PUZZLES IN AUTOMATION AND AI

自动化与人工智能中的困惑

7/24/2019

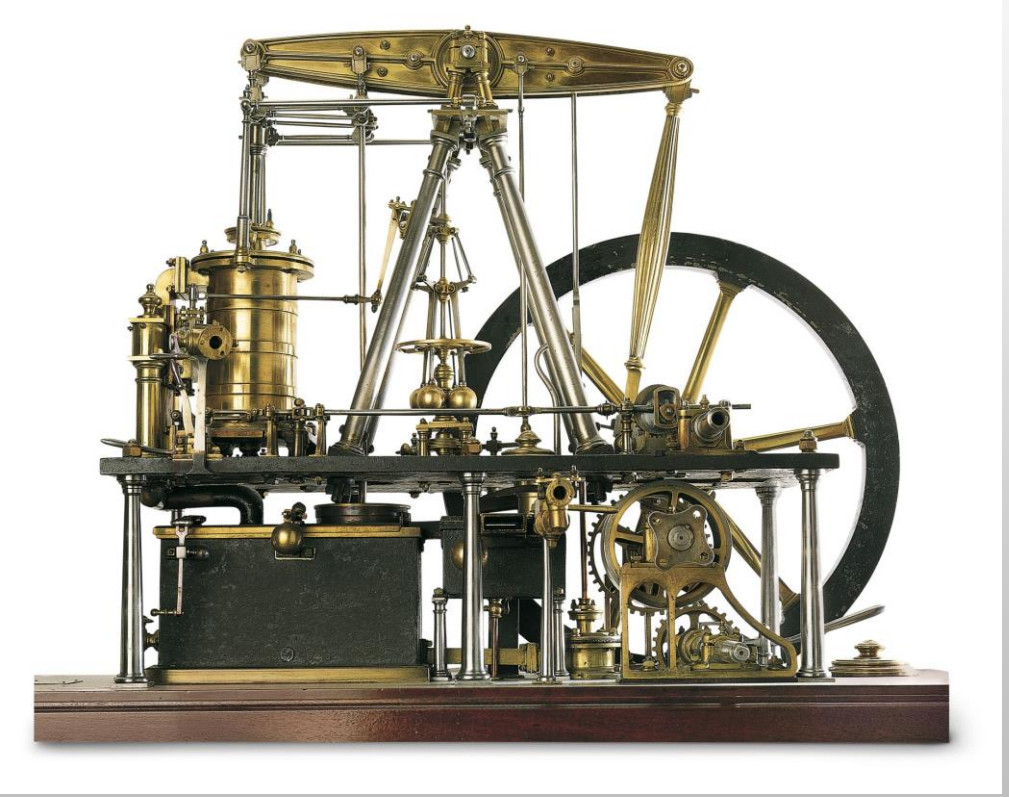
Warm-up Exercises

热身练习

7/24/2019

WHO IS THIS?
这是谁？

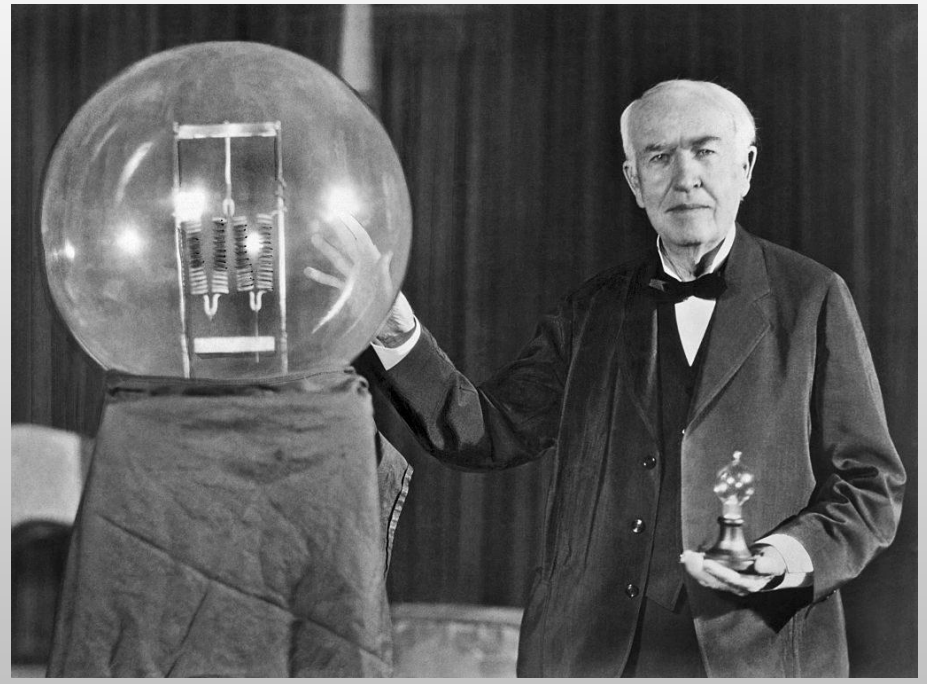
Who is he?



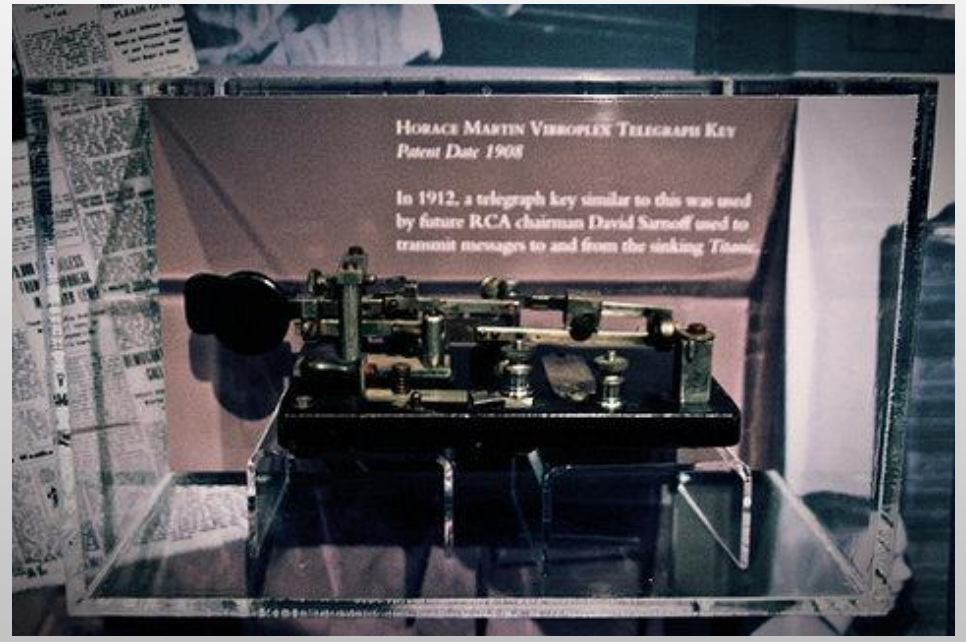
STEAM ENGINE 蒸汽机

WHO IS THIS?

这是谁？



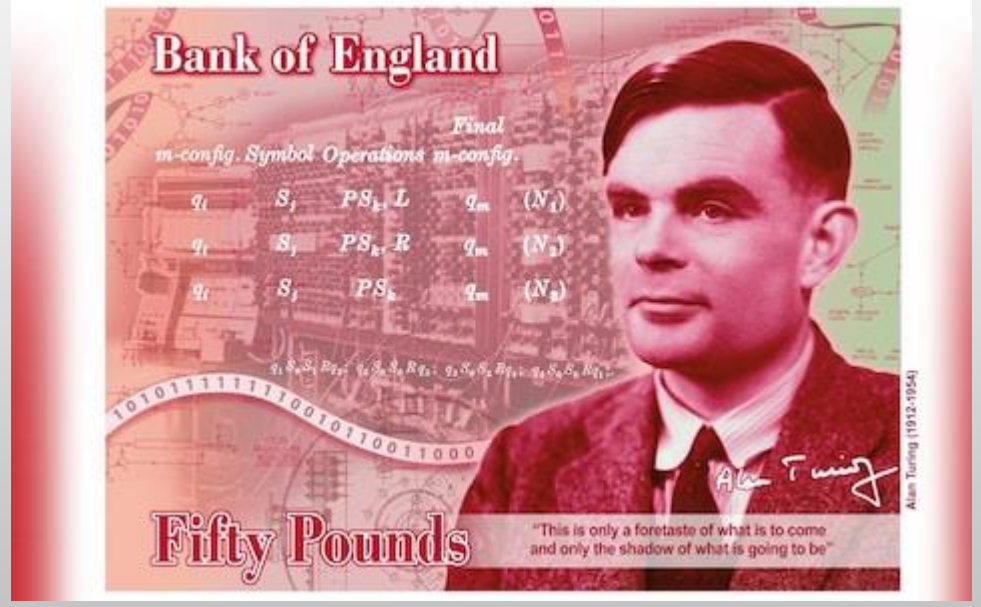
Who is this?

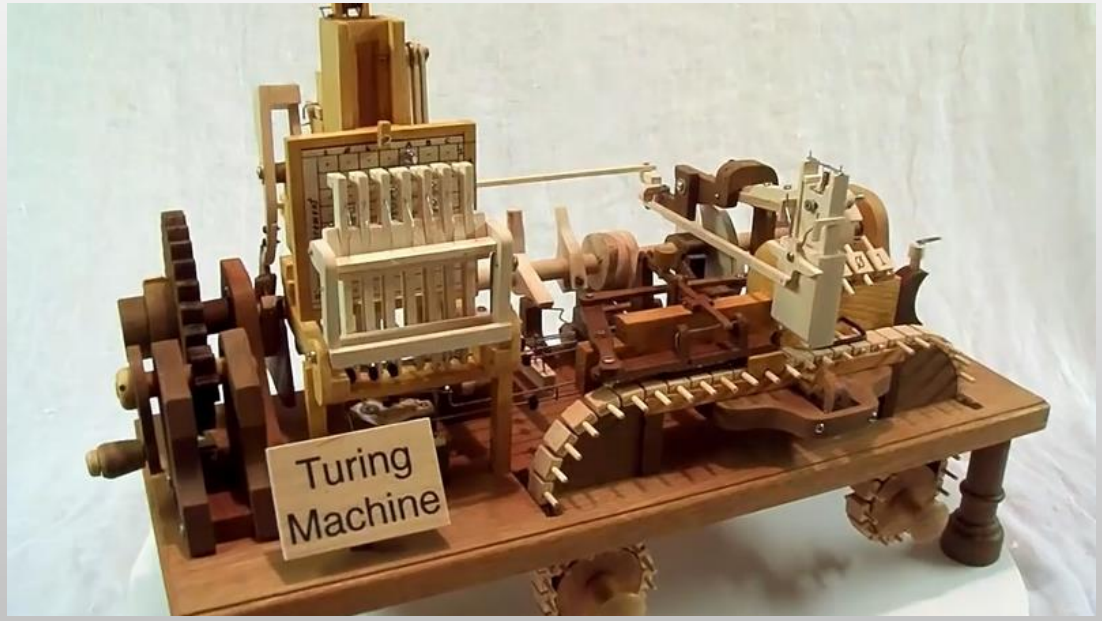


AUTOMATIC TELEGRAPH 自动电报机

WHO IS THIS?

这是谁？

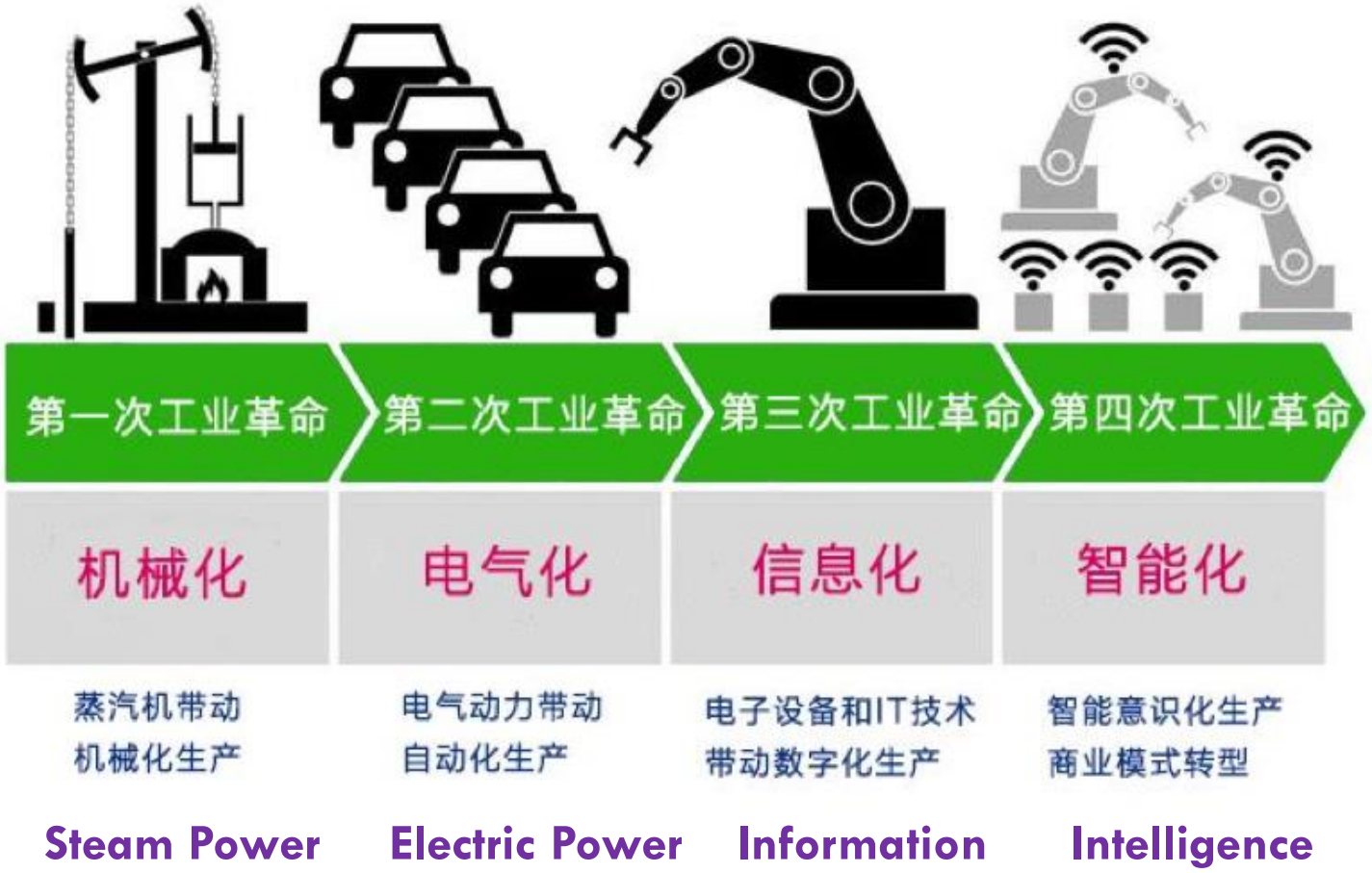




Who is this?

TURING MACHINE 图灵机

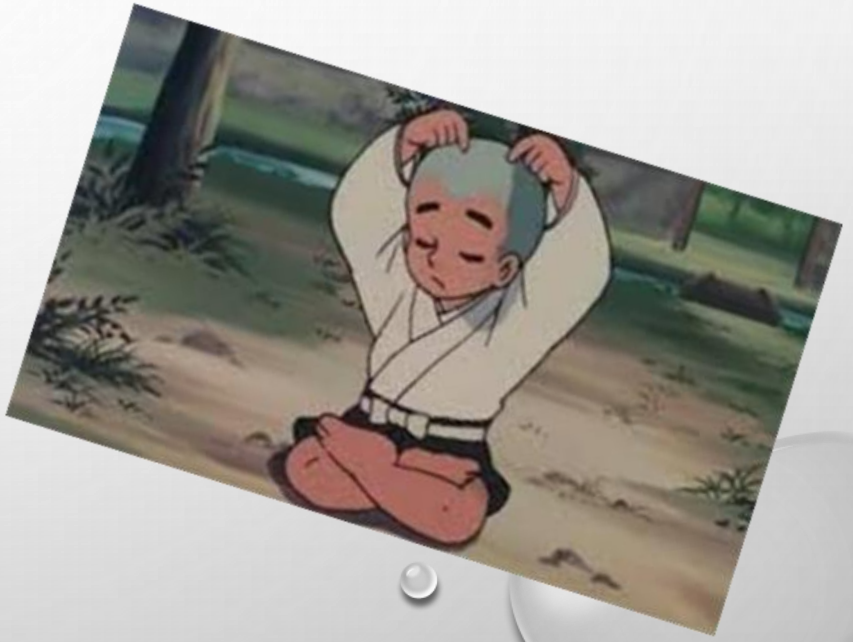
WHO IS THIS? 这是谁？


第一次工业革命
第二次工业革命
第三次工业革命
第四次工业革命
机械化
电气化
信息化
智能化
蒸汽机带动
机械化生产
电气动力带动
自动化生产
电子设备和IT技术
带动数字化生产
智能意识化生产
商业模式转型
Steam Power
Electric Power
Information
Intelligence

WHAT'S AUTOMATION
什么是自动化

WHAT'S IN YOUR MIND?

您会想到什么？



WHAT'S AUTOMATION
什么是自动化

- AUTO PILOT VEHICLES 自动驾驶汽车
- AUTOMATIC MANUFACTURING 自动化生产线
- VENDING MACHINES 自动售货机
- BUILDING AUTOMATION 楼宇自动化
- AUTOMATIC WASHING MACHINE 自动洗衣机
- POWER SYSTEM AUTOMATION 电力系统自动化

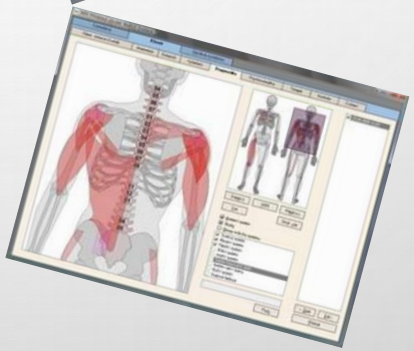
WHAT'S AI (ARTIFICIAL INTELLIGENCE)
什么是人工智能？

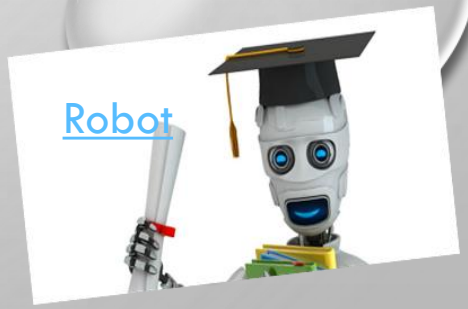
WHAT'S IN YOUR MIND FIRST?

您首先会想到什么？

WHAT'S AI (ARTIFICIAL INTELLIGENCE)
什么是人工智能

- SMART PHONE 智能手机
- ALFA GO 智能围棋手
- MEDICAL EXPERT SYSTEM 医疗专家系统
- FACIAL RECOGNITION 智能人脸识别
- GLOBAL POSITIONING SYSTEM (GPS) 智能导航系统
- SMART ROBOTS 智能机器人





BENEFITS FROM AUTOMATION AND AI
自动化和人工智能的益处

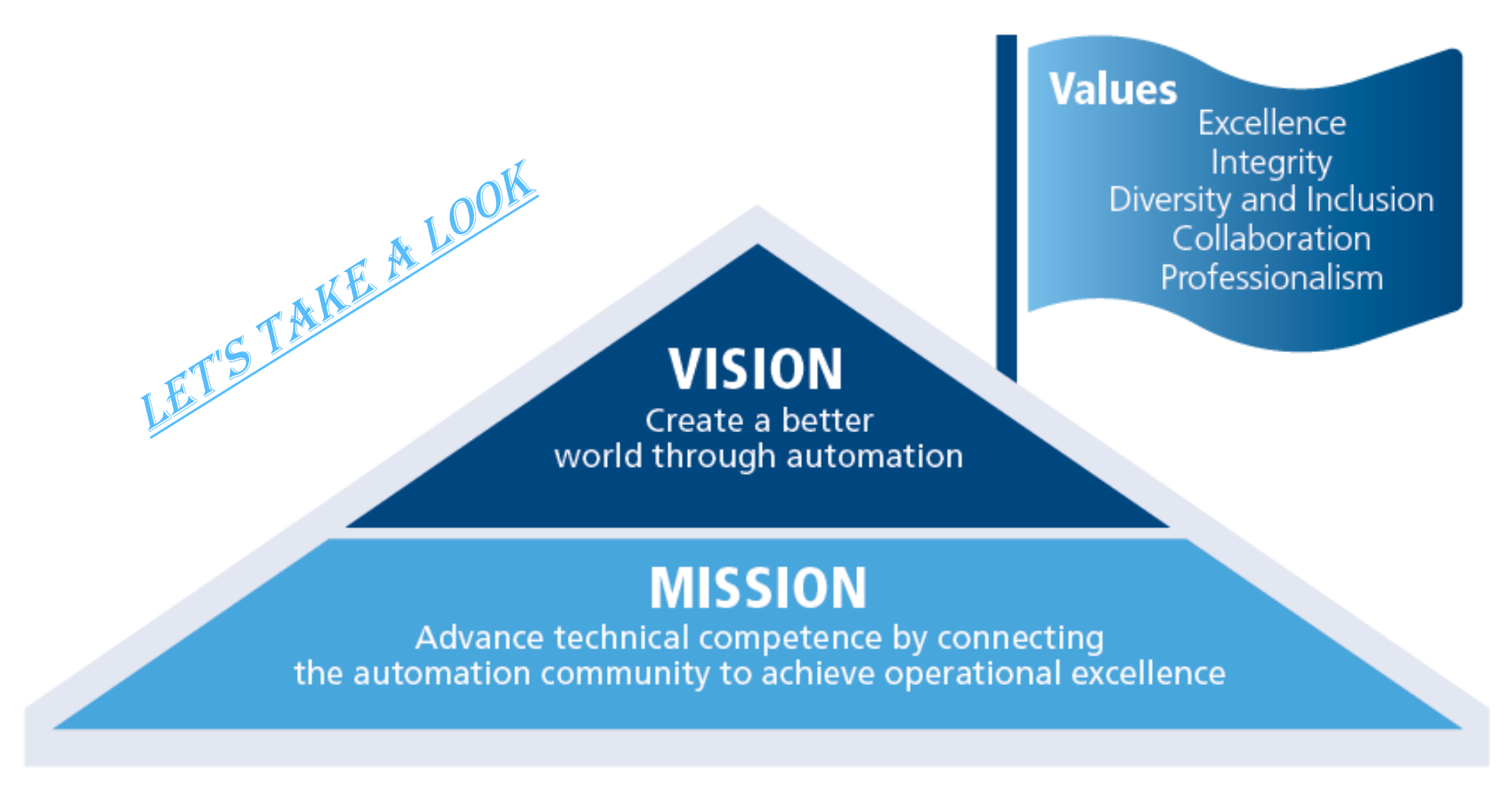
LET'S COUNT THEM!

我们一起来数一下！

BENEFITS FROM AUTOMATION AND AI
自动化和人工智能的益处

- REDUCE TEDIOUS LABOR 减少繁琐的体力劳动
- INCREASE PRODUCTION EFFICIENCY 提高生产效率
- IMPROVE PRODUCT CONSISTENCY 改善产品的一致性
- EXTEND HUMAN CAPABILITIES 延申人的工作能力
- MINIMIZE EXPOSURE TO HAZARDS 尽量减少接触危害的机会
- OPTIMIZE SYSTEM PERFORMANCE 优化系统性能

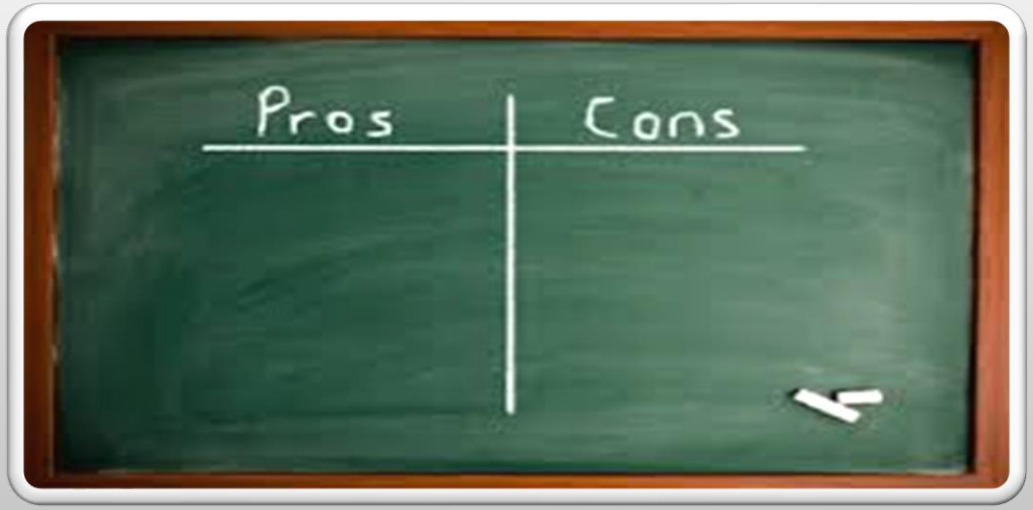
ISA VISION, MISSION AND VALUES
国际自动化学会的愿景，使命和价值观



PUZZLES IN AUTOMATION AND AI
自动化和人工智能的困惑

DO WE HAVE CONCERNS ABOUT AUTOMATION AND AI? LET'S DISCUSS THEM!

我们对自动化和人工智能有担心的地方吗？一起来讨论一下！



PUZZLE 1
AUTOMATION/AI DISPLACES JOBS

困惑 一： 自动化和人工智能取代人，减少工作机会

1kUSD/month 杨千刀

PUZZLE 2 AUTOMATION/AI INTRODUCES DANGERS

困惑 二： 自动化和人工智能带来危险

BOEING 737 MAX ACCIDENT

波音 737 MAX 空难

PUZZLE 3 AUTOMATION/AI INTRODUCES FRAUD ISSUE

困惑 三： 自动化和人工智能带来欺诈问题

Volkswagen emissions scandal

A 2010 Volkswagen Golf TDI with defeat device displaying "Clean Diesel" at the Detroit Auto Show

Date	2008-present
Location	Worldwide
Also known as	Dieselgate, Emissionsgate
Type	Emission standard violations
Cause	Engaging full emissions control only during testing

VOLKSWAGEN DIESEL ENGINE EMISSION CONTROL FRAUD

大众柴油机车排放控制欺诈事件

HTTPS://EN.WIKIPEDIA.ORG/WIKI/VOLKSWAGEN_EMISSIONS_SCANDAL

TEAM DISCUSSION I （2MIN)
小组讨论 一 (2分钟）

1. WHAT IS YOUR MOST CONCERN?

   你最关心的是那一个问题？

2. DO I HAVE A SOLUTION?

   我有办法解决吗？

PUZZLE 4 AUTOMATION/AI INTRODUCES ETHIC CONCERNS

困惑 四： 自动化和人工智能带来伦理道路的顾虑

ROBOTS UNDERSTANDING HUMAN FEELING AND EMOTIONS
理解人类情感和情绪的机器人

PUZZLE 5 AUTOMATION/AI MAY TERMINATE HUMANS

困惑 五： 自动化和人工智可能毁灭人类

ROBOTS THAT CAN BE SMARTER THAN HUMANS AND MAY DESTRUCT HUMAN SOCIETY

智能超过人类的机器人，可能终将毁灭人类社会

TEAM DISCUSSION II （3MIN)
小组讨论 II (3分钟）

1. WHAT ARE THE ROOT CAUSES?

   导致这些困惑的根本原因是什么？

2. HUMANITY VS TECHNOLOGIES

   人文与科技的关系

QUESTIONS & ANSWERS
问答

HOMEWORK
作业

DIGEST TODAY'S SUBJECT, POST A MOMENT WITH PICTURES AND COMMENTS. PAY ATTENTION TO FEEDBACKS.

理解今天所学习和讨论的话题，发一个朋友圈（有图有评论），关注一下朋友的回复。