

Your data and AI

AI safety

Your data and AI

Activity links:

[Video activity slides \(slides 4–9\)](#)

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Your data and AI

In these sessions, you will:

- Explain the differences between rule-based and data-driven systems
- Evaluate the ways you share data that could be used in a data-driven system
- Build a set of expectations of fairness, transparency, and accountability in how an AI application uses your data

Rule-based vs data-driven systems

AI systems use data in new ways

Newer AI systems make use of machine learning to solve problems in a data-driven way.

This means that instead of pre-programmed rules, example data is used to create **a model**.

This means that there are new ways for AI applications to use **the data** you supply.

Your data and AI



[Watch the video on YouTube](#)

AI or not AI?

For each of the following software examples, decide whether or not you think it uses AI and justify your answer.

Think about whether it is **rule-based** or **data-driven**.

Example 1

A recipe app that recommends recipes based on a user's social media feed

AI

The service will use the the user's posts, compare them to other users', and make a prediction of what the user would like to cook or eat.

There are too many variations in taste to be able to create rules for each user.

Example 2

A shopping app that uses formulas to work out the total cost of your basket

NOT AI

The app will work out the total cost of the basket using rule-based formulas.

Example 3

A medical chatbot designed to recommend a health service for common problems that patients have

Could be AI

A chatbot could use IF/THEN rules to respond to **specific** inputs. This would not use AI.

If the chatbot is able to recognise the meaning of any sentence that a customer enters and use a model to produce an appropriate response, this would make it an AI application.



Data detective

Where is your friend's personal data going and who is using it?



Get into groups of 2–3 people

Introduction

What data do social media platforms collect about their users?

Think about...

Personal data

Data about the user

Usage data

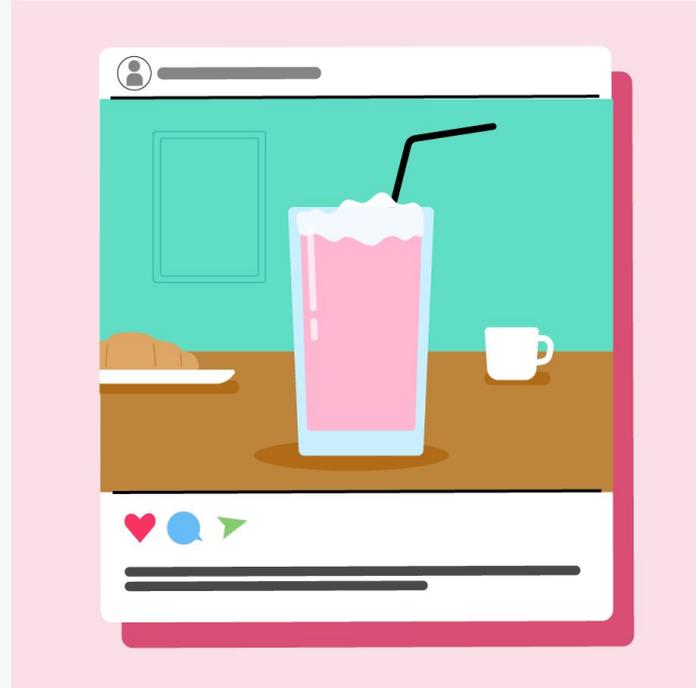
Data generated by using the platform

Meet Aya

Aya is at a café with her best friend and they've just had a delicious milkshake.

Aya loves sharing fun moments like these on Buzzworthy, the social media platform she is on.

She takes a picture of the milkshake and posts it.



Meet Aya

A few hours later, Aya notices two things in her feed that have made her curious:

- Posts about local cafés in her city
- Ads for a new milkshake at a fast food chain

Aya wonders how Buzzworthy has selected this content to show to her...

Decoding the Terms & Conditions



1.1 Let's investigate!

Read Buzzworthy's **Terms & Conditions** and uncover what data is collected in section **1**.

Personal Data Collection. Add this data to your worksheet.

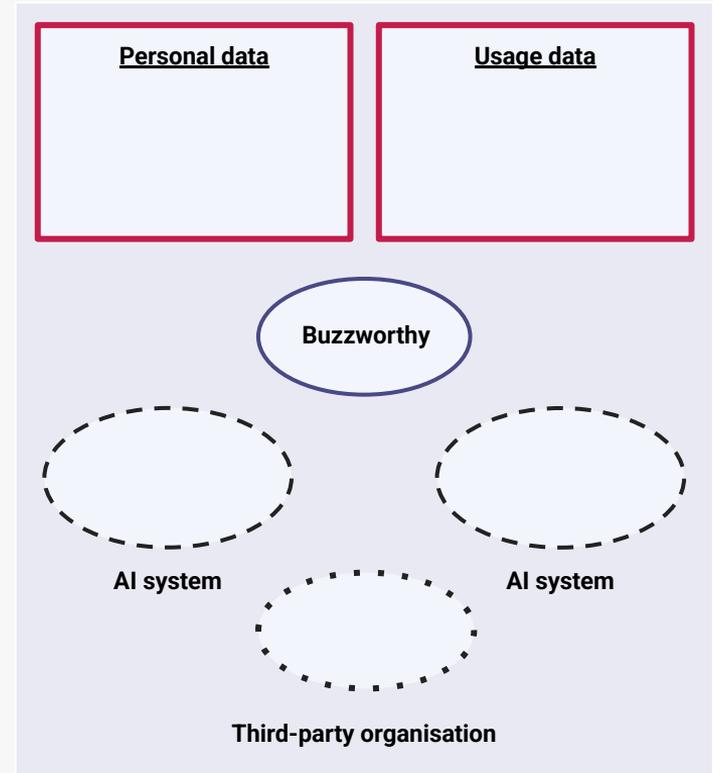
There are boxes for:

Personal data:

Data shared when Aya signed up

Usage data:

Data generated when Aya uses the platform

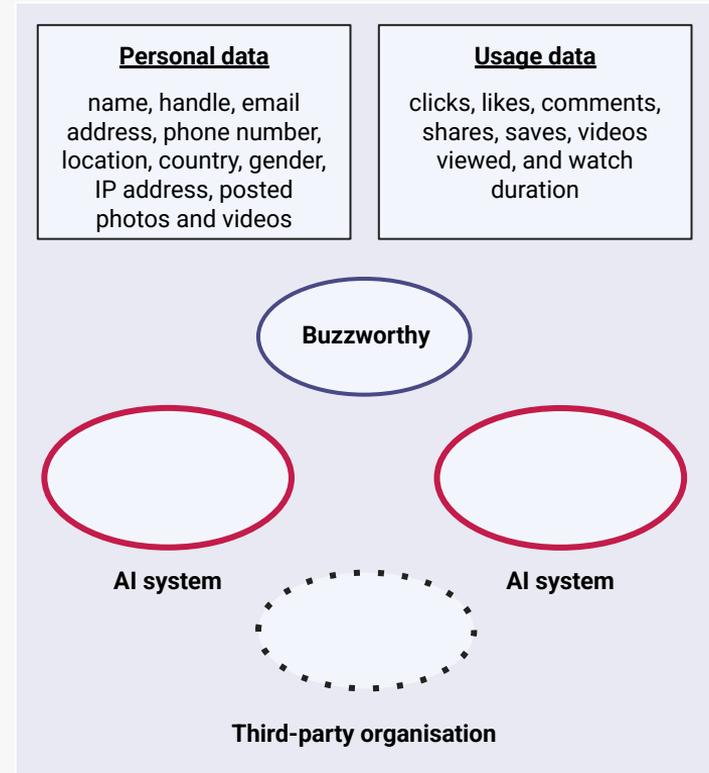


AI systems behind the scenes



1.2 Time to see how Buzzworthy uses AI systems!

Read section **4. Use of AI Systems** in the **Terms & Conditions** and put the AI systems in the two ovals.

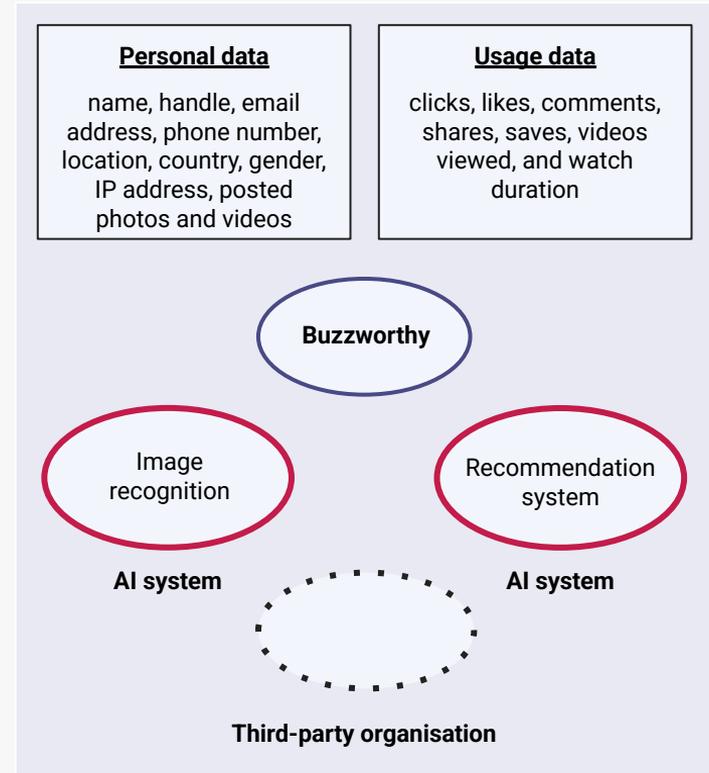


AI systems behind the scenes



What AI systems are used in Buzzworthy?

- **Image recognition system:** Identifies objects in Aya's photo (like the milkshake)
- **Recommendation system:** Uses data from similar users to suggest relevant content or ads



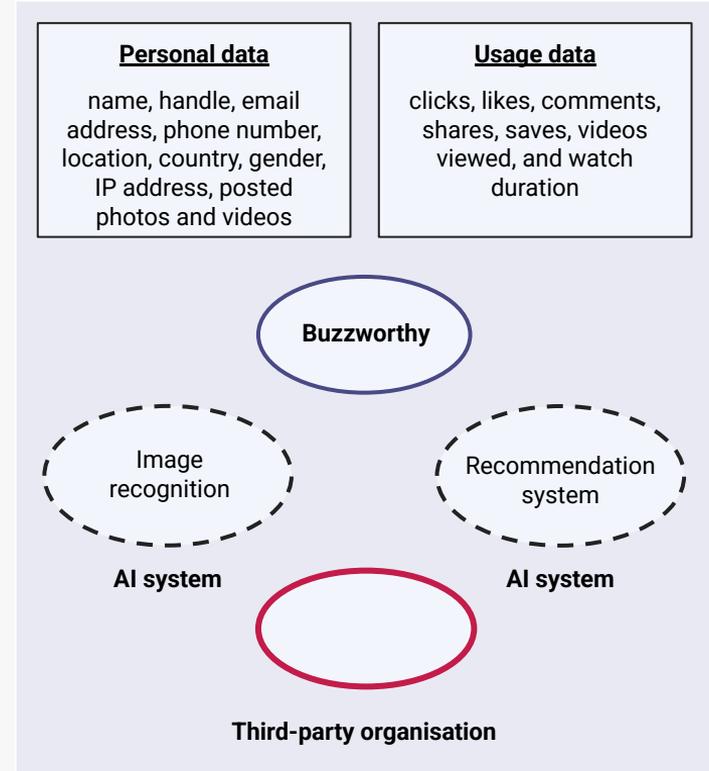
Third-party organisations



1.3 Who else is using Aya's data?

Read section **3. Sharing Personal Data** in the **Terms & Conditions** and identify any third-party organisations.

Add this to your worksheet.

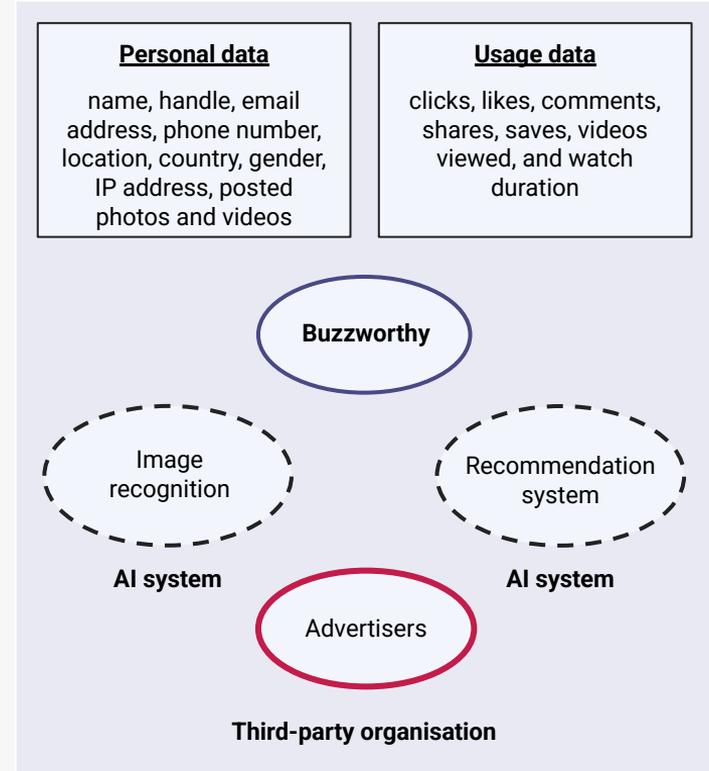


Third-party organisations



Advertisers are a third-party organisation. This means that they are a separate company outside of Buzzworthy.

Buzzworthy works with advertisers to show their ads to relevant users, like Aya.



How does data move?

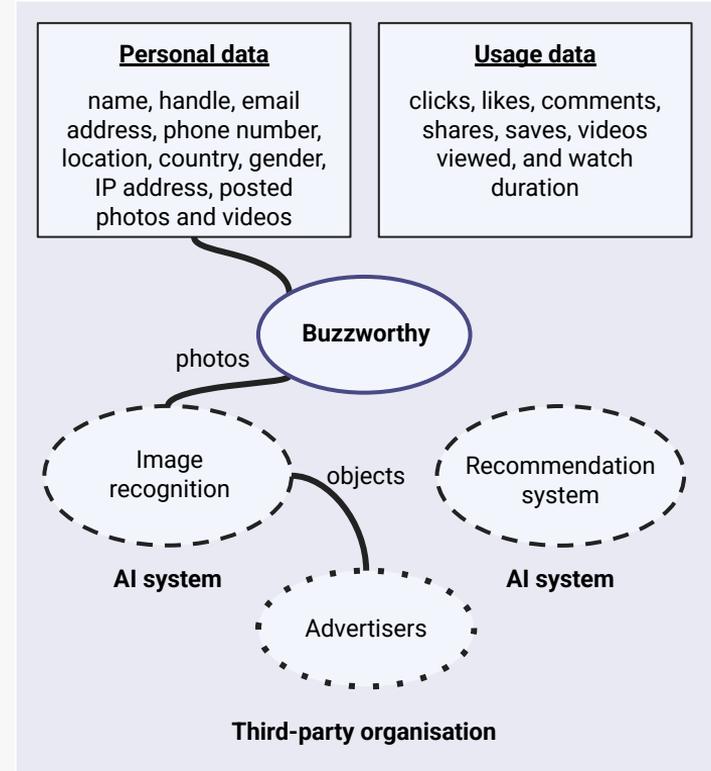


1.4 Draw lines to connect the user's data to Buzzworthy.

Then, draw a line for each piece of data that flows from Buzzworthy to the **AI systems** and **third-party organisation**.

Write the name of the data alongside the arrow.

Here is an example...



How AI influences Aya's feed

As you wrap up your investigation, let's explore how AI systems in Buzzworthy use Aya's data to make predictions and recommendations to her.

How AI influences Aya's feed

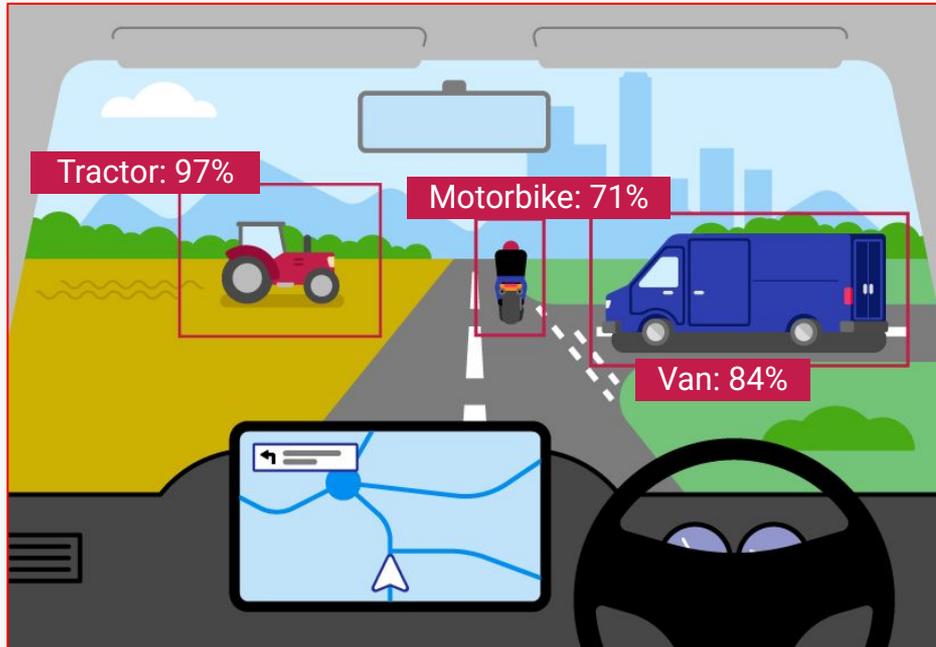
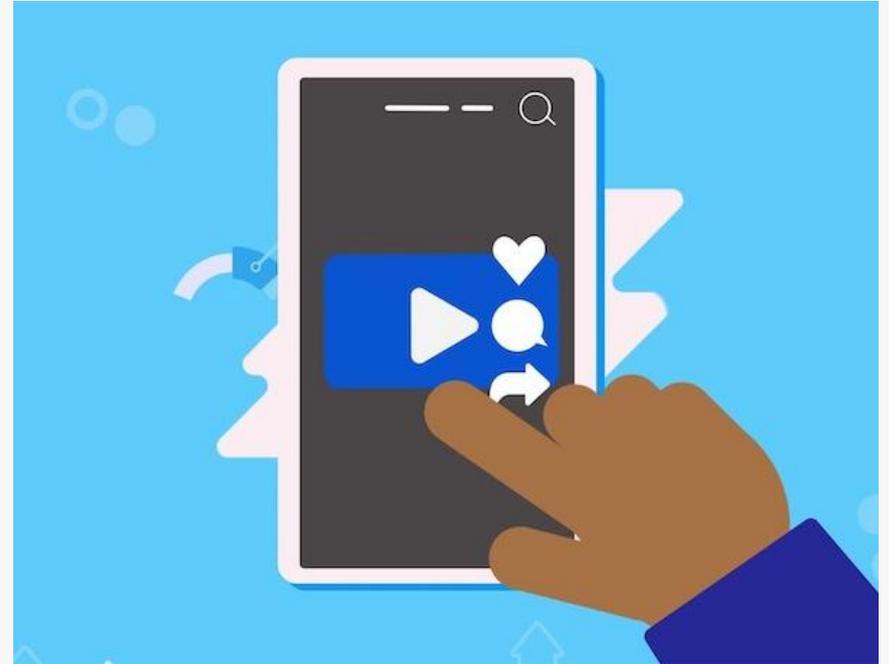


Image recognition: AI-powered image recognition systems analyse photos and identify objects and places in the photo, such as the milkshake in Aya's post.

How AI influences Aya's feed

Recommendation system: Buzzworthy's recommendation system analyses data from Aya's social media activity. It uses this information to identify her preferences by comparing her to similar users.

Based on these patterns, the AI system can predict and recommend relevant content and targeted advertisements to Aya.



What should Aya do next?



Based on your investigation, help Aya decide how to handle her personal data and media on Buzzworthy.

Do you think Aya should:

Share her data freely for better recommendations.

Adjust her privacy settings and choose who to share data with.

Limit her data sharing to the minimum necessary.



AI Business Boss

Do you think you have what it takes to create a billion-dollar AI start-up?

In this unplugged activity, you'll invent and pitch your AI product ideas to the very wealthy investor: the AI Business Boss.



Get into groups of 2–3 people

AI Business Boss game rules



- Each AI start-up will draw one **'ask' card** and one **'must have' card**.
- Start-ups have **5 minutes** to incorporate both cards into a start-up idea and **create a pitch**.
- Start-ups have **1 minute to pitch** to the AI Business Boss.
- The AI Business Boss has **1 minute to ask questions** of the start-up.
 - The AI Business Boss will invest in AI applications that ensure data collection is ethical, fair, and transparent.
- The start-up with the **most funding wins!**

Pitch instructions for start-ups



Your team has **5 minutes** to create a pitch, and **1 minute** to pitch.

Each pitch must include:

- A description of the AI application
- What the key features and benefits are
- The specific privacy and safety challenge addressed

AI Business Boss instructions



As the AI start-ups are creating their pitches, think about what questions you want to ask:

- Are **privacy** and **safety concerns** addressed?
- Is all the data collected **necessary**?
- Is the start-up asking for users' **permission** to collect data?
- Is the users' data used **ethically** and **fairly**?

After the AI start-up has delivered their pitch, you have 1 minute to ask questions.

You have \$100 million to invest, and should award start-ups with at least \$10 million per successfully addressed point.

Ready, set, create!



AI Business Boss

- Select 1 team to be the AI Business Boss



Start-ups

- Draw one 'ask' card and one 'must have' card
- You have **5 minutes to create a pitch**

Pitch!



- Start-ups have **1 minute to pitch** to the AI Business Boss
- The AI Business Boss has **1 minute to ask questions** of the start-ups



Funding

- The AI Business Boss will award \$10 million per successfully addressed point



And repeat!

If time allows, choose a new AI Business Boss for the next round and repeat the cycle!

Importance of privacy in AI applications



Think, pair, and share:

- What **innovative features** did you come up with to protect the user's privacy?
- What **challenges** did you face in **balancing functionality and privacy**?
- How important do you think **privacy is for developers** of AI tools and applications?

Ask:

Create an AI app that lets parents check on their child's online activities without invading their privacy

Ask:

Develop a social media platform that connects people watching funny cat videos and memes in the same area

Ask:

Create a party planning app that gives tailored recommendations for party essentials (table cloths, napkins, etc.)

Ask:

Design a tool that translates websites' Terms & Conditions or Privacy settings into simple language

Ask:

Develop an AI app that helps users find lost socks using the camera

Ask:

Invent a travel app that uses AI to plan spontaneous weekend getaways tailored to the user's interests and social media behaviour

Ask:

Create an AI-powered app that helps students with their homework by explaining concepts in fun and interactive ways

Ask:

Develop an AI app that helps users come up with excuses for being late to class based on their interests, calendar, and geographical location

Ask:

Create a 'Personalised Emoji Creator' that turns users' selfies into unique emojis for their group chat

Ask:

Invent a 'Digital Doppelganger Detector' that alerts the user when someone is using their photos online without their permission

Ask:

Develop an AI music creation app that creates song lyrics inspired by the user's group chat conversations

Ask:

Create an app that puts people with similar interests in a group chat together

Ask:

Develop an AI app that helps users avoid painful toe stubs by alerting them of potential obstacles in the way

Must have:

Must not share data with third parties

Must have:

Must guarantee complete privacy

Must have:

**Must include a feature to delete user
data on request**

Must have:

Must include an 'invisible' mode that makes all user activities invisible to unwanted followers

Must have:

**Must include the voice of a well-known
celebrity for all interactions**

Must have:

**Must operate without an internet
connection**

Must have:

Must include a feature that predicts the user's mood based on their online activity

Must have:

Must come with a built-in AI coach that gives motivational speeches

Must have:

**Must ensure that all AI-driven features
are transparent about how they work**

Must have:

Must offer a feature for users to explore and understand the AI's decision-making process

Must have:

**Must ensure all AI features are designed
with ethical guidelines in mind**

Must have:

Must answer privacy questions with the following responses: 'Ask again later', 'Yes, definitely', 'No, certainly not'

Must have:

Must respond to all security breach alerts by displaying the text:

“Not again!”

or

“It’s probably fine...”

Your data and AI

In these sessions, you learnt

- The differences between rule-based and data-driven systems
- The ways your data that could be used in a data-driven system
- About your expectations of fairness, transparency, and accountability in how an AI application uses your data