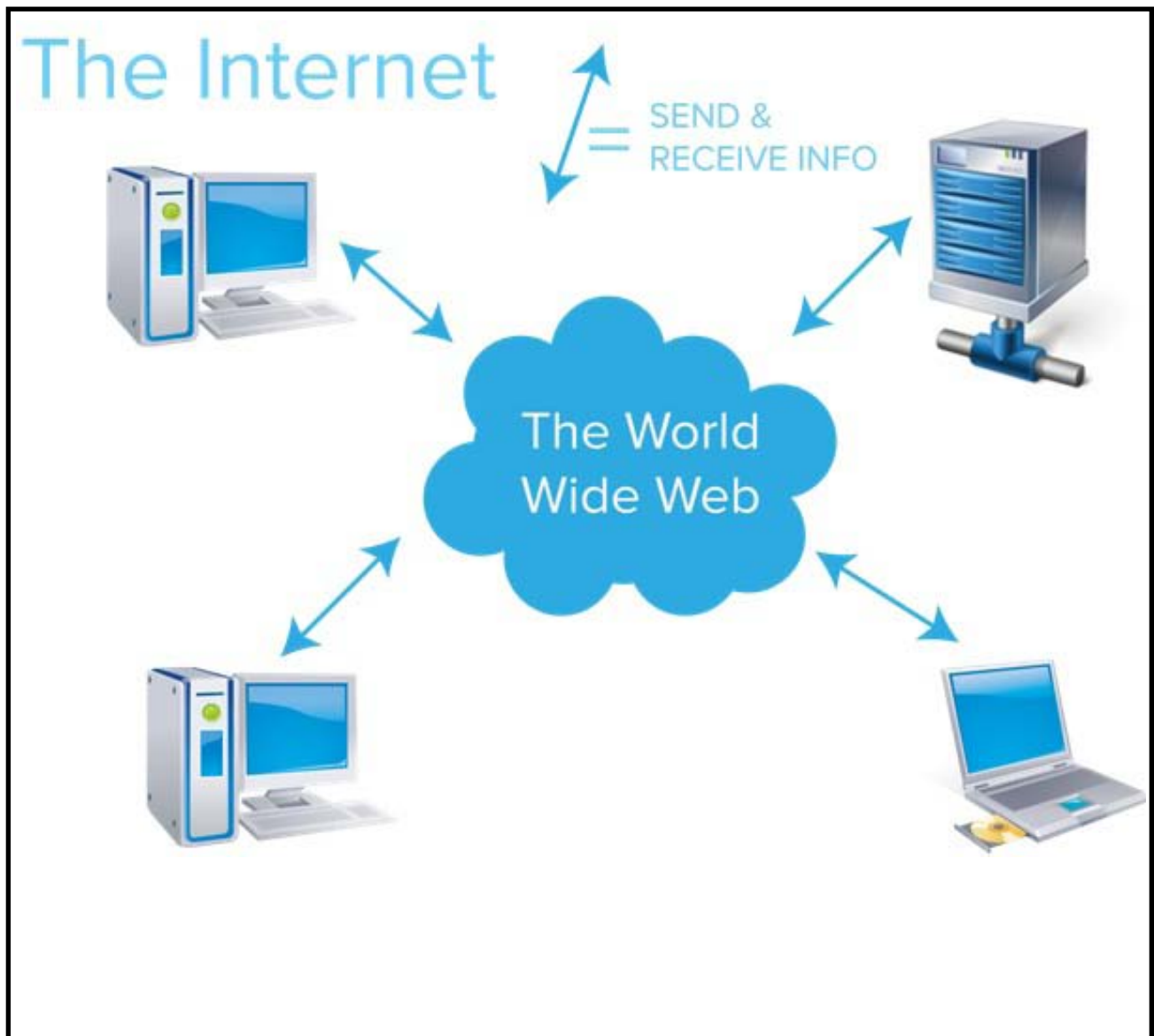


Using the Internet for...

Internet Basics



Using the Internet for... Internet Basics

by Ciarán Clissmann and Bruff O'Reilly, Pintail Ltd. and Libraries Development, LGMA, 2013.

LifeSteps offers you a range of online guides. Written by staff from Irish public libraries, each guide contains easy to follow, step by step explanations of how to use the Internet to achieve a specific goal or 'life step.'

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*Note: words in **red** appear in the glossary at the end of this module.*

Introduction

This guide introduces the basic concepts of computers and the Internet and shows you how to get started online. When you have finished this guide you will be able to switch on, connect to the Internet and find information online, as well as having a good understanding of what is going on behind the scenes.

This whole guide is essentially background. Rather than have a separate background section, the main text of the guide is presented in the 'Step by Step' section.

Need to Know

You don't need to know anything in particular to use this guide.

Need to Have

You need to have the following to get full value from this guide:

- A computer. A smartphone (e.g. iPhone, Android phone) is essentially a type of computer; where you read 'computer' in this guide, you should understand that this includes smartphones. The same goes for tablets (e.g. iPads, Surface etc.);
- An Internet connection – this may involve the use of a **modem**, a **wifi** network, a **cable** connection, an **ADSL** line or a mobile phone with a data package;
- A Web **Browser program** such as Google Chrome, Mozilla Firefox, Safari or Internet Explorer or on your computer.

Related Guides

The LifeSteps Guide *Internet Basics* does not rely on your having read any other guides. However, hopefully you will find that this guide is very useful when using every other guide created by the LifeSteps project.

Quick Guide

The **Internet** is a very large collection of computers, all over the world, that talk to one another, sharing information in various ways. Two popular ways that information is shared are electronic mail (**email**) and the World Wide Web.

The Web is made up of two types of computer program – Web server programs, that store and send (or ‘serve’) information, and Web browser programs that receive information from Web servers and display it to human users. The Web information is in the **form** of a special sort of computer **file** called a Web page.

The most important part of the Web for most users is the Web browser program (Chrome, Firefox, Safari, Internet Explorer). This asks for Web pages from servers and then displays them to users. The ‘Browser’ section of this guide explores the most important parts of a Web browser.

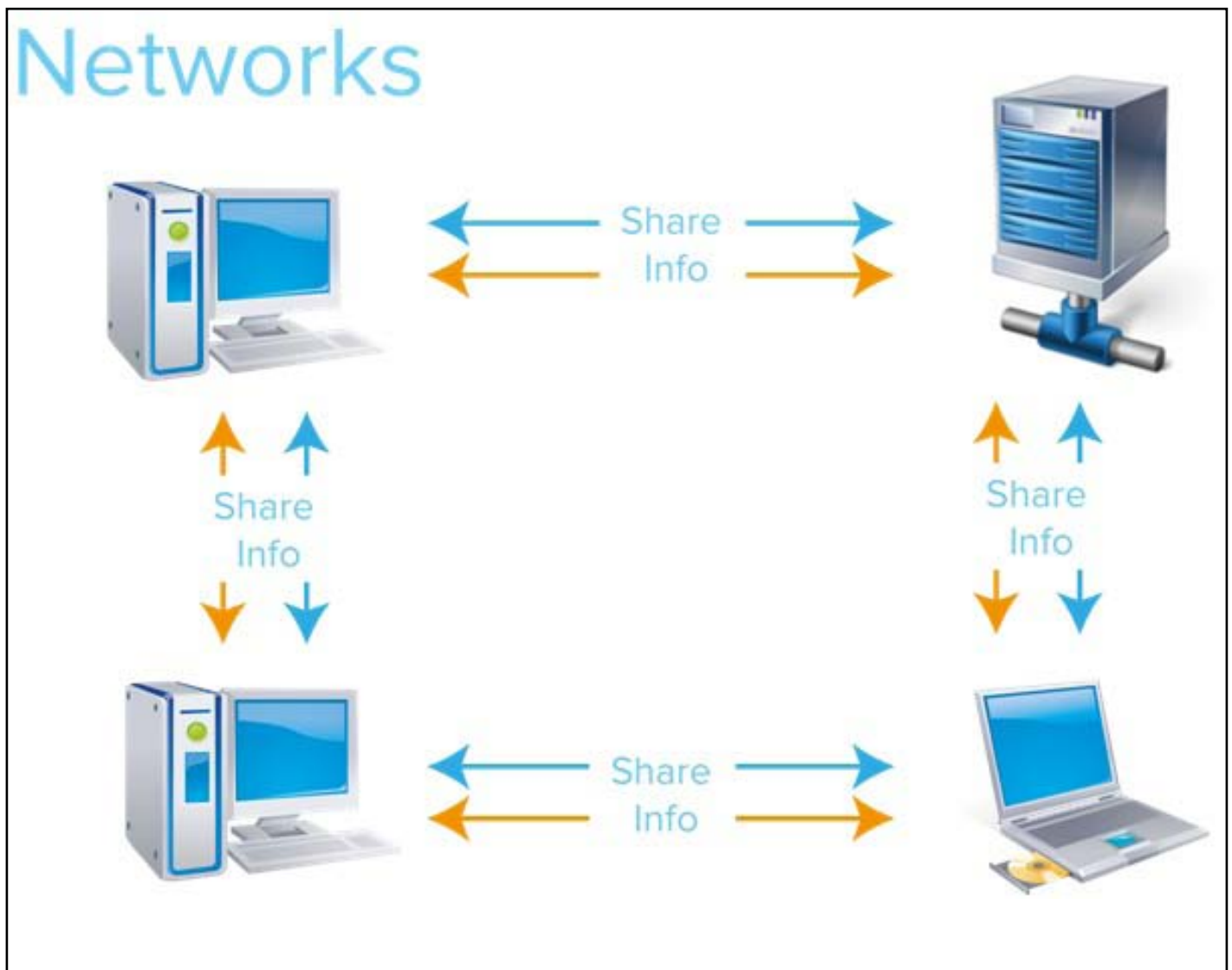
Web browsers display Web pages. Pages are made up mainly of text and pictures, for human reviewing. They also contain **links**, videos, sound files and forms.

There are billions of Web pages. To help you to find the pages that you want, you use a **search engine**, such as Google, Yahoo! or Bing. A search engine lets you type in words that describe what you are looking for, and then gives you a list of Web pages that it thinks are relevant to your search.

Step-by-Step Guide

The Internet

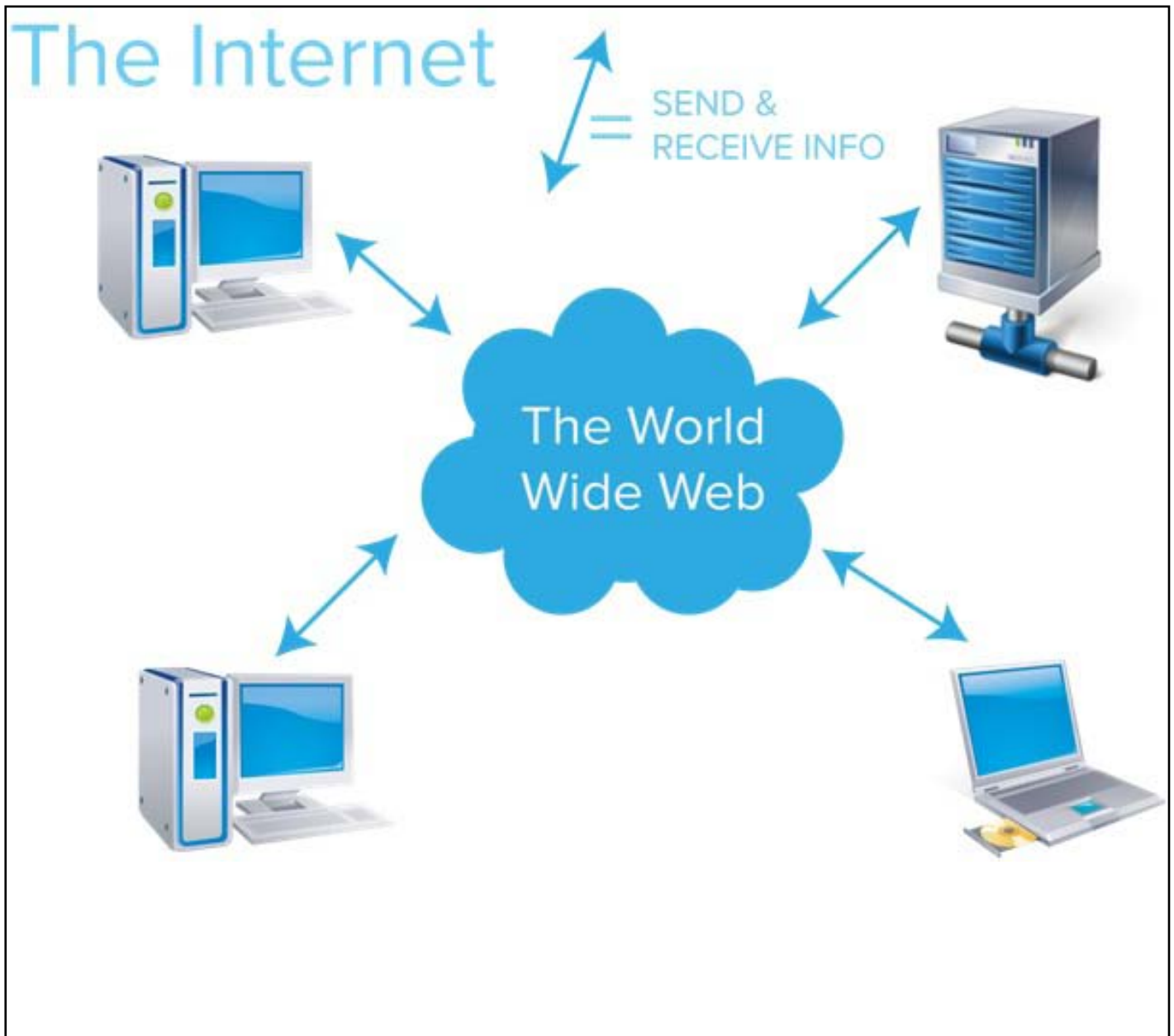
What is a Network?



Network Diagram

A network is a collection of computers that are joined together so that they can share information.

What is the Internet?



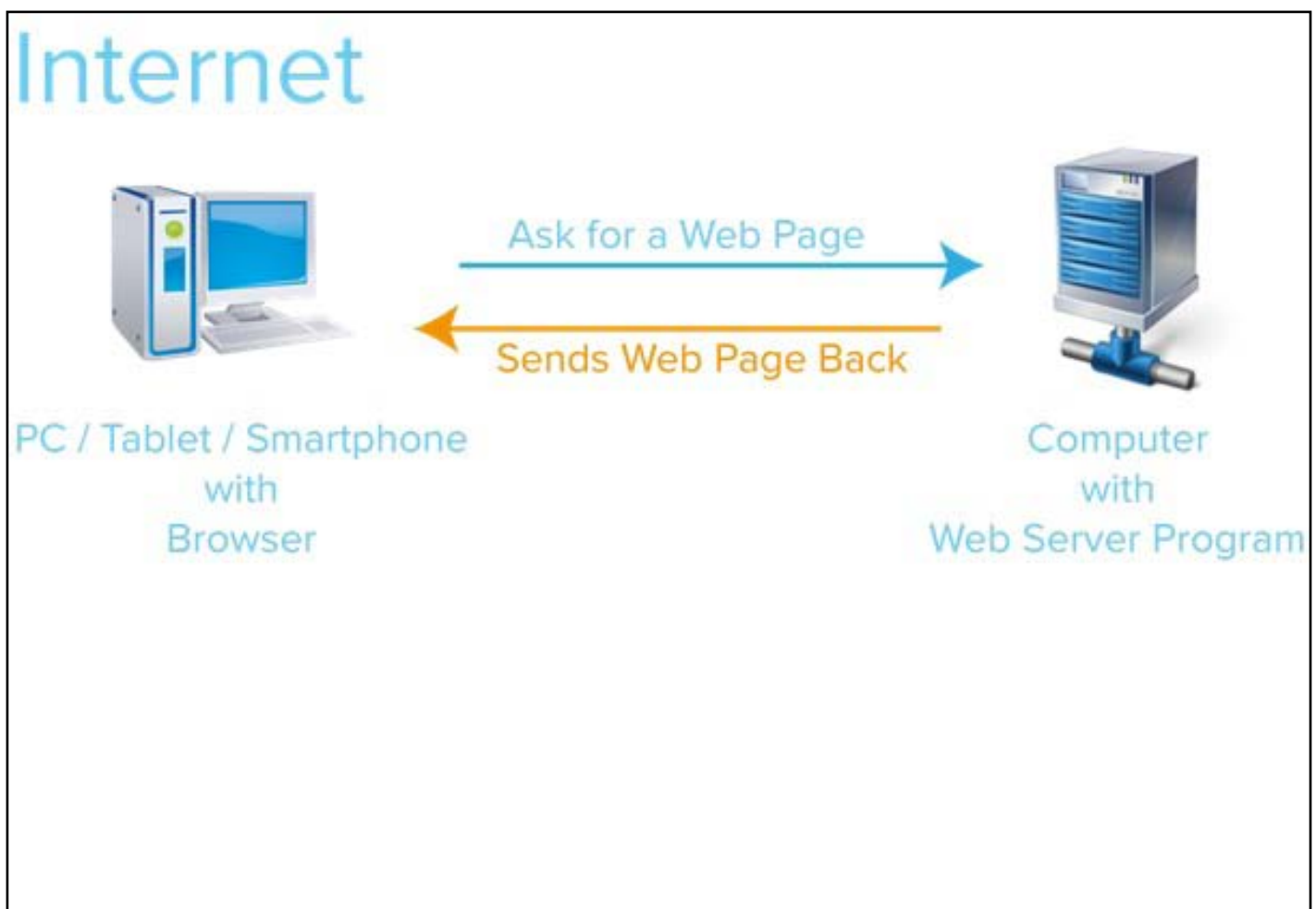
Internet Diagram #1

The Internet is a large collection of computers, all talking to one another over a network. All the computers run programs (e.g. servers and browsers) that let them talk to one another.

Many of the computers on the Internet run a collection of programs called the World Wide Web, or simply the Web.

The Web

There are two main programs on the Web – Web **server** programs and web browser programs. A web server is a program that sends (or serves) information (web pages) from the hard disk of the computer it is running on, over the Internet, to a web browser running on some other computer. A web browser is a program (popular examples are Chrome, Firefox, Safari and Internet Explorer) that asks for and receives web pages and displays them on the screen of the computer on which it is running.



Internet Diagram #2

Moving Around the Web

Looking at Web pages on the Internet is really just pulling computer files off computers someplace, and showing them on the screen. But it is often talked about as if there was movement involved. Thus, you can 'go to' a Web page, or you can 'surf from website to website'. You can 'follow' a link to another page, or 'jump to' a favourite website. It can be likened to sitting in a parked car, while someone puts pictures of different places against the window, giving the illusion of movement. This 'going' on the Internet is illusory, but it is an easy way to describe the experience.

The Browser

The role of the browser is to receive Web pages over the Internet from a Web server and display them on the screen, and to accept keystrokes, screen taps, and mouse-clicks from you and send them to the Web server over the Internet.

The following image shows the Chrome Browser, with the most important parts labelled. As you can see, these are 'bars' at the top and bottom of the screen. The Web page you are looking at is shown in the main part of the browser screen - in this case, it is the popular search engine, Google.



Browser Window

The Tab Title Bar shows the name of the Web page that you are looking at. Many web browsers now use 'tabs,' which allow for multiple pages to exist in one **browser window**. Here you can see both the Amazon and Irish Times websites and can click back and forth from one to the other, without leaving either one.

The Address Bar shows the Internet address, or **URL**, of the web page at which you are currently looking.



Padlock on secure sites

When you are accessing a secure server, usually to pay for something, a small padlock icon appears in the status bar. See image above. (See the 'Shopping' LifeSteps guide for details about shopping online).

The Navigation Bar is a set of buttons that help you to surf the Web. You use them by clicking on them with the mouse. These buttons are used very often. The most important ones are briefly noted here.

Navigation

← → ↻ - Navigation Bar

← Back Button (Hold for more)

→ Forward Button

↻ Refresh Button



Navigation Menu

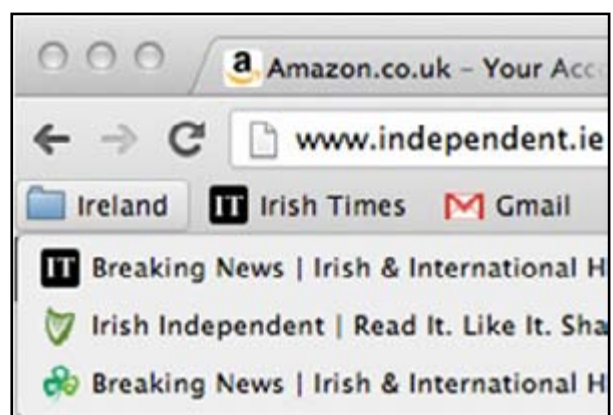
The **Back** button brings you back to the last Web page you were looking at. The back button can usually be used as often as you like, to go back as many steps as you like. You can go back many steps at once by using the little 'down-arrow' beside the back button. In the picture here, you can see the last three pages that were visited.

The Forward button brings you forward a step. So, if you visited a page, then went back to the previous one, and would now like to go forward again, you click this one. Much less often used.

The Refresh button tells the browser to get the page that you are looking at from the browser. If the page has changed since the last time that you looked at it, then refreshing it, by clicking on this button, will make the changes visible.

Of the remaining buttons, most are not important for basic Web use. The exception is the Bookmarks, which record the addresses of favourite pages you plan to visit again. You can store them in folders for easier access later.

This is used to record Web pages that you found useful and expect to visit again.



Bookmarks

Links

A link is an area on the computer screen (usually a word or words, or an image), which can be used to leave the Web page you are looking at and move to a different Web page. Links are used by clicking on them with the mouse (or tapping on a touch screen). You can identify links by the fact that, as your mouse moves over them, it changes shape (usually from an arrow into a hand with a pointing finger). Links are often blue in colour and are underlined.

A screenshot of a web page header. At the top, it says "ON LOCATION | CENNANO, ITALY" in a small, grey font. Below that, the main header "Renovation, Italian Style" is written in a large, bold, blue font and is underlined. At the bottom of the header, it says "By SANDY KEENAN" in a small, grey font.

Link Example

In the image above, the header in blue is a link.

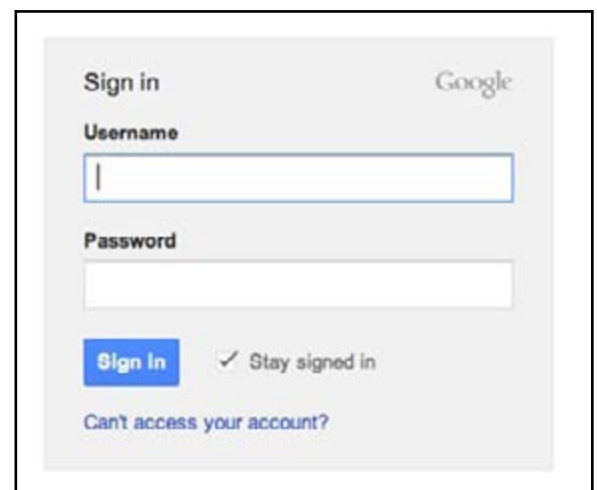
Web Page Addresses or URLs

Every Web page on the Internet has its own address. Web page addresses are often referred to as 'URLs' or Uniform Resource Locators.

If you know the URL of a web page you can type it into the address bar of the browser to visit the page.

Forms

Web forms are just like paper forms - you fill in various fields and you send the form away to be processed. At the Web server, a program reads the material that you typed in and then takes some action. Common forms are 'login' forms, where you enter a name and a password, and search forms, where you type in some words that describe what you are looking for on the Internet.

A screenshot of a Google login form. At the top left, it says "Sign in" and at the top right, it says "Google". Below "Sign in" are two input fields: "Username" and "Password". The "Username" field has a vertical cursor on the left. Below the "Password" field is a blue "Sign in" button. To the right of the button is a checked checkbox labeled "Stay signed in". At the bottom, there is a blue link that says "Can't access your account?".

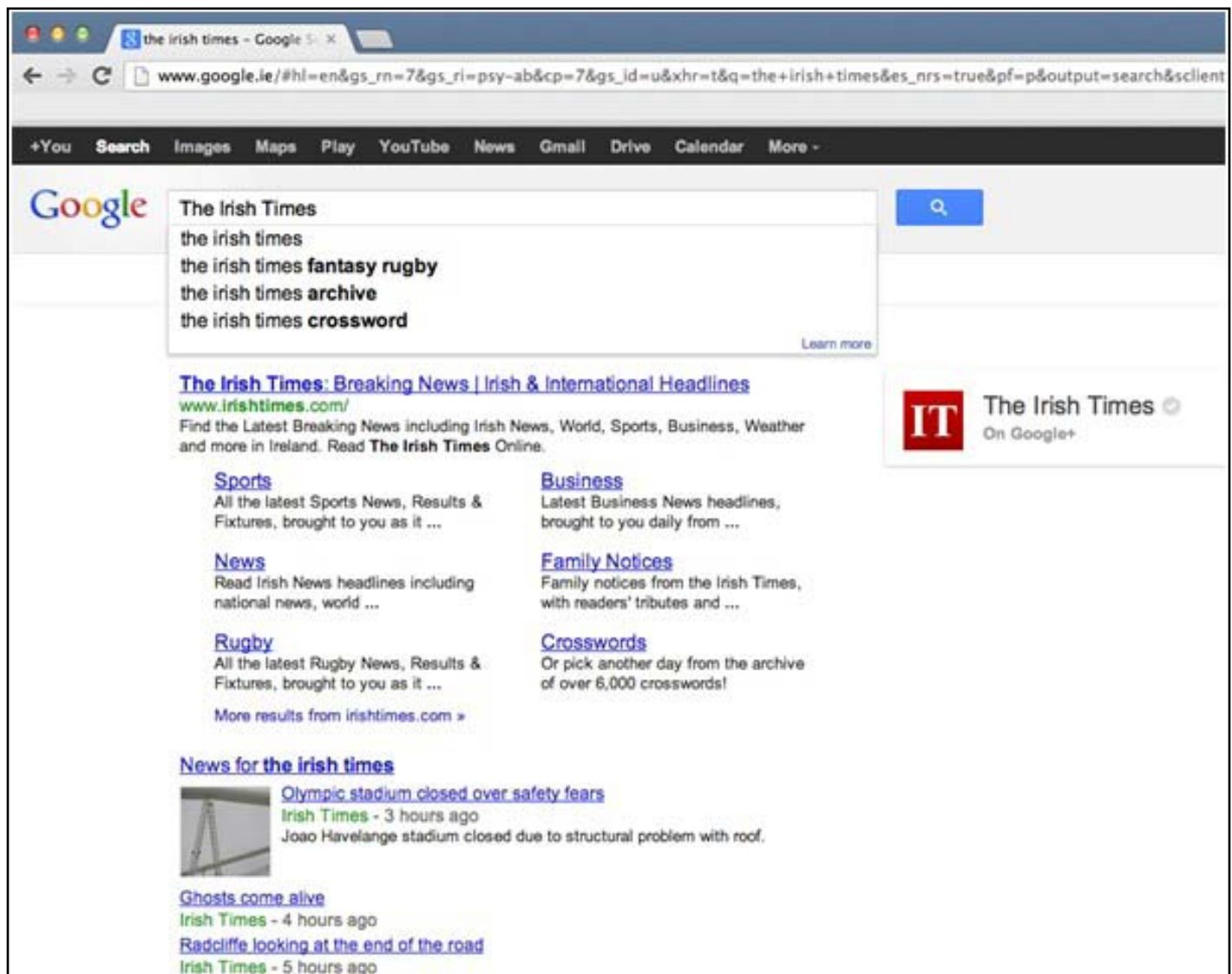
See the example of a login form above. As you can see, you type in a user name and a password and then click the button. The can't access your account? text is a link to a page that handles lost passwords, etc.

Worked Example: Searching the Internet

This section brings you through the process of finding Web pages about a particular topic. Finding information on the net relies on the use of search engines. These provide an online form – usually just a simple text entry window. The form lets you type in some words describing what you are looking for. The search engine then looks up a huge database of Web pages and descriptions of Web pages and tries to match those up with your search.

Let us imagine you are looking for the Irish Times. You type in 'The Irish Times' into a search engine, such as google.com or bing.com.

Here is the first page of the results:

A screenshot of a Google search results page for the query "The Irish Times". The browser's address bar shows the URL: www.google.ie/#hl=en&gs_rn=7&gs_rl=psy-ab&cp=7&gs_id=u&xhr=t&q=the+irish+times&es_nrs=true&pf=p&output=search&client. The search bar contains the text "The Irish Times" and a dropdown menu shows suggestions: "the irish times", "the irish times fantasy rugby", "the irish times archive", and "the irish times crossword". Below the search bar, the main result is for "The Irish Times: Breaking News | Irish & International Headlines" with the URL www.irishtimes.com/. A sub-header reads "Find the Latest Breaking News including Irish News, World, Sports, Business, Weather and more in Ireland. Read The Irish Times Online." There are four category links: "Sports" (All the latest Sports News, Results & Fixtures, brought to you as it ...), "Business" (Latest Business News headlines, brought to you daily from ...), "News" (Read Irish News headlines including national news, world ...), and "Family Notices" (Family notices from the Irish Times, with readers' tributes and ...). Below these are "Rugby" (All the latest Rugby News, Results & Fixtures, brought to you as it ...) and "Crosswords" (Or pick another day from the archive of over 6,000 crosswords!). A "More results from irishtimes.com" link is also present. At the bottom, there is a "News for the irish times" section with three items: "Olympic stadium closed over safety fears" (Irish Times - 3 hours ago, Joao Havelange stadium closed due to structural problem with roof.), "Ghosts come alive" (Irish Times - 4 hours ago), and "Radcliffe looking at the end of the road" (Irish Times - 5 hours ago). A small thumbnail image of a stadium is visible next to the first news item. On the right side of the page, there is a "The Irish Times" logo with the text "On Google+".

Click on any of the results to jump to the Web page in question. But before you do, look closely at the results.

If you follow a link and find that it is not in fact what you wanted, use the 'back' button on the browser to bring you back to the search engine and try one of the other results.

Note: *to save you time, search engines will try to guess what you're searching for, as you type it in. These guesses appear immediately below the search window. If you see your search appear there, you can click on it without having to type in the rest of your search.*

Social Media

Social media sites have become some of the most popular sites on the Internet. Social media sites, such as Facebook or Twitter, allow for users to create, share and exchange information and media in virtual communities and networks. These sites provide a platform for individual members to communicate with one another, and to represent themselves online within a social network.

A social network refers to a group of individuals who are connected through any variety of ways. They may know each other in real life, share common interests, or live in the same geographical location. For instance, a user may support a sports team and form a social network with other supporters of the team.

Often social networks rely on the concept of ‘friends’ – trusted members of the social network that are allowed to do things that non-friends are allowed to do. For example, a ‘friend’ may be able to view private pictures or messages that are not accessible to the general public.

Users of social media sites often contribute information, pictures, and videos about themselves. Although this can be fun, and provide an easy method of exhibiting information about your life, such as photos of your recent vacation to friends and family, you must be cautious about putting information online that you wouldn’t want the general public to have access to.

Links

There are hundreds of websites on the Internet which provide background, introductory and tutorial information about the Internet, the Web and the technologies that make them work. For more websites on these topics please see our website at www.lifesteps.ie.

Alternatively, as for nearly any information requirement on any topic, visit Google or another search engine.

Final Notes

Quality

The Internet is very large and contains an enormous amount of information. Some of this is unreliable – this reflects the fact that anyone can publish information on the net, there are no editors and no quality control. However, much of the information online is of high quality and the Internet is one of the most important sources of information available today.

Security and Safety

There is very little that you can do on the Internet that will break anything. You should feel free to explore and experiment, surfing and browsing from website to website and becoming familiar with the technology and what it can do.

However, you should bear in mind that there are large amounts of offensive and sometimes harmful material on the Internet, often not suitable for juvenile or sensitive audiences. There are technologies available for protecting users from such material and you may wish to look into this.

Downloading anything other than text or pictures from the Internet should be done with great care. In particular, be cautious about downloading and installing **software** that you find on the net. A small but significant proportion of such material contains viruses and other programs that can damage your computer and the information that you store on it, as well as attacking other computers to which yours is connected. Ask the advice of someone with more experience, if in doubt.

Glossary

ADSL: A service offered by telephone companies, which enables some telephone lines to carry a lot of information in a short time. ADSL turns a phone line into a **broadband** internet link. Only available to some phone lines, but very useful where available.

Broadband: A word used to describe networks that can send a lot of information in a short time. Most urban (ADSL, cable, wireless) internet links are 'broadband.

Browser: A computer program, running on the human user's computer/smartphone/tablet, which gets information from Web servers and displays it on the screen.

Browser window: The browser window is that part of the computer screen that shows the browser program, and includes the various parts of the browser (navigation bar, address bar, etc.) and of course the main browser screen that displays Web pages.

Cable: A form of broadband Internet connection that allows for very fast Internet connections. Cable refers to coaxial cable, the kind that you would use to hook up a television set. Many cable broadband suppliers also supply cable TV.

Email: Email or electronic mail is a service that sends messages across the Internet from one human user to another. Like a letter, email is person-to-person and it stores messages until they are read.

File: A collection of computer information stored on a hard disk (or CD or floppy) and accessed when the user needs it. For example, a letter typed with a word processor and saved on the hard disk is in the form of a file. So is a song in MP3 format, or a Web page.

Form: A part of a Web page where the human user can type in some information to be sent by the browser to the Web server. A form consists of fields that can have text typed into them, buttons that can be clicked and (sometimes) check boxes and radio buttons.

Internet: A large collection of computers, connected together to allow them to share information with one another.

Link: A link, or hyperlink, is a part of a Web page that, if clicked with a mouse, opens a different Web page. Links are usually shown in blue and underlined on a web page.

Modem: A device which allows a computer to connect to the Internet via standard analogue

telephone lines. Increasingly rare, as more and more computers access the net via wifi or cable.

Program: A list of instructions that a computer understands. Programs usually have some part that shows information to the human users of the computer – for example, the display in a browser is part of the browser program. The browser also includes parts that are not visible to the human user, like the part that sends messages to the Web server.

Search Engine: A program running on a Web server computer which creates and maintains a directory of Web pages on the Internet. The engine has a Web page with a form; you type in words describing what you are looking for; the engine looks up its directory and sends back a list of Web pages that it thinks will fit your search criteria. Google is the most popular search engine.

Search Results: The list of Web pages that are returned by a search engine in response to a search. Each result usually includes a link which can be clicked on to bring you to the Web page.

Server: A computer program which receives requests for Web pages from browsers, gets this information from its hard disk or from another program running on the same computer and then sends it back to the browser for consumption by the human user of the browser.

Social Media: Media content that is created and shared by individuals through social networks.

Social Networks: The creation of virtual networks based around existing friendships, geographical locations, and/or similar interests. Twitter and Facebook are good examples. Boards.ie is an Irish social network.

Software: Those parts of a computer that tell it what to do when you touch the hardware, and also what to show on screen. Software is made up of computer programs.

URL: The Uniform Resource Locator, or address, of a Web page. Like the phone number of a particular person, this is unique and goes direct to the Web page it is associated with.

Web page: A Web page is a computer file which typically includes text, pictures, videos, sounds, links and perhaps forms. The Web page also includes instructions to the browser about how the page should look on the screen (colours, layout, etc.).

Wifi: Wifi is a network technology that connects computers to the internet (and so to one

another) using a wireless connection. To connect to the internet using wifi, a computer needs to be quite close to (usually within tens of metres at most) a wireless access point, which is itself linked by a broadband connection to the wider internet. The computer also needs wifi technology built-in; nearly every modern computer, smartphone, tablet, e-reader, etc. has this.

World Wide Web: Also called the WWW or the Web. A service that sends information over the internet from Web server programs to Web browser programs. The browser then displays this information to the user on his computer screen.