

# Data misuse

Version: 1.0



# Learning intentions

We will be looking at **how data can be misused**, specifically,

- What is data misuse
- What is malicious data misuse and how it can happen
- What is accidental data misuse and how it can happen

# Background

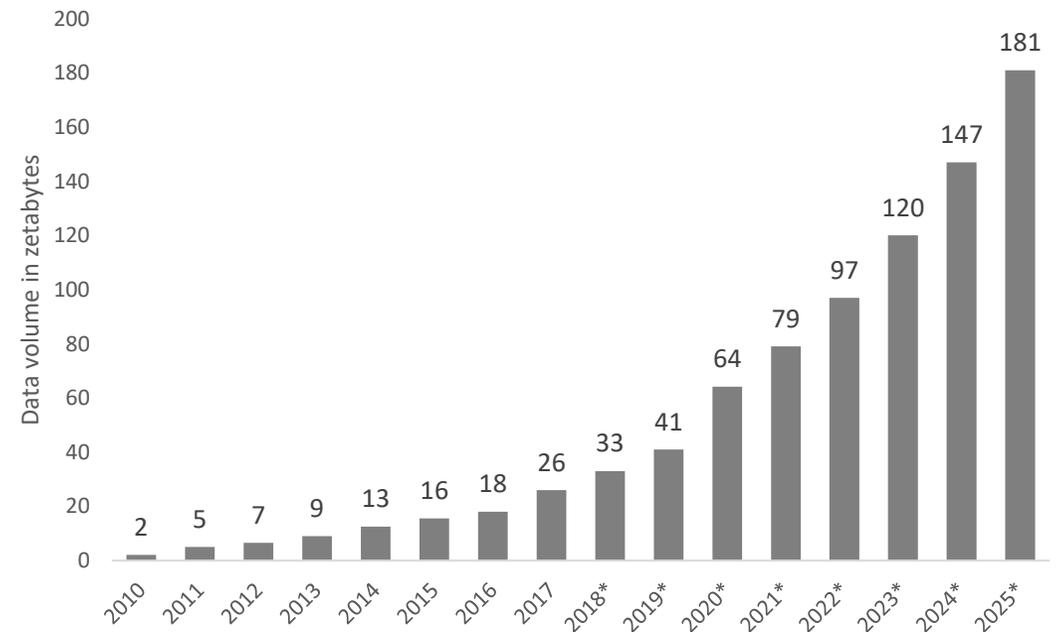
Around the world, the amount of data that is created and consumed is growing dramatically each year.

With lots more data being created along with the number of users increasing, the possibility for it to be misused grows as well.

This lesson we will look at the different types of misuse data.

Volume of data created, consumed and stored worldwide from 2010-2025

(source: Statista)



<https://www.statista.com/statistics/871513/worldwide-data-created/>

\* Years 2018 to 2025 based on combining multiple sources and forecasts

# Definition



## **Data misuse**

When data is used in a way that is different from what was originally intended

# Show me...



Data can be misused in loads of different ways. Here are some examples of data misuse.



Bank employee **looking at a friend's account balance**



Company **sells personal details** to another company without permission



Applications that can **track your movements** without you agreeing to it



**Fake social media profile** created using information copied from a real person

# Why is stopping data misuse important?



**Individuals can be put at risk** if their sensitive data is misused



**Companies can lose money** either through fines or by losing customers due to lack of trust



People **voting in elections could be illegally influenced** by data that has been misused

# Types of data misuse

There are 2 types of data misuse,

Data misuse

Malicious



Accidental



# Definition



## **Malicious data misuse**

When data is deliberately misused for individual or organisational gain



# Malicious data misuse



Data can be maliciously misused for,



Personal gain



Political gain



Commercial gain

# Your turn...



Can you think of any reasons **why** someone might want to maliciously misuse data for personal gain?

*Reminder: Data misuse is when data is used in a way that is different from what was originally intended*



# Your turn...



Can you think of any reasons why someone might misuse data for personal gain?

- To make **money**
- To **cause problems for organisations** they don't like
- To **find out information about other people** without their knowledge



We are now going at examples where data has been misused for personal gain.

# Show me...



In July 2020, a **group of hackers** led by a teenager convinced a **Twitter employee into giving them access to administrative tools.**

This allowed them to gain access to and manage any account, including resetting passwords.

They took over the accounts of people such as Barack Obama, Jeff Bezos and Elon Musk. Using these accounts they sent out scam tweets asking for bitcoins.

These individuals were able to **maliciously misuse data to make money.**



# Show me...



Uber created and used to a tool called **“God View”**.

This allowed Uber employees to access and track the location and movements of Uber riders without their permission.

The issue was highlighted when a **Buzzfeed journalist found out an Uber employee had been tracking her movements without her permission.**

Uber was fined and stopped using the tool. They also agreed to hire an outside firm to audit their privacy practices every two years from 2014 through 2034.



Your turn...



Can you think **how** someone might misuse data for political gain?



# Your turn...



Can you think **how** someone might misuse data for political gain?

- By **“selectively”** using facts to back up their view
- By **contacting people without their permission**
- By **targeting adverts** at people based on illegally collected personal data.

We are now going to look at examples where data has been misused for political gain.



# Show me...

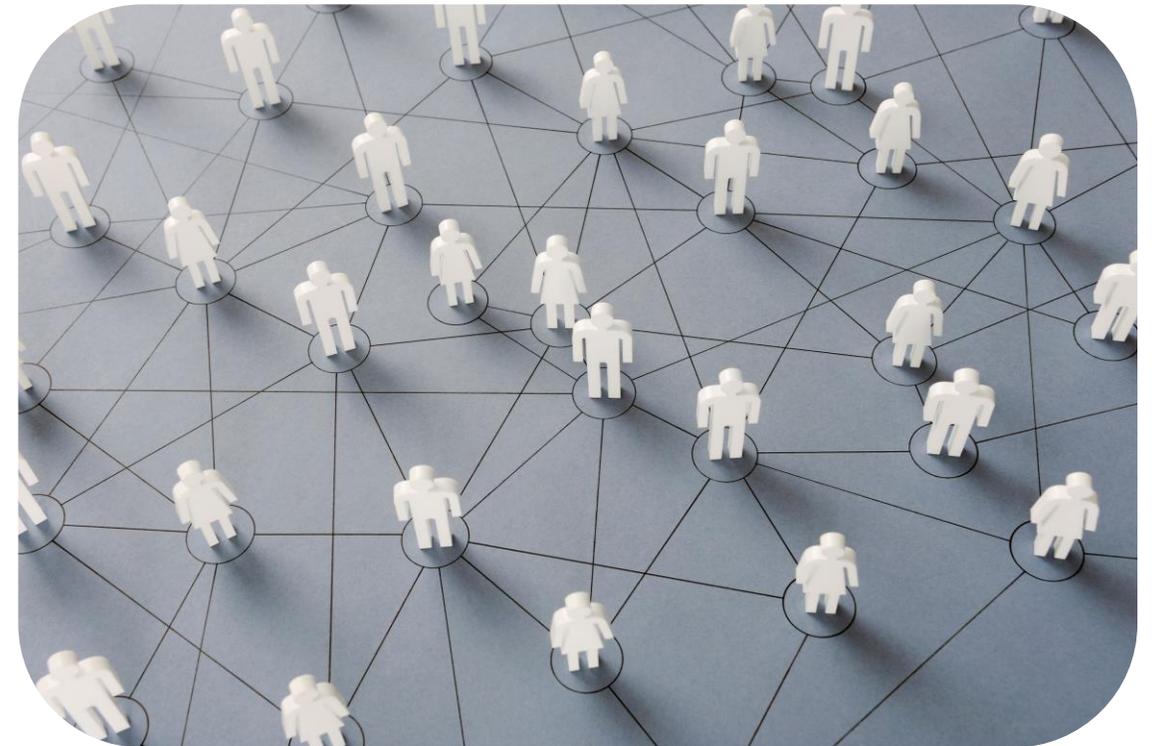


During the 2010s, personal data belonging to millions of Facebook users was collected by political consulting firm **Cambridge Analytica**.

The data was collected through an app called “This Is Your Digital Life” which asked questions to build a psychological profile on users. However it also **collected personal data of the users’ Facebook friends**.

The data was used to assist the 2016 USA presidential campaigns of Ted Cruz and Donald Trump.

**Facebook was fined \$5 billion for the data misuse.**



# Show me...



In 2017, it was discovered that the Home Office was misusing data.

- Charities had been collecting personal **data on homeless people to support them**
- Home Office immigration officials requested access to the data
- **Home office used the data to find and then deport EU nationals** who were sleeping rough from Britain.

When the charities discovered that the data was being misused, they stopped sharing it.



<https://www.theguardian.com/uk-news/2017/aug/19/home-office-secret-emails-data-homeless-eu-nationals>

# Your turn...



How was the Home Office using the homeless data an example of data misuse?

Some things to think about,

- Whose data had been collected and why?
- Who was allowed to use that data?



# Your turn...



When the data was collected it was,

- To **support homeless people** be directed to the appropriate services
- To be used by charities and similar organisations.

Whereas the Home Office was using it to deport people.



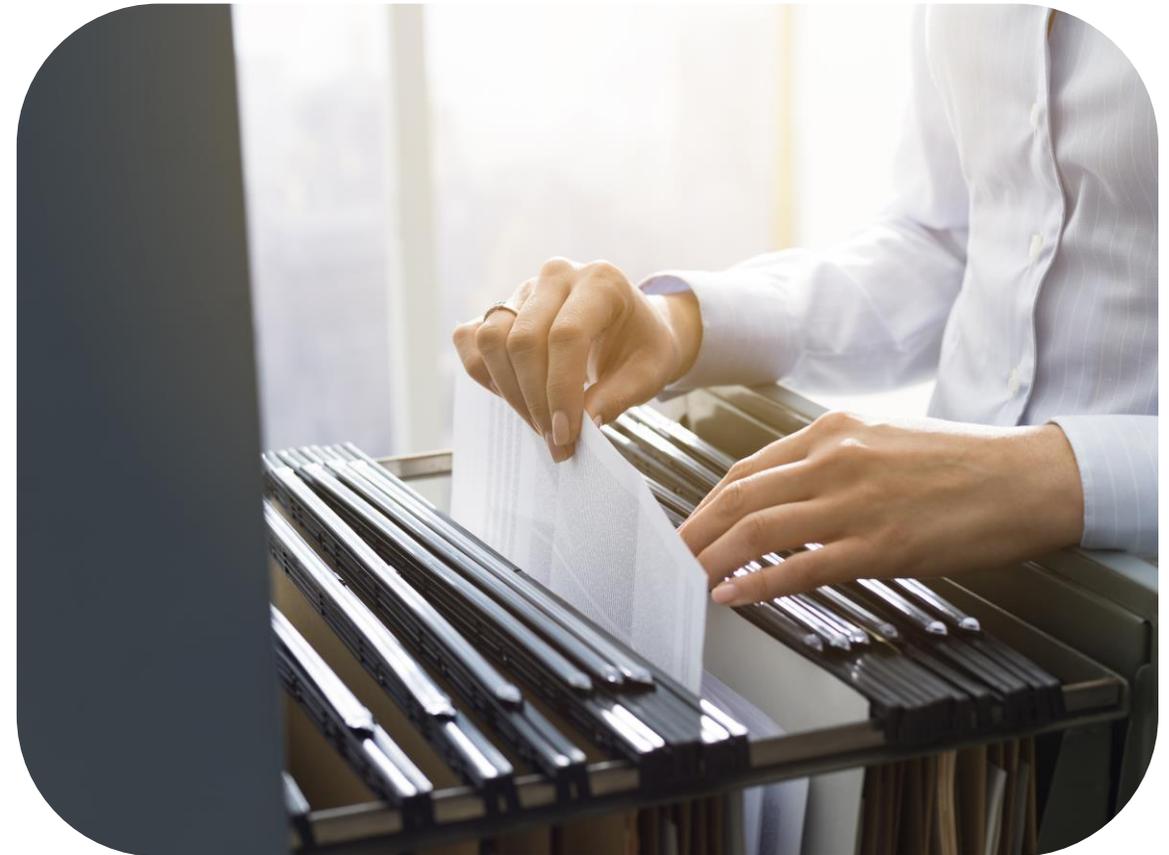
# Malicious data misuse for commercial gain



Companies can misuse data for commercial gain.

This can be done by,

- Using data for **purposes they haven't told customers** about
- **Sharing false information** to benefit a company
- Sending **marketing promotions** to customers who have not agreed to receive it
- **Sharing personal data** with other organisations



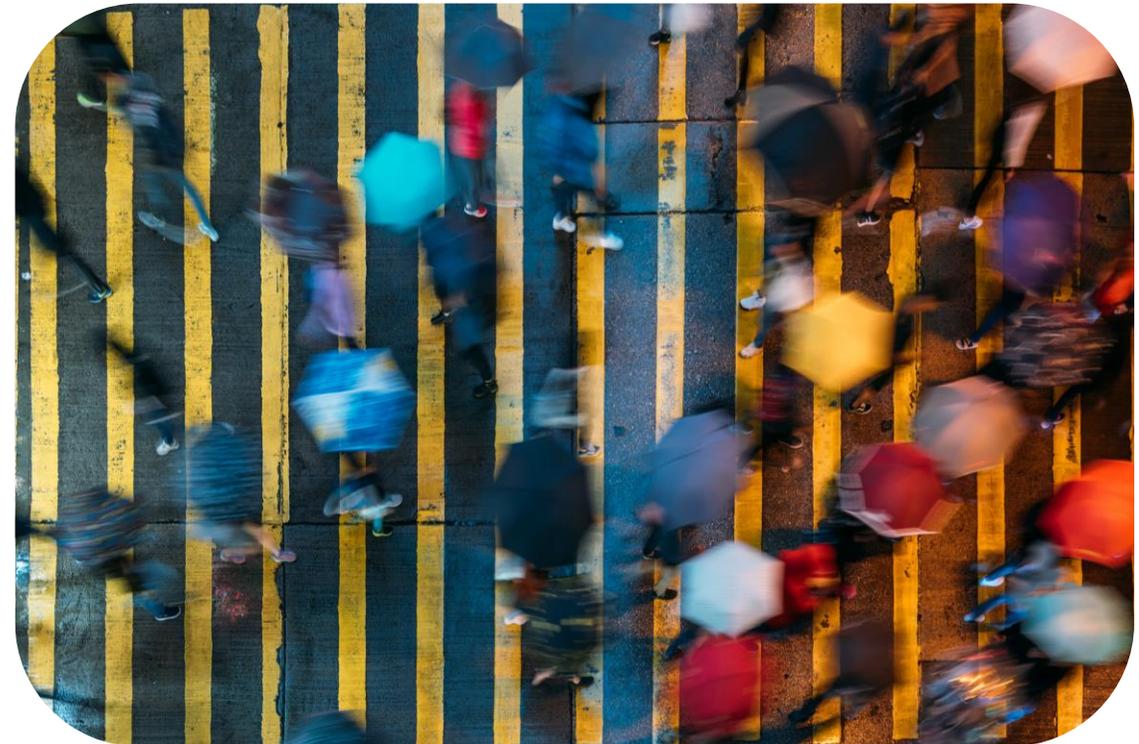
# Show me...



In 2019, the information commission's office fined two companies owned by Aaron Banks (Leave.EU and Eldon Insurance), for combining the customer data across the 2 organisations.

This meant that political data was used for insurance and insurance data for politics.

The companies were fined £135,000 for data misuse.



# Show me...



We Buy Any Car was fined £200,000 for sending 191 million emails to potential customers between April 2019 and April 2020 without consent.

People had requested an online valuation of their vehicles, but were then sent marketing emails they had not agreed to.



## Next steps

Complete **questions 1 to 5**  
in **section 1** of the  
'Data misuse' workbook.

# Definition



## **Accidental data misuse**

When the unintended consequences of processing data results in misuse



# Causes of accidental data misuse



Accidental data misuse can happen when,

- **Data is unintentionally shared** with people who shouldn't have access to it
- Data is shared legally, but the way it **used by others** is not what was expected



# Show me...



The charity '**HIV Scotland**' sent out an email to 105 people. All the **email addresses were visible** to all recipients, and 65 of the addresses identified people by name.

If an individual was included in the mailing list for this email, an **assumption could be made about the individual's HIV status or risk.**

The **charity was fined £10,000**, as the email should have hidden the email list from the other people receiving it.



# Your turn...



The Samaritans created a plug-in for Twitter to allow users to monitor each other's posts.

The idea was to highlight people who were sending tweets that might be struggling to cope and were at risk of harming themselves.

After 6 months it was switched off due to data misuse concerns.

**What data misuse concerns can you think of that meant the plug-in needed to be switched off?**



# Your turn...



The Samaritans said they switched off the plug-in because of,

- Concerns around privacy, as people being monitored were **never notified or asked to consent**
- Concerns that people might censor their tweets making Twitter a **less safe space for people who were struggling**
- Potential **to be used for bullies**, rather than friends trying to help



# What if you see data misuse?

We all have a responsibility to protect the data we use and be aware of the potential for data misuse.

If you believe that data is being misused you should **report it first to the organisation/group** involved, and if you are still not happy you can **report it to the information commission's office**.

<https://www.gov.uk/data-protection/make-a-complaint>

## Next steps

Complete **questions 1 to 5**  
in **section 2** of the  
'Data misuse' workbook.

# Learning checklist

I can *describe* what is meant by data misuse

I can *describe* what malicious data misuse is and how it might happen

I can *describe* what accidental data misuse is and how it might happen

# How you can use this lesson



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