

# WORLD WIDE WEB

The most common way to use the Internet is to run a program called a browser that can access pages of information stored on computers called servers. Each page contains links to other pages, forming a web of interconnected information – the World Wide Web. Billions of people follow these links to surf the Web for information, entertainment and business. Some pages are written and uploaded to a server, where they remain, ready to be downloaded by a browser onto a user's computer or other Internet-connected device.

Other pages, such as search results and online bank statements, are produced on request, selecting and updating information that is relevant only to the user requesting them. On interactive pages, such as social media pages, users can modify the content. Every page has a unique address that identifies it – as does any other piece of information available on the Web, such as a digital image, sound or video file. Each of these items is a resource, and its address (such as [www.example.com](http://www.example.com)) is called a uniform resource locator, or URL.

Wi-Fi CONNECTS  
LAPTOP TO  
ROUTER

## 1. SEARCH TERMS

This user types the search term "mammoth fur science" into a form on the search engine web page.

## 2. SENDING THE REQUEST

The request is sent first to the router (see p.349) and then across the Internet to a data centre owned by the search engine company.

## 3. SEARCHING THE INDEX

At the data centre, a computer scans an index of web pages, looking for "mammoth", "fur" and "science". The more often the words appear in a page, and the closer together they are, the more relevant the page is likely to be.

DATA CENTRE

## 4. REQUESTING A WEB PAGE

When the user clicks on a page's URL, the computer sends a request, via the router, across the Internet to the server where that web page is stored. Most servers are owned by an Internet Service Provider (ISP).

WEB SERVER,  
OWNED BY  
WISE OWLS INC.

## 5. SENDING THE WEB PAGE

One of the search engine results that looked promising to the user was a page written by a scientist who studies mammoth fur. The web server sends the page and the images it contains back to the user's computer, via the Internet.

SCIENTIST SCANS RARE SAMPLE OF  
MAMMOTH FUR FOR WEB PAGE

## WRITING WEB PAGES

Web pages are written in a computer language called hypertext markup language (HTML), which enables web designers to mark up, or style, how the text will look when it is displayed on a screen. HTML uses "tags" to mark up the text – for example, `<p>` to make new paragraphs, `<img>` to insert pictures, and `<a>` to insert links to other pages and resources such as images and videos. These links are called hyperlinks and each hides a URL. When a web page is displayed in a browser window, clicking or tapping on a hyperlink causes the browser to download the linked resource. Text containing these hyperlinks is called hypertext.

HYPERLINKS DISPLAYED  
IN COLOUR AND  
UNDERLINED

EACH IMAGE  
HAS OWN URL

## 6. VIEWING THE WEB PAGE

When the web page and its images have been received, the browser displays them as a page. The page also contains links to other URLs for other pages, images, sounds and videos on the fascinating topic of mammoth fur.