



# 01. VALUABLE INFORMATION

HOW DATA SHAPES OUR DIGITAL WORLD

M5U1P1

# WOULD YOU SELL YOUR DATA?

- Would you give a company:
  - your photos
  - location
  - search history
  - messages
- for 500 baht?



# HOW MUCH DATA DID YOU CREATE TODAY?

- Before school today, did you:
  - use TikTok?
  - search Google?
  - watch YouTube?
  - use GPS?
  - send messages?
  - play games?



# EVERY CLICK CREATES DATA



**The data trail behind every click**

# WHAT IS DATA?



# DATA

- Can we understand these numbers?

Data	Meaning?
35°C	?
150	?
98%	?

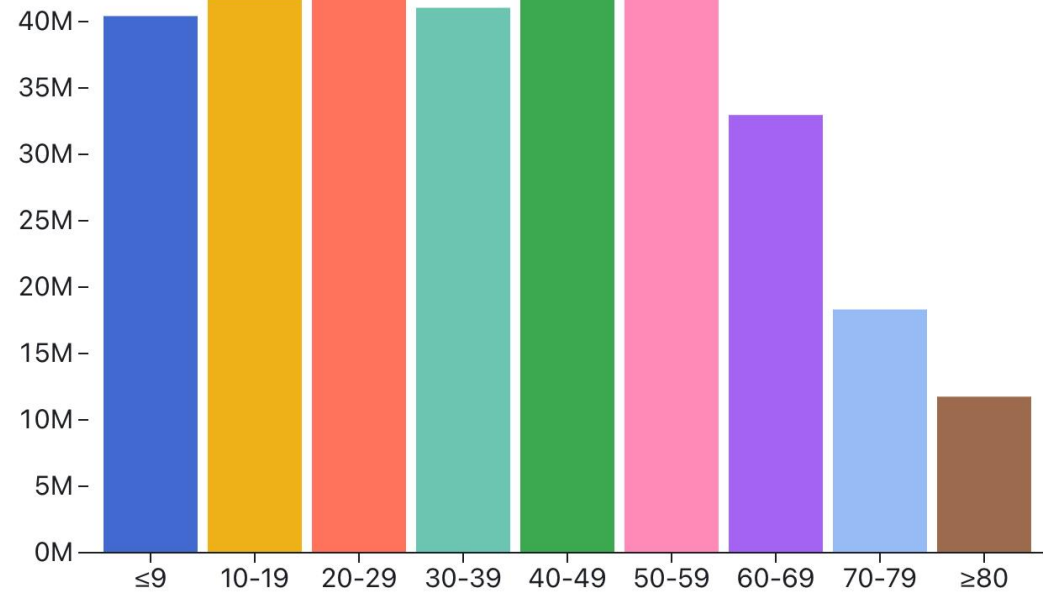
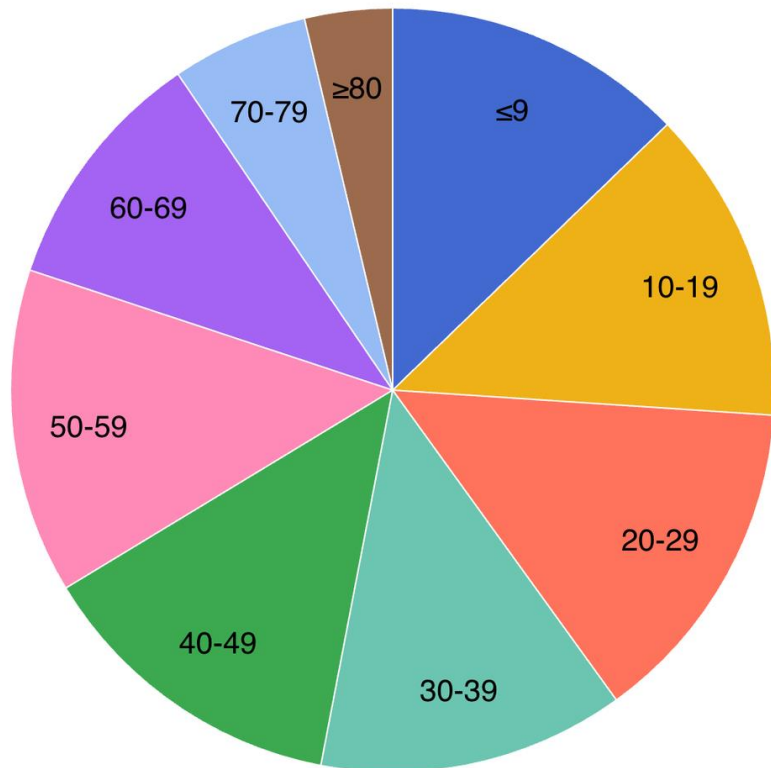
# DATA

- Can we understand these dates?

Jan 01	May 11	Aug 12
Jan 25	Jun 03	Oct 13
Feb 10	Jul 06	Oct 23
Apr 06	Jul 07	Dec 05
May 01	Jul 27	Dec 07
May 04	Jul 28	Dec 10
May 06	Aug 12	Dec 31

# DATA

- Data are raw facts or numbers without meaning



# WHAT IS INFORMATION?



# INFORMATION

- Can you understand these dates?

## LIST OF HOLIDAYS IN THAILAND IN 2020

Day	Date	Holiday Name	Type	Comments
Wednesday	Jan 01	New Year's Day	National Holiday	
Saturday	Jan 25	Chinese New Year	Regional Holiday	Narathiwat, Pattani, Yala, Satun
Monday	Feb 10	Makha Bucha (in lieu)	National Holiday	Substitute Day
Monday	Apr 06	Chakri Day	National Holiday	
Friday	May 01	Labour Day	National Holiday	International Workers' Day
Monday	May 04	H.M. King's Coronation	National Holiday	
Wednesday	May 06	Visakha Bucha Day	National Holiday	
Monday	May 11	Royal Ploughing Ceremony	Government Holiday	Government
Wednesday	Jun 03	H.M. Queen's Birthday	National Holiday	
Monday	Jul 06	Asahna Bucha Day (in lieu)	National Holiday	Substitute Day
Tuesday	Jul 07	Buddhist Lent (in lieu)	National Holiday	Government
Monday	Jul 27	H.M. King's Birthday Holiday	National Holiday	
Tuesday	Jul 28	H.M. King's Birthday	National Holiday	
Wednesday	Aug 12	Mother's Day	Not A Public Holiday	
Wednesday	Aug 12	H.M. Queen Mother's Birthday	National Holiday	
Tuesday	Oct 13	The Passing of King Bhumibol	National Holiday	
Friday	Oct 23	Chulalongkorn Day	National Holiday	
Saturday	Dec 05	Father's Day	Not A Public Holiday	

# INFORMATION

- Information is data that becomes useful and meaningful



Data	Information
35°C	Very hot weather
150	Fast heart rate
98%	Excellent test score

# DATA OR INFORMATION?



85

DATA

INFO

**85% MATH SCORE**

**DATA**

**INFO**

# RAIN TOMORROW

DATA

INFO

27

DATA

INFO

27°C TODAY

DATA

INFO

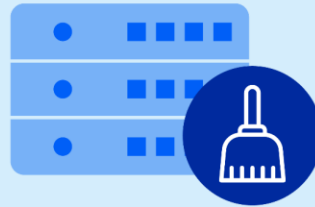


How raw data is processed

# FROM DATA TO INFORMATION



Data collection



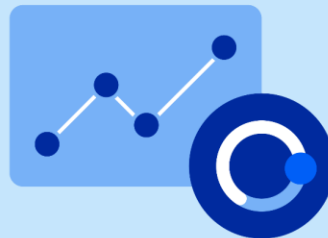
Data cleaning



Data transformation



Insight generation



Data visualization



Data analysis

## FLOWCHART 1

1



1000 students  
bought  
bubble tea



2



Bubble tea  
is popular



3



School shop  
sells more  
bubble tea

A world map is centered in the image, overlaid with a network of white lines and dots representing global connectivity. The map's color transitions from a cool blue on the left to a warm orange on the right. A dark blue horizontal bar is positioned across the middle of the map, containing the text 'INFORMATION AGE' in white, bold, uppercase letters.

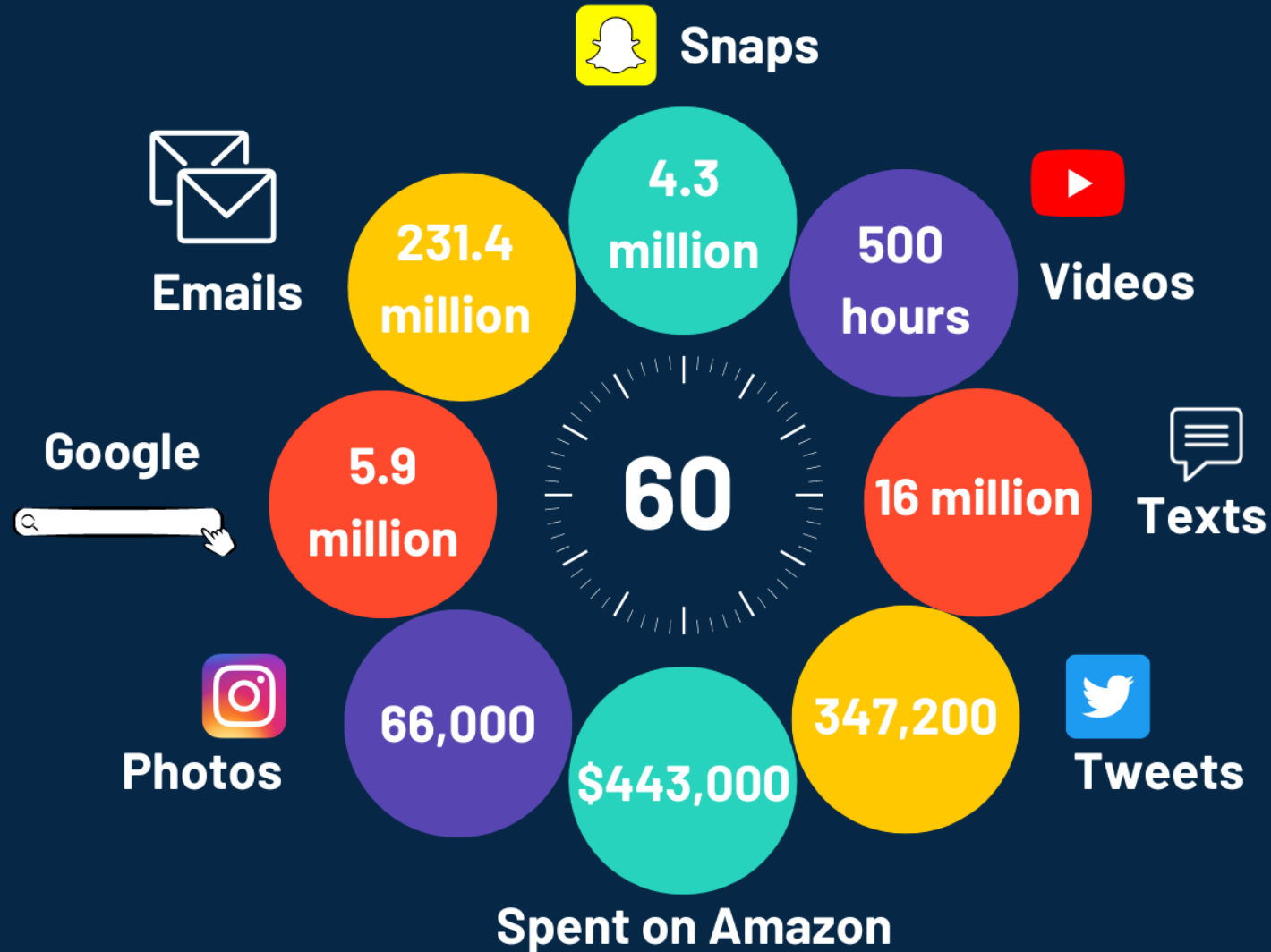
# INFORMATION AGE

# THE INFORMATION AGE

- We live in a world where:
  - billions of people use the internet
  - huge amounts of data are created every second
  - technology depends on information



# Data We Create Online in 60 Seconds



# CAN YOU SURVIVE WITHOUT INTERNET?



LIFE WITHOUT  
INTERNET  
IS IT POSSIBLE

[Weblinkindia.Net](http://Weblinkindia.Net)

# CAN YOU SURVIVE WITHOUT INTERNET?

- Could you survive 24 hours without:
  - internet
  - smartphone
  - social media
  - GPS
  - YouTube



WHAT WOULD BE HARDEST?  
WHAT WOULD STOP WORKING?  
HOW WOULD SCHOOL CHANGE?

# WHO USES OUR DATA?



Snapchat



Netflix



Instagram



X



Facebook



YouTube



Spotify



TikTok



WhatsApp



Pinterest

# WHY DO THESE COMPANIES WANT YOUR DATA?



Snapchat



Netflix



Instagram



X



Facebook



YouTube



Spotify



TikTok



WhatsApp



Pinterest

# HOW DATA IS USED



## Data Collected

Search history

Watch history

Location

Shopping history

## Used For

Ads

Recommendations

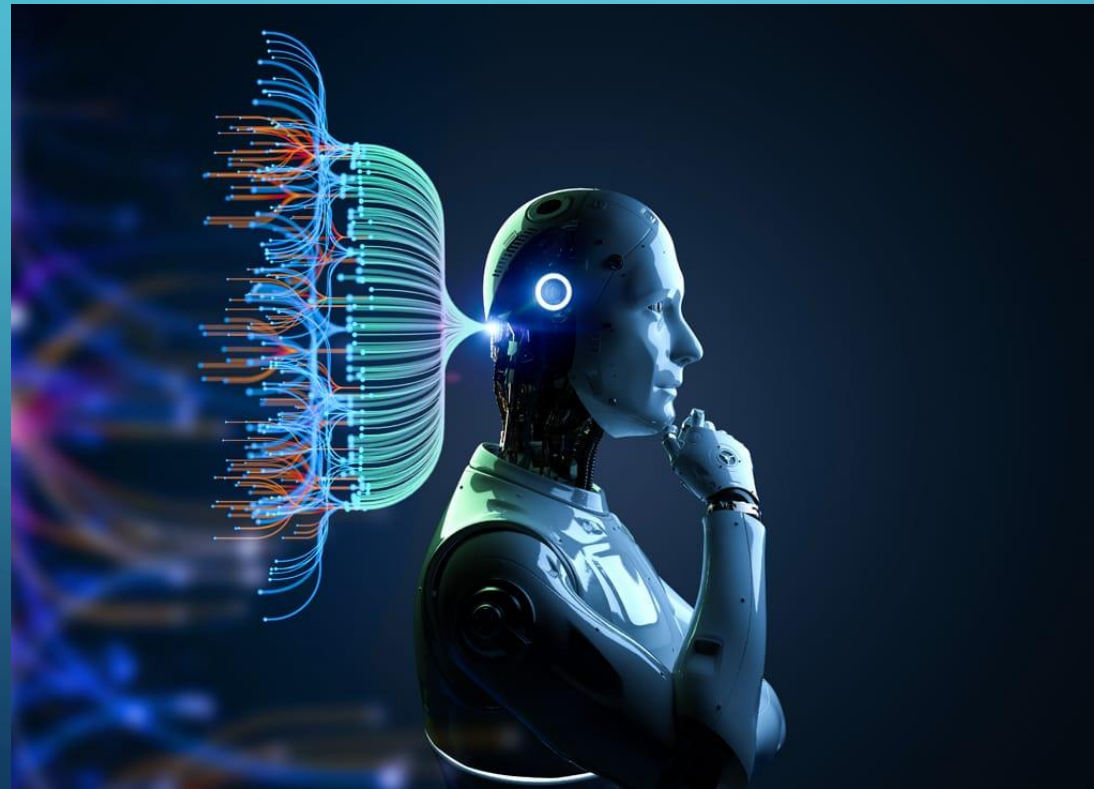
GPS/navigation

Suggested products



# WHAT IS DATA SCIENCE?

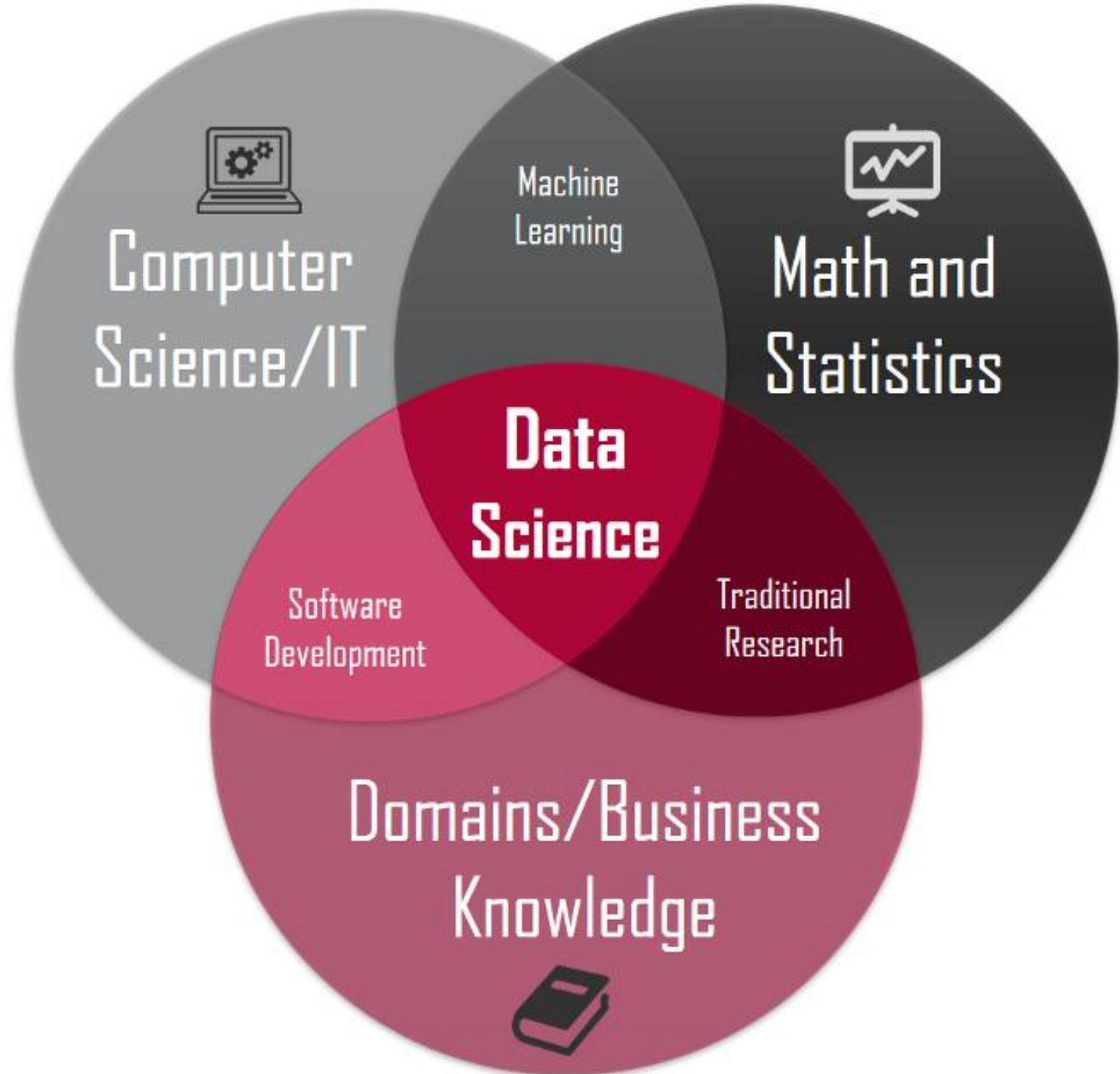
How does TikTok know what videos you like?



# DATA SCIENCE

- Using data to find patterns and make smart decisions
  - Companies use:
    - data
    - analysis
    - AI
    - machine learning
- to predict what users want





Computer  
Science/IT

Machine  
Learning

Math and  
Statistics

**Data  
Science**

Software  
Development

Traditional  
Research

Domains/Business  
Knowledge

# HOW DATA SCIENCE WORKS

## FLOWCHART 2



User Activity



Data Collection



Analysis



Prediction



Recommendations

# HOW DATA SCIENCE WORKS

## FLOWCHART 3



You watch  
cat videos



TikTok recommends  
more cat videos

# GROUP ACTIVITY



# APP DETECTIVE CHALLENGE

- In pairs:  
Choose ONE app:
  - TikTok
  - YouTube
  - Netflix
  - Grab
  - Spotify
  - ....

## DISCUSS:

1. WHAT DATA DOES THE APP COLLECT?
2. WHY DOES IT COLLECT IT?
3. HOW DOES IT USE THE DATA?

# WHAT DID WE LEARN TODAY?

- Data = raw facts
- Information = useful meaning
- We live in the Information Age
- Companies collect our data
- Data Science helps analyze information

The image features a dark blue gradient background with white circuit-like lines in the corners. These lines consist of straight paths that branch out and terminate in small circles, resembling a network or data flow diagram. The lines are positioned in the top-left, top-right, bottom-left, and bottom-right corners, framing the central text.

**ANY QUESTIONS?**



**THE END**