Computing in Contemporary Society

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Last week
- We explored the relationship between technology and society, focusing on the digital divide and reasons for digital exclusion, both globally and in the UK

This week
- We examine the interaction between technology and democracy

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Social and Global Impacts of IT: the Role of the Internet in Democracy

Lecture four
Jyoti Bhardwaj

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This week's listening and viewing

- Listen to "Taiwan: Hyper-Democracy" from January 2023
- Read "Russia is becoming a cultural wasteland" from May 2023
- Listen to "The Gatekeepers, Episode One" from February 2024

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To-day's lecture is about

- The Internet and democracy
- Internet shut downs around the world
- Internet freedom around the world
  - Russian censorship example
- e-Government
  - Taiwan's digital-based open government example

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Is the internet a democratic or anti-democratic technology?

- The arguments for and against focus on the redistribution vs the concentration of power through access to information
- Information = knowledge, and knowledge = ability to make decisions
- Decision making that allows self-determination is the fundamental basis of democracy

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Can be considered "democratic" because it

- Allows individuals, civic groups and journalists to be producers and distributors of information
- Often by-passes traditional mass media to distribute information (eg, spreading plans to stage protests/crowd sourcing news and pictures at the same demos)
- Facilitates the formation of interest group associations independent of the limitations of geography, eg, #metoo
- Provides access to a broader range of sources of information

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Can be considered "undemocratic" because

- It facilitates one-to-many communication which is not always unmediated (ie, it can be intercepted before it reaches the consumer)
- Already powerful institutions (eg, governments, media organisations) can use the internet to consolidate and gain new kinds of power
- Potential surveillance capacity of the internet lends itself to undemocratic or totalitarian uses
- Freedom on the net is a corollary of social and political freedom
- Much of our online experience is dominated by a handful of wealthy and powerful tech companies who are not made responsible for the material promoted and amplified on their platforms

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Social media platforms' responsibility

- At the inception of the internet, the WELL (Whole Earth 'Lectronic Link) precursor to social media to communicate and share knowledge in a spirit of goodwill had few users and unwritten rules of behaviour
- As more people went online, they disregarded this etiquette
- Two test cases in the US deemed that if a company edited/censored its users' posts to remove misinformation/indecency/libelous claims, it would be a publisher and legally responsible for users' posts and could be sued,
- If the company left its users' posts unedited or unchallenged, it would simply be a platform, not legally liable

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Section 230 (US law)

- US Communications Decency Act, Title V of the Telecommunications Act, 1996
- This law, enacted before the major social media platforms were invented, has effectively dissuaded platforms from removing offensive, obscene or untrue content before it is published, giving power without responsibility
- No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider.
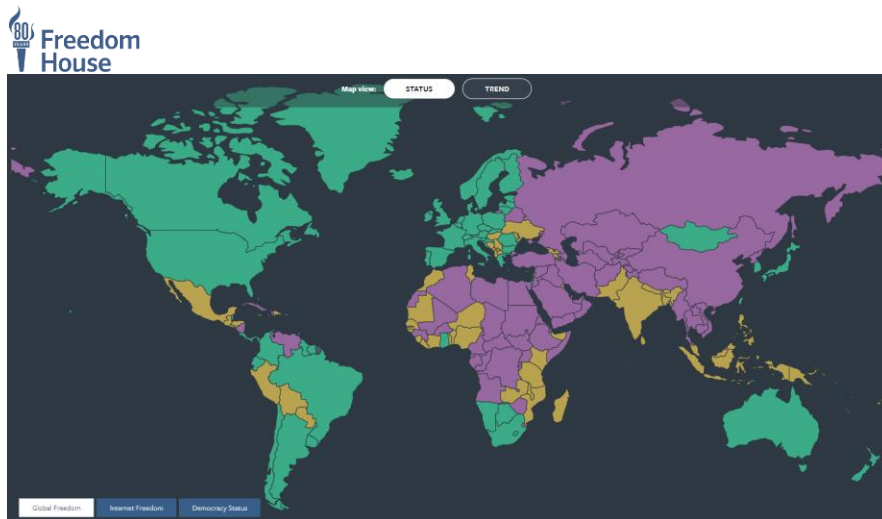
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Access to news – Australian example

- Australia has taken legislative steps to require tech platforms to negotiate with news organisations to re-distribute news in order to "level the playing field for public interest journalism in the digital age"

- The Australian competition watchdog has so far not needed to designate a digital platform's involvement with news organisations to reveal the relationship's terms

- Instead, Meta and Google have voluntarily negotiated payments to news organisations such as ABC, SBS and Nine Entertainment

- The resulting income has been used to fund extra journalists, including reporters in areas which previously had none
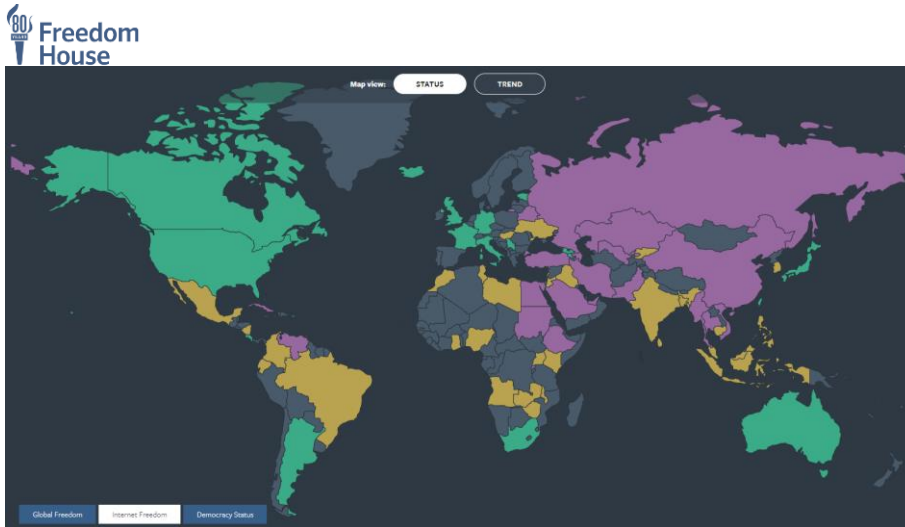
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Fig 1: Internet freedom largely mirrors democratic freedom

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Fig 2: Global internet freedom declined for the 12th consecutive year

Freedom House

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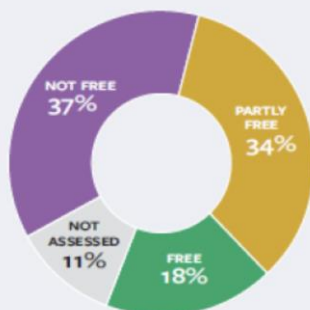School of Computing, Engineering & the Built Environment
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Freedom on the Net global statistics

GLOBAL INTERNET POPULATION BY 2022 FOTN STATUS

Freedom on the Net assesses 89 percent of the world's internet user population.

NOT FREE 37%

PARTLY FREE 34%

NOT ASSESSED 11%

FREE 18%

- Global internet freedom declined for the 12th consecutive year in 2022
- The sharpest decline occurred in Russia (now in 5th lowest place)
- China is in lowest place, followed by Myanmar and Iran
- Iceland ranks top for internet freedom, the US is 9th, the UK and Taiwan are tied in joint 5th place
- The Gambia and Zimbabwe experienced major improvements

(Freedom House, 2023)

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Internet in Russia

- Roskomnadzor (RKN), Russia's media and telecommunications regulator, requires internet service providers to install a unique, government-produced deep packet inspection (DPI) system that enables the blocking of websites across the country
- The Kremlin has used this system to block global social media platforms, Ukrainian news sites, and domestic sites that carry any hint of dissent regarding its invasion of Ukraine
- The coverage period also featured increased Russian blocking of websites that host LGBT+ content
- Russia scores 21/100 for internet freedom according to Freedom House (2024), compared to 78/100 for Taiwan

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Internet in Russia

- Although Google is available in Russia, it is not as popular as the Russian-based market leader, Yandex
- Yandex is the most visited website in Russia
- Like Google, Yandex offers also cloud storage, email, music streaming, online payments, maps, etc
- Russia's biggest social media site with over 75% market share is VK (Vkontakte) which offers private messaging and sharing photos, status updates, links with friends, communities, video and music streaming, and news
- Also popular is the free email service mail.ru
- As of September 2022, roughly six months after the invasion of Ukraine, around 1.2 million internet sites were blocked in Russia

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Internet freedom in Russia

- Roskomnadzor (RKN) is a Kremlin-established agency responsible for monitoring and policing electronic media, mass communications, information technology and telecommunications
- In September 2023, Roskomnadzor issued a statement that Russia would block WhatsApp if it disseminated "prohibited information"
- During the past year, the Russian government continued restricting access to popular censorship circumvention tools such as Virtual Private Network (VPN) services and anonymizers
- This has further undermined the ability of people in Russia to access information arbitrarily blocked by RKN

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Data privacy in Russia

- Since the invasion of Ukraine in March 2022, Russian authorities have expanded their control over people's biometric data, including by collecting such data from banks
- Russian authorities have expanded the use of facial recognition technology to surveil and persecute activists, particularly those opposing the war in Ukraine and opposing Vladimir Putin

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If all democracy is now digital democracy, what kind of digital democracy do we want?

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Internet shutdowns

- An internet shutdown is an intentional disruption of the internet or digital communications, which makes those services inaccessible by a specific population
- The campaigning non-profit organisation Access Now says it's "to exert control over the flow of information"
- Access Now's mission statement is "We defend and extend the digital rights of users at risk around the world"
- Access Now's "KeepItOn" campaign pushes against internet shutdowns

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Internet shutdowns

- Internet shutdowns lead to economic losses arising from the disruption of all aspects of business operations
- They also harm the informal economy, as digital transactions and the flow of capital enabled by social media platforms are halted
- Deliberate internet shutdowns cost the global economy $24bn in 2022 following 114 major outages across 23 countries (Top10VPN, 2023)
- The most common internet shutdown methods include ordering ISPs to implement multiple localised shutdowns (easier when the ISP is state controlled); DNS poisoning to render a website or app "invisible"
- Border Gateway Protocol hijacking deliberately routes internet traffic away from websites; individual users can be targeted and censored through deep packet inspection

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The Internet in Iran

- Twitter, Facebook, Telegram, and YouTube are all blocked or filtered, plus major blog-hosting platforms like Wix, WordPress, Blogspot, and Blogger; Iran has an internet freedom rating of 11/100 (Freedom House, 2024)
- Iran's internet backbone is highly centralised, which allows authorities to restrict connectivity
- The telecommunications industry is tightly controlled by the government
- Following the death of Mahsa Amini custody in September 2022, authorities implemented multiple internet shutdowns and mobile disruptions
- On the first anniversary of her death, the government ordered disruption of the internet and mobile networks to prevent people organising further protests

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Internet shutdowns in South Asia

- Pakistan has shut down its internet during the 2024 general election
- Myanmar has shut down its Internet outages often since its military coup
- India, though nominally the world's largest democracy (in 2022 it improved its Freedom on the Net ranking slightly following four consecutive years of decline) regularly imposes localised internet shutdowns during protests with central government tacit approval
- In India, digital activism has driven important social debates and at times has helped usher in policy changes
- Paradoxically, its government is driving a campaign for "Digital India" which includes initiatives to improve connectivity in rural areas, to address the severe urban-rural and gender digital divides

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e-Government definitions

- The European Commission defines e-government as "using the tools and systems made possible by ICTs to provide better public services to citizens and businesses"
- The World Bank's definition of e-Government is "the government owned or operated systems of ICTs that transform relations with citizens, the private sector and/or other government agencies so as to promote citizens' empowerment, improve service delivery, strengthen accountability, increase transparency, or improve government efficiency" (2001)

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The nature and purpose of e-Government

- The concept of e-government is for communication, transaction, and relationship between a government, its citizens, private sector, ministries and government departments, and its employees
- **Communication** enables online access to government and local authority information about services
- **Transaction** allows online payment to government and local authorities for services
- **Relationship** encourages active participation by the public in helping government to deliver good services

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Internet freedom in Taiwan

- Taiwan ranks 6th in the world for internet freedom, and has one of the freest Internet environments in Asia
- However, internet freedom has declined this year due to concerns about overly broad and opaque website blocking
- Freedom House commends Taiwan's civil society, technology sector, and government for taking innovative actions to counteract the negative impact of disinformation campaigns from China
- The Freedom House 2023 report notes that criminal prosecutions of online activities and concerns about excessive surveillance threaten Internet freedom in Taiwan
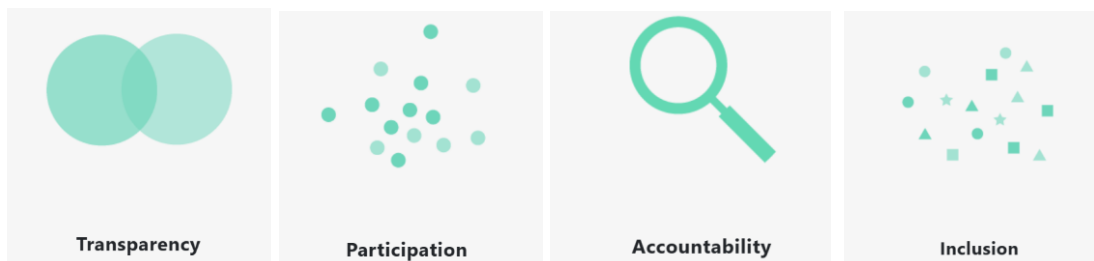
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e-Government example: Taiwan

- Taiwan originated the "g0v" (gov-zero) movement, a decentralised civic tech community with information transparency, open results and open cooperation as its core values
- Taiwan's government is promoting citizen-led fact-checking and public opinion collation
- Taiwan has implemented "participation officers" (POs) to increase openness in transparency across all government agencies
- Their most important task is to assist public sector organisations to listen to the opinions of the public, and plan cross-agency policies in co-operation with them
- POs have skills in public communication, be familiar with policy content, and make good use of web tools

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Fig 3: The four elements of Taiwan's open government

Transparency   Participation   Accountability   Inclusion

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Taiwan's open government definitions

- **Transparency**: "Politics is everyone's business, and the policy process should allow the public to have a clear understanding of "what's going on"."
- **Participation**: "the public is given the opportunity to participate in discussions, express opinions, and even further influence the content of policy on topics of interest."
- **Accountability**: "When the public has doubts about the process of policy formation, we can look back to see what are the reasons"
- **Inclusion**: "if the public sector is able to allow the various stakeholders who are directly affected by policy to fully voice their views and able to listen to their dialogues, it can collect as many views as possible to reduce the likelihood of policy errors."

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Achieving successful e-Government

Many factors influence the public's acceptance of and willingness to use e-Government, including:

- Data security
- Accessibility to information and services
- Privacy
- Transparency
- Economic factors
- Education
- Trust in the government

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Reference

Freedom House (2023). *Technology & Democracy*. Retrieved February 6, 2023, from https://freedomhouse.org/issues/technology-democracy

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