

The Impact of Technology on Careers

How AI and automation change work

AI และระบบอัตโนมัติเปลี่ยนงานอย่างไร



Essential Question:

Will technology replace jobs, change jobs, or create new jobs?



Tasks



Automation



Human Skills



Career Change



Adaptation



Automation



AI



Job Opportunities



Human Skills



Career Paths



Will AI Take My Job?

A question many students are asking



Quick vote: In the future, AI will...



A.

Replace
many jobs



B.

Change
many jobs



C.

Create
many new jobs



D.

Do all three

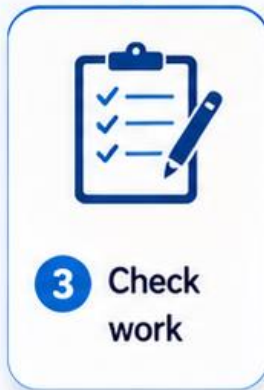


Jobs Are Made of Tasks

Technology usually changes tasks first



AI can help with some tasks.



Humans are still essential for many tasks.



Key idea: AI may automate some tasks, but **not always the whole job.**



Task = งานย่อย /
หน้าที่บางส่วน

Which Tasks Are Most at Risk?

The 4D + Cost model

Tasks are more likely to be automated if they are:

1 Dull

repetitive and predictable



2 Dirty

unpleasant or physically hard



3 Dangerous

risky for humans



4 Cost-saving

cheaper or faster with machines



Automation = ระบบอัตโนมัติ



Think about tasks, **not only** job titles.

Dull Tasks

Repetitive work is easier to automate

Dull tasks are:

- repetitive
- predictable
- rule-based
- easy to measure

Examples:

-  data entry
-  sorting simple documents
-  basic factory steps
-  repeated customer replies

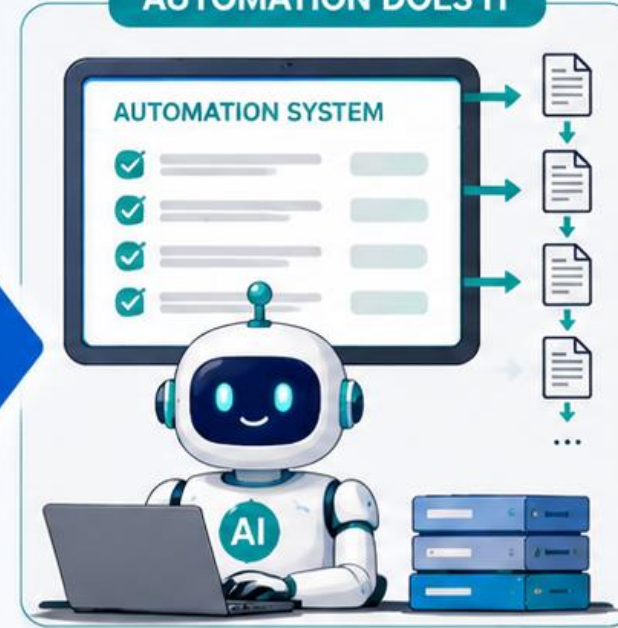
HUMAN DOES IT



Same steps, many times.
It takes time and can be boring.

Same steps
again and
again

AUTOMATION DOES IT



Same steps, no tiredness.
Faster, cheaper, and fewer mistakes.



What repetitive task do you see in
school or daily life?



Dirty or Physically Hard Tasks

Machines can help with unpleasant work

Dirty or hard tasks
may include:



Waste handling



Mining



Heavy lifting



Working in
extreme heat
or cold



Cleaning dangerous
areas



Technology can:



Protect
workers



Reduce
physical strain



Improve
safety



Increase
efficiency



Technology can take on the hardest
jobs so humans can work safely
and with dignity.



Technology supports humans.
It reduces harm, not human value.



Dangerous Tasks

Technology can go where humans should not



Disaster Rescue

Search for survivors in hazardous areas



Bomb Disposal

Detect and neutralize explosive threats



Deep-Sea Work

Operate in extreme underwater conditions



Space Exploration

Explore beyond human reach safely



Firefighting Support

Assess and assist in high-risk fire zones



Toxic Chemical Inspection

Inspect hazardous environments safely

Technology Tools



Robots

Perform tasks in dangerous environments



Drones

Reach, survey, and deliver critical support



Sensors

Detect, measure, and monitor conditions



Remote Control Systems

Operate safely from a secure location



Cost-Saving Tasks

Organizations compare cost, speed, and quality

EFFICIENCY

A task may be automated if machines can:

-  Work faster
-  Work longer hours
-  Make fewer repeated mistakes
-  Reduce long-term cost
-  Increase production
-  Improve consistency



Finding the right balance leads to sustainable and responsible decisions.

RESPONSIBILITY

But organizations must also consider:

-  Human impact
-  Fairness
-  Training
-  Safety
-  Quality



Automation improves efficiency and performance.



Responsible choices create long-term value for people and society.



Human Skills Still Matter

Some work needs judgment, empathy, and creativity

Human workers are still important for:



Technology and humans work best together.
The future belongs to those who can **combine both**.

Human skills = ทักษะของมนุษย์

Case Study 1: Teacher

AI can support teaching, but humans do more than explain



AI may help with:



generating
practice questions



summarizing
information



giving instant
feedback



translating
text



creating learning
materials



Humans are still
needed for:



motivation



emotional support



classroom
management



understanding
student needs



adapting
explanations



building trust



AI can support teachers, but cannot fully replace good teaching.

Case Study 2: Medical Careers

AI can assist diagnosis, but care still needs people



AI MAY HELP WITH:



Reading medical images



Finding patterns in data



Suggesting possible diagnoses



Monitoring patients



Organizing records



Better Accuracy



Faster Analysis



More Data Insights



Continuous Monitoring



Better Organization



HUMANS ARE STILL NEEDED FOR:



Final responsibility



Patient communication



Empathy



Ethical decisions



Emergency judgment



Physical care



Technology changes medical work, but **human care** remains important.



Technology assists



People care



Together, we heal



Better outcomes for patients

Case Study 3: Musician

AI can create music, but meaning comes from people



AI MAY HELP WITH:



Creating melodies



Generating background music



Editing audio



Suggesting styles



Producing simple tracks



Best results come from **human + AI** collaboration.



HUMANS ARE STILL IMPORTANT FOR:



Emotion



Originality



Cultural meaning



Live performance



Personal identity



Artistic choices



AI tools can generate ideas, patterns, and starting points.



People bring meaning, feeling, and purpose.



AI can be a creative tool,
but **human expression still matters.**



Tools support



People create



Emotion connects



Culture gives meaning



Art lasts

Technology Creates New Careers Too

Change does not only remove jobs



New technology can create jobs such as:

1



AI Prompt Specialist

Designs effective prompts to get better AI results.

2



Data Analyst

Turns data into useful insights for decisions.

3



Cybersecurity Analyst

Protects systems and data from cyber threats.

4



Robot Technician

Installs, maintains, and repairs robots and automation.

5



App Developer

Builds apps and software that people use every day.

6



Digital Content Creator

Creates videos, graphics, and content for digital platforms.

7



UX / UI Designer

Designs user-friendly experiences and interfaces.

8



Cloud Engineer

Builds and manages cloud systems and infrastructure.

9



Drone Operator

Operates drones for filming, surveying, or inspections.

10



Sustainability Technology Specialist

Develops tech solutions for a better and greener future.



Key idea:

When technology changes,
career opportunities also change.



How to Stay Valuable in the Digital Age

Adapt your skills, not just your tools



Upskill = เพิ่มทักษะ



Reskill = เปลี่ยนหรือเรียนทักษะใหม่

Activity: AI Helper or Replacement?

Analyze the task, not only the job



In pairs, decide:

ทำงานเป็นคู่ เลือกประเภทงาน



AI can help

AI ช่วยได้



AI may replace

AI อาจแทนที่ได้



Human needed

ต้องใช้มนุษย์



AI can help



AI may replace



Human needed

1



Check spelling
in a report

2



Carry heavy boxes
in a warehouse

3



Comfort a
sad student

4



Detect patterns in
medical images

5



Compose
background music

6



Make a final
legal decision

7



Answer common
customer questions

8



Lead a team
during a crisis



6 minutes
นาที



Career Impact Matrix

Risk depends on tasks and human skills



Think about two questions:

1

Are the tasks repetitive and predictable?

2

Does the job need human judgment, empathy, creativity, or responsibility?



Repetitive Tasks

งานที่ทำซ้ำและคาดเดาได้

High

Complex Tasks

งานที่ซับซ้อนและไม่แน่นอน

Low

Low Human Skills Needed

ทักษะของมนุษย์ที่ต้องใช้ต่ำ

Higher automation risk

ความเสี่ยงต่อการถูกแทนที่สูง



- Data entry
- Basic bookkeeping
- Simple assembly
- Report formatting

High Human Skills Needed

ทักษะของมนุษย์ที่ต้องใช้สูง

AI support possible

AI สามารถช่วยสนับสนุนได้



- Content review
- Language translation
- Customer service
- Marketing planning

Tool support

เครื่องมือช่วยให้งานดีขึ้น



- Data analysis with tools
- Design with software
- Engineering simulation
- Research with AI tools

Human-led work

งานที่มนุษย์เป็นผู้นำ



- Medical diagnosis & care
- Teaching & mentoring
- Leadership & strategy
- Creative decision-making

Low

Human Skills Needed

ทักษะของมนุษย์ที่ต้องใช้

High



Key idea:



Careers change when tasks change.
อาชีพเปลี่ยนไป เมื่อนำที่งานเปลี่ยนไป



Exit Ticket

Before you leave



Answer in
your notebook:
ตอบในสมุดของคุณ



ย.ว.

1

What type of task is most likely to be automated?



2

Give one example of a job that AI can support.



3

What is one human skill that technology cannot easily replace?



4

Complete: To prepare for future careers, I should _____.



Submit before leaving.
ส่งก่อนออกจากห้อง



Your answers help
us learn better!

The End

Technology changes work, but people can adapt

Remember:



1

Technology changes tasks first.



2

Some work can be automated.



3

Human skills still matter.



4

New careers can appear.



5

Learning and adaptation are essential.



Do not fear change.
Prepare for it.



Understand change



Build human skills



Build digital skills



Stay curious



Create your future

You have the power to shape your future. ♥

YOUR FUTURE

Leadership

Innovation

</> Tech Skills

Global Opportunities