

First News

NEWS
KIDS CAN
TRUST

FAKE NEWS
SPECIAL EDITION



MAKING SENSE OF THE NEWS

**FAKE VS
FACT**

**THE RISE
OF AI**

**CONSPIRACY
THEORIES**

AND MUCH, MUCH MORE!

WHAT IS NEWS?

EVEN if you read *First News* or the daily news bulletins on our app or on TV, you might not have thought about what the word 'news' means.

IT HAS TO BE **NEW**

The clue is in the word: news is new information, usually about something that has happened recently.

News is often incomplete, as events can still be happening. This means that as things change, the way they are reported might, too. As new information or new witnesses come forward, a story could turn completely on its head within a week, a day or even hours.

News is often associated with things like politics, war and big natural disasters, but it could equally be good news about sports, science or something silly, like someone breaking a record for the most number of spoons they can balance on their face (that was an actual news story!).



YOUR NEWS

You can get news from anywhere, whether that's newspapers like *First News*, websites, apps, TV, radio, or even by word of mouth from friends or relations. And news doesn't have to be about major world events or famous people; it can just as easily be something that's happened within your family, such as someone getting engaged or having a baby.

News is so vital to how we feel about life that the word 'news' has become part of several everyday expressions, such as 'No news is good news', which means that if you haven't heard otherwise, then things are okay. There's also 'He/she is bad news', when you want to describe someone as being likely to cause problems. Can you think of any more?



NEWS **V** HISTORY

If something happened a month ago, it's not really news any more, unless something else happens that brings it back to people's attention.

As time creeps on, events start to slip further away, and that's when they become history instead of news. When historians teach us about past events, they have lots of different sources to look at and can see the bigger picture, so they can give an overall view of events and help us make sense of them in relation to everything else that was going on at the time.

Although newspapers like *First News* try their best to help you make sense of current affairs, often a bit of time is needed to let a series of events come to an end, so that you can make a final conclusion about something.

However, even history can't always give a definitive view of events, and people will still disagree about how to judge certain incidents. For instance, look at the two atomic bombs that the US dropped on Japan at the end of World War 2. Even now, after more than 70 years, historians and many other people still argue over whether those two bombs caused more suffering than they saved, and whether the loss of thousands of innocent lives was acceptable.



A BRIEF HISTORY OF NEWS

WHEN was the news first reported? And how has that changed over time?



Results of gladiator battles were among the first written news stories

“What’s new?”

Humans have always passed news on; the only thing that’s changed is how quickly it travels and where you hear or read it. In the days before most people could read, travellers would often be asked: “What’s new?” when they came to town, so that they could share whatever they’d heard on their journey.

On top of everything else that the Romans did for us, they’re also credited with being the first to publish news. The *Acta Diurna* (Daily Events) was a handwritten notice that was posted in public places in Rome and throughout the Roman Empire. It was controlled by Rome’s leaders so was never likely to be controversial, but it kept people updated about things like marriages, births and deaths, public notices, criminal trials and executions, astrological omens (like modern horoscopes) and which gladiators had been victorious or killed in the arena.

“Hear ye, hear ye!”

The *Acta Diurna* was way ahead of its time and only of use to certain members of society, as most people couldn’t read. In fact, UNESCO (United Nations Educational, Scientific and Cultural Organization) estimates that even by the mid-1800s, only 10% of the world’s population could read or write. Now, it’s more than 80%.

By the 1860s, most adults in industrialised countries had basic literacy skills, although people who lived in urban areas had more chance of being able to read, as libraries and universities were only found in big towns.

Before then, most people got their news from town criers. These were people who walked around or stood in town squares and read out the latest news. They would usually get people’s attention by ringing a bell and shouting things like: “Hear ye, hear ye!” or “Oyez, oyez, oyez!” (‘oyez’ means ‘hear’).



A town crier in France, around 1900

Technology changes everything



The second edition of the first British daily paper

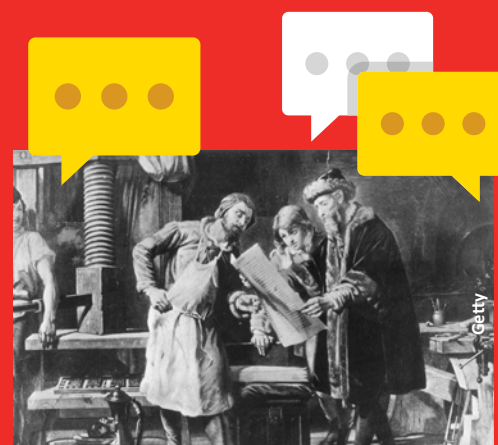
Although the idea of printing had been around for centuries, it was very, very slow, so wasn’t much use for mass production. A German man called Johannes Gutenberg changed all that in 1439 when he invented a printing press that allowed books and newsletters to be produced much more quickly and in greater numbers.

Gutenberg’s creation had a bigger effect on the world than just about anything else in history, as it allowed news, ideas and knowledge to spread wider and faster than ever before.

The printing press soon made its way to Britain, with William Caxton setting one up in Westminster in 1476. Various newsletters were printed, but it wasn’t until 1621 that the first newspaper, *Corante*, was published in London. In 1702, *The Daily Courant* became the first regular daily newspaper.

The first big threat to newspapers came in the 1920s, when the first ever radio news broadcasts were made. All of a sudden, news could be spread within minutes instead of days. On 3 September 1939, British Prime Minister Neville Chamberlain used the radio to let the public know that the UK was at war with Germany.

Although radio had a huge impact on the world, it was nothing compared to what came next: television. However, TV news took a while to get going, as there weren’t enough people recording interesting footage. The US started daily news broadcasts in 1941, but it wasn’t until 1954 that the BBC launched its first daily TV news programme, which was called “crazy” and “absolutely ghastly” at first! Since 1948 the BBC had been showing *Television Newsreel*, but it wasn’t very up to date, so wasn’t seen as a threat to radio until the improved BBC broadcasts started in 1954.



Johannes Gutenberg examines a printed sheet from his printing press



People gather round to watch an early TV broadcast in 1931 in New York



Guglielmo Marconi with his radio receiver in 1896, when he was just 22. Although other scientists were involved, he is widely credited with inventing the radio

WHAT'S NEWS AND WHAT'S NOT

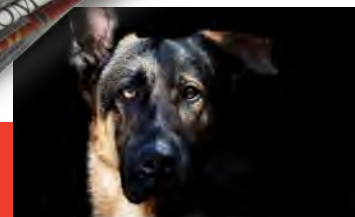


"Hmm... excellent report in today's issue about the shortage of treats"

THERE'S a famous media joke about "Dog bites man" not being news (because it happens all the time), but "Man bites dog" making a great headline.

That one joke is a very good indicator of why many things get in the news in the first place: because they don't happen very often. Many people are scared of flying because they see plane crashes on the news and think that they happen all the time, but they're actually incredibly rare. Although it varies by country, in the UK, flying is statistically the safest way to travel. You're more likely to get injured going for a walk, and deadly car crashes happen every day, which is why they're rarely big news.

Right: this story from 2018 on The Guardian's website shows that some headlines never go out of fashion!



Man bites dog: New Hampshire suspect sinks teeth into police canine

TASTES, TRENDS AND TANTALISING HEADLINES

There are some events that newspapers and news programmes will always cover, because they know that most of their readers and viewers are interested. Things like general elections, wars, royal weddings, World Cup finals and the deaths of famous people are all likely to get those vital front pages and top slots on the evening news.

But what about the other stories? How are they chosen? Here are a few of the many, many things that affect a story's chances of making it into a newspaper:



The tastes of the readers. For instance, we know that First News readers love animals, so a good animal story always grabs our attention.



Will it get people talking? Stories that kick off a debate are often very popular



The political beliefs of the newspaper and its readers. A story that makes a Conservative MP look bad might be front-page news for a Labour-supporting newspaper, but a traditionally Conservative paper might ignore it, or tuck it away as a small story at the end of the news section (see p16 for more on bias in the press).



Is the story still interesting or is anything new happening? When a war breaks out, it's often all over the front pages. But after a while, people can tire of reading about the same subject, so the stories tend to get smaller and further away from the front page.



Is a trend emerging? In 2017, a story about a stabbing in London wouldn't have been big news, but in 2018 it became clear that numbers of stabbings had risen dramatically, so every new incident became part of a bigger story.



Is there a clever headline that can make a story better? A Liverpool v QPR match report wouldn't usually be remembered for long, but a Liverpool Echo story that focused on the outstanding display of Liverpool's Ian Callaghan has been remembered for decades because of this genius headline with a Mary Poppins reference: "Super Cally goes ballistic, QPR atrocious". Or how about this more recent one from The Arizona Republic? "Arizona psychic hit by car says he never saw it coming" (he wasn't seriously hurt, so it's okay to laugh!).



A great picture can really make the difference between whether a story is chosen or not



The personalities of the newspaper's staff. Everyone has a different opinion on whether certain stories are interesting, unusual or funny enough to include, so one newspaper editor might put a story on the front page even though other editors wouldn't include it at all.



Is it an exclusive? If one of your journalists has got a story or some great quotes that no-one else has, it gives you an edge over your rivals.



The Liverpool Echo's famous headline (see below) has been copied a lot, most famously by The Sun in this report of an Inverness Caledonian Thistle match

SO you've got your stories, but now what? How do you put everything together and make it into news?

TURNING STORIES INTO NEWS

Getting started

The first thing that happens is the editorial team will have a meeting to decide which stories are strong enough to go into the paper. As well as looking for great stories, you also need a good balance that will satisfy your readers. Too many stories about death and destruction will put some people off, while others might not appreciate an overload of fun stories.

Once everything's been chosen, the journalist has to write the story. This involves collecting any information together, transcribing interviews (listening back to a recording and writing down what the person says) and doing research to gather extra info or facts. Depending on the length of the article, you might struggle to squeeze everything in, or worry that you don't have enough to fill it!

The five Ws (and one H)

Most news stories will need to answer a set of questions called the five Ws and one H:

WHO was involved? **WHAT** happened?

WHERE was it? **WHEN** was it?

WHY did it happen? **HOW** did it happen?

If you don't answer all of these, the story may not be complete. You can learn a lot with these questions, as the famous author Rudyard Kipling once wrote (see right).

I keep six honest serving-men
(They taught me all I knew);
Their names are What
and Why and When
And How and Where
and Who

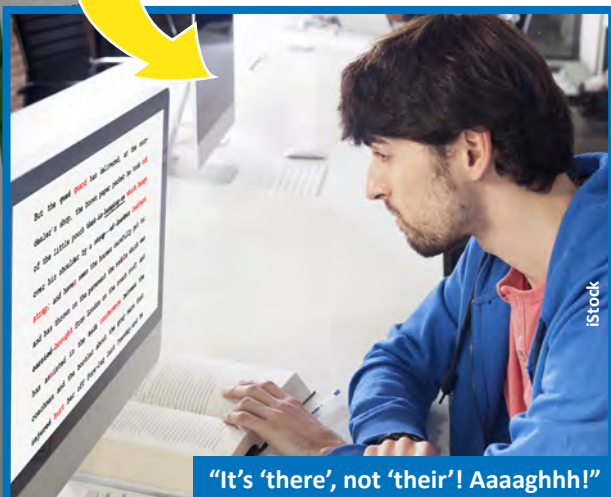


Edit, edit and edit again

Although you'll usually only see one journalist's name on a report, each story might have been corrected, changed and improved by several more people, including maybe a news editor, subeditor, deputy editor and editor.

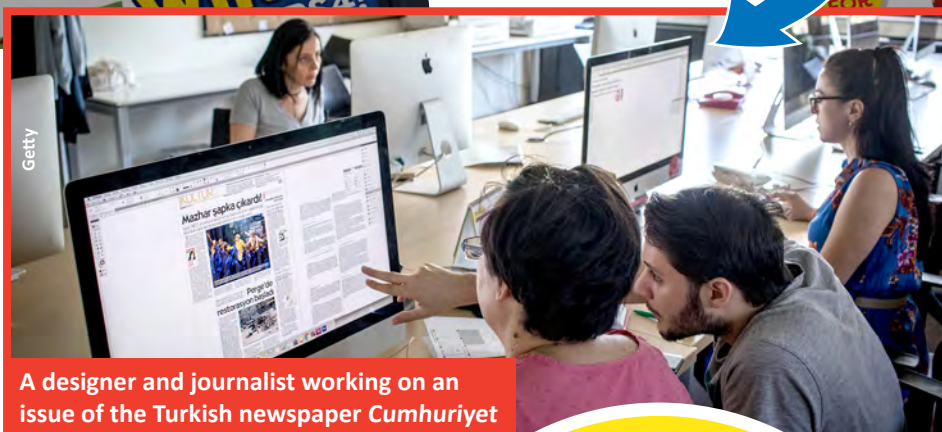
The reason so many people read each story is to catch mistakes, add in crucial information or take out something that might be hard to prove and could get you in trouble with lawyers (see p6 for more on fact checking).

All of these things can be part of a subeditor's job. Subs (as they're known) are a crucial part of a newspaper, as they also help to make sure each story reads and flows well, and fits in with a paper's tone. Subs are also usually the source of the clever and witty headlines and picture captions that you read.



Making the news appealing

To make readers want to get stuck into a newspaper, designers have to work their magic with the words and pictures that they've been given. With more serious stories, they might use less colour and be respectful to people who may have died, but they can play around and have fun with more light-hearted stories, using brighter colours and quirky graphics to make things stand out. Designers also love great images to work with, so...



A designer and journalist working on an issue of the Turkish newspaper Cumhuriyet

...DON'T FORGET THE PICTURES

As the saying goes, "a picture is worth a thousand words", so images can add some helpful information or dramatic impact to a story. Pictures can come from many sources, whether it's the person mentioned in the story, the journalist, a professional photographer or an eyewitness.

A picture editor will try to find the best possible pictures to go with a report, or perhaps pay a photographer or picture agency a lot of money to have exclusive use of a photo.

Picture editors have many more sources nowadays, as anyone can take a fantastic high-quality picture with their phone, and social media allows them to show it to the whole world.



A news story about an overcrowded boat of migrants capsizing wouldn't be as powerful without the picture to show just how dangerous the situation was

And finally...

Once your page is edited, laid out and designed, it needs to be checked again, just to make sure everything works and nothing has been missed.

And if a better story has come along in the meantime, you might need to scrap it, so everyone will have to do it all again before the paper gets printed!

GET YOUR FACTS RIGHT



EVEN the best journalist gets things wrong from time to time, so how do newspapers and magazines make sure that everything on their pages is correct?

As we mentioned on the previous page, the subeditors (known as subs) are the ones responsible for checking the accuracy of everything in a newspaper. This ranges from simple things like changing any incorrect spellings of the names of people, places and organisations, to more complicated – and potentially legal – problems like checking whether historical references or statistics are accurate.

There are lots of ways that mistakes can creep into an article, so subs have to be aware of them all. Here are some of the many things that can throw a spanner in the works and allow errors to slip in.

We wish it was that easy!



Transposing (reversing) numbers is a very common mistake to make, so a journalist might type the age of a person as 54 years old, when they meant 45.



The passing of time can cause problems. You could write that someone is 18 years old, but by the time the article is printed they might have had a birthday and be actually 19. Fast-moving events do the same thing, so a journalist might claim that 11 people died in an earthquake, but three hours later the authorities could announce that it was actually 32. Subs always need to check for the most up-to-date facts and information.



Errors are often caused by assuming that something is true rather than checking to see if it is. A sub having an off day might slip up if they don't change a sentence that says: "All ginger cats are male." It's a 'fact' that's often repeated, but it's not true.



While we're talking about assuming, you might have heard the expression: "Never assume, because it makes an ass out of u and me." It's easy to assume that something is right because it comes from a historian talking about history or a footballer talking about football, but even experts make mistakes or let their memories play tricks on them.



Things like web addresses are easy to get wrong if they're written down instead of copied and pasted, so just one wrong letter will lead to lots of puzzled readers getting a 'page not found' message.



A busy (or lazy!) journalist might have done their research by checking the first link on Google or having a quick scroll through a Wikipedia page, but – would you believe it? – these famous and popular resources aren't always right. A fine example is the claim made in the *Daily Mirror's* sports section in 2008 that fans of Cypriot football team Omonia Nicosia were nicknamed "the zany ones" and wear "hats made from shoes". David Anderson, the red-faced journalist who wrote it, later found out that a cheeky prankster had inserted the made-up nonsense into the team's Wikipedia entry.



Although subeditors can use a spellcheck to pick up basic mistakes like this one, they need to be on the ball to pick up on easy-to-make mistakes like writing 'take a peak' instead of 'take a peek'



There's an old joke that says 75% of all statistics are made up, but statistics are some of the hardest things to check, especially if you don't know where the claim comes from. Politicians are well-known for throwing out stats that grab attention but aren't necessarily true, and there are lots of newspapers and fact-checking organisations that dedicate themselves to pointing out when an official is being a bit economical with the truth. For instance, the *Washington Post's* Fact Checker awards people with one Pinocchio if they're responsible for "selective telling of the truth", and up to four Pinocchios for lies that are absolute "whoppers"!



No, can't see any hats made of shoes on any of these Omonia Nicosia fans...



This image of a soldier standing over a friend's grave in WW1 was taken by Lt Ernest Brooks, Britain's first official army war photographer

WAR PROVIDES A FLASH OF INSPIRATION

IN the 21st century, we're used to seeing sharp, high-quality images in newspapers, but we've come a long way since the early days of news photography. Colleen Last investigates how war photography revolutionised the news, and how changing technology had an equal impact on photography.

SKETCHY HISTORY

"The first examples of news photography were probably some daguerreotypes [early photographs made on metal plates] from 1848 of the Chartist meeting on Kennington Common in London," says Dr Michael Pritchard, the Director-General of The Royal Photographic Society. "They caught a highly influential event in British history, and it was the first time really that photography had been used to photograph an actual event as it happened."

But news photography really took off thanks to pictures of war. In 1855, Roger Fenton, a photographer from Lancashire, arrived in Russia to take images of the Crimean War. Before then, it was more likely that an artist would go to the trenches to sketch what they saw.



William Edward Kilburn's picture of the Chartist meeting, where working-class men campaigned for the right to vote

Fenton stayed for three and a half months and, when he returned, his pictures were published in *The Illustrated London News*, a weekly newspaper. The newspaper hadn't used many pictures before, but the editor realised that more copies were sold when shocking images were included. They took advantage of new technology – engraving pictures onto blocks for printing – and became one of the first publications to use lots of photos.

MORE WAR

The American Civil War provided opportunities for photographers like Mathew Brady and Alexander Gardner to make a name for themselves, using similar techniques as Fenton. But these clunky early cameras needed long exposure times, so they were no good for taking action shots of battles. "All they could really do was photograph the aftermath of some of those conflicts," says Dr Pritchard.

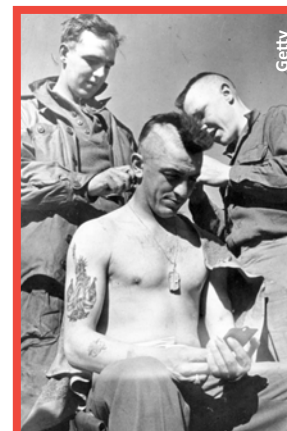
Then another war, World War 1, saw things change again.

"It was the first conflict where photography was used both as a means of news reporting, but also as a tool to support the armed forces, so it was used in aerial reconnaissance for the first time," says Dr Pritchard.

A SMALL REVOLUTION

From the 1920s onwards, photos could be transmitted through a wire service – via telegraph, phone or radio – almost as quickly as words. This meant that for the first time, pictures could be used to illustrate a breaking news story. Before that, photographs had to be delivered in the mail, often taking days or weeks.

The first compact professional cameras were made by German company Leica and went on sale in 1925, followed by flash bulbs, so photographers could then take good quality pictures wherever they went, without the need for heavy equipment. The advancement led to magazines and newspapers that relied more on photos than words to tell a story.



One of Robert Capa's WW2 pics. He was credited with changing how photographers looked at their subjects

"During the 1930s a lot of photographers moved from Germany and Eastern Europe. Many of them were Jewish and they came to the UK and America and brought new ideas with them," says Dr Pritchard. "They brought a modernist approach to photography, with different ways of looking at their subject matter."

The last groundbreaking change in photography was when quality digital cameras became available.

"There are some technical advantages to digital," says Dr Pritchard, "in that it's more able to cope under certain situations, particularly low light. But with digital it's more about the immediacy with which those images can be taken and either shared or published within a matter of minutes of them being photographed."

Now, nearly every image in the news comes from a digital camera or smartphone, which means that everyone – including you – is a potential news photographer!

One of Mathew Brady's famous US Civil War pictures, showing the 9th New York Engineers



"THE CAMERA NEVER LIES"

This old saying was coined at the end of the 19th century, but even then it seems like it was often used in a jokey sense. It's always been possible to alter pictures, but new digital technology has made it much quicker for people to change them, and in just about any way they want, so many of the images you see aren't an exact copy of what the camera saw. This is especially true for adverts or glossy magazines, where designers can easily airbrush out a spot or a wrinkle on a celebrity's face.

But fake or misleading pictures have been around for as long as photography itself. The photographer mentioned above, Roger Fenton, took a famous picture (right) during the Crimean War of a valley where cannonballs were scattered across the road. But he also took a similar picture where there were no cannonballs on the road, so he has been accused of staging the picture. Other photographers have even been accused of moving dead bodies on the battlefield to make their pictures look more dramatic.

You can read more about some famous fake pictures and stories on p24-25, but over the page you can read about how a powerful (and genuine) news picture can really affect people and sometimes lead to huge changes in public opinion.

Roger Fenton's famous Valley Of Death picture, where he allegedly moved cannonballs around to get a better image





EPSOM, UK, 1913

Emily Wilding Davison was a member of the suffragette movement, which campaigned to give women the right to vote. Her final protest was to throw herself in front of one of King George V's racehorses at the Epsom Derby. Davison died from her injuries and the incident made headlines around the world. It wasn't until 1928 that all women were given the vote on equal terms with men.



BUCHENWALD, GERMANY, 1945

World War 2 began in 1939, but it was several years before people realised the full details of Hitler's concentration camps and his plan to wipe out Jewish people. The full horror of the camps wasn't public knowledge until photos were released, and this famous picture was taken after US troops freed prisoners from a concentration camp in Buchenwald. It's estimated that six million Jews were killed during World War 2.

LOUDER THAN WORDS

WE see amazing pictures in the news every day, but some of them live longer in the memory than others. From the earliest days of news photography to recent digital decades, these are some of the most powerful pictures to have leapt off the page and lodged in our memories.



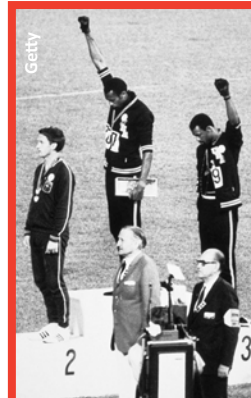
SPACE, 1968

The stunning 'Earthrise' picture taken by the Apollo 8 crew shows our planet as seen from orbit around the moon. "That changed people's perceptions of the Earth and was arguably partly responsible for the rise of the environmental movement," says Dr Michael Pritchard of the Royal Photographic Society.



MOUNT EVEREST, NEPAL/CHINA, 1953

Sir Edmund Hillary and Tenzing Norgay's historic first conquest of Everest was captured in this famous picture. It's not the most professional picture you'll ever see, but they were the only two people there, so one of them had to take it! "Hillary was an amateur photographer, but that picture was sent around the world after he and Tenzing reached the top of Everest," says the Royal Photographic Society's Dr Michael Pritchard.



MEXICO CITY, MEXICO, 1968

Tommie Smith (centre) and John Carlos (right) won gold and bronze for the US in the 200m at the 1968 Olympics, but decided to use the podium to protest. They wore gloves and raised their fists in a salute, in protest at racial discrimination in America (most reports describe it as a 'black power' salute, but Smith said it was a 'human rights' salute). They were kicked out of the Olympics two days later and sent home. Although their protest is seen by many as helping to improve civil rights for black people, at the time they were asked to give their medals back and received death threats for years.



TRANG BANG, VIETNAM, 1972

Nick Ut's shocking photo shows nine-year-old Phan Thi Kim Phuc screaming in agony after planes dropped napalm on her village during the Vietnam War. Napalm is a type of sticky petrol and it had burned the girl's clothes off. Ut poured water on her and helped get her to hospital. "This was one of the most important pictures of the 20th century," says Dr Pritchard. "That really changed the American public's perception of the Vietnam War and resulted in America leaving Vietnam and ending the war."



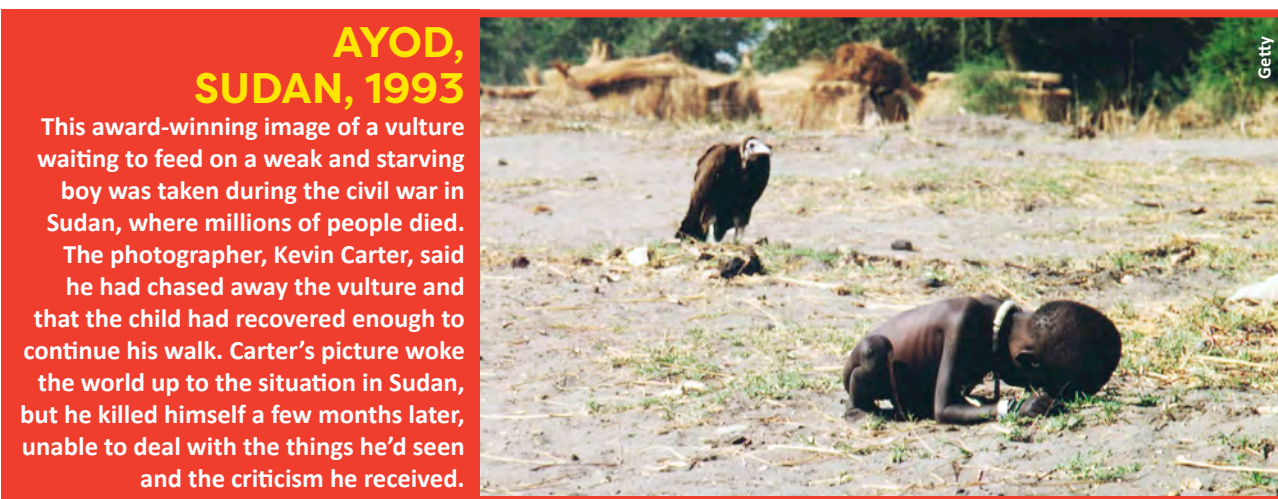
BEIJING, CHINA, 1989

In Beijing's Tiananmen Square, the Chinese government used force to break up a peaceful demonstration. Troops fired on unarmed students who had been campaigning for democracy, and hundreds of protesters were killed. One unidentified man was seen bravely facing a column of tanks, and the image quickly went round the world. China's censorship of the internet means that it's still hard for people inside the country to find out about the 1989 protests.



LONDON, UK, 1987

Princess Diana used her high profile to help people with HIV/AIDS when she opened a new hospital ward for patients. She was the first famous person to be photographed shaking hands with an AIDS patient, so the picture got the message across that touching couldn't transfer the disease.



AYOD, SUDAN, 1993

This award-winning image of a vulture waiting to feed on a weak and starving boy was taken during the civil war in Sudan, where millions of people died. The photographer, Kevin Carter, said he had chased away the vulture and that the child had recovered enough to continue his walk. Carter's picture woke the world up to the situation in Sudan, but he killed himself a few months later, unable to deal with the things he'd seen and the criticism he received.



KRABI, THAILAND, 2004

This amateur picture shows the first of several tsunamis that hit Thailand after a huge earthquake in the Indian Ocean on Boxing Day, leading to around a quarter of a million deaths in more than a dozen countries. A powerful news picture is "often about being in a particular place at a particular time," says Dr Pritchard. "The smartphone has made a real impact on the immediacy of news pictures."



NEW YORK, USA, 2001

The shocking images of al-Qaeda's terrorist attack on New York's World Trade Center made front pages everywhere. They are powerful because of the sheer scale of the attack and the loss of life – nearly 3,000 people died at the time, and more than that are expected to die over the years because they breathed in the toxic dust that was released when the Twin Towers collapsed.

WHAT'S THE PRESS FOR?



One of the many uses of a newspaper!

NEWSPAPERS have lots of uses, depending on which bits you prefer to read. Maybe you like reading animal stories or the latest sports headlines, or are fascinated by reports of new technology. Or perhaps you only like the crossword or think a newspaper is just a handy hat when it rains suddenly. But in a free society like we have in the UK, the most important role of the press is what's often described as 'holding power to account'.

What that means is that newspapers have the responsibility of making sure that governments, councils, businesses and other large organisations are acting legally and responsibly, and treating their citizens or customers well.

Early newspapers were often criticised and even shut down for disagreeing with the government and those in power. One of America's first attempts at a printed paper was created in 1690 in Boston, but *Publick Occurrences, Both Foreign and Domestick* was immediately put to a stop by the governor of the state of Massachusetts.

Initially, newspapers were used to simply tell the news, but over time they

gained larger responsibilities. As freedom of the press developed in the UK and US, the media became responsible for not just reporting events, but probing deeper into what was actually happening behind the scenes.

Journalists over the years have used their skills to find hidden stories, expose crimes, protect the community and keep people from being misled. By trawling through tons of documents and going on undercover missions, the press has worked to make sure that those who hold power in society are held responsible and accountable for their actions, and can't just do whatever they want.

1961 THALIDOMIDE SCANDAL

In the 1950s the German pharmaceutical company Grünenthal developed their new drug, thalidomide. Thalidomide was said to be a "wonder drug" that would not only cure pain, but relieve nausea (feeling sick) and act as a sleeping aid. It was said to have few side effects, so from 1957 to 1961, doctors around the world prescribed it to pregnant women who were suffering from morning sickness.

Sadly, the side effects were more severe than Grünenthal had let on. With time it became clear that use of the drug during pregnancy was likely to

result in serious birth defects, including babies with limbs that were too short or completely missing.

However, the drug was only pulled from shelves when a newspaper broke the story, exposing the scandal behind Grünenthal's so-called wonder drug.

The German paper *Welt am Sonntag* (*World on Sunday*) printed an article about the findings of Professor Widukind Lenz, who had suggested at least 161 cases of birth defects linked to thalidomide. His report established that women who took the drug within the first month or so of their pregnancy were at risk of giving birth to deformed children.

Grünenthal had taunted Lenz, attacking his honesty and professional abilities. So it wasn't until *Welt am Sonntag* broke the story, revealing the potentially fatal consequences of the drug, that anything was done.

The article was published in November 1961, and Grünenthal took thalidomide off the market the following day. It's thought that 20,000 babies lost their lives due to the drug and thousands more were born with deformities. But thanks to *Welt am Sonntag*, future children were saved from the drug and Grünenthal's questionable behaviour was exposed.

It was also only thanks to long-term campaigns by newspapers such as the *Sunday Times* that Grünenthal was pressured into setting aside millions of pounds to help pay for support and medical care for the victims of thalidomide.



A German boy whose arms were prevented from growing properly by thalidomide



1972 WATERGATE

What initially seemed like a robbery turned out to be much, much more. On 17 June 1972, several burglars were caught and arrested in the office of the Democratic National Committee at the Watergate complex in Washington DC.

These burglars were eventually found to be involved in the re-election campaign of US President Richard Nixon, and had been bugging phones and attempting to steal documents.

Though it raised suspicions, Nixon swore his staff were not involved with the incident, and he was re-elected in November 1972. The White House would continuously deny involvement with the burglary for years.

Even so, the question of Nixon's involvement had grabbed the attention of two reporters from the *Washington Post*, Carl Bernstein and Bob Woodward. They began to investigate the cover-up of the break-in, and were first to report that one of the burglars was linked to the involvement of Nixon and his government.

The White House claimed that Woodward and Bernstein's reports were biased and misleading, but the two journalists continued to investigate and report their findings. Their perseverance and investigative reporting eventually led to the arrest of a number of White House officials and the resignation of President Nixon in 1974.

The Watergate scandal became so well known that juicy scandals in the media often have '-gate' added to the end of a word as a convenient nickname for the story.



President Nixon (at the microphone) after he had announced his resignation



Woodward (left) and Bernstein (right)



2003 THE SECRET POLICEMAN

In 1998, the then chief constable of the Greater Manchester Police (GMP) said that the force was "institutionally racist" (meaning that racism was built-in to the organisation) and that the police force would be taking steps to wipe out these attitudes.

In 2003, BBC reporter Mark Daly went undercover to find the truth, and applied to become a police officer with GMP to see what, if any, progress had been made.

The documentary *The Secret Policeman* was created using footage from a hidden camera that Daly wore, and broadcast later in 2003. In the seven months Daly had spent with the force, he found that the majority of recruits were upstanding but that some of them showed the same racist attitudes.

Daly was arrested when his true identity was revealed, but later cleared when the BBC defended its motives for the investigation. They felt there was no other way to genuinely uncover the truth about the methods and attitudes within the police force.

As a result, ten of the police officers involved resigned and 12 more faced disciplinary action.

2016 PANAMA PAPERS

In 2015, journalists Bastian Obermayer and Frederik Obermaier received millions of documents from an anonymous source. The confidential documents had been leaked from the Panama-based law firm, Mossack Fonseca.

These documents, which came to be known as the Panama Papers, showed the numerous ways the wealthy can use 'offshore' locations to avoid paying their taxes. Offshore is used to refer to places – which are usually islands – that have much lower rates of tax and laws that allow secret bank accounts.

The documents showed that lots of rich and powerful people, including presidents, politicians, sports stars and celebrities, were involved in hiding their money to avoid paying taxes.

The two journalists from *Süddeutsche Zeitung* shared the Panama Papers with the International Consortium of Investigative Journalists (ICIJ). The ICIJ believes in using journalism to bring about positive change, and works with journalists all over the world to investigate and report the truth.

The ICIJ shared the Panama Papers with a large network of international partners, such as *The Guardian* and the BBC. Nearly 400 journalists in 80 countries helped to research the documents and worked together for a year.

In 2016, the results were published. The initial report and those that followed revealed the financial dealings of many important people.

The efforts of these journalists all over the world helped to bring the problem to the public's attention, and make progress towards making the world a fairer place.





THEY say: “Don’t judge a book by its cover”, but have you ever heard anyone say: “Don’t judge a newspaper by its cover”? Probably not – and there’s a reason for that – because most readers DO judge a newspaper by its cover! Ask any journalist and they’ll tell you that the cover of any newspaper is the most important and influential page.

JUDGING A NEWSPAPER BY ITS COVER

Now think about that famous phrase: “Hold the front page!” Why would a journalist or editor need to shout this in a newsroom? Well, it’s because the front page of any newspaper is the first thing any reader sees, so it needs to be current, up-to-date and all-round spot-on. It also needs to showcase the biggest news story, while being the face – so to speak – of the entire newspaper.

The front page isn’t like any other news page, because it’s used by editors to grab the attention of a potential reader. There is an element of manipulation to any newspaper’s front page, as journalists are using it as a tool to grab your attention, not just report on a big news story. They are put together in a certain way to ensure that you pick the newspaper up, pop to the counter and pay for it.

Different newspapers use their front page in different ways, depending on their audience, but as a newspaper reader, it’s important that you know how they can influence you.

To understand just how important a front page is to a newspaper, you need to get to grips with the elements that make up a front page and understand how the front page has evolved and adapted throughout history.

FINDING YOUR WAY ROUND A FRONT PAGE

This is a picture of *First News*’ very first front page, which went on sale on Friday 5 May 2006. These are the elements that make up virtually all newspaper front pages, and what they’re for. Pick up any newspaper and you’ll be able to spot most of these. Why not pick up this week’s issue of *First News* and see how many you can pick out?



- Masthead**
The name and logo that make up the newspaper’s brand
- Trail**
This is a panel that teases readers with the contents of the paper
- Main image**
The picture that accompanies the lead story should appeal to the readers
- Byline**
This lets you know the name of the journalist who wrote the story
- Turn**
This signals that the story carries on inside the newspaper – this is a good tool to get readers to look inside and carry on reading the newspaper

Headline
This introduces the story. It’s often presented in a large, eye-catching font

Standfirst
This is almost like a secondary detail; it gives us more information about the story not contained in the headline

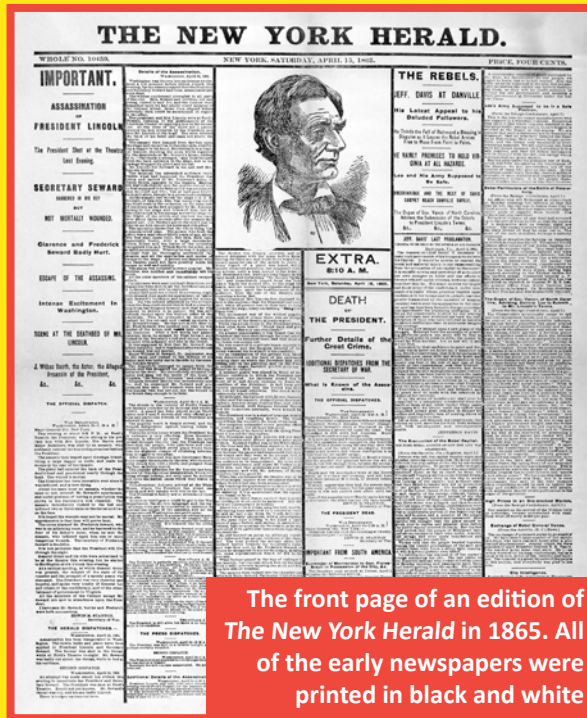
Copy
The main body of the story

Secondary story
A second article on the front page

HOW FRONT PAGES HAVE CHANGED

Unlike newspapers today, some of the earliest newspapers were just a few pages long (if that!), as printing costs were extremely steep. As a result, far more text had to appear on the front pages.

Traditionally, front pages were the means by which major, recent news stories reached the public – hence where the phrase “hold the front page” comes from. The front page was where many early newspaper readers expected to get all of the information they needed for that day or week, so it needed to do a good job of covering everything in a small area.



The front page of an edition of The New York Herald in 1865. All of the early newspapers were printed in black and white

Some of these early covers featured multiple news stories, announcements and adverts. As you can see by looking at the example above, these early front pages looked pretty rammed by today's standards.

Editors have far more flexibility these days with how their front pages look, because there is always the option to continue stories inside the newspaper. The earliest newspaper journalists didn't have this luxury; they had to make sure that the major news stories were told on the front page.

As newspapers became larger and more widespread, front pages became less and less cramped. Today's front pages are far more of a creative tool for attracting attention, using snappy headlines, puns, powerful imagery and colour. Some front pages have done this so well that they're now world-famous and still talked about years and years after they were printed.



The World reports on the sinking of the Titanic on their front page on 16 April 1912

FAMOUS FRONT PAGES

Some front pages have such an impact that they go down in history.

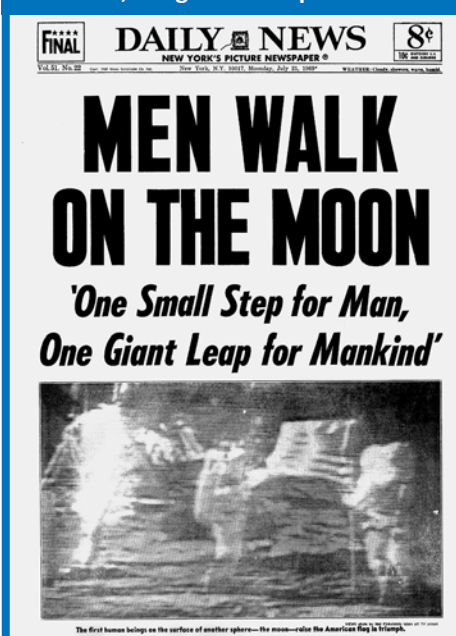
Unsurprisingly, the most famous front pages are those reporting on big news events – stories so huge that the average reader would know, almost immediately, what the main article on the front page was about, just by glancing at it. The most famous front pages have often sported an impactful, large picture and/or a large punchy headline.

Here are a few notable ones from throughout history...

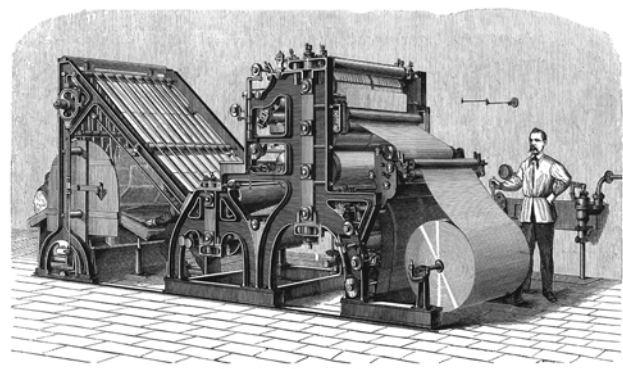


The front page of the Daily Mail on 8 May 1945 announcing the end of World War 2. Sometimes impactful imagery and a short, powerful headline is all that's needed to tell a news story

The front page used by the Daily News on 21 July 1969 to tell their readers that man had successfully walked on the moon. Notice how there is no copy at all on this cover – just a headline, standfirst, image and a caption



This image shows a selection of front pages in 2013 telling newspaper readers that Nelson Mandela had died. Often, when someone very famous dies, editors will choose to feature one large picture and a headline. The chances are the reader has already heard the news, so a single picture or short headline is enough of a cue. All of these newspapers would have included lengthy reports inside that expanded on the front page.



FROM PRESS

SINCE the invention of the printing press and newspapers, the media has gone through a series of changes, from the newspaper to the TV news, to the news on Twitter posts or web stories. But which came first: the Twitter or the app? See how the news has changed over time.



By March 2021, 94% of UK homes had internet. 85% of internet users get online with a smartphone.

1439
German publisher Johannes Gutenberg invents the printing press

1665
The first English newspaper, The London Gazette (originally called The Oxford Gazette), launches



1400

1500

1600



The first full-length film was 12 minutes long. *The Great Train Robbery* was made in 1903



1960s
An early version of the internet is created, allowing computers on separate networks to share ideas. It's not available to the public

1910
Silent newsreels – short documentary films containing news stories, current affairs and entertainment – begin to be shown in cinemas. They don't use sound until 1929



1922
The BBC begins transmitting daily radio

1932
The BBC begins regular TV programming

1900

1910

1920

1930

1940

1950

1960



1923
First edition of the Radio Times

1925
Scottish inventor John Logie Baird invents the television

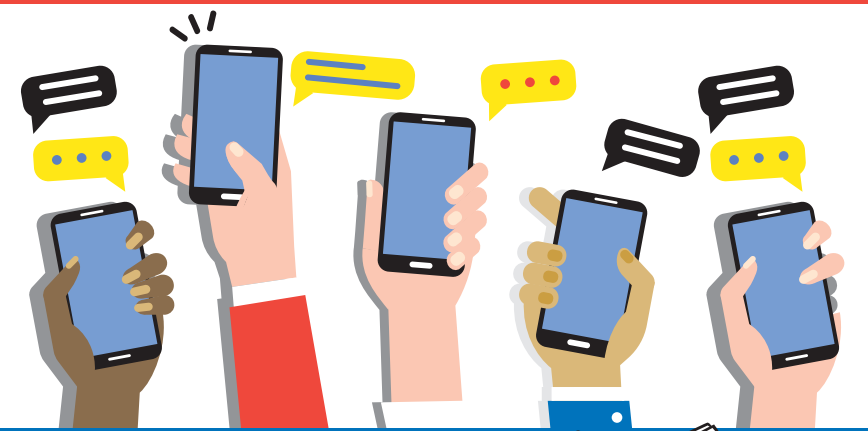


From 2005 to 2008, MySpace was the world's biggest social networking site. Pop star Justin Timberlake was once a co-owner of the site




1955
ITV transmits for the first time

TO POSTS




groundbreaking changes, to the point where stories can be revealed instantly and moved on from sheets to tweets over the centuries in our media timeline.

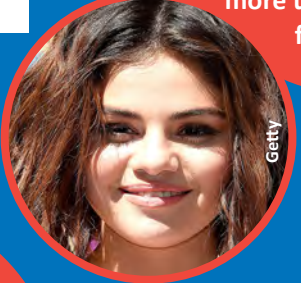
1837
Samuel Morse invents the telegraph (and Morse code), which transmits signals down a wire between telegraph stations



1877
American businessman Thomas Edison invents the phonograph, the earliest version of the record player, so people could record and play back sound



Pop star Selena Gomez is one of the most followed people on Instagram – she has more than 430 million followers!

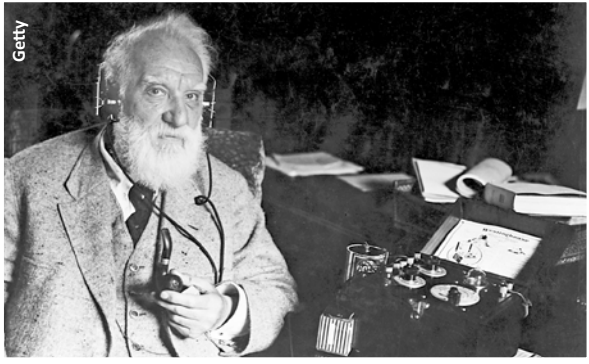


1700

1800

1900

1876
Scottish scientist Alexander Graham Bell invents the telephone



1894
Italian engineer Guglielmo Marconi invents the radio

1894
Italian engineer Guglielmo Marconi invents the radio

Apple, the company responsible for many of the smartphones and tablets we use today, released their first computer in 1976




1967
The BBC launches Radio 1 and Radio 2

Neil Papworth, a 22-year-old engineer, sent the first text message on 3 December 1992. He texted: "Happy Christmas"

1999
Instant messaging becomes popular, with programmes like MSN Messenger

1996
World's first smartphone goes on sale

2007
First iPhone is released



2009
WhatsApp launches. Today, one billion people use WhatsApp every day

2010
Instagram launches

2011
Snapchat launches

2016
TikTok launches in China and is then rolled out internationally the following year

1970

1980

1990

2000

2010

2020

1965
First version of email – or electronic mail – is introduced. Computers in the same office can pass messages to each other

1973
American engineer Martin Cooper invents the first handheld mobile phone



1990s
The internet is opened up to the general public

1998
Blogs (short for 'web-logs') grow in popularity

2003
MySpace launches and Skype launches video chat

2006
Facebook opens to the public after launching in 2004 for students at Harvard, and Twitter (now known as X) launches

2005
YouTube launches, allowing users to upload, share and watch videos for free

2022
ChatGPT launches. Driven by AI technology, it allows people to have human-like conversations with a chatbot, as well as ask it questions and set it tasks, such as writing essays



IF you read a few different newspapers, you soon realise that they don't all report the same stories in the same way, but why is that?

POLITICS AND PARLIAMENT

As we mentioned on p4, the political beliefs of a newspaper and its readers are a big part of why newspapers pick the stories that they do. But it's also a big part of how they cover stories.

In a very basic sense, most newspapers can be classed as left-wing or right-wing (see below to find out where these expressions come from), which means that generally they will either back parties like Labour (left-wing) or the Conservatives (right-wing).

In the UK, newspapers such as the *Daily Mail*, *The Sun* and *The Telegraph* are considered right-wing, while papers like *The Guardian* and *Daily Mirror* are more left-wing.

However, some, such as *First News*, *The Herald* and the *i* newspaper, don't associate themselves with any party and prefer to stay independent. In fact, we've had about an equal number of letters and emails accusing us of being too left-wing or too right-wing, so hopefully that means we're doing a good job of avoiding political bias and letting our smart readers make up their own minds!

This left versus right battle happens because the

Conservatives and Labour are the two biggest parties in the House of Commons by a long way, although the parties are more closely matched in the Scottish Parliament and Welsh Assembly.

IT'S ALL ABOUT THE MONEY

Some papers have been accused of showing bias because it is in their owners' interests. For instance, *The Sun* has generally been a right-wing, Conservative-supporting newspaper, but swapped sides to Labour for the 1997 general election. Just five years earlier, the paper had proudly boasted on their cover that "It's The Sun wot won it", claiming that their support of the Conservatives helped them to win the election.

Lots of people in the media have suggested that *The Sun's* owner, Rupert Murdoch, decides which party his newspapers will support on the basis of how each party might affect his businesses, and the same goes for some other newspaper owners, too.



The never-ending debates about Brexit proved to be a good indicator of which newspapers are left or right-wing



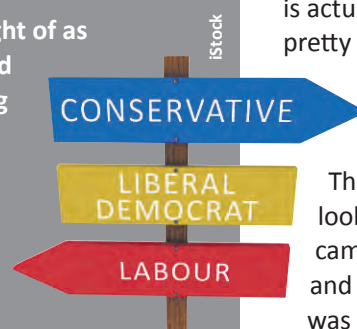
KNOWING YOUR LEFT FROM RIGHT

The terms left-wing and right-wing come from France, where they were used to describe the split in the French National Assembly during the French Revolution. The politicians divided into two groups over the issue of whether King Louis XVI should have more power, and began sitting on opposite sides of the room. Those who were against the king sat to the left, while the wealthier royal supporters sat on the right.

Over the years, left-wing became associated with people who were open to new ideas and personal freedom, while right-wing people were thought of as being traditional and more strict.

Although it's not so much the case now, left-wing parties (such as Labour) are usually thought of as representing the working class, while right-wing parties (like the Conservatives) are associated with the wealthier members of society. Left-wingers are often in favour of the country owning certain assets, such as water companies and railways, while right-wingers usually prefer private ownership.

But if, for example, someone is mainly right-wing but has some left-wing views, they might describe themselves as part of the 'progressive right' or 'centre right'. Parties like the Liberal Democrats are usually described as moderate or centrist, as their views can sit between the left and right.



MANAGING BIAS

It's surprisingly difficult to write a newspaper while staying completely independent and without some form of bias. Just choosing which stories to write about or what details to leave out displays a certain kind of bias, so many think that journalism is about managing biases instead.

For instance, *First News* has always been clear that climate change is real and man-made. But even though the scientific evidence is overwhelming, certain sections of the media (especially in the US) still present it as a debate that isn't settled.

Although this is most likely down to a newspaper's political views, it could happen when a journalist is actually trying to avoid bias. The BBC has a pretty solid reputation around the world, but their radio bosses got in trouble when they gave too much airtime to people who denied climate change was happening. The programme was actually trying to avoid looking like it was biased towards climate change campaigners, but they ended up going too far, and looking like they thought climate change was still a debate. This is often called 'false bias'.

PROGRAMMES FOR THE PEOPLE



The BBC's famous motto (seen here on the outside of Broadcasting House in London) says: "Nation shall speak peace unto nation"

PUBLIC service broadcasting is when a TV or radio network exists for the benefit of the people, rather than to make money.

In the UK, the people fund the running of the BBC (often known affectionately as Auntie Beeb), via the licence fee that every household with a TV has to pay. But in return, the BBC must create programmes that help the people in some way. Importantly, they must be relevant to the whole population. That means creating content in Welsh, Irish and Scottish Gaelic, as well as in English.

ITV and Channel 4 also have public service remits (orders from the Government to show certain things on their channels).

ITV has to create its own news, arts, children's and religious programming.

Channel 4 must make some shows that focus on different cultures and minorities across the UK. It also has to highlight different points of view, encourage public debate and support new talent.

AUNTIE BEEB'S TRAVELS

The BBC also exists overseas. The BBC World Service launched in 1932 and broadcasts worldwide in around 40 languages. Hundreds of radio stations around the world play BBC shows, mainly news bulletins, which reach around 210 million people a week. Its



English-language news airs 24 hours a day.

The World Service has been a lifeline to people in certain countries for many years. A dedicated European news service was

launched in 1941 with the sole purpose of reaching people living in countries occupied by the Nazis during World War 2.

The BBC's unbiased reporting helps keep people informed in countries where those in power strictly control



what the local media can and can't say. In those places, a BBC report is likely to be very different from what people might hear on their own local news channels. The service also gives a voice to people, allowing them to participate in shows, using internet streaming, podcasts, social media and other user-generated content.

But some countries don't want their residents to have access to impartial BBC reports. They'd rather control the news their people hear, and have even jammed radio frequencies to stop the BBC World Service getting through. At various times, China, Iran, Iraq, Myanmar and Russia have all done this.

The World Service is still expanding and aims to reach half a billion people by 2022. In recent years it's begun making programmes in 12 new languages, including Igbo (Nigeria), Amharic (Ethiopia) and Punjabi (Pakistan and India).

Part of this expansion has been helped by funding from the UK Government. The World Service was given £86m during 2017/18, and the money is helping the BBC to make the World Service "digital first", instead of concentrating on FM radio, and enables the BBC to make more TV shows for its global audience.



China was ranked 176th out of 180 countries in the 2018 World Press Freedom Index, meaning that their media is very far from being free. Reporters Without Borders, who compile the index, say that in China "members of the public can now be jailed for the comments on a news item that they post on a social network or messaging service, or even just for sharing content"

SO WHAT DOES THE BBC DO FOR US?

Your parents help to pay for the BBC, so what do you get in return?

Well, the BBC's charter says that the organisation has six public purposes:

- Sustaining citizenship and civil society
- Promoting education and learning
- Stimulating creativity and cultural excellence
- Representing the UK, its nations, regions and communities
- Bringing the UK to the world and the world to the UK
- Helping to deliver to the public the benefit of emerging communications technologies and services and taking a leading role in the switchover to digital television

The World Service's aim is "to address the global gap in provision of trusted international news, by providing accurate, impartial and independent news". The BBC also says that "in developing countries the World Service aims, through journalism that contributes to accountability and good governance, to improve the welfare and economic development of citizens".



PUTTING THE NEWS IN NEWSPAPERS

CAN you believe we've got to page 18 without talking about one of the most important aspects of a newspaper? We still haven't told you where news actually comes from!

EXCLUSIVE!

There are loads of places that a paper can get its news, and the more sources that a journalist has, the more chance they have of getting a good story.

The ideal situation for a journalist is to get an exclusive story that no-one else has. They could do this by doing some research, interviewing someone and getting some great quotes, or maybe one of their contacts will call them with some juicy gossip. It could even be one of the paper's readers – *First News* has had several front-page exclusives thanks to our lovely readers emailing us about something that was happening in their local area.



A simple phone call could tip off a journalist about a good story



Vincent Kompany and Pep Guardiola at a press conference before a Manchester City game

CHIT-CHAT

Press conferences are events where journalists are invited along to hear some news and ask questions about whatever's being talked about. It could be a new Government initiative, the launch of a revolutionary product, or maybe a weekly chat with the manager of a football team. Many of the stories you read in the football pages of a paper will have come from a press conference, as it's the one time where the players and manager can't avoid the press!

EARLY WARNING

Institutions and organisations can be great sources of news, especially for a subject like science, for instance. Universities and research organisations often send out press releases with details of new discoveries, and journalists can sign up to get early warnings of upcoming stories in important journals like *Nature*, *Science* and *The Lancet*. Scientists are usually happy to talk about their work, so researchers can provide extra information or stories that can make a science report more interesting.



MPs are often good sources of news, whether it's from talking to the whole media at an organised event, or to one journalist in a secret meeting



BOOOOORING

One of the worst parts of being a journalist is the waiting around, but it can often lead to getting a good story. If you're prepared to hang around until a celeb or MP turns up or leaves somewhere, you might just get a crucial titbit of information or quick quote that makes the standing around worthwhile!

GOING DIGITAL



In recent years, sites like Twitter, Instagram and Facebook have suddenly become more valuable sources of news. This is partly because celebs who don't often talk to the media will post things that newspaper readers will be interested in. But it also allows stories to be heard that in the past wouldn't have got outside a small group of friends or family.

OLD-FASHIONED

It's not quite as common as it used to be, but journalists (particularly for local papers) will often wander around their town, talking to people so that they can find out what's going on and if there are any big issues bubbling under the surface. You never know what you'll find out by talking to a taxi driver or the owner of the corner shop!

SNAP SNAP

We've mentioned the value of a good picture a few times in this issue, and the news would be very dull without some great pictures to liven it up. However, photos are often thought of as something to illustrate a story, when in fact a great picture can be the story.

Photographers go to all kinds of very exciting – and very dangerous – places, from the tops of mountains to the depths of the ocean, from warzones to peace demonstrations, and all kinds of freaky and fascinating places in between. So while we're talking about great sources of news, let's make sure we give a big shout out to the photographers!



Press photographers brave fires and live gunfire to report on Palestinian demonstrations near the border with Israel. Two journalists – photographer Yaser Murtaja and reporter Ahmed Abu Hussein – were shot and killed by Israeli soldiers while covering the protests



ON the previous page we talked about news sources, but we didn't mention a journalist's worst nightmare – when their source is dodgy.

OOOOPS!

There are lots of reasons why a source could be wrong. It could be an innocent reason, such as their memory playing up or they heard something incorrectly, or possibly their information is out of date.

But journalists have to be wary in case their source is deliberately passing them duff information. It's possible that the source could be trying to make someone look bad by releasing a negative story about them, or they could even simply be making it all up for fun. Lots of pranksters have fooled the media over the years by concocting crazy tales and faking evidence, just to see if they can get their silly stories in print.

Talking of fun, there are quite a few examples of journalists embarrassing themselves by writing up a news story that they saw on another website, without

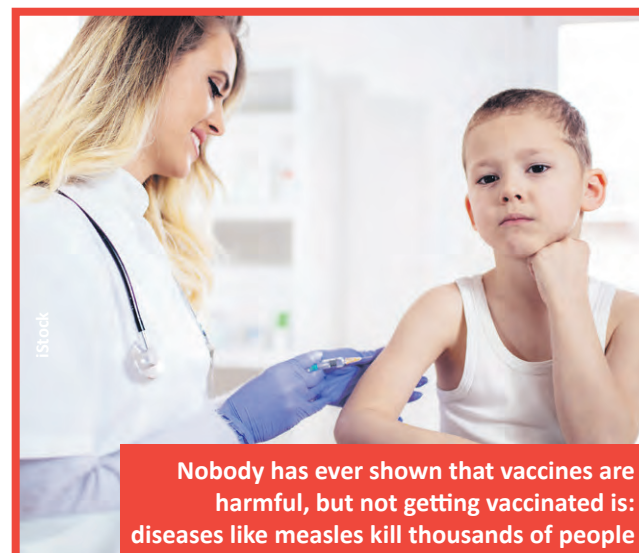
realising that the article was a joke in the first place. One of our favourite examples concerns the two Bangladeshi newspapers that published stories claiming that Neil Armstrong, the first man on the moon, had said that the moon landings were a hoax. However, both newspapers had lifted the story from a famous American comedy website that is known for only containing joke news!

COVER-UP

If the source is an official, such as someone in government or a local council, they might tell fibs to try to hide a scandal and convince the journalist that there's no worthwhile story to be investigated.

The same has often been true of businessmen, who lie to journalists about their wealth and success so that their companies don't crumble. Newspapers themselves aren't immune to this, as the famous case of Robert Maxwell proves. Maxwell owned lots of businesses, including newspapers in America and England (including the *Daily Mirror*). His public image was that of a successful, high-flying businessman, but his companies were in debt and he had been illegally pilfering hundreds of millions of pounds from his companies' pension funds, just to keep up the appearance of a profitable business.

Neil Armstrong: definitely went to the moon (or did he? Read more about conspiracy theories on p26)



Nobody has ever shown that vaccines are harmful, but not getting vaccinated is: diseases like measles kill thousands of people

DANGEROUS SCIENCE

If a respected source misleads the newspapers, it can have serious effects. A very important example from recent years is a medical report about a possible link with the measles jab and autism. The 1998 study was published in *The Lancet*, one of the oldest and most respected medical journals in the world. The report claimed that the MMR (measles, mumps and rubella) jab was responsible for starting symptoms of autism in children, and it scared lots of parents so much that they refused to let their children get the MMR vaccine.

Dr Andrew Wakefield was the lead author of the study, but he was later banned from working as a doctor by the General Medical Council. Other researchers showed that his results were wrong and that the MMR vaccine is perfectly safe.

As the report was in *The Lancet* it was taken seriously, but it caused vaccination rates to drop, leaving children in danger of catching measles, mumps and rubella. Although deaths from measles in the UK are very rare, it is still a deadly disease – the World Health Organization says 89,780 people worldwide died from measles in 2016, and estimates that vaccination prevented more than 20 million deaths between 2000-2016.



Crooked businessman Robert Maxwell was used to hanging out with the rich and famous, like Prince Charles here (and a very young Prince William!)

THE phrase 'fake news' has become one of the most commonly-used in the media in recent years, but it means different things to different people.

SNEAKY STORIES

The meaning of fake news is usually seen as being stories that have been made up or exaggerated, in an attempt to influence the way people think.

The most common types of fake news are political, and fake news has been blamed for interfering in elections in countries like the UK, US and France. But although it's made the headlines and created huge scandals, experts still debate whether these stories have had enough of an effect to change the result of an election.

LIES OR BELIEF?



Some fake news stories are totally made up, while others might only have certain elements that aren't true.

It's also possible that some of these articles aren't deliberately faked. It could be that the writer has used a source that they didn't know was dodgy, or genuinely believes that what they are writing is true. That's especially the case with something like conspiracy theories (see p26) or stories about UFOs, as some people dedicate their lives to these subjects. They often firmly believe that governments and scientists are lying to them, and that they're the ones who are helping to spread the truth.



PRESIDENT'S PORKIES

Donald Trump, the 45th president of the United States, was one of the people who popularised the expression 'fake news', but he often used it as a defence strategy. Whenever certain journalists or news organisations disagreed with him or his policies, or pointed out when he'd been lying, Trump regularly responded by saying that they were spreading fake news.

As other politicians and officials copied his strategy, one study in *Science* said that the term 'fake news' had "lost all connection to the actual veracity [truthfulness] of the information".



spread by rival parties and groups, or even foreign governments. Researchers say that there is a big spike in the amount of fake news around elections, as people try to make the vote go the way they want.

These fake stories spread because they are passed around on social media, both by people and 'bots', which are fake accounts that are set up to automatically spread certain types of news and opinions around the web. There are millions of these accounts around the world, although social media companies are under pressure to try and root them out.

One of the big problems is that social media companies rely on clicks, forwards and retweets to make money from advertisers. So businesses like Facebook and X (Twitter) have been accused of being more concerned about making money than dealing with the threat of bots and fake news.

WHO SPREADS IT?

With political fake news, the stories are often



Many people refuse to believe that fake news is fake, even when the evidence is overwhelming

FAKE NEWS = BIG BUCKS AND MILLIONS OF DEATHS

Businesses have also been accused of spreading fake news, and the famous example of the tobacco industry also illustrates that fake news has been around for a long time.

In the early 1950s, it became clear to scientists and politicians that smoking tobacco caused lung cancer and was killing millions of people. However, the tobacco industry is worth billions of dollars, so the huge companies that make cigarettes weren't prepared to throw away their massive profits so easily.

So, with the help of PR firm Hill+Knowlton, the tobacco industry



released "A frank statement to cigarette smokers". This advert lied about the known health risks and was the start of decades of deceit. Among other things, the lies and fake news put out by the industry helped to cover up the dangers of second-hand smoke and how cigarettes were deliberately marketed to children. The tobacco industry's lies and cover-ups denied people the truth and allowed millions of people to die.

It wasn't until 2017 that a court eventually forced tobacco companies in the US to spend millions of pounds on newspaper and TV adverts to apologise. The companies had to admit

that they'd deliberately designed cigarettes to be addictive, that there was no such thing as a safe cigarette, and that cigarettes killed more people every year than "murder, AIDS, suicide, drugs, car crashes and alcohol combined".

The tobacco industry has been called "the pioneer of fake news" in the *Journal of Public Health Research*, and many scientific journals refuse to accept studies that have been carried out by the tobacco industry. The *British Medical Journal* said that it didn't want "to allow our journals to be used in the service of an industry that continues to perpetuate [allow to continue] the most deadly disease epidemic of our times".

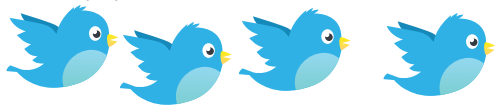


A cigarette advert from 1958. Tobacco companies promoted low-tar and "light" cigarettes, even though the health benefits were almost non-existent

STUDY STARTING

Although experts are carrying out research into fake news, it's still in its early days, so we don't really know too much about how common it is, how it passes round the internet and what its effects are.

However, some excellent studies have shown why people can be fooled more easily by online fake news, and why it actually spreads faster than real news.



SOCIAL SHEEP

One study in PNAS (*Proceedings of the National Academy of Sciences of the United States of America*) showed that social media can make us more likely to fall victim to fake news. The researchers found that when people were online with others, they were less likely to check facts in articles they were reading.

The scientists think that this is because people feel like there is 'safety in numbers' and feel less pressure within a group, so aren't on their guard as much.

X (Twitter) and Facebook have admitted that millions of accounts on their networks are controlled by 'bots' instead of real people. These bots often spread fake news, so that many more people see the stories that the bots' programmers want them to.

A study in PLOS ONE showed that a story or post is most likely to go viral when people are exposed to it several times, which is why multiple bot accounts are so good at spreading fake news. The researchers likened it to film recommendations – if one friend tells you a film is great you might think about going to the cinema to see it, but if ten friends all tell you it's amazing, you're much more likely to go.

♥ 5

♥ 50

♥ 500



Being online with others can make us less likely to check information



SO this fake news stuff – it's obviously fake, right? People know it's rubbish so they don't believe it, do they? And they certainly don't forward it on, surely? Actually, the answers to those questions are: wrong, wrong and even more wrong!

However, the same report also showed that not all bots have to be bad. The scientists programmed a network of 39 bots to spread positive health messages, such as a reminder for vulnerable people to get their flu jab in winter. They found that multiple exposures helped to get people to retweet and like the messages. The researchers say this could be useful in public health emergencies, where lots of bots could spread urgent health information faster than one or two official X accounts.

TRUE VS FALSE

But going back to fake news, one of the most quoted studies into the subject was printed in the respected journal

Science. Three scientists from the Massachusetts Institute of Technology looked at 126,000 stories that were passed round by three million people



The most common type of fake news is political stories

on X between 2006-17, and a lot of their findings were quite surprising.

Firstly, they discovered that fake news travelled further and faster than the truth in every category they looked at. The effect was most noticeable for political news, but was still true for stories about terrorism, natural disasters, science, celebrities, urban legends or finance.

The researchers worked out that fake news was "70% more likely to be retweeted than the truth". They think that this is possibly because fake news is more likely to be new and surprising, so it makes people feel like they're in the know by forwarding it on.

Since the scientists were worried that the presence of bots on X might have influenced their results, they used special bot-detection software to remove any tweets from bots. Surprisingly, their results stayed the same, which the scientists say "suggests that false news spreads farther, faster, deeper and more broadly than the truth because humans, not robots, are more likely to spread it".



Positive messages can spread on X (Twitter) as well as negative ones

GET YOUR JUDGE ON



YOU'VE read a lot about fake news in this issue, but what's the single best way to stop yourself being fooled by it? Learn how to spot it!

It's now more important than ever to be able to pick out fake stories from the hundreds we read every week. Many researchers say that fake news is destroying trust in governments and previously respected news organisations. A report from the RAND Corporation described this as "truth decay" and says the US is becoming paralysed due to "increasing disagreement about facts and a blurring between opinion and fact".

In the UK, we helped out with a parliamentary investigation called the Commission On Fake News And The Teaching Of Critical Literacy Skills. The final report showed

that half of children are worried about not being able to spot fake news, and that "only 2% of children have the critical literacy skills they need to tell whether a news story is real or fake".

That statistic may sound alarming, but kids certainly aren't alone – it's become clear lately that an awful lot of adults are incapable of telling the difference themselves.

Anyway, we know you're all smart enough to see through phoney stories – you just need to know how. So here's a handy guide that'll teach you how to sort the sense from the nonsense and the garbage from the truthage*.



Lesson 1

You can't always trust search engines (or friends!)

Search engines like Google or Bing are fantastic ways of finding what you want, but many people assume that search results only include trusted pages, true stories and honest shopping sites.

Search engines rely on algorithms (computer programs) to sort out which pages are probably going to help you, but there isn't a real person looking at those results to see whether you're

being given reliable sources. New websites spring up all the time, and people can artificially increase page views to trick search engines into thinking it's a good site.

And bear in mind that just because your best friend forwarded you something, that doesn't mean you can trust it. Maybe they didn't check it properly and might be sending you something that's junk!

Lesson 2

Is the site or source trustworthy?

Any time you're reading a new website or newspaper, you should always ask yourself if it's reliable. Have you heard of it before? How long has it been going? Do people trust it? If you don't know, ask a parent or teacher what they think, or do some research. Search the name of the website to see



Not all websites are trustworthy

what you can find out about it, and see what sort of reputation it has.

We don't want to tell you which newspapers, websites or TV news programmes to look at. That's partly because it's a matter of opinion, but also because many people's political biases determine who they trust (see p16). We'd prefer to let you use your own judgement, but there are certain organisations that have built up good reputations over a number of years, such as the BBC and CBBC's Newsround. But Sky News, the regional ITV channels and Channel 4 are also all generally seen as being quality news organisations. In America, there's much more of a problem, as news channels can be very one-sided and get criticised for not telling the whole story.

Hopefully you think that *First News*



BBC News has a good reputation for being impartial (not biased)

is a trusted newspaper, but if you ever want to have a look at some adult papers, *The Times* and *The Guardian* are probably seen by most people as being high-quality papers

that are pretty fair. Plus *The Guardian* is a Labour-supporting paper, while *The Times* is more on the side of the Conservatives, so you'll get differing opinions from them.

*okay, okay, truthage isn't a real word, but we quite like it. Anyway, let's call that our first test; we hope you spotted that fake word!

Lesson 3



Can you find the story anywhere else?

If you see a story on social media that seems incredibly shocking or outrageous, check if it's on any respectable news sites. It could be possible that you're reading the only report of the story, but these days it's pretty unlikely that you won't be able to find something mentioned elsewhere on sites like Google News, BBC News or Twitter if it's a genuine news story.

Also check whether it's news or opinion, as there is a big difference. News should rely on facts, whereas opinion pieces are, well, opinion.

Lesson 4

Do they list their sources?

When you read a story or quote online, there'll often be hyperlinks to sources, or links at the end of the article. Are they genuine? Do the links show what's claimed? Check them out and see. If there's an unbelievable quote from someone, Google it to see if it's correct or if its meaning has been changed.

Lesson 5

Don't be fooled by a joke!

As we've mentioned elsewhere in this issue, journalists themselves have fallen victim to joke



news stories, so make sure you don't join them! The web has several comedy sites that are full of realistic-looking news stories that poke fun at current events, so be careful!

Lesson 6

Who's the author?

Is the author a proper journalist? Search their name to find out, and see what else they've written. Are they constantly writing stories that sound unbelievable?

Are their articles on genuine news sites?

And is it genuinely them? There are lots of spoof accounts on sites like Twitter, so check to see. Official Twitter accounts of many celebs or politicians have blue ticks to indicate that they're genuine, so make sure you're not reading a tweet from an impostor.



Lesson 7

Does the story justify the headline?

Websites often have shocking headlines that they use to draw people in and increase the number of clicks on their

site, as this helps them to make more money from advertising. But do the facts in the story back up what the headline claims? It's not always the case, so make sure you read to the end rather than basing your opinion on the headline and the introduction.



Lesson 8

Check your facts

In recent years, several fact-checking organisations have been set up to try to counter the effects of fake news. There aren't any just for kids, but there are plenty of sites that you could look at with a teacher or parent if you want to investigate the truth about a story or something that a politician has claimed, for instance.

Here are some good ones that you can try:

- fullfact.org
- bbc.co.uk/realitycheck
- channel4.com/news/factcheck



Lesson 9

Pictures can lie!

It can be hard to tell if a picture has been faked, especially if it's been done by someone who knows what they're doing. Software such as Photoshop can be used to adjust and combine images so that they show events that never happened or people who were never together, and spotting it is tricky. This is especially true on the internet and social media, because with small, low-quality images it makes it even harder to tell whether they've been altered in any way.

In case you're wondering, most of the current affairs and sport pictures in First News come from Getty, one of the world's biggest photo agencies. They have lots of trusted photographers and experts who can spot any dodgy pictures, so we're in safe hands!

But if you ever see a picture online and want to check if it's genuine, there are some websites and tools that can help you if you want to do some investigating of your own:

■ **Google Images** – just go to google.co.uk and click the 'images' link in the top right. From there, you can upload a picture and search for anywhere else that it appears on the web.

■ **www.tineye.com** – this search engine also lets you upload a picture, and you can filter it to show the oldest results, which lets you see when the picture was first uploaded. That's useful because some fake news stories use real photos, but lie about when they were taken. You can also see how big the pictures are, which means you can find the biggest one available and study it more closely.

■ **Photoshop** – this is an expensive photo-editing tool that's used by lots of designers (including the ones at First News who designed this issue). If you can find a high enough quality image then you can open it in Photoshop to zoom in and adjust the brightness and contrast levels to help you see any areas that have been tampered with. Not many people are likely to have the full version of Photoshop, but there are lots of good free alternatives available, such as **GIMP** or **Pixlr**.

■ **fotoforensics.com** – this site lets you upload an image and analyse it. Some of it is a bit complicated, but it's explained quite well and there are tutorials and examples that help you to find what you should be looking out for.



Two of the web's most famous faked pictures. The dramatic shark attack picture is actually a combination of two images, so the shark and helicopter were never near each other. They weren't even in the same country! The scary bear is really from a picture library and was added into this set-up picture as a joke for friends and family.

The four men were scouting a location for a film and decided to have a laugh by posting their fake picture to Facebook, but it quickly went viral



FAKE NEWS ISN'T NEW

THE internet and digital technology may have made it easier to fake pictures and stories, but pranksters have been pulling the wool over people's eyes ever since photography was first invented. Follow us through the ages as we give you a short history lesson on some of the most famous (or infamous) fake news stories of all time.



Frances Griffiths in one of the faked fairy pictures

EARLY DAYS

To print a photograph in the 19th century, a picture would have to be copied by engraving it onto a block. The engraved parts are where the ink would sit during printing. However, because the picture had to be copied, "the engraver could change, remove or add detail that wouldn't necessarily have been in those original pictures," says Dr Michael Pritchard of the Royal Photographic Society. "Photoshop (and other software) has made it easier to change photographs and put things in and take them out, but that has always been done in photography, right back to certainly the 1850s. People were combining different negatives into one image and they were removing things, but it was done either in a dark room or with a scalpel and then re-photographing it. What technology has done is made that easier and allowed it to be done in a way that's perhaps less easy to detect."

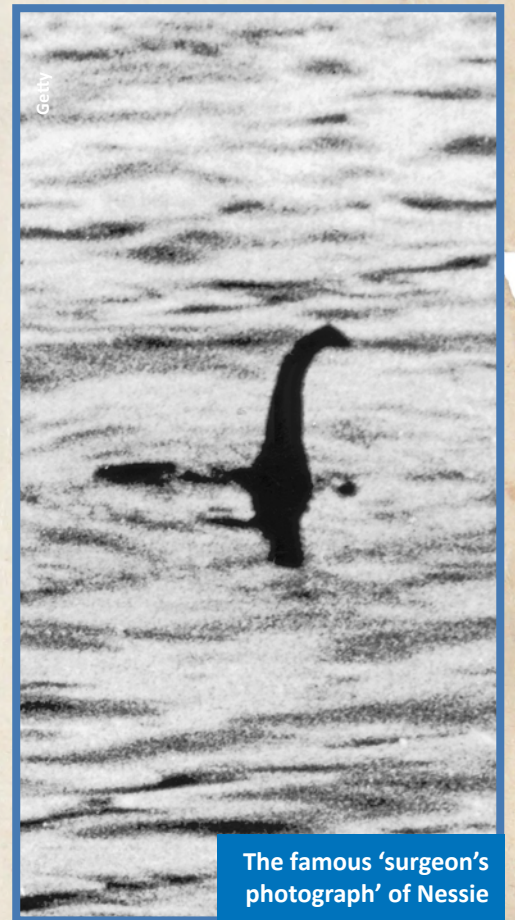
One of the first examples of photographs being used in a hoax is the Cottingley Fairies. Two cousins, nine-year-old Frances Griffiths and 16-year-old Elsie Wright, claimed to have photographed fairies in a garden in Cottingley, Bradford in 1917.

"They published these photographs and duped people like Arthur Conan Doyle [the *Sherlock Holmes* author], very respected people," says Dr Pritchard. "They were believed and it took until the mid-1980s until they were absolutely shown to be fakes. Elsie even admitted that they'd been faked, although she claimed right up until the day she died that there was at least one that was a real picture of a fairy, so she didn't quite give everything away! A million people had died in the First World War, so this tapped into the spiritualism [the belief that the dead can communicate with the living] that came afterwards. A lot of people were trying to make contact with dead sons, brothers and relatives, and it all happened because people were trying to deal with this huge outburst of grief. Doyle himself, I think, had lost a son during the war and he got very heavily into spiritualism, and that's someone who was so focused on precision and evidence for *Sherlock Holmes*."

NESSIE IN THE NEWS

There have been stories of a monster living in Loch Ness for hundreds of years, but this 1934 picture (right) is still the most famous one, and is partly responsible for the large numbers of tourists that flock to the area in the hope of spotting Nessie.

This well-known pic is from a set known as the 'surgeon's photographs' and was taken by a doctor called Robert Kenneth Wilson. Unfortunately for Scottish tourism officials, in 1994 the picture was revealed by Christian Spurling to be a fake. He was one of the jokers who helped to make the model, which was fixed to the top of a toy submarine. But no matter how clever the model was, they couldn't change water, and it's the size of the ripples compared to the 'monster' that give the game away.



The famous 'surgeon's photograph' of Nessie

FAKES FROM SPACE!

The huge popularity of sci-fi and space stories after World War 2 is thought to be one of the reasons why so many alleged UFO sightings were reported. Lots of the pictures taken by eyewitnesses were really poor quality or blurry, but one of the most famous was taken by an American farmer in 1950, who described a slow-moving, metallic disk-shaped object that hovered in the sky before it sped away. The picture he took was splashed across the front page of magazines and newspapers around the world, and for decades many people believed that it showed a real UFO. Later analysis suggested it was fake and that the 'UFO' is possibly a car mirror suspended from power cables with a thin thread.



WIPED FROM HISTORY

It's not just pranksters having a giggle who release fake pictures into the world – governments have been caught at it, too. Some of the most famous altered pictures from history are the quite sinister ones that were published by the Soviet Union (the former union of Russia and surrounding countries).

"Pictures of Soviet politicians would get changed if someone fell out of favour or was taken off to a gulag [prison] or executed," says Dr Pritchard. "Particularly in the 1930s under Joseph Stalin, there was a lot of this going on. People who had been politicians or senior people suddenly disappeared, and Stalin didn't want those people to be remembered, so when those pictures were republished they would be altered. People would be taken out of pictures or replaced and you got these empty spaces."



Vladimir Lenin giving a speech to soldiers in Moscow, 1920. Later versions of the scene (right) had Leon Trotsky and Lev Kamenev removed from the steps



Orson Welles talks to the press after his infamous broadcast



RADIO RIOTS

One of the most famous examples of fake news was actually spread by newspapers themselves. As you can see from this 1938 front page (below right), a radio show was accused of spreading "terror" throughout the US, but the reality is that the story was just that – a story.

It all started with the radio broadcast of Orson Welles' version of the HG Wells novel *The War Of The Worlds*. The play was recorded in a realistic way, with news announcements interrupting the show, telling the story of how a meteorite landing on a farm led to an invasion from murderous aliens from Mars.

Newspaper reports in the days after claimed that millions of people were so terrified that they jumped into their cars and headed for the hills, but there was no evidence to back the claims up. Researchers couldn't find any evidence of traffic jams, riots or even minor injuries resulting from the alleged panic, so if it did happen, it must have been the calmest panic of all time!

There were also warnings before and during the broadcast, making clear that it was just a play and that the news reports weren't real, so it's hard to believe that people missed all of them.

It's possible that some editors and newspaper owners were just taking the opportunity to give radio a bit of a kicking. That's because radio was still relatively new back then, so newspapers were only just realising that advertisers were taking some of their money away from the press and spending it on radio adverts instead.



BIGFOOT? BIG FAKE, MORE LIKE!

The first supposed sighting of an enormous, ape-like creature that walked on two legs was in North America more than 200 years ago. Since then there have been dozens of alleged sightings of bigfoot (also known as sasquatch), but no evidence.

This famous picture is a screengrab from footage taken in 1967. Experts believe it's just a man in an ape suit, but that didn't stop many people from believing that bigfoot existed after watching the short video.

The legend is very similar to stories from the Himalayas of a creature called the yeti or abominable snowman, but scientists aren't convinced by those tall tales either.



A still from the famous bigfoot video

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IT'S ALL A CONSPIRACY!

...or is it?

THE WORLD'S BIGGEST CONSPIRACY THEORIES

WHEN we talk about conspiracy theories, most of us think about green aliens, UFOs, celebrities and government secrets. Well, there's a good reason for that – these are all some of the biggest influences to spark what are known as conspiracy theories.

Conspiracy theories can form when people don't take what they've read or seen on the news at face value. They revolve around the belief that a powerful group or organisation is hiding something; something that they don't want the public to know the truth about. Conspiracy theorists believe that what the world accepts as truth is just a cover-up.

In a world of social media and immediate information at our fingertips, conspiracy theories can spread faster than ever and are able to grow and grow as information is passed around the internet. The most popular conspiracy theories are

usually related to a major news event.

Although the term 'conspiracy theory' dates back to at least 1871, it didn't really become a commonly-used phrase until the 1960s; a decade when some of the world's biggest conspiracy theories started.

To really get our heads wrapped around what a conspiracy theory is, we need to investigate some! Over the next two pages you'll read about four of the world's biggest conspiracy theories. All of these conspiracy theories split opinion and still have a large number of supporters today.



CONSPIRACY #1

DID AMERICA FAKE THE MOON LANDINGS?



On 20 July 1969, American astronaut Neil Armstrong became the first man to walk on the surface of the moon, as part of NASA's Apollo 11 mission. Twenty minutes later, he was joined by fellow astronaut Buzz Aldrin. The pair spent two and a half hours walking on the surface of the moon, doing experiments, collecting samples of soil and rocks, and taking pictures. They left a US flag and several scientific experiments on the surface of the moon.

Before the end of 1972, American astronauts had landed on the surface of the moon another five times as part of the Apollo programme.

Despite worldwide reports, pictures and videos, some conspiracy theorists believe that these moon landings never happened, or at least that parts of the missions never happened.

Most of these theorists believe that NASA and the US government faked the original moon landing – by recording fake footage in a film studio – to convince the rest of the world that America had won the 'space race'.

So what are the arguments to support this conspiracy theory? They're vast and incredibly varied. Some theorists pointed out that the American flag was blowing in the wind, despite there being no breeze on the moon (it's because the flag had been folded and looked really creased, and there was a rod at the top of the flag to keep it from drooping). Others questioned why there are no stars visible in any of the photos taken (that's because the shutter speed of the camera was too fast to show them).

Many conspiracy theories about the Apollo missions have been proven to be false over the years, by NASA and others, but that hasn't stopped some people from remaining suspicious.

Despite it being one of the most momentous news stories ever reported, up to 20% of Americans today still believe that the USA has never really landed on the moon.

What do you think? A bit of a leap, or does this conspiracy have some gravity?

CONSPIRACY #2**WHO REALLY KILLED PRESIDENT KENNEDY?**

The day that President John F. Kennedy was assassinated is one of the most significant moments in American history; it is also one of the most popular topics among conspiracy theorists.

Here's what we know about the incident: the assassination took place on 22 November 1963, as Kennedy and his wife Jacqueline were waving to crowds from an open-top limousine in Dallas, Texas.

At 12.30pm gunshots were heard. Kennedy had been shot, and he was pronounced dead 30 minutes later at a nearby hospital.

Seventy minutes after the shooting, Dallas Police Department arrested and charged a man called Lee Harvey Oswald with the murder of the president, as well as the murder of a Dallas police officer soon after the assassination. As he was being transferred to Dallas County Jail, Oswald was shot and killed by a nightclub owner named Jack Ruby.

Following further investigation into the shooting, the United States House Select Committee on Assassinations (HSCA) said in 1979 that Kennedy was "probably assassinated as a result of a conspiracy", stating that audio recordings suggested that a second gunman was involved on the day.

This theory was eventually rejected, but it gave birth to one of the biggest conspiracy theories of all time: that Lee Harvey Oswald was not solely responsible – if at all – for the murder of President Kennedy.

The CIA, the Mafia, former Cuban Prime Minister Fidel Castro and the KGB (Russian secret service) are just some of those who have been linked to the murder through various conspiracy theories over the years.

CONSPIRACY #3**IS THE US GOVERNMENT BEHIND AN ALIEN COVER-UP?**

Deep in the Nevada desert lies a US Air Force base known as Area 51, which has been at the centre of countless alien conspiracies for decades. Part of the mystery surrounding Area 51 is that it is top secret – the American government don't talk about it and you can't even take photos near it! But why?

Well, some conspiracy theorists think it is because the government is hiding the remains of crashed UFO spacecraft there. Countless people have reported spotting UFOs around the area, adding plenty of fuel to the fire over the years.

But you can't talk about alien conspiracies without mentioning the famous Roswell incident. In the summer of 1947 the remains of a "flying disc" or "UFO" were discovered near Roswell, New Mexico; it was later confirmed that the aircraft was, in fact, a damaged US Air Force air balloon. This confusion sparked the beginnings of one of the world's biggest – and most mysterious – conspiracy theories. Did a UFO crash on that day in the summer of 1947 and did the government cover it up? Are the remains of aliens from that ship now being hidden somewhere in Area 51?

Lots of people still seem to think so, as the crash site in Roswell is visited by hundreds of thousands of people every year.

CONSPIRACY #4**WHAT REALLY HAPPENED ON 9/11 AND WHY?**

On 11 September 2001 the world was left stunned after al-Qaeda terrorists hijacked four planes in America and flew two of them into New York's World Trade Center's Twin Towers. It resulted in the deaths of almost 3,000 people.

Even after all this time, conspiracy theories are still common, with many theorists refusing to accept the official news story at face value.

One of the biggest theories came out of internet chat rooms soon after the disaster. People claimed that the Twin Towers were not brought down by planes, but by explosives. Some theorists claimed that the US government knew the attack was going to happen.

As with most conspiracies, some people are unsatisfied with the facts and will no doubt continue to search for the 'truth'.

**WHY DO PEOPLE BELIEVE CONSPIRACY THEORIES?**

We all have our own reasons for believing what we believe. But we live in a world of immediate information and social media, where it's easy for anyone to come up with a theory and post it online.

Many conspiracy theories come from a distrust of government, which a lot of people find appealing.

Some argue that people find interest in conspiracy theories because it helps them make sense of a very confusing and sometimes sad world; it allows them to gain a sense of power and control over some of the world's biggest tragedies. For others, it makes them feel like a welcome part of a community.

What do you make of all the conspiracy theories you've just read about?

THE ROLE OF ARTIFICIAL INTELLIGENCE

Technology continues to advance, in both good and bad ways



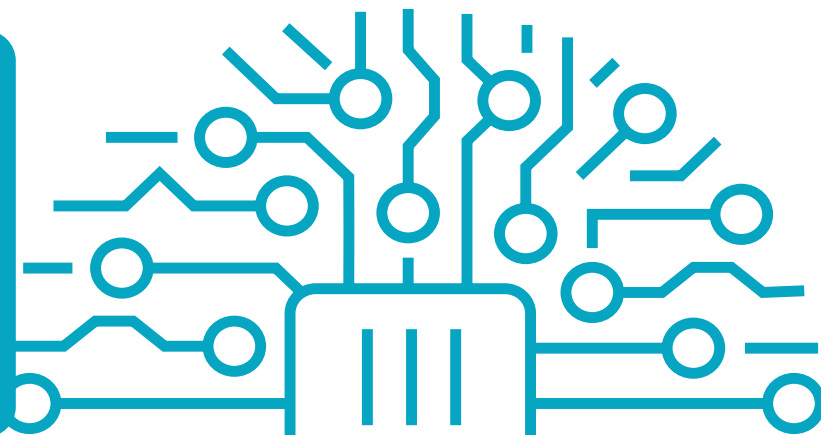
WHAT IS AI?

Artificial intelligence – or AI for short – is technology that enables a computer to imitate and recreate ‘human’ ways of thinking. It does this by taking in information from other places on the internet, and forming the most appropriate response based on this information.

The idea of ‘artificial intelligence’ was already being developed by scientists and

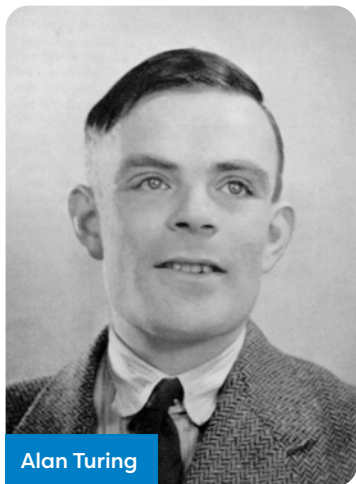
mathematicians way back in the 1950s.

Scientists were teaching computers how to mimic – or copy – human decision-making. What came from this was ‘machine learning’, in which robots became even more ‘human’ – they were taught to learn for themselves and remember their mistakes, instead of simply copying. This led to the blurring of the lines between fact and fake, making it harder and harder to tell the difference.



70 YEARS OF AI DEVELOPMENT

You may think of AI as a new technology, but the idea that computers would be able to think like humans began over 70 years ago. In 1950, computer scientist Alan Turing asked the question: “Can machines think?” He designed the ‘Turing test’, which determines if a machine can demonstrate human-like intelligence. It wasn’t until June 2014 that a computer became the first machine to pass the Turing test, when a program called Eugene Goostman fooled people into thinking they were chatting with a



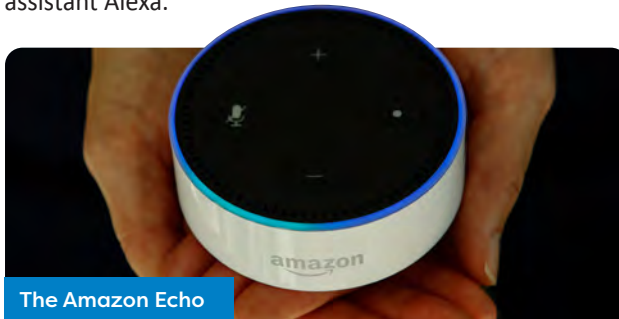
Alan Turing

13-year-old boy. In the 1960s, the world’s first chatbot, called Eliza, was invented. Eliza could hold simple conversations using pre-programmed phrases. During the 1970s and 1980s, the progress of AI slowed down, but that changed when more powerful computers were invented in the late

1990s. In 1997, a powerful ‘super computer’ called Deep Blue defeated world chess champion Garry Kasparov. However, Deep Blue couldn’t actually think for itself, it was simply following a set of rules. In 2011, IT company IBM’s question-answering computer system, Watson,

won in the US quiz show *Jeopardy*. Watson had to answer riddles and complex questions using deep learning. This teaches computers to process data using layers of things called artificial neural networks, which are inspired by the human brain. In 2012, a system called AlexNet used deep learning to increase the accuracy of a computer’s image recognition, which was a big leap forward for AI.

In 2011, Apple released a new iPhone that included the virtual assistant Siri. In 2014, Amazon introduced the Amazon Echo, a smart speaker that featured the virtual assistant Alexa.



The Amazon Echo

Deep learning works by feeding lots of data into neural networks. So, when the Alexa AI was developed, it had to be exposed to lots of different voices and accents so that it could learn the appropriate response. Now lots of people have virtual assistants in their homes, so the AI is gathering data from the questions it’s being asked every day.

THE CREATION OF CHATGPT

ChatGPT, which stands for Chat Generative Pre-Trained Transformer, was created by research and development company OpenAI. It’s a language processing AI model,

which means it can understand human language and respond in a way that makes sense. The latest version, GPT-4, is the most advanced yet. It can quickly understand and process a great deal of information, including an input of up to 25,000 words.

It can also adapt the tone of its answers to suit different styles and, as well as text, it can recognise and analyse objects in a picture. The chief executive of OpenAI said GPT-4 was its most capable chatbot yet, but that “it is still flawed”. However, AI chatbot technology is likely to improve and develop at an incredibly fast pace.

A TOOL FOR CHEATING?

The launch of ChatGPT sparked concern that it could lead to students asking a chatbot to do their work for them instead of doing it themselves, especially as ChatGPT is currently free to use. Plus, OpenAI’s website claims that GPT-4 gets top marks in a whole range of exams. Some universities have already banned the use of ChatGPT and other AI, while others are trying to find ways that students can use it in their studies.

For example, they may be allowed to use AI to put together time-consuming lists of references, but not to write the whole essay for them. There are predictions that AI could mean that assignments will now need to be completed in the classroom rather than at home. Julia Adamson from the British Computer Society says: “Calculators used to be banned from exams but are now mandatory. We need to bring machine learning into mainstream teaching practice, otherwise children will be using AI for homework unsupervised without understanding what it’s telling them.”

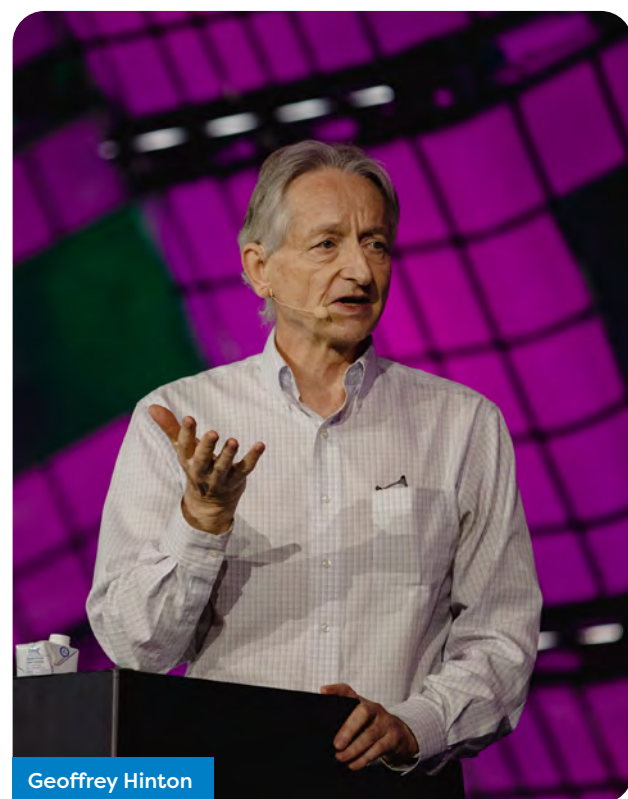
BENEFITS AND RISKS

The launch of ChatGPT took the world by storm and got people talking about some of the benefits and risks that AI technology could bring.



At the end of March 2023, a group of more than 1,000 AI experts signed an open letter from the Future of Life Institute that called for an immediate pause on the development of powerful AI systems for at least six months. The names included Steve Wozniak (the co-founder of Apple) and Elon Musk, who owns X (Twitter) and was one of the co-founders of OpenAI, although he left the company in 2018.

The letter stated that the race to develop AI systems is out of control, saying: “AI systems with human-competitive intelligence can pose profound risks to society and humanity” and that the technology is something “no-one – not even their creators – can



Geoffrey Hinton

understand, predict, or reliably control”. The group raised concerns that AI could be responsible for a flood of incorrect information and that a huge number of people may end up losing their jobs, saying it’s important that we fully understand the goals of any AI that we create.

Geoffrey Hinton, who’s known as ‘the godfather of AI’ for his research on neural networks and deep learning, seemed to agree with the letter’s concerns. In 2023, he resigned from his job at Google, with a warning that chatbots could become more intelligent than humans, which could lead to them being used to control society. Although Hinton says a pause in AI development is “utterly unrealistic”, he believes that “we need to find a way to control artificial intelligence before it’s too late.”

Some people are so scared of AI development, they think it could pose a risk to the human race and that it should be stopped altogether rather than paused. Others say that humans have a thirst for knowledge and that it’s impossible to stop progress. Even if some governments announced a pause in AI development, there’s no guarantee that every country in the world would do the same, so pausing developments here could just give others a head start. It’s also argued that AI development brings a huge number of benefits and that we can use it to tackle some of the big issues facing the world.

For example, AI is being used to help tackle climate change as it has the ability to analyse huge amounts of data, which can help with everything from energy efficiency to finding the best ways to introduce renewable energy sources.

Well-known AI scientists Andrew Ng and Yann Le Cun are against a pause on powerful AI development. Ng calls it “a terrible idea” and Le Cun adds: “Why slow down the progress of knowledge and science?”

Of course, a pause in developing powerful AI systems doesn’t necessarily mean that all AI development would pause, but it may slow down some important progress.

THE RISK TO MEDIA

AI is clever enough that it can be used to create ‘deep fakes’ – audio, pictures and videos that put people into realistic-looking situations that never happened. Often these are shared online and across social media, leading to false news and information quickly spreading.

● AI caught out in real case study

A team of journalists from the BBC found that YouTube videos pretending to feature “educational content” were actually featuring content that is deliberately misleading and false to young people. The journalists discovered the videos on more than 50 YouTube channels.

The videos were being made to appeal to children by promoting themselves as good STEM (science, technology, engineering and maths) tools. YouTube was also recommending them alongside real educational videos, making it very difficult to tell the difference between them.

YouTube isn’t the only culprit. The *Washington Post* newspaper reported that fake news articles on Facebook received six times as many clicks than real news.

The 2018 Commission on Fake News and Critical Literacy in Schools found that 60% of children reported that they trust news less as a result of fake news.



● So, how can you spot the difference?

The first thing to check is how many videos the channel is uploading each day. If content is published quickly with many in-depth videos, the creator is likely using AI tools. These are programs like ChatGPT and MidJourney that can instantly create new content when asked to.

In the videos themselves, it can be easier to spot the use of AI if you know what to look out for.

Ask yourself:

- Is someone speaking in the video and do they look and sound normal? A computer generated voice/image will lack emotion. Devices we speak with at home, like Siri and Alexa, are examples of AI voices.
- Have the ‘facts’ from the video been reported anywhere else? You can check any new or surprising information via trustworthy news sources, such as *First News* and our I Don’t Get It video explainers at [first.news/fyi](https://www.first.news/fyi).
- Have you heard of the content creator who published the video? Just because a channel has millions of views or subscribers, it doesn’t always make them reliable.

SOCIAL MEDIA’S RESPONSE

While there are certainly concerns, a lot of AI-generated content is still harmless. On TikTok, for example, fake alligators have been Photoshopped into hurricane-flooded homes, or awaiting a wrestling match with a digitally created avatar of Tom Cruise. It’s when the facts are altered that the problems arise.

Social media sites such as TikTok and Facebook are attempting to tackle the problem, by asking users to make others aware when AI has been used. But is that enough?

What do you think? Is AI doing more harm than good?



All images: Getty

THE REAL EFFECTS OF FAKE NEWS

IT'S usually impossible to know what the intentions are of someone who creates fake news. But whether it's meant as a joke or has a more sinister motive, fake news can have some pretty serious effects on the real world.

STOCK SHOCK

Those effects can also be pretty expensive. For instance, a tweet from the news agency AP (Associated Press) in 2013 knocked an unbelievable \$130bn off the value of the American stock market.

AP's X (Twitter) account had been hijacked and the hacker posted a nonsense story about the then president, Barack Obama, being injured in an explosion. The potential death of a president caused investors to panic, leading to a huge drop in the value of some stocks and shares.

It could have been an idiotic prank, but it's also possible that someone knew what the tweet would do, and was ready to take advantage of the confusion and make lots of money.

Finance experts say that people trying to cheat the stock market is nothing new, but that the term 'fake news' has given the tactic a label.



Just one fake tweet wiped billions of dollars off the US stock market

EMERGENCY RESPONSE

Many experts are also worried about the effect that fake news can have in the event of a natural disaster or terrorist attack. In the confusion around these incidents, there are often many false rumours flying around. Some

of these could be genuine mistakes, but many are thought to be sick jokes.

If a false rumour creates panic or sends people to the wrong place, it could result in injuries or even deaths. In the 2010 Chile earthquake, researchers found that false rumours passed around online included tsunami alerts, reports of looting and even stories about certain celebrities being killed in the quake.

Some experts have said that users of sites like X can act as filters. They claim that wild rumours are more likely to be questioned by people, so these tweets should eventually be shown to be false.

However, other research has found that this correction comes too late to undo the damage caused by the false reports in the first place.

TERROR TWEETS

In the aftermath of the Boston Marathon bombing in

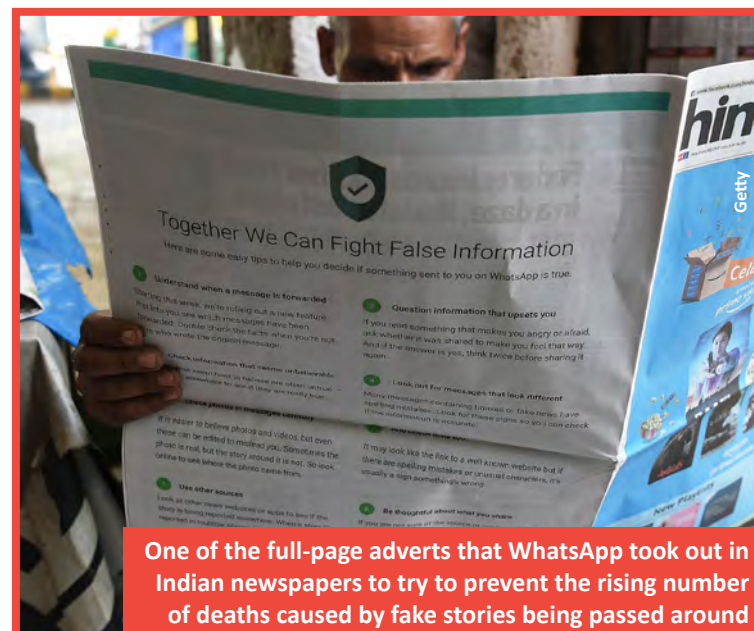


The panic created by the 2013 terror attack on the Boston Marathon

2013, more than 20,000 tweets were sent that linked Sunil Tripathi to the terrorist attack. It was later revealed that Tripathi was totally innocent and had actually gone missing before the attack, and died in totally unrelated circumstances.

Pointing the finger at innocent people can lead to disastrous revenge attacks, as has happened lots of times in India in recent years. At least 30 murders have been linked to fake WhatsApp messages about child kidnappers. A video clip that went viral showed a man on a motorbike kidnapping a boy, but the footage was actually from a Pakistani safety campaign.

WhatsApp even took out full-page adverts in Indian newspapers to warn people of the dangers of fake stories that go viral.



One of the full-page adverts that WhatsApp took out in Indian newspapers to try to prevent the rising number of deaths caused by fake stories being passed around



COMING BACK TO BITE YOU

The effects of printing fake news can also have a serious impact on the people who publish it, as *The Sun* newspaper found out to its cost after the Hillsborough tragedy in 1989. During an FA Cup semi-final at Hillsborough Stadium in Sheffield, 96 Liverpool fans were killed in a crush after police made the decision to open gates and let huge numbers of fans into the already packed terraces. The horrific scenes were covered by *The Sun* with a huge front-page headline that said: "The truth", and went on to allege that Liverpool fans stole from the dead and beat up a policeman who was trying to give a fan the kiss of life. It even said that fans urinated on police officers.

The problem was that none of it was the truth, and the story caused huge upset in Liverpool. Even now, decades later, there are many shops in Liverpool that won't stock *The Sun* and lots of Liverpoolians refuse to buy it.

Although *The Sun* has uncovered many genuine scandals, its Hillsborough front page caused huge amounts of damage to its journalistic reputation and also hit sales. Although its owners don't comment on regional sales differences, the boycott in Liverpool is still bound to be affecting the paper's total sales and its owner's profits. However, it seems like the rest of the country didn't feel as strongly, as *The Sun* is still one of Britain's top two best-selling newspapers.