

The Future of Internet News

250 years of technological change in news

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THE FUTURE OF NEWS: TWO VIEWS

UTOPIAN VISIONS

- The age of the citizen journalist
- Everyone will be able to consume whatever news they want for free
- Mainstream media will disappear replaced by blogs
- Direct democracy will replace political parties

DYSTOPIAN VISIONS

- People now live in a 'filter bubble' only seeing information they agree with
- 'Fake news' proliferates online
- Mainstream media threatened by lost advertising revenue
- The decline of the public sphere

Can the past help us predict the future?

- The growth of social news on the web is latest example of how technology is changing news
- The speed of change means that further developments are likely
- Often change means incorporating past elements in new ways
- The implementation of technological change follows clear patterns
- Changes to news technology follow a bigger reshaping of the social, political and economic order

The Central Debate

- TECHNOLOGICAL DETERMINISM
- Do emerging new technologies inevitably shape the news?

OR

PATH DEPENDENCE

Is the way new technology is implemented dependent on other things, especially political, economic and regulatory choices made early on

The two biggest technological news revolutions



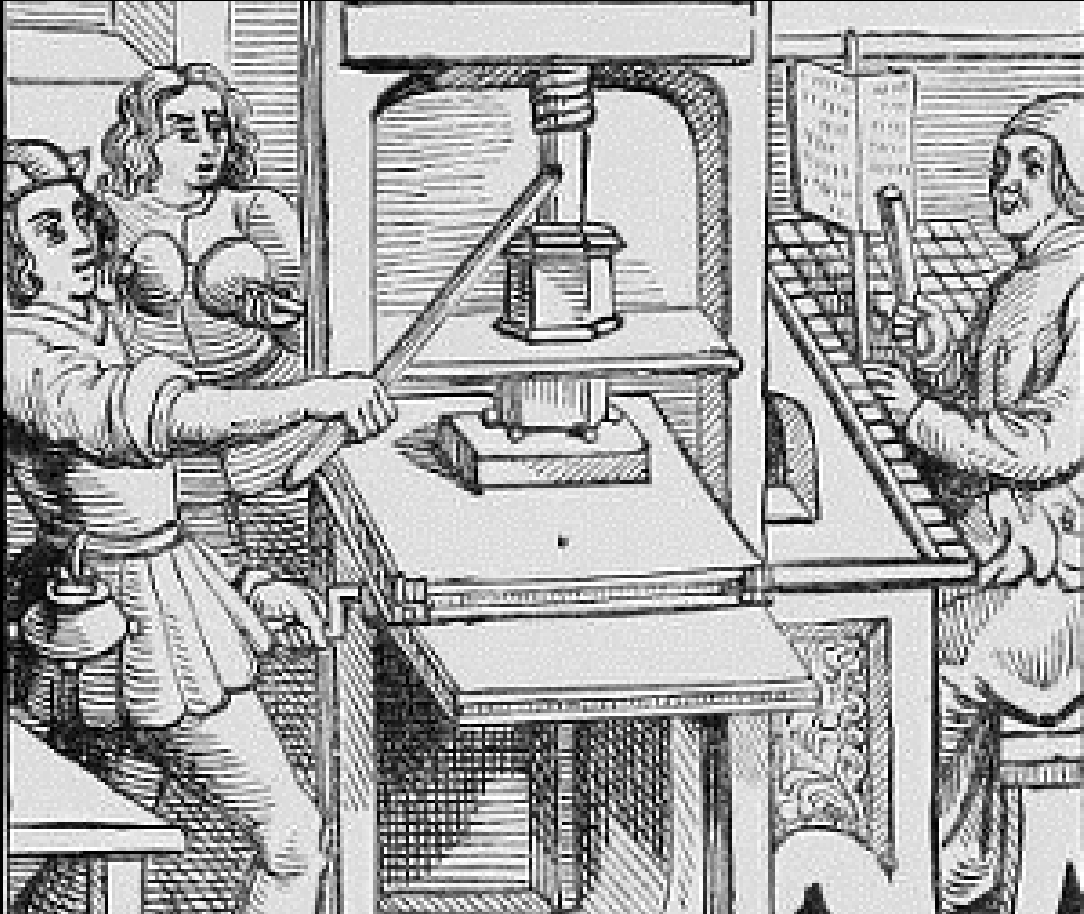
The dimensions of change

- Timescale
- Unpredictability
- Magnitude
- New roles for journalists
- New production techniques
- New means of distribution
- New methods of content creation
- New audiences

The early history of news

Clues to the future?

The technological origin of the news



- The invention of moveable type and the printing press made information available to ordinary citizens in the vernacular
- Pamphlets not newspapers were used to communicate news
- Distribution was slow

The most successful journalist of the 1500s



- Books, pamphlets and religious tracts were the most popular ways that print reached the public at first
- Martin Luther was the most prolific writer of widely read pamphlets attacking the Catholic Church for corruption
- ‘Chapbooks’, cheap leaflets, were sold in markets

The coffee house: where news originated



The first newspaper: The Daily Courant

Thursday, March 12. 1702.

From the Vienna Journal, Dated March 1. 1702.

Vienna, March 1.

THE Regiment of Hussars commanded by Major General Colonitz, consisting of 1000 Men, is on its March from Hungary towards Bohemia and the Empire; and several other Imperial Regiments are marching this way. Our new Levies are carry'd on with great Success, and Recruits are continually sending away to their respective Regiments. We have Advice from Adrianople that the Sultan is in that City, and that my Lord Pagett, Embassador from England, is also arriv'd there from Constantinople, and preparing to set out for this Place in

Guards of his Electoral Highness of Bavaria, and the Count D' Autel, Governor of Luxemburg, are made Lieutenant Generals: The Counts of Greben-donk and Toulongeon, the Barons of Winterfelt and Noiremont, Don John de Ydiaques, and Don Antonio Amenzaga, Brigadiers, and the Sieur Verboom Engineer General. Orders are given for the speedy repairing the Castle of *Ter Veur*, where an Apartment is to be got ready for the Duke of Burgundy, who is coming into this Countrey to Command as Generalissimo this Campaign. On Friday last the Marquis of Bedmar went to Ghent, where he is to receive on Sunday next, the Homage from the States of Flanders in the Name of His Catholick Majesty.

Early newspapers were one-man bands



- Benjamin Franklin was editor, publisher, writer and distributor of his newspaper
- It was suppressed by the British for advocating revolt against the imposition of a tax on tea
- As Postmaster-General, Franklin introduced cheap postage rates for newspapers

In the UK, fear of subversion led to tighter controls



But some had more access to news..



- Financier Nathaniel Rothschild had his own exclusive news service based on pigeon post
- He made a huge profit on the stock market when he found out before everyone else who had won the Battle of Waterloo
- He opposed the creation of the Reuters wire service for news

The Newspaper Revolution

The Rise of the Mass Media 1850-1920

The creation of the mass media: technology



- The rotary press, the linotype machine and lithography transformed the production process of news
- Mass circulation and distribution mean more money for news
- Technology increased the speed and breadth of newsgathering
- New roles for reporters and new formats arose

The telegraph transformed newsgathering..



- Telegraph networks meant news information could be transmitted instantaneously
- Newspapers set up wires services (AP, Reuters) to pool newsgathering
- Trans-Atlantic and Pacific cables meant that news was available worldwide

The emergence of the reporter..



- Newspapers created new content such as sports, fashion, business, and letters pages
- Roles became specialized both for reporters but also editors, subs, typesetters and printers
- Journalism was defined as a profession with new standards of objectivity

New distribution networks...



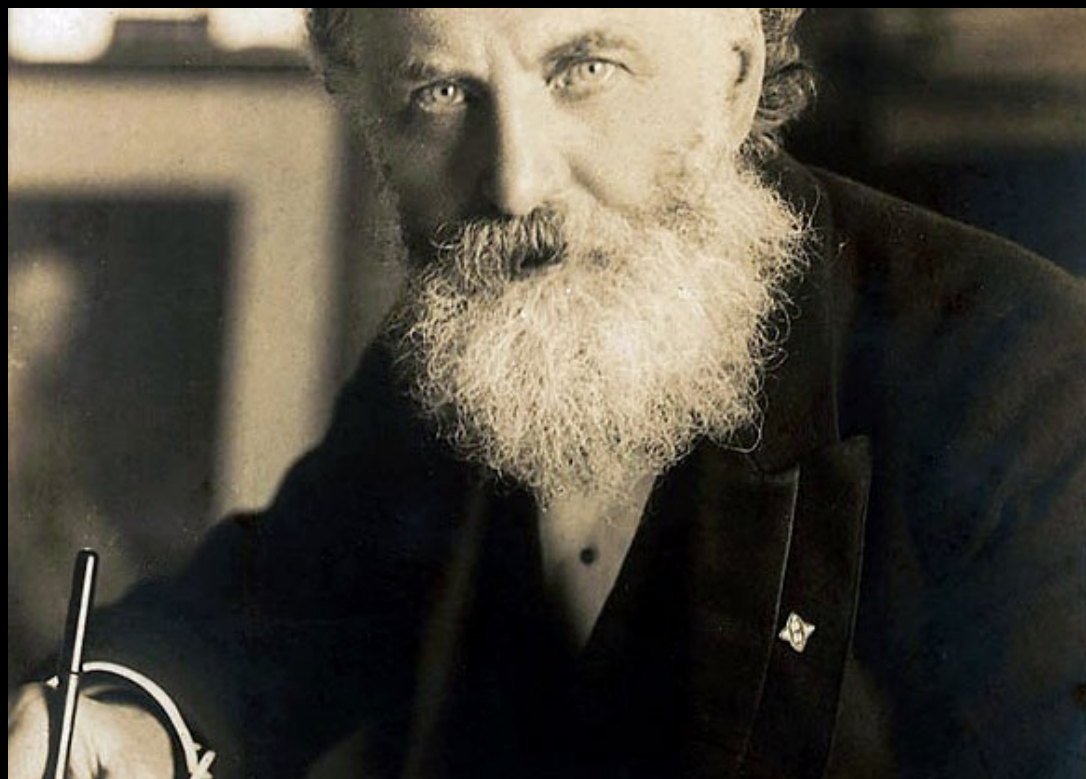
And new audiences..



- Everyone could afford a daily newspaper
- The morning newspaper became an 'appointment with the news'
- New audiences and increased competition meant continuous development of new content
- Newspaper audience also split into mass market and upmarket

The birth of investigative journalism

W.T Stead, editor, Pall Mall Gazette



Joseph Pulitzer, Editor, New York World



'Yellow journalism' and the rise of jingoism

The sinking of USS Battleship Maine



The Spanish-American War 1898

- 'You supply the pictures, I'll supply the war'
- -William Randolph Hearst, owner, New York Journal, to his reporter in Havana, Cuba

Press barons in UK tried to influence policy..

Lord Rothermere



Lord Beaverbrook



Gaining the ire of politicians from all parties.



- “What the proprietorship of these papers is aiming at is power, and power without responsibility – the prerogative of the harlot through the ages”
- -Stanley Baldwin, 1931

The broadcast revolution

A new type of news: 1920-1960

Broadcast: a different kind of news..



- Radio and TV broadcasting created a new and bigger audience for news
- Live reports and immediacy
- Video content had a greater impact on viewers
- New roles emerged for broadcast journalists

But radio was invented for something else..

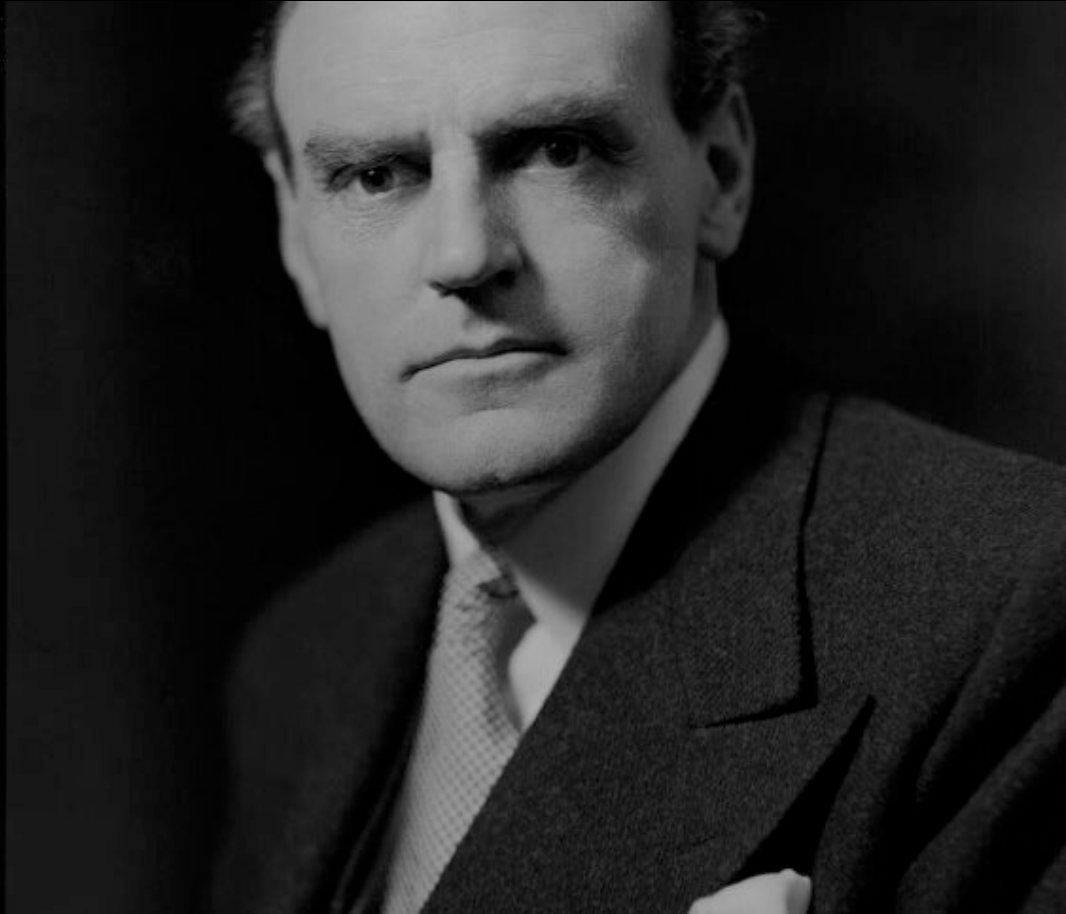


New audiences listened at home..



- Network broadcasting created nationwide free distribution
- New technology was needed for consumption of broadcast news
- Audiences listened together at home to the news at set times

Newspapers fought to limit broadcast news



- *BBC agreement with news agencies, 11 November 1922*
- News agencies will supply BBC with daily summary of news
- BBC will acknowledge copyright and source of news on air
- BBC will only be allowed to broadcast one bulletin after 7pm
- BBC will rely solely on agencies

Reporters became presenters and readers..



Broadcast television news built on radio..



But new technology led to new formats..



And enhanced the role of the reporter..



Broadcasting changed politics

- The rise of the soundbite
- The 24 hour news cycle
- The importance of the visuals
- The importance of the live interview
- The involvement of the crowd (vox pops)



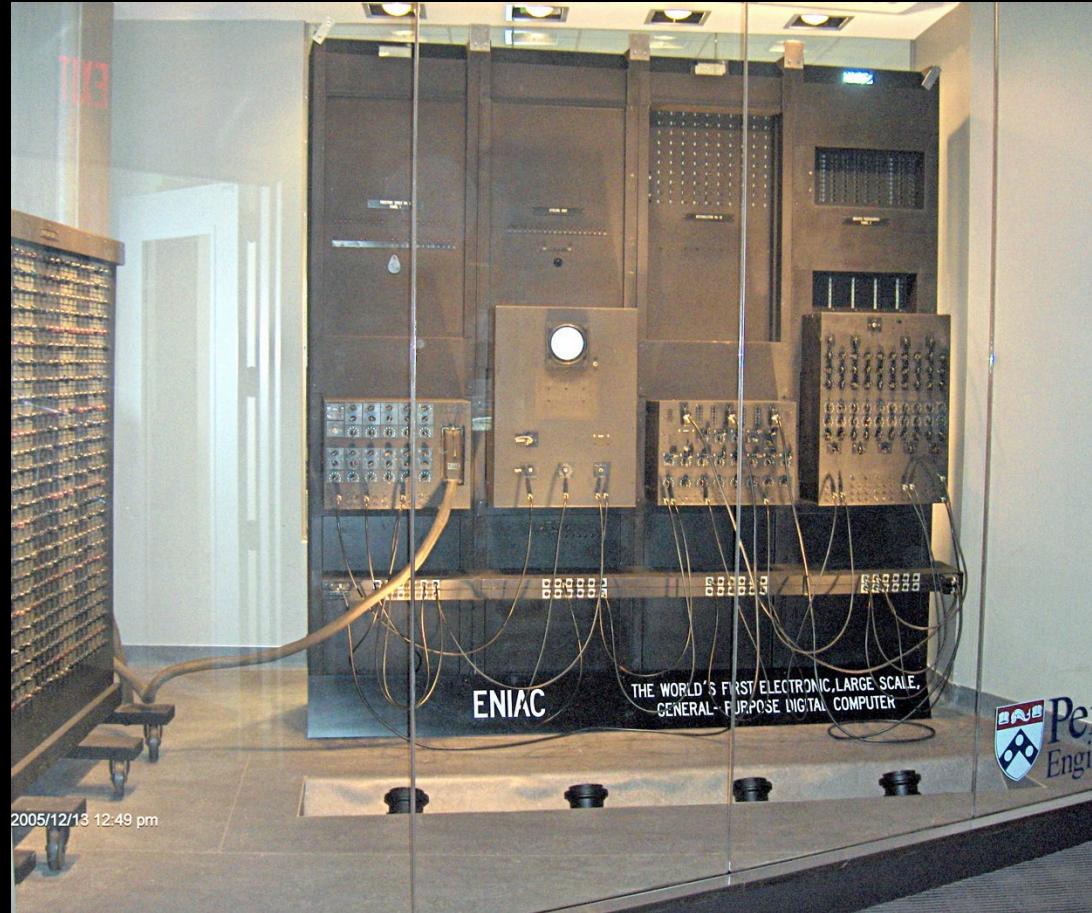
But for better or worse?



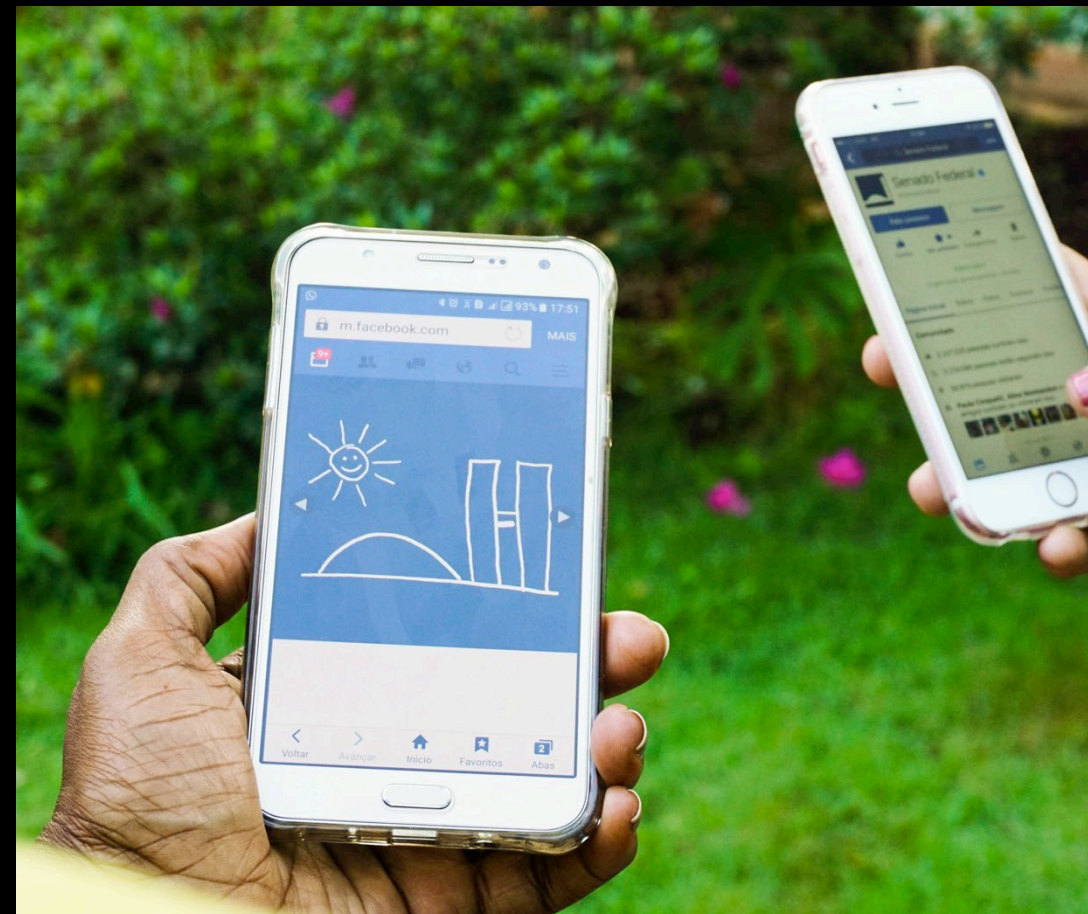
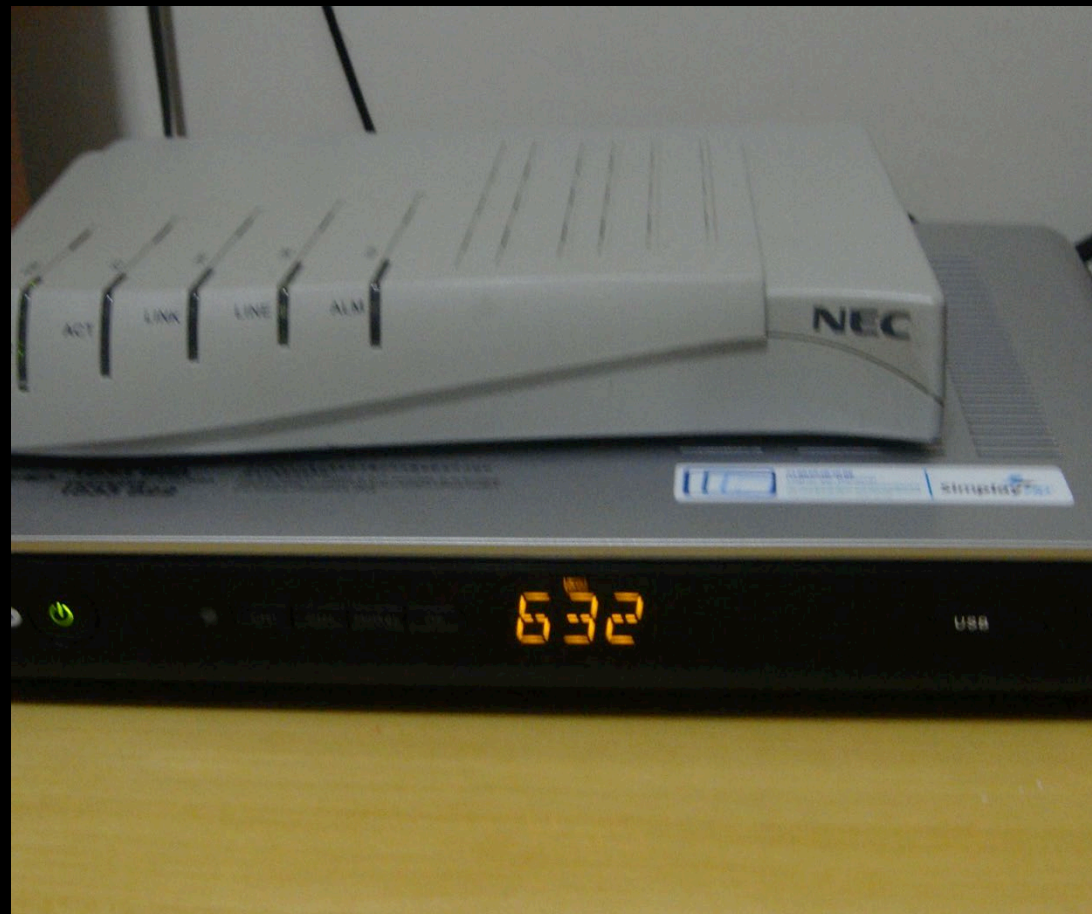
The emergence of online news

The End of the Mass Media?

New technologies of the 20th century..



..And new technologies of the 21st



Existing news organisations built websites..

The screenshot shows the BBC News website homepage. At the top, there is a navigation bar with links for 'Your account', 'Home', 'News', 'Sport', 'Weather', 'iPlayer', 'Sounds', 'CBBC', and 'More'. Below this is a secondary navigation bar with categories like 'World', 'Business', 'Politics', 'Tech', 'Science', 'Health', 'Family & Education', 'Entertainment & Arts', 'Stories', and 'Video & Audio'. A third bar lists regional news: 'Scotland', 'Alba', 'Wales', 'Cymru', and 'Local News'. The main content area features several news stories with images and headlines. On the left, a story is titled 'voiced doubts' with a sub-headline 'multiple May's ministerial plan'. Below it, another story is titled 'Nationalism driving fake news in India' with a sub-headline 'BBC research shows how a desire to reinforce national identity is pushing people to share fake news.' In the center, a large image shows a group of men in a meeting, with a headline 'California wildfires reach grim milestone' and a sub-headline 'The death toll from one fire stands at 29, equalling the deadliest wildfire on record in the state.' To the right, there are smaller images and headlines: 'Premature baby parents 'need extra leave'', 'Berry needle scare 'motivated by spite'', and 'spot early'.

The screenshot shows a news website homepage with a dark header. The navigation bar includes 'Politics', 'Business', 'Entertainment', 'Sport', 'Travel', 'Style', 'Health', 'Video', and 'International'. The main content area is divided into several sections. On the left, a large headline reads 'wanted a parade. hastised instead' with a sub-image of Donald Trump. Below this, a headline reads 'rip to Paris for Armistice Day was moments -- and a dire warning'. In the center, a 'Top stories' section features a large image of a wildfire with the headline 'Stars lose homes to deadly California wildfires' and a sub-headline 'Israeli soldier and Hamas commander killed in Israeli Special Forces operation in Gaza'. To the right, an 'In focus' section features a headline 'China's surprise jets' missiles' with a sub-headline 'What's life like for Chri'. Below these, there are several smaller headlines: 'Famed lawyer says CN White House over Acc', 'ANALYSIS US decision jets attacking Yemen', 'Naked selfies. Blackm', 'Chemical found in ent', 'SNL' mocks Sessions', and 'Trump touts Kavanaugh justice breaks from co'. At the bottom, there are more headlines: 'Ebola outbreak worst ever in DR Congo', 'SoftBank gets ready for \$21B IPO', 'Alibaba record: \$30 billion in 24 hours', 'UK PM: Russian intelligence capability degraded for years to come', 'Meteorologist debunks Trump on wildfires', 'Why prosecutors say a woman put needles in Australian strawberries', 'Israeli soldier and Hamas commander killed in Israeli Special Forces operation in Gaza', 'Famed lawyer says CN White House over Acc', 'ANALYSIS US decision jets attacking Yemen', 'Naked selfies. Blackm', 'Chemical found in ent', 'SNL' mocks Sessions', and 'Trump touts Kavanaugh justice breaks from co'.

That still dominate the internet today

- **TOP TEN NEWS WEBSITES** (2018, USA only, monthly unique visitors)
- Yahoo News
- Google News
- Huffington Post
- CNN
- New York Times
- Fox News
- NBC News
- Mail Online
- Washington Post
- Guardian

What's new about digital news?

- **News production process**
- Low cost of entry compared to newspapers or broadcast
- Bespoke content production systems
- Public can become reporters or sources of news (content creators)
- Mainstream media adapts: newspapers have to make videos, and broadcasters to do text
- **News distribution process**
- global audience for news
- immediate real-time access and interactive audience reactions
- Ability to read in-depth reports eg full documents, gfx, video
- Recommendations by search engines and social media
- Distribution costs are minimal

But a lot is drawn from the past...

Digital News

- Headlines
- Pictures
- Video
- Audio
- Graphics
- Public comments on stories
- Story recommendation/navigation

Origin

- Tabloid press
- Newspapers
- Television news/documentary
- Radio
- TV and newspapers
- Letters page, vox pops
- Newspaper sections

The economics of digital news

- **For mainstream media**
 - Loss of advertising revenue
 - Loss of control over distribution
 - But powerful network effect through digital distribution
 - Brand effects continue
 - Aggregator sites (eg Yahoo news) still dependent on MSM
 - Possibility of subscriptions
- **For new entrants**
 - Can create content cheaply (Huffpost)
 - Can use clickbait to boost pageviews (Buzz Feed)
 - Very dependent on social media for distribution (Facebook)
 - Patrons can desert you quickly (Breitbart News)

We consume news online..but not exclusively

Age 18-24

- Online 64%
- Television 24%
- Newspapers 5%
- Social media 33%
- **ONLY SOCIAL MEDIA: 2%**

Age 55+

- Online 28%
- Television 51%
- Newspapers 11%
- Social media 7%

- SOURCE: REUTERS DIGITAL MEDIA SURVEY 2018, ALL COUNTRIES

How much do we trust the news?

- News we consume ourselves: 51%
- News in general: 44%
- News found through search: 34%
- News found through social media: 23%
- Worry about 'fake news' online: 54%

- Source: Reuters Digital News Survey 2018 (all countries)

The lessons of history

Can the past help predict the future of news?

Evaluating the Press

- The problem of the press is the central problem of democracy
- Freedom of speech depends on a free press but this freedom is being threatened more and more
- The press is more and more tempted to follow the crowd not lead it
- The future of the press may just lie with those who have mastered crowd psychology and who will make the most money
- Fake stunts and bogus scoops are both immoral in themselves and a sin against the spirit of journalism

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- **Wickham Steed, The Press, Penguin Special, 1938**

'Trusting the news' in historical perspective

19th Century

- Secret subsidies to newspapers
- Low prestige of journalists
- Scurrilous attacks on politicians
- Attempts to suppress such news:
Alien and Sedition Act 1794

20th Century

- 'Yellow journalism'
- Wartime propaganda
- Tabloid press
- Nazi propaganda broadcasts
- Government –controlled news

Communications technology and moral panics

19th Century

- Romantic novels will destroy marriage
- Celebrity reporting will undermine morality
- Telephones will undermine social interactions and encourage immoral behaviour
- Crime reporting in newspapers will coarsen society

20th Century

- Comic books and transistor radios cause juvenile delinquency
- Radio propaganda will make people support totalitarian regimes
- Radio will mean the end of live music and undermine artists
- Television will trivialise politics

Lessons of history 1: change takes a long time

The newspaper revolution

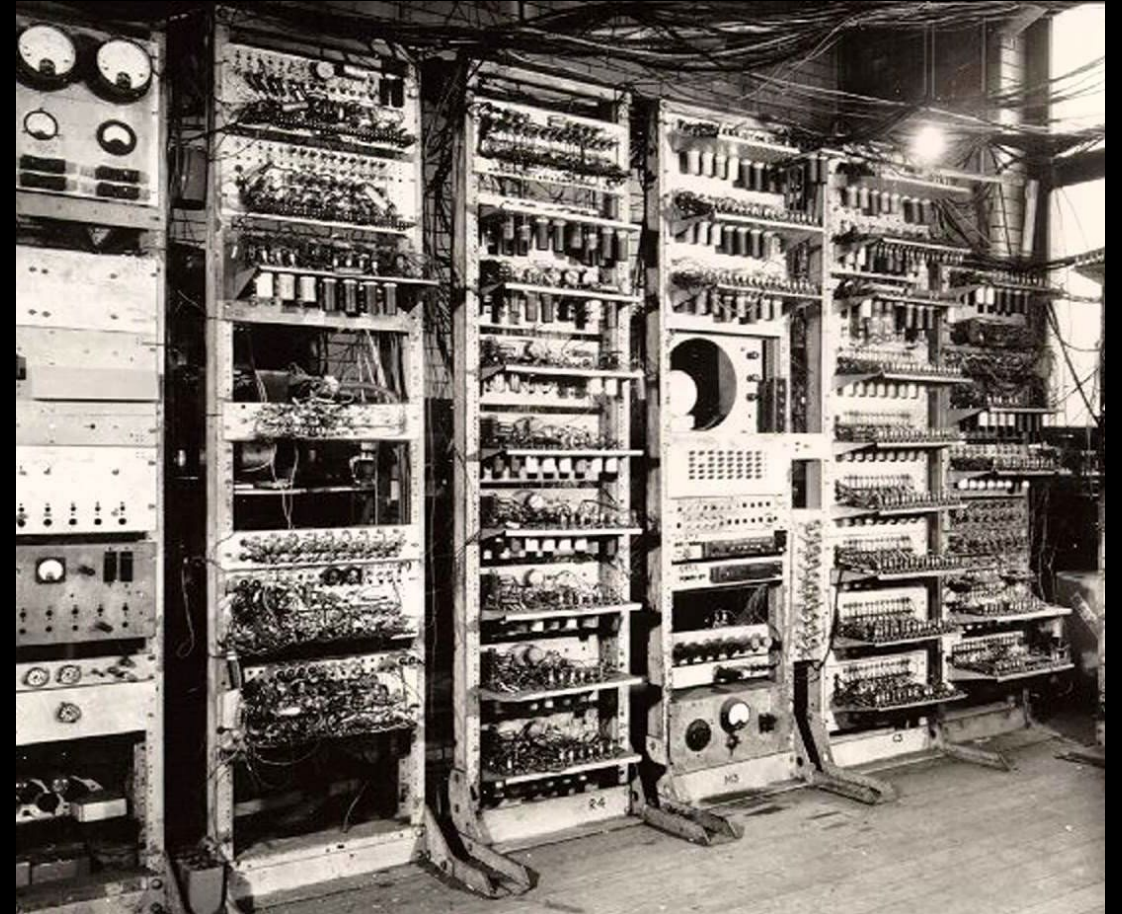
- The printing press – 1440s
- First newspapers – 1690s
- Telegraph – 1830s
- Rotary press – 1840s
- Offset printing – 1870s
- Linotype – 1880s

The broadcast revolution

- Radio waves – 1880s
- Wireless telegraphy – 1910
- Network radio – 1930s
- Network television – 1950s
- Live uplinks possible – 1960s
- 24 hour cable news – 1970s

Lessons of history 1: change takes a long time

- **Digital News Revolution**
- Computer – 1940s
- Microchip – 1950s
- PC – 1970s
- Internet – 1980s
- Browser – 1990s
- Broadband – 2000s
- Smart phone – 2010s



And parallels deeper changes in the economy



Which provided the preconditions for change

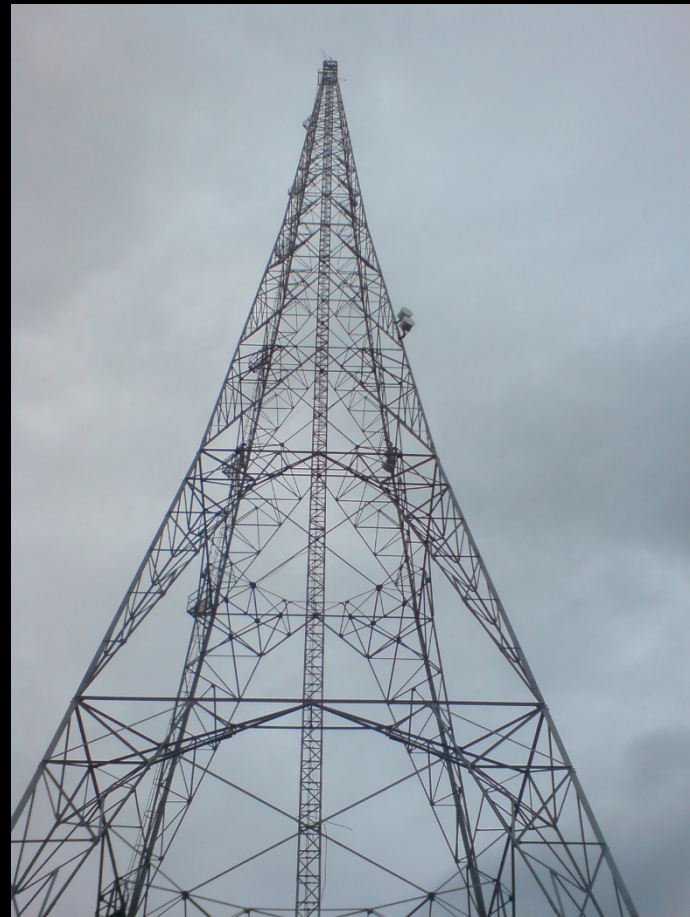
Newspapers

- Mass literacy
- Growth of large urban audience
- Distribution by means of railway and road transport
- Growth of large companies who needed to advertise

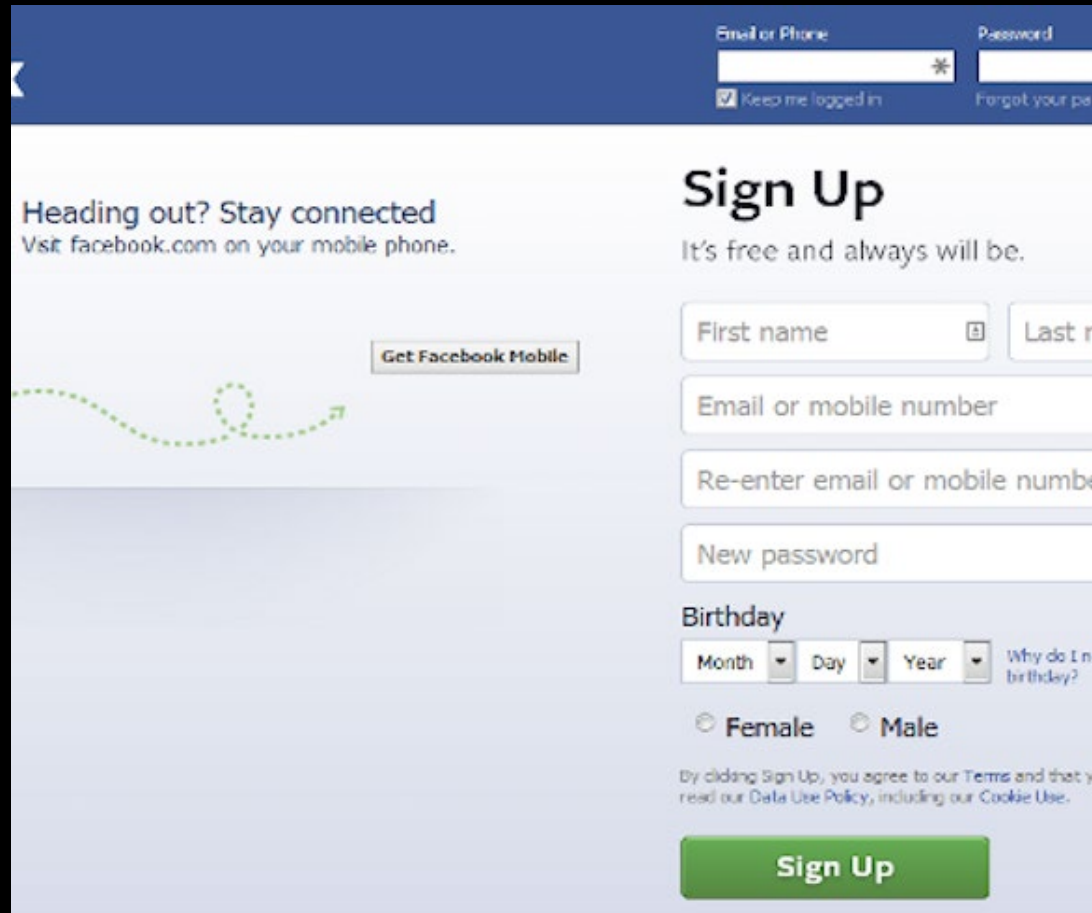
Broadcast

- Widespread use of electricity
- Understanding of electronics
- Development of new manufacturing techniques
- Regulation of radio and TV spectrum by government

The state always regulated networks..



And we are still trying to figure out how to regulate networks in the internet age



The image shows a screenshot of the Facebook sign-up page. At the top, there are input fields for 'Email or Phone' and 'Password', with a 'Keep me logged in' checkbox and a 'Forgot your password' link. Below this is a promotional banner for Facebook Mobile with a 'Get Facebook Mobile' button. The main 'Sign Up' section includes a 'Sign Up' heading, the text 'It's free and always will be.', and several input fields: 'First name' and 'Last name', 'Email or mobile number', 'Re-enter email or mobile number', and 'New password'. There is also a 'Birthday' section with dropdown menus for 'Month', 'Day', and 'Year', and radio buttons for 'Female' and 'Male'. At the bottom, there is a 'Sign Up' button and a small disclaimer: 'By clicking Sign Up, you agree to our Terms and that you read our Data Use Policy, including our Cookie Use.'

- Net Neutrality
- Are social media publishers?
- How should we regulate fake news?
- Are there biases in Google search engines?

Predicting the unpredictable

Newspapers

- Gutenberg had no idea of using printing for news
- The first newspapers and the first stock market arose together
- Early newspaper editors had no interest in mass market editions

Broadcast

- Radio was invented as a means of point-to-point communication
- Early radio ignored news in favor of live music and serials
- Television news started without live pictures or newsreaders

And incorporating the past...

Newspapers

- News headlines
- Letters page
- Color illustrations and photos
- Multiple editions
- Human interest stories

Broadcast

- News bulletins
- Phone-in and vox pops
- TV pictures
- Live updates
- Fly-on-the-wall documentaries

The lessons of history – what we know

- It can take a generation or two before the potential of the new technology is fully realised - we have only started in digital age
- It is highly likely that the ultimate use(s) and effects of the new technology will not be predicted by those who invented it
- The new technologies will incorporate rather than replace many of the existing elements (both social and technical) in new ways
- There are key pre-conditions for the emergence and implementation of technological change, which often parallel industrial revolutions

The lessons of history – what we can't know

- How long it will take before a new news technology reaches maturity
- Exactly how a new technology will change news
- What the social effects of new technology are
- *What choices we will make that determine the path that new news technologies follow (path dependence)*

The Future is in our hands

- Path dependence means we as a society still have the choice to decide how we want online news to develop
- Lets hope we all realise our power and use it to make wise choices

Thanks for listening!