a new folder from the "Feed" dropdown menu:

1. In the normal Google Reader view, hold your mouse pointer over a feed title.

2. You will see a small down arrow appear to the right of the feed.

3. Click on this to access the feed's dropdown menu.

4. Choose "New folder".

To organise feeds into folders with the "Mange subscriptions" page:

1. Check the feed you wish to move into a folder.

2. Click on the "Change folders" button.

3. Tick all the folders you wish to save this feed into.

To organise feeds into folders by dragging and dropping:

1. Go to the normal Google Reader view.

2. You should see all your folders in the "Subscriptions" pane.

3. Drag and drop a feed into a folder.

To use Google Reader search with your own specified parameters:

1. Type a keyword search term into the Google Reader search bar at the top left of the site.

2. Click on the down arrow next to the "All items" button.

3. Check the category you wish to use to narrow your search. As you can see in the screenshot below, these include all items:

   - That have been marked as read

   - That have been starred, shared or liked

   - That have notes

   - That have been recommended, or are shared by people you follow

   - That have certain tags attached to them

   - That are in a specified folder

In the example below, the reader will search all feeds organised in the "books" folder for the words "future proof".
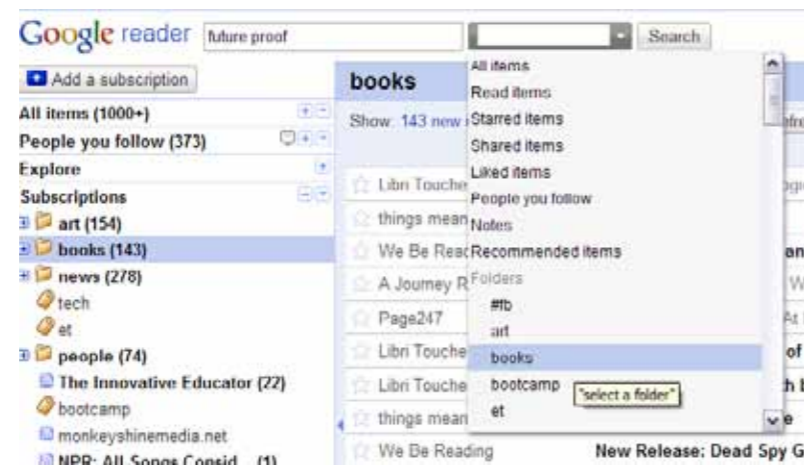
Figure 12: Google Reader search.

You can also scroll down in the "All items" dropdown menu to select an individual feed. This has the result of limiting your search to all posts produced by that feed. In the example below, the reader will search for all posts in the blog called "Internet News" that contain the words "future proof".
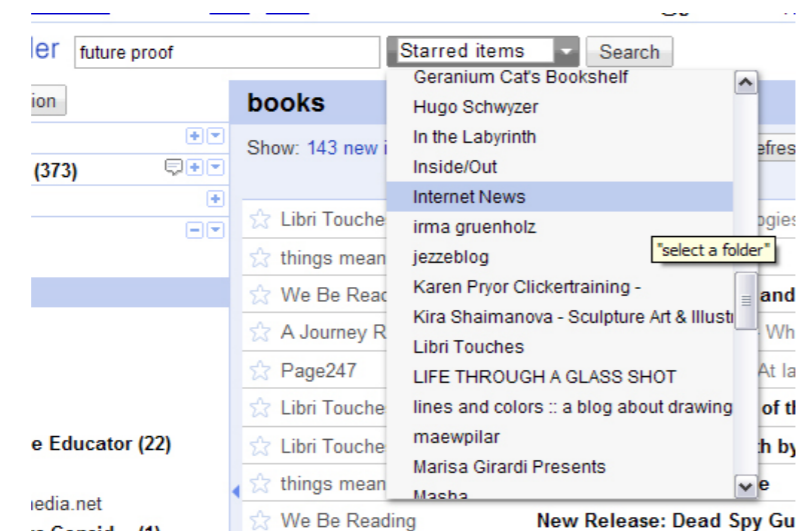

Figure 13: Google Reader search.

1.3.7 Exercise 1: Twitter list

Go to your Twitter home page and create a list that groups together related resources. Can you do this?

1.3.8 Exercise 2: Search Google Reader

If you've remembered all the advice from chapter 6, you'll have all your Google Reader feeds organised with folders and tags. Try doing a custom search.

1.4 How do I contribute?

One of the most amazing things you will discover online is generosity. Thousands of people are willing to give you their time and expertise – for free! While you may not able to give these people more than a "thank you" for their help, you can "pass it forward" by extending a helping hand to others.

Remember, you do not need to be an expert to help others. In fact, a "newbie" is often the best person to help other beginners.

Giving back is not limited to sharing knowledge. Your words can contribute to a positive online culture, which is much more important than distributing facts. You don't need to know the answer to help another person online. Often a kind word, "I've been there too, don't give up", or a "digital hug" ({{}}) can make a big difference.

1.4.1 Forums

Whenever you use a forum, make a habit of checking to see if you can give back. Scan the newly submitted questions that have not been answered yet. Even if you cannot answer them yourself, you can still contribute, even if it's only by saying, "I've also experienced this". At the very least, your answer will "bump" the question to the top of the board where other people may notice it.

1.4.2 Blogs

Creating your own blog on a subject you are passionate about is a great way to add value to the web. But even if you are not ready to create your own blog, you can make a big difference in the lives of bloggers and their readers by commenting on posts and taking part in discussions. You would be surprised how lonely it can be, writing post after post and never getting any feedback from your audience.

1.4.3 Share sources

Make a habit of bookmarking interesting and informative pages. Apart from the fact that you may want to refer to them again yourself, it's a great way to keep track of useful content to share. You will be helping others, and this sharing will also benefit you: the quickest and best way to make a good impression online is to share a link to an excellent article – a win-win situation.

For example, in chapter 6 we looked at using Delicious social bookmarking. A great way to give back to a community is to gather useful links in a Delicious page.

1.4.4 Social media

Whether you use Twitter, Facebook, or any other social media network, make a habit of interacting with your online "friends" and contributing content that will enrich their lives.

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For example, use Twitter to post interesting links, and retweet tweets by people you follow. You could also join a Facebook Page for a cause you support, or create your own. Participate by submitting comments.

1.4.5 Wikipedia

Why not participate in improving Wikipedia? You can either create a page on a topic close to your heart, or help in editing an existing page. It's as simple as signing in to create a Wikipedia account (click on the "Create account" link at the top right of any Wikipedia page) and clicking on any of the many "edit" links on a Wikipedia page.

1.4.6 Exercise 1: Contribute on a forum

Visit the GetSmarter forum and see if anybody's asked a question. If you can, answer it. If not, add a note of encouragement and add your voice to the list of people who are looking for an answer. Can you contribute meaningfully?

1.4.7 Exercise 2: Share a source

By now, you have several useful resources stored in your bookmarks, reader and social networks. Share this knowledge with somebody else – send an email, write a Facebook message, post it on a forum. Can you share your source meaningfully with your network?

2. Web culture and being a responsible netizen

How does the web affect us, and what can we learn about ourselves by looking at the way the web is developing? In his book *Small Pieces Loosely Joined*, David Weinberger claims that the internet overturns many of the "real-world" constraints that have, up to now, been the basis of our experience.

Before the computer age, and particularly before the age of the internet and the World Wide Web, the further away someone was from you, the more difficult it was to communicate with them. If you stole something from someone, they no longer had that thing. When communicating with someone, we usually knew whether they were male, female, adult or child, and we could safely assume they were human.

There were distinct boundaries between our public and private lives. Since the advent of the internet, none of these things are necessarily true any longer.

It is necessary for each of us to become aware of the new possibilities created by the internet, and to decide how we will apply our own moral and ethical framework to it.

This section is intended to sensitise you to some of the many issues you may come in contact with on the web. It is presented as a list of questions or examples to make you think. The intention is not to argue for one side or the other. In most cases, there are no "right" or "wrong" answers to these questions. How you feel about them will depend on who you are.

Read these questions and statements, and take the time to consider how you feel about each one. Does it make you angry or worried? Is it a "silly question"? Do you agree or disagree, and why? Feel free to share your insights with fellow students on the course forum.

2.1 Cyber bullies

A couple of years ago, a middle-aged woman called Lori Drew and her teenage daughter created a fictional MySpace profile. They pretended to be a 16-year-old boy called Josh. They used this profile to befriend a neighbour, 13-year-old Megan Meier. After a month of building the online friendship through the fictional "Josh", Drew started sending Megan negative messages. "Josh" told Megan that he had heard bad things about her from her friends. After many hurtful messages, he broke off the relationship. Megan was so distraught that she killed herself.

- Do you feel that services like MySpace are responsible for events like this?

- How do you feel about Drew, and about Megan?

- If Drew were the same age as Megan, would you feel differently?

- Do you feel that Drew is guilty of murder?

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- Would you feel the same if there really had been a "Josh", and the communication had taken place in "real life" and not online?

- Do you feel that "cyber bullying" – bullying someone in an online environment – is different to other kinds of bullying? If so, how? And why?

2.2 Who owns your email?

Justin has been called to his supervisor's office. After some small talk, his supervisor tells him that he is concerned about Justin's ability to do his job, since he has been diagnosed as having depression. When Justin asks how he came to know about this, his supervisor reveals that the IT manager had alerted him to the situation: Justin had sent several emails to his wife from his office. When Justin says that those were private emails, his supervisor tells him that the email system belongs to the company, and that Justin is, in any case, not supposed to use it for personal reasons.

- Does Justin's supervisor have the right to read his emails?

- Does the IT manager have that right?

- Does Justin have the right to send emails to his wife?

- Do you know what the email policy at your place of work is?

2.3 Faking death

"Limeybean" was a popular figure on LiveJournal. Her online friends were shocked when she revealed that she was suffering from an untreatable strain of tuberculosis. For a many weeks, she shared her feelings and thoughts about her condition, and received a lot of support from her online network. When she eventually died, there was an outpouring of grief and sympathy from her many supporters.

Then somebody figured out that Limeybean had never been sick, and was very much alive. She had been making it all up. When she was eventually persuaded to explain, this is what she said:

> I've always had a problem when it comes to telling the truth on the internet, to be honest. After realising the effect my bravery in my illness had on people, I then used it as a vehicle to try and get some of the idiot emo kids on LiveJournal to buck up and realise they don't really have it all that bad… the lie was worth something, wasn't it? How bad is a lie if it helps?

- What do you think of Limeybean's justification?

- Why do you think she acted as she did?

- What would you say to Limeybean, if you had been one of her friends?

2.4 Love online

Marc is "Facebook friends" with Jessica. They have never met face to face, but over the months they have grown to know one another very well. At first, they wrote public messages on each other's Facebook walls. Soon they were sending each other private messages, and then emails and text messages on their cellphones. Marc feels very close to Jessica. He has told her things about himself that he has never told anyone else, and she always understands. In turn, he has helped her through some difficult times in her life.

- Do you think that Jessica and Marc's relationship is different to friendships in which people have met face to face?

- If you were Marc's friend, what would your opinion be of this relationship?

- Do you think you could become close friends with someone you have never met?

2.5 Is it stealing?

Andrew made a short movie. He enters it in a competition. The movie does very well and receives a lot of praise, particularly on the way the wonderful musical soundtrack enhances the message of the film. He receives an email from the composer of the music who accuses him of theft, since Andrew had downloaded the music from the web. Andrew says, "If you did not want it to be copied, why did you put online? Not my fault."

- What do you think of this situation?

- Would you feel differently about it if you found out that the composer had not put the music online himself, but that someone else did it without his knowledge?

Andrew feels bad about upsetting the composer and offers to acknowledge him in the credits, saying "It will be good exposure for you." The composer is not appeased. He does not approve of Andrew's movie, and he does not want his music to be associated with it. "I spent many hours crafting that piece. I'm not rich, and I cannot afford to give away my work for free."

- Does Andrew have the right to use someone else's work, as long as he acknowledges its source?

- Does it make any difference whether Andrew makes money from this movie or not?

- If you feel that Andrew acted incorrectly at any stage, how should he have behaved?

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2.6 Talking about privacy

What do you think of each of the following statements?

"Nothing is private any more, so you may as well not worry about it."

"The only people who worry about keeping their information private are people who have something to hide."

"People who are not worried about privacy online have their heads in the sand. They just want to enjoy the benefits of social media without having to worry about the possible consequences."

"I don't worry about privacy, because I never put stuff online that I don't want to share. It's up to the individual to be responsible and not to share information that may be used to harm them."

"Every time you use a credit or debit card, buy something online, use a search engine, if you have medical aid, do online banking, enter your information in an online game, that information is stored somewhere and used by someone. We should have agreements in place for how companies can use this information, and not just leave it up to them to decide."

"The only people who worry about privacy are older people. The boundaries between private and public life are shifting – things change."

"I recently escaped from an abusive relationship. I have a restraining order against my husband. Since Facebook changed their privacy settings, I've been so worried that it is possible for him to track me down and hurt me."

"Young people typically are ignorant of issues around privacy because they primarily use the web as a place to entertain themselves and be social. The minute they start having to earn money and support a family, get a home loan or try to build a reputation, they will start to feel differently."

"I recently put a picture of a friend of mine online. He was furious, and said that I was invading his privacy by doing this without his permission. I think he is being paranoid and silly."

2.7 Hackers

Daniel is a very bright young man with an interest in computers. One evening, he figures out how to break into the computer network at his university. He spends some time looking at student records, mark sheets and stored exam papers, but does not change any data, copy anything or delete anything. It turns out that he is not quite as clever as he thought he was and the IT team traces the security breach to him. When he is confronted, Daniel claims that he has done nothing wrong and that, in fact, he has actually done the university a favour by showing where weaknesses are in the security system.

- Do you agree with Daniel?

- Daniel's professor says that it makes no difference whether or not he copied or changed any data. Is this a reasonable opinion?

- What do you think of Daniel's statement that he was motivated by the drive to expose security flaws?

Many years ago, the Chernobyl nuclear power plant in the Ukraine suffered an explosion that blew thousand of tons of radioactive material into the atmosphere. The Soviet government and the government of West Germany attempted to downplay this event, even though it caused a serious health risk to their neighbours. A team of hackers from West Germany called the "Chaos Computer Club" broke into the West German government's records, and released details of the event to the world.

- What do you think of this story?

- The Chaos Computer Club broke the law when they accessed the Chernobyl files, and broke it again when they made them public. Are they criminals?

2.8 Facebook status

Tanya is a student at Silverwater High, a well-known and well-respected school. Tanya is often in trouble with her teachers, and she regularly accuses them of being unfair to her. One day, she gets in trouble again. She is very upset, and shares her feelings with the world using her Facebook status.

Silverwater does it again – this place is corrupt to the bone! They say they listen to students, but they just want to make money off us. Silverwater sucks!

The next day, she is in the principal's office again. He insists that what she has done is a serious breach of school policy – she has brought the school's name into disrepute in a public space.

- Do you think Tanya acted wrongly?

- Do you feel that a Facebook status message is a "public place"?

- What should the principal do, and what should Tanya do?

2.9 What happens next?

Who could have foreseen, in 1990, what an impact the World Wide Web would have on our lives? And who can foretell where we will be five, ten or fifteen years from now? There are many aspects of our online lives that are in a rapid state of change; maybe the best way to explore this question is to ask more

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questions about some of these aspects.

2.9.1 How will the technology we use change what we do?

There is a growing shift to using mobile devices like cellphones to connect to the web. How will this change how we interact with one another?

The "ubiquitous" web is the idea that the devices and objects around us – our clothing, kitchen appliances, home security systems, televisions and so on – will soon be able to connect to the internet, to communicate with one another, share information and improve the way they function. How will this affect our lives?

Another coming trend is "cloud computing". With cloud computing, instead of running software programs installed on our own individual computers as we do at the moment, we log in to the web to use online services for many of our software needs. How will this affect the way we work and communicate?

2.9.2 Who will pay?

Will social networks like Facebook find new ways of turning their vast memberships into paying audiences?

Will we be willing to pay for content – music, news, movies, games and so on – that we can get for free?

As we get better at avoiding traditional advertising, who will pay for the creation of content on television, in newspapers and in magazines?

2.9.3 Who will control?

Will the idea of the World Wide Web as a neutral network survive in our new online world?

Who will decide what qualifies as hate speech and when censorship is necessary?

The internet has created new power structures and companies that span traditional borders. How will we perceive the idea of "countries" in the future? How much power will online companies such as Google wield?

As more companies and even governments move to social networks to interact with the public, how will this affect the relationship between consumers and producers, between governments and the governed?

2.9.4 What will we see, hear and experience?

What new forms of art, literature and entertainment will become possible?

As advertisers become better at tracking our likes and habits, how will we perceive advertising that is "perfectly targeted" to us as individuals?

It is very difficult to control what one may experience on the World Wide Web. Is it necessary to "protect" our children from what they may encounter? How

will this protection – or lack of it – affect their view of the world?

2.9.5 How will we live and learn?

As these new technologies develop, new careers come into being. What forms of expertise will be needed?

How will universities and schools be affected by the proliferation of information on the web? How will we teach and learn in the future?

As communication technology improves, physical location becomes less important. What happens to the traditional ideas of "office" and "home"? Where will we work? What will happen to the divide between our professional and private lives?

2.9.6 Will the world change?

It will. How it will change is a more difficult question to answer. In the end, it is important to remember that you do not need to passively accept other people's ideas of how the world should be.

The World Wide Web provides all of us with the tools and the opportunity to reach out, speak out and make an impact. Whether that impact is big and affects many people all over the world, or whether it is a series of small, private changes as you find new ways of living and learning – that is up to you!

2.9.7 Exercise 1: Learn about a new trend

Do some online research and learn about a new, upcoming online trend – for example, cloud computing, new mobile technologies, ebook readers or new innovative websites.

2.9.8 Exercise 2: Think about change

Consider how much you've learned in the last ten weeks, and think about how it has changed the way you interact online – and by extension, how it has changed your day-to-day life. Is the change minor or significant? Feel free to share your thoughts on the GetSmarter forum.

2.10 Further reading for section 2

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3. Is privacy a technical problem? gigaom.com/2010/03/13/sxsw-is-privacy-on-the-social-web-a-technical-problem

4. Hackers: news.bbc.co.uk/2/hi/technology/8567934.stm

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5. Piracy destroys local music: news.bbc.co.uk/2/hi/technology/8471290.stm

6. Musicians hit out against privacy plans: news.bbc.co.uk/2/hi/entertainment/8247376.stm

7. Net neutrality: news.bbc.co.uk/2/hi/programmes/click_online/8512843.stm

8. Is customised search going too far? www.pandia.com/sew/2395-are-search-engines-going-too-far-by-creating-customized-search-results-based-on-your-internet-history.html

9. School spies on students: www.boingboing.net/2010/02/17/school-used-student.html

10. Twitter and Facebook access for troops: news.bbc.co.uk/2/hi/americas/8540236.stm

3. Summary of chapter 12

In this chapter, we looked at:

- All the things you discovered about lifelong learning during the course, and some new tips and techniques for furthering your learning

- The moral and ethical issues that exist on the web

4. References

4.1 Lifelong learning

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4. Tweetmeme: tweetmeme.com

5. Tweetstats: tweetstats.com/trends

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10. How to grow a following on Twitter: www.socialmediaexaminer.com/8-simply-steps-to-growing-a-quality-Twitter-following

11. Find the date a page was published: www.labnol.org/internet/search/find-publishing-date-of-web-pages/8410

12. Find the date a page was modified: forums.techguy.org/tech-tips-tricks/441658-web-page-date-determination.html

4.2 Web culture and being a responsible netizen

1. Emotional fraud on the internet: www.blogher.com/emotional-fraud-internet?wrap=blogher-topics/internet

2. The death bloggers: www.wired.co.uk/news/archive/2009-03-24/reports-of-my-death.aspx

3. Kids and the web: nymag.com/news/features/27341

4. MySpace murder: today.msnbc.msn.com/id/31722986

5. Computer hacking and ethics: www.cs.berkeley.edu/~bh/hackers.html

6. The Chaos Computer Club: bit.ly/d7Hruu