WARWICK BUSINESS SCHOOL

An introduction to Business

How does technology change business?

Dr. Ephie Wang

17th July 2026

Agenda

- Lecture 10-11am
- Refreshment Break
- Seminar 11.15-1pm

Teaching team

- Lecturer

Dr. Ephie WANG

- Teaching Assistant - Seminars

Lebo NTHOIWA

Sumedha BAKSHI

Student → Researcher → Academic staff

Dr. Ephie Wang
Teaching Fellow at ISMA group, Warwick Business School
Academic Lead for Research Technicians at the Gillmore Centre

Background

- PhD in Information Systems Management & Analytics, Warwick Business School
- Masters in Management Information System & Digital Innovation, Warwick Business School

Currently teaching

Programme	Modules
• Exchange Students • Joint Degrees • BSc International Management • BSc Accounting and Finance • BSc Management • MSc Management of Information Systems and Digital Innovation • MSc Financial Technology	• Programming for Business Application • AI in Business Practices • Digital Finance, Blockchain & Cryptocurrencies • Digital Business Services • FinTech for Consumer Financial Services • Programming and Big Data Analytics • FinTech in Practice

Technology has changed every business

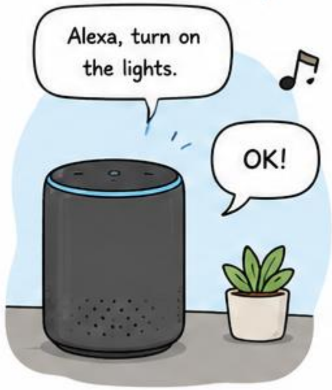
From how we live... to how businesses create value and serve us.

Apple Watch
can track your heart rate

Used for...

Healthcare & Fitness
- Monitor health
- Prevent disease
- Personalised wellness
- Lower healthcare costs

Alexa
can help at home



Used for...

Smart Home & Lifestyle
- Control devices
- Set reminders
- Play music
- Get information

Self-driving cars
can drive on their own

Used for...

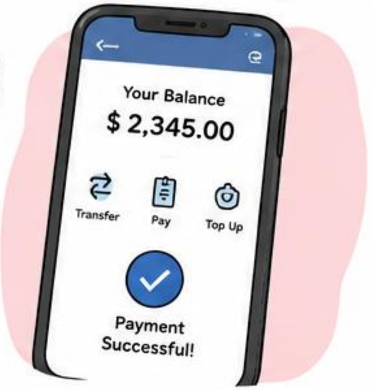
Transport & Logistics
- Safer roads
- Less traffic
- Lower delivery costs
- New mobility services

AI recommendations
know what you like

Used for...

Retail & E-commerce
- Personalised shopping
- Better customer experience
- More sales
- Customer loyalty

Mobile banking apps
in your pocket



Used for...

Finance & Banking
- Easy transactions
- 24/7 banking
- Financial inclusion
- Better security

Technology is not just a tool. It creates new ways to solve problems, add value, and improve lives.

Business → Problems → Technology → Better Business

- Learning objective:
  - By the end of this lecture you will understand why businesses use technology, and why technology alone doesn't solve problems.

How many of these have you used this week?

Technology has become part of almost everything we do

- But businesses didn't adopt technology just because technology is cool.
- They adopted it because they had problems to solve.


Let's look at a story...
Bubble Tea Shop
BUBBLE TEA
GOOD TEA, GOOD TIME
MILK TEA
FRUIT TEA
TOPPINGS
Brown Sugar Milk Tea
FRESH TEA EVERY DAY
Business owner says...
"Customers keep complaining."
Why?


What's going on?
Symptoms
Long queues
Customers leave
Bad reviews
BUBBLE TEA
If you owned this shop...
What would you do?

Symptoms

Prescription

Symptoms


Long queues
BUBBLE TEA


The App Flow
1 Customer ordering on the app
Bubble Tea Shop
ORDER
2 Shop taking the order
New Order
1 x Brown Sugar Milk Tea
1 x Taro Milk Tea
3 Making Drinks
4 Pickup
PICK UP HERE
?
Will this solve the problem?

Even after building the app...

Why?

Customers are still waiting 20 minutes and complain.

Why?

Symptoms Prescription

Problem

Solution

Understanding the business first – As-Is

- Not enough barista
- Not enough equipment
- Drink takes 5 mins

- Queue? ❌
- Production capacity

- **Technology cannot fix a problem you don't understand.**

As-Is To-Be Framework

As-Is

- Current State
- How the business works today
- Understand reality

To-Be

- Future State
- How the business should work
- Design improvements

Technology

As-Is → Identify problems → Design To-Be

Symptoms ← Root Cause ← Prescription

Example 1 – DVD renting as-is

- 20 years ago…

Visit DVD shop

↓

Browse shelves

↓

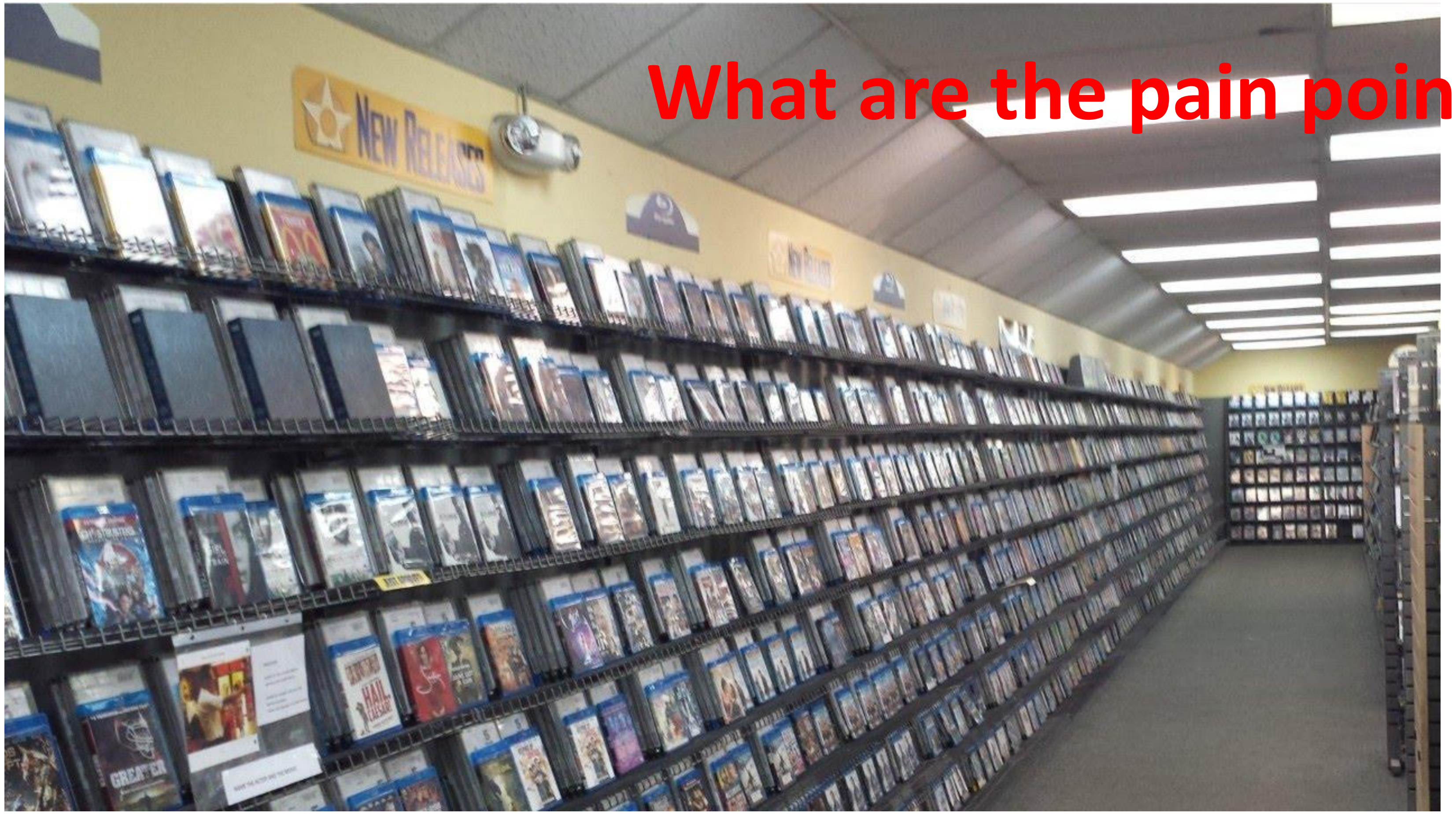
Rent DVD

↓

Watch

↓

Return DVD



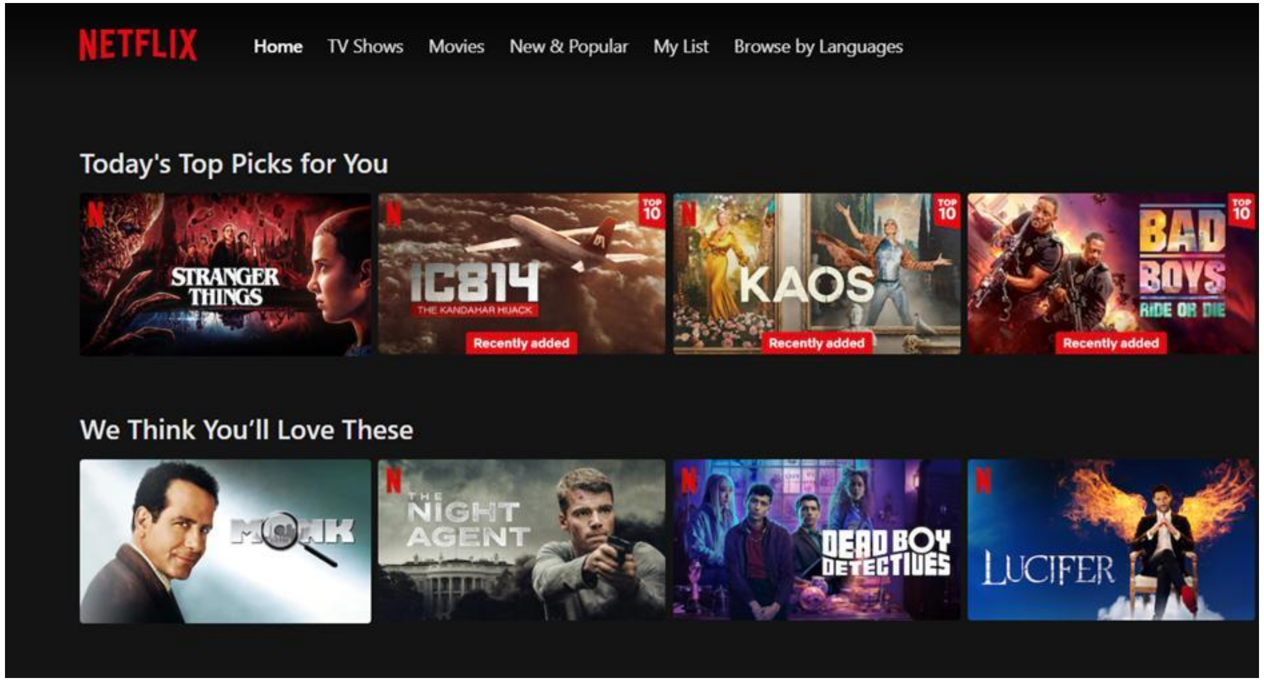
What are the pain points?

Example 1 – DVD renting pain points

Example 1 – DVD renting / Netflix to-be

- Netflix…

Visit website
↓
Login
↓
Choose
↓
Watch



- No travelling
- No returns
- Unlimited catalogue

Problem solved?

Example 1 – Netflix New Problem

"There are now 200,000+ titles."

How do I know what to watch?

Example 1 – Netflix New Problem /As-Is

Pain point?

Choice overload

"There are now 200,000+ titles."

How do I know what to watch?

Netflix homepage

↓

Search

↓

Scroll

↓

Scroll

↓

Scroll

↓

Leave

Example 1 – Netflix New To-Be

Visit Netflix

↓

Login

↓

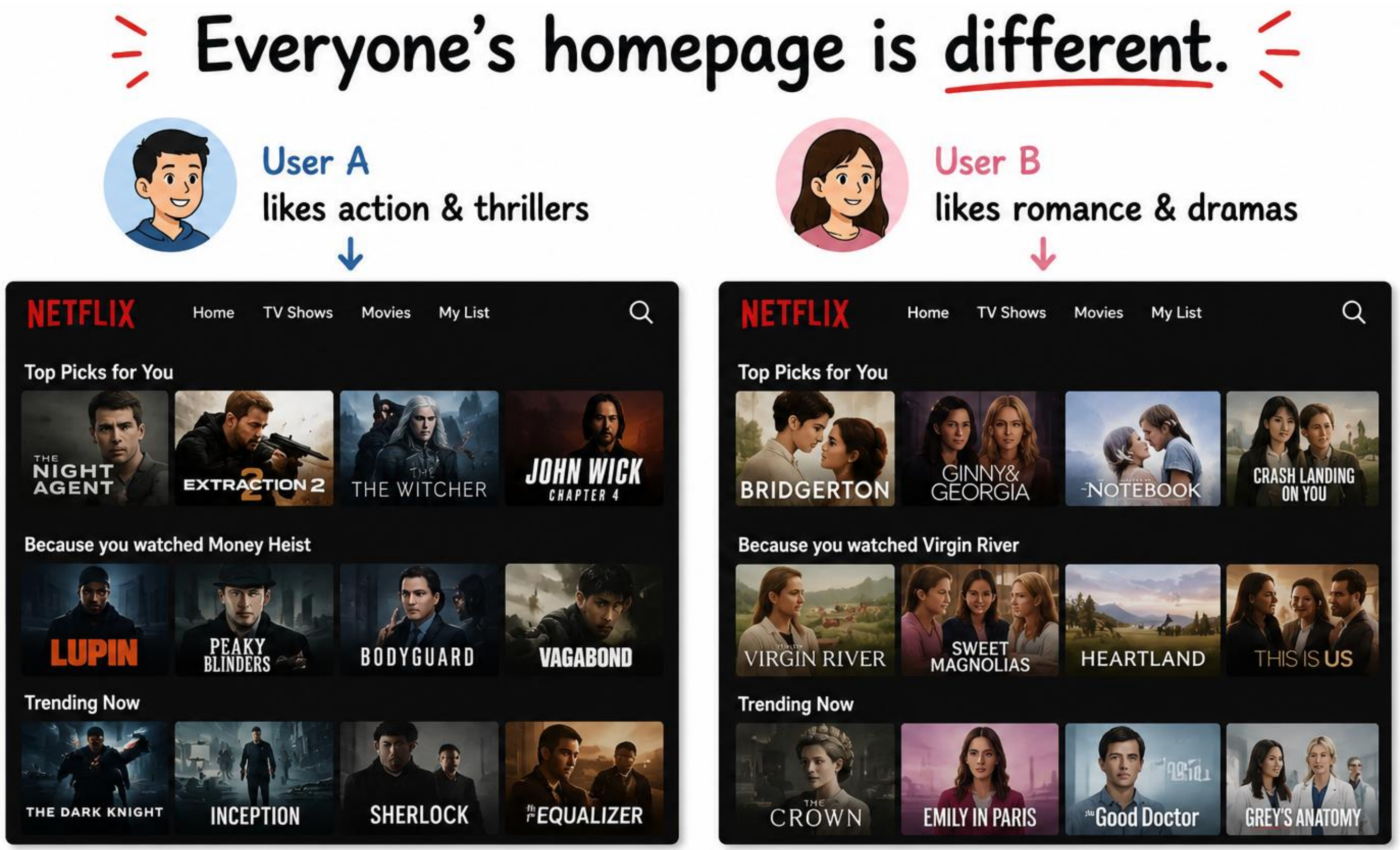
Recommendation System

↓

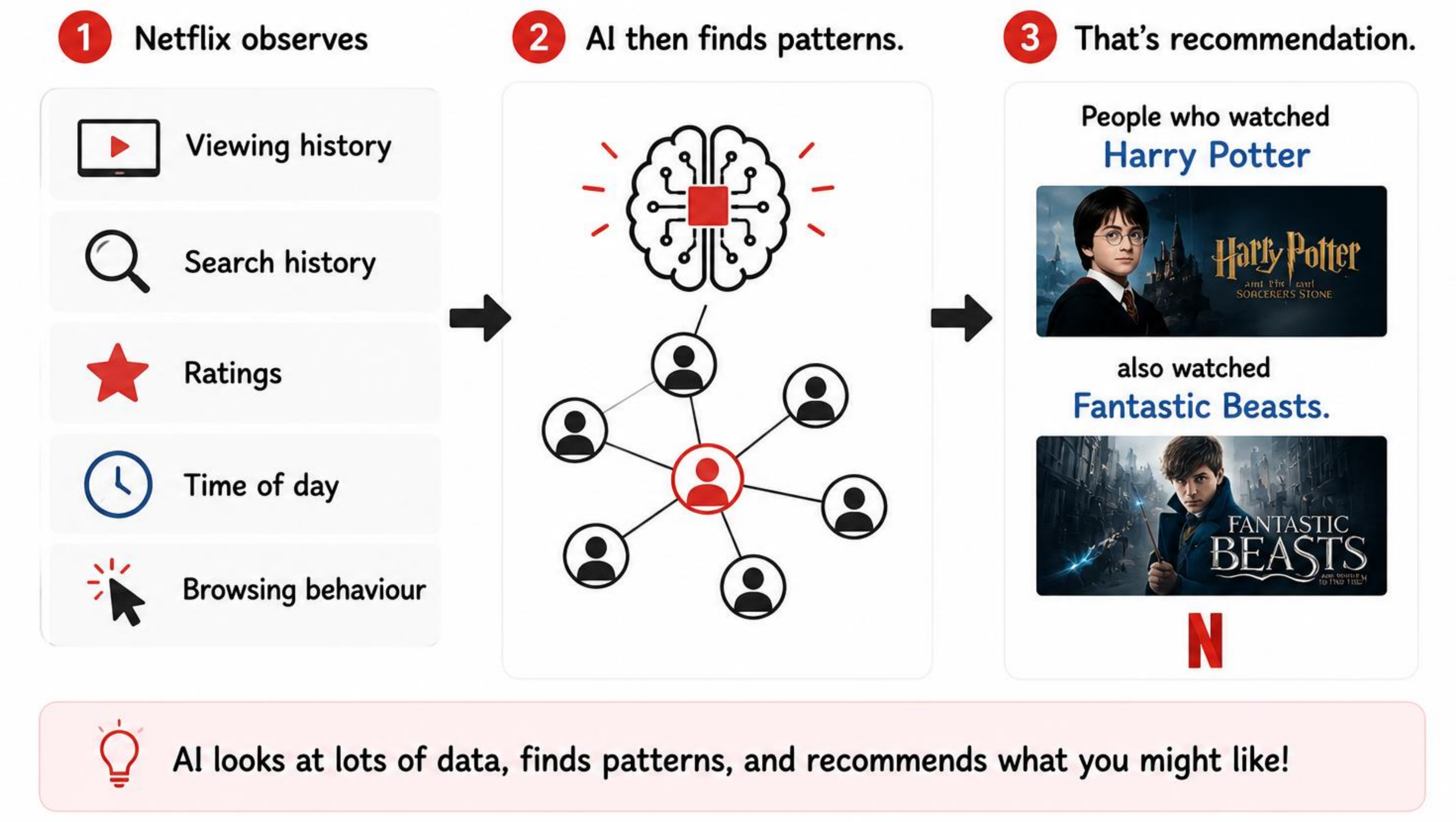
Click

↓

Watch

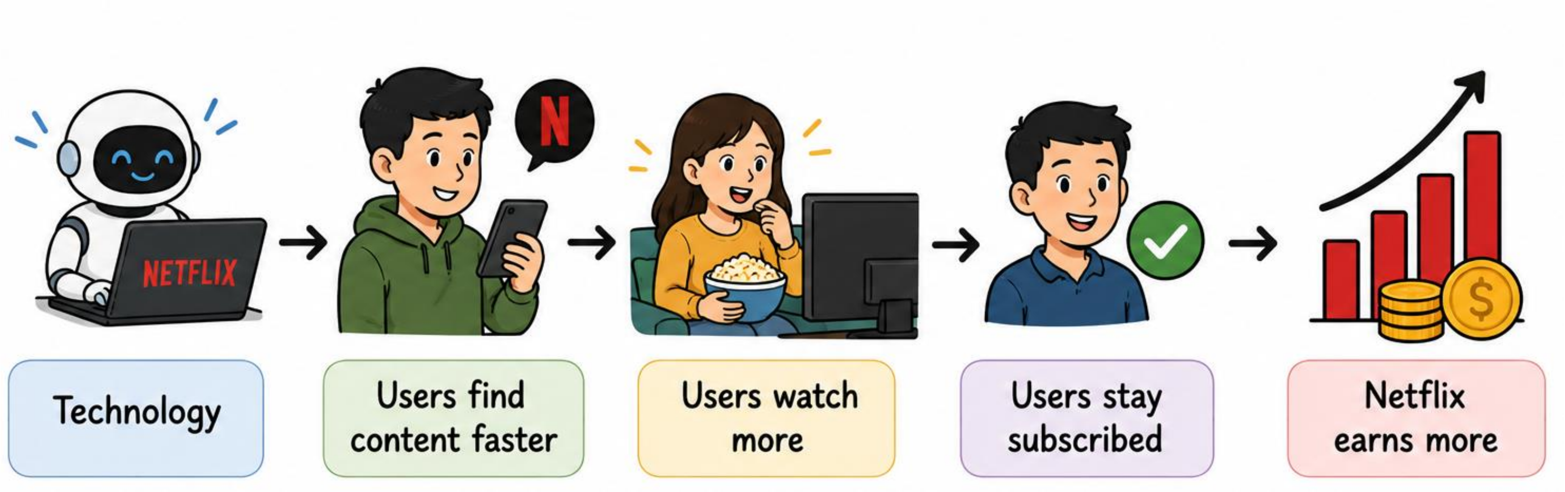


How does the recommendation system work?



Business Value

- Technology creates value because it solves a business problem.



- Netflix can also make better-informed decisions

Example 2 – Bookshop as-is

What are the pain points?

Visit a bookshop

↓

Browse

↓

Cashier

↓

Leave

Limited stock

Example 2 – Amazon to-be

Amazon Website
↓
Search
↓
Buy
↓
Delivery

Example 2 – Amazon new problem

- Millions of products
- Too much choice

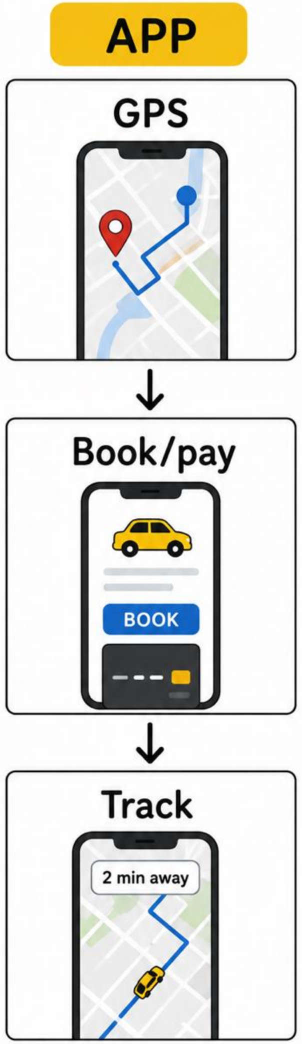
Example 2 – Amazon new To-Be

Recommendation engine
↓
Products you may like
↓
Purchase
↓
Delivery

Business stayed the same.
Technology evolved.

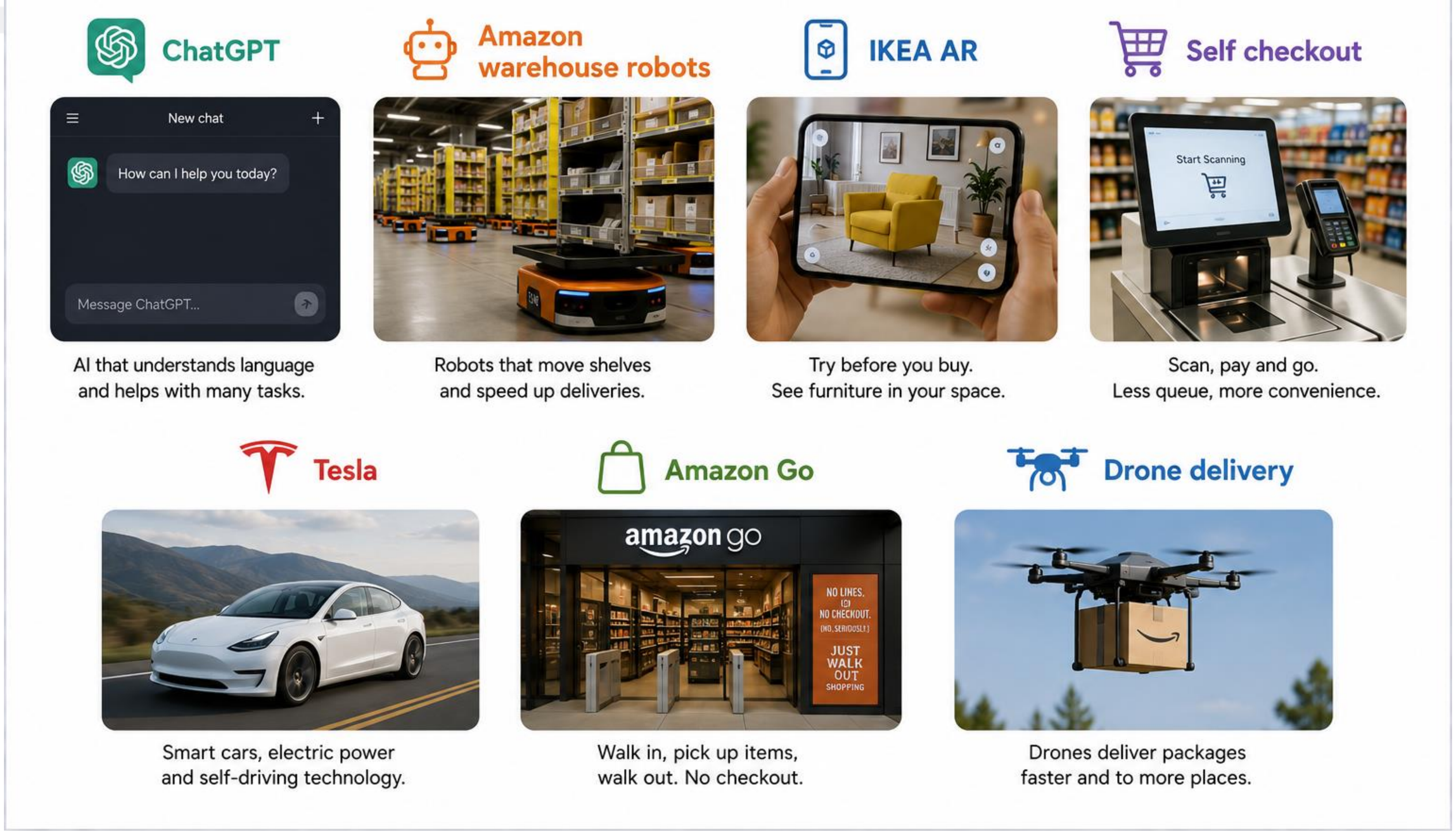
Example 3 – Taxi as-is / Uber to-be

Pain points
- uncertainty
- waiting
- cash



Technology solved business problems

Future of business technology



What's next?

- Technology keeps changing.
- But businesses might still face the same question...

Business → Problems → Technology → Better Business

Technology

↓

As-Is → Identify problems → Design To-Be

Symptoms ← Root Cause ← Prescription

Thank you!