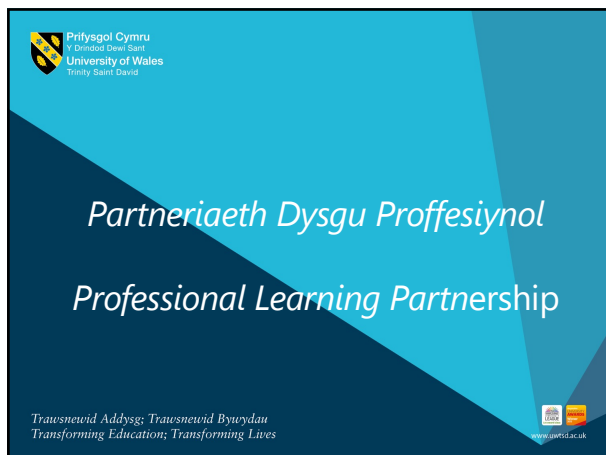
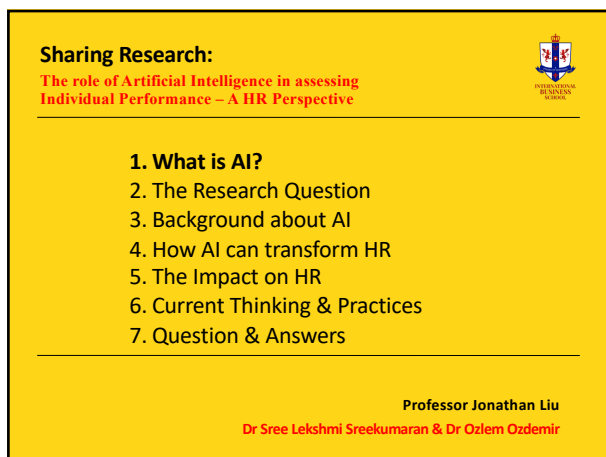
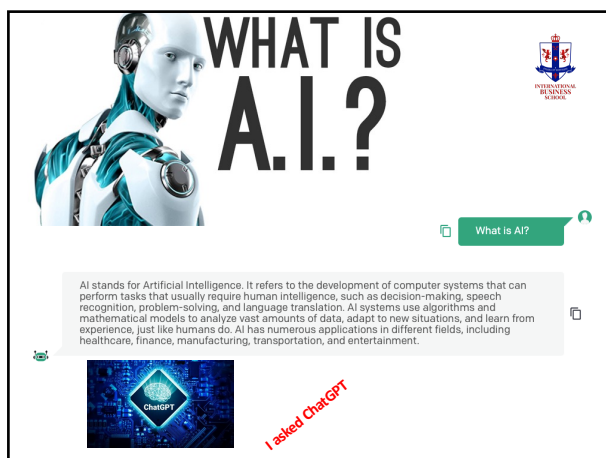




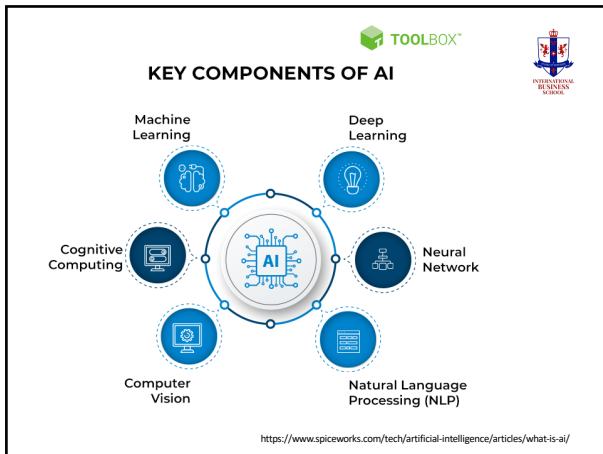
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4

Sharing Research:
The role of Artificial Intelligence in assessing Individual Performance – A HR Perspective

1. What is AI?
2. **The Research Question**
3. Background about AI
4. How AI can transform HR
5. The Impact on HR
6. Current Thinking & Practices
7. Question & Answers

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The Research Question

The diagram illustrates the Employee Life Cycle as a circular process. It is divided into four main stages, each with associated activities:

- Learning:** Curated training, Skill development
- Engagement:** HR chatbot, Engagement surveys
- Recruiting:** Dynamic career sites, Smart sourcing
- Onboarding:** Automated messages, Curated videos

 The stages are connected by arrows, indicating a continuous cycle. The central text 'EMPLOYEE LIFE CYCLE' is prominently displayed in the middle of the cycle.

1. Where does AI fit into HR?
2. Will the use of AI replace the functions of performance management and measurements currently done by HR?
3. Will AI implementation be ethical?

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History of Artificial Intelligence



1950 – Alan Turing Test ... can machines think?

1951 – Isaac Asimov proposed the 3 Laws of Robotics and the first AI program was written

1955 First self learning game playing program was created

1956 – The term 'artificial intelligence' is created by John McCarthy

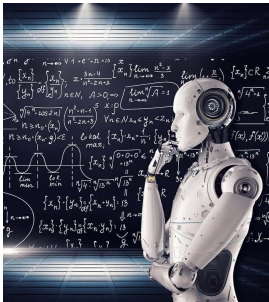
1969 – The earliest built multipurpose mobile robot was the "Shakey"

1997 – A robot designed, which beat the chess player was the supercomputer "Deep Blue"

2002 – Robotic vacuum sweeper was designed earliest in the order.

2005 – 2020 – We have a dancing robot, cleaning robot, speech recognition, etc.

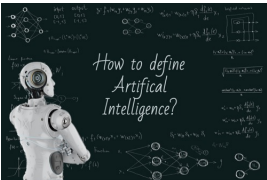
2021 – Welcome Chat GPT Open AI



OECD (2019), *Artificial Intelligence in Society*, OECD Publishing, Paris, <https://doi.org/10.1787/oeefae77-en>.

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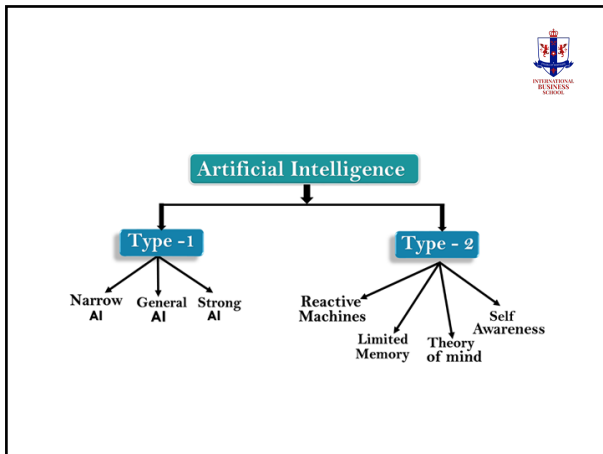
Professor John McCarthy defined AI as -

“the science and engineering of making intelligent machines”.

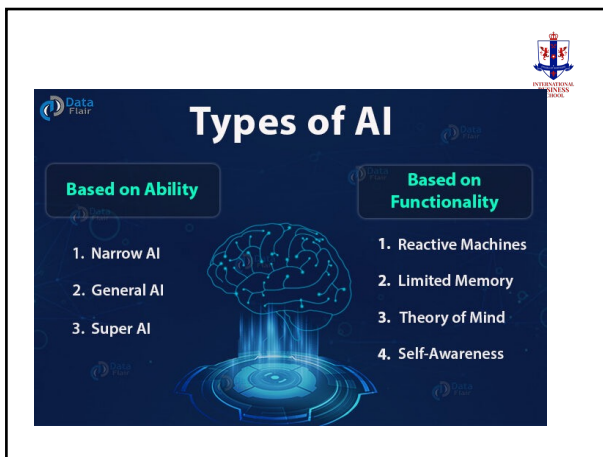
2 main types of definitions

Type I and Type II

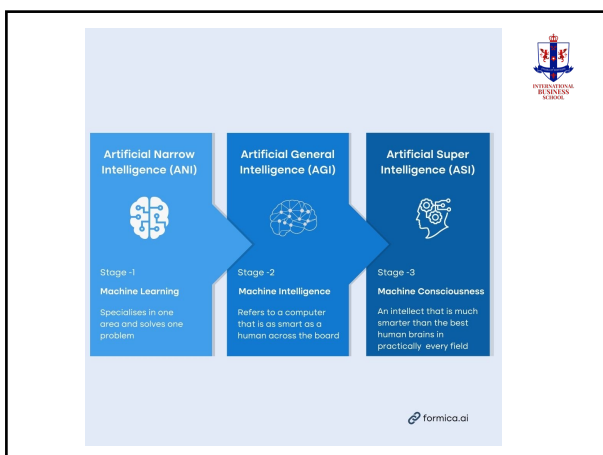
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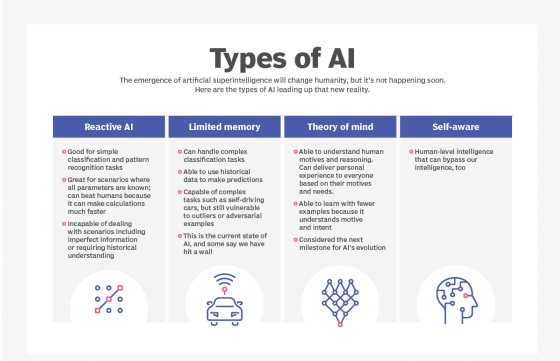
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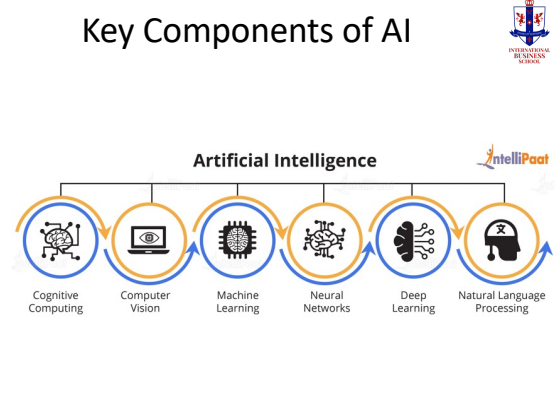


Types of AI

The emergence of artificial superintelligence will change humanity, but it's not happening soon. Here are the types of AI leading up to that new reality.

Reactive AI	Limited memory	Theory of mind	Self-aware
- Good for simple classification and pattern recognition tasks - Great for accuracy where all parameters are known; can beat humans because it can make calculations much faster - Incapable of dealing with scenarios including imperfect information or requiring historical understanding	- Can handle complex classification tasks - Able to use historical data to make predictions - Capable of complex tasks such as self-driving cars, but still vulnerable to outliers or adversarial examples - This is the current state of AI, and some say we have hit a wall	- Able to understand human motives and reasoning. Can deliver personal experience to everyone based on their motives and needs - Able to learn with fewer examples because it understands motive and intent - Considered the next milestone for AI's evolution	Human-level intelligence that can bypass our intelligence, too

13



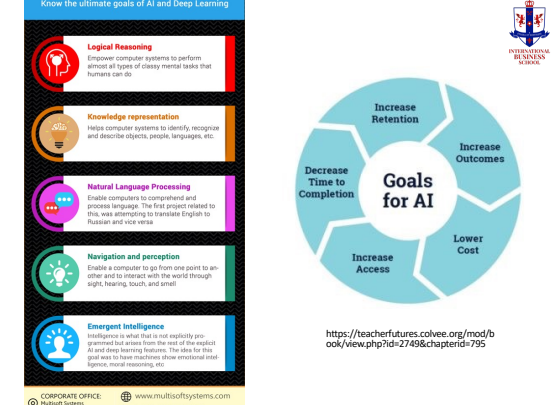
Key Components of AI

Artificial Intelligence

IntelliPoint

Cognitive Computing, Computer Vision, Machine Learning, Neural Networks, Deep Learning, Natural Language Processing

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AI and Deep Learning

Know the ultimate goals of AI and Deep Learning

Logical Reasoning
Empower computer systems to perform almost all types of classic mental tasks that humans can do

Knowledge representation
Helps computer systems to identify, recognize and describe objects, people, languages, etc.

Natural Language Processing
Enables computers to comprehend and process language. The first project related to this, was attempting to translate English to Russian and vice versa

Navigation and perception
Enable a computer to go from one point to another and to interact with the world through sight, hearing, touch, and smell

Emergent Intelligence
Intelligence is what that is not explicitly programmed but arises from the rest of the explicit AI and deep learning features. The idea for this goal was to have machines show emotional intelligence, shared reasoning, etc.

Goals for AI

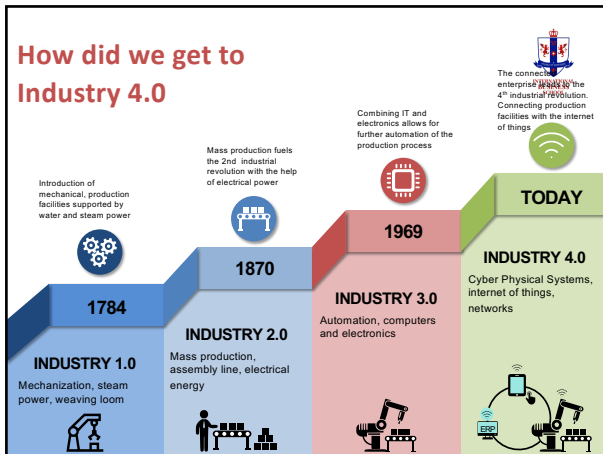
Increase Retention, Increase Outcomes, Lower Cost, Increase Access, Decrease Time to Completion

<https://teacherfutures.collee.org/mod/book/view.php?id=27498&chapterid=795>

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So What has change from Industry 1.0 to 4.0 ?

	WORK 1.0	WORK 4.0
TIME	Fixed time	Flexible & self controlled
PLACE	Fixed place (factory – office)	Changing & mobile
ORGANISATION	Fixed organization structures	Agile & project based
ENVIRONMENT	Fixed procedures for task	Problem & task oriented
MANAGEMENT	Defined standards and processes	Self-controlled & variable benchmark

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What impact – for organizations?



(I) Work in the digital world takes place in the information and data space

Digitalization

... makes everything easier and gives more opportunities

- ⇒ The usage of software for analysis, statistics, communication processes
- ⇒ The access to globally shared information and competencies
- ⇒ The usage of individualized digital assistants

... changes the communication

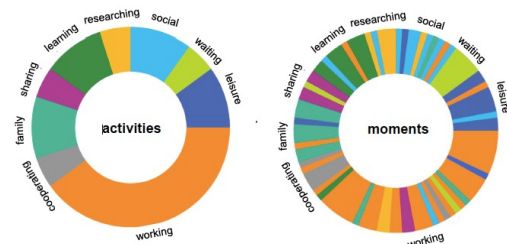
- ⇒ Social networks
- ⇒ Less hierarchical communication / spreading to many different places

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What impact – for individuals?

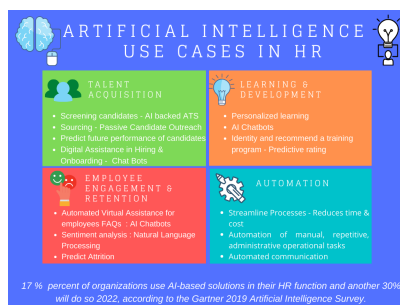


(II) Work and personal life can no longer be separated



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How AI can Transform HR



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The Impact of AI on HR





1. Recruitment and Selection
2. Employee Onboarding
3. Employee Engagement
4. Training and Development
- 5. Performance Management**
6. Employee Benefits
7. Workforce Planning
8. Employee Retention
9. Workplace Diversity and Inclusion
10. Compliance and Risk Management
11. Data Analytics
 - Career Path Development, Compensation Management, Job Design etc

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Key Areas that AI has Impacted on HR Functions

The impact of AI on HR functions in the UK is profound and far-reaching, transforming recruitment, talent management, employee engagement, and performance management processes

 Recruitment & Selection
  Employee On-boarding and Training
  Employee Engagement and Retention
  Performance Management and Feedback
  Workforce Planning and Optimization

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AI Impact on HR Theories

- AI can impact on several theories
- One key theory is – Human Capital Theory
- HCT emphasizes that investing in the development and management of employees' skills and abilities leads to better organizational performance.
- AI enables organizations to optimize their human capital by:
 - Identifying skill gaps
 - Personalized development
 - Predictive analytics

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Skill-Based Hiring

- assessing job candidates based on their skills rather than on college degrees or other, more conventional credentials.

Human Capital Theory

Resource-Based View

Competency-Based Theory

Task Signaling Theory

Cognitive Load Theory

Job Matching Theory

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AI In Employee Performance Management – Role And Benefits

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The Differences Between AI and BI



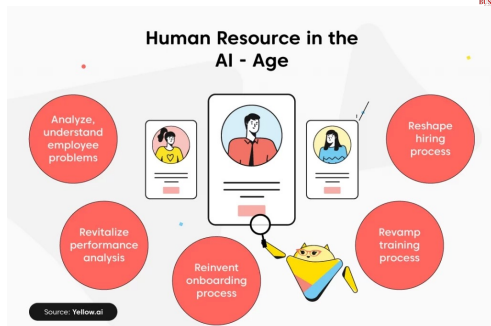
	Business Intelligence	Artificial Intelligence
What is it?	Traditional analytics that make analyzing data easier but leaves decision-making in the hand of humans	Advanced analytics that enables computers to make critical business decisions themselves
Goal	To streamline the process of collecting and analyzing data and provide businesses with useful information and analysis to aid decision-making	To mimic human intelligence, behavior, and thought process and help businesses to make rational decisions
Why and when is it used?	Develops insights based on data already gathered; it is used to answer what has happened in the past	Analyzes large quantities of big data; it is used to answer what will happen in the future
How does it work?	It works on the principles of statistical analysis	It uses sophisticated machine learning and deep learning algorithms
How does it help businesses?	It analyzes past data and enables businesses to make better data-driven decisions to improve business processes, customer service, and employee satisfaction	It creates human-like intelligence in machines and enables businesses to forecast and predict customer demand, competitor standing, and market changes
Hierarchy	BI comes first in the hierarchy of analytics	AI comes after BI in the hierarchy of analytics
Application	Majorly used in reporting, data mining, data warehousing, and highlights key metrics and visuals out of historic data in the form of modern, intuitive dashboards	Majorly used for predictive analytics, gaming, forecasting, natural language processing, robotics, image recognition, and self-driving cars
Goal and final outcome	It starts with gathering and analyzing data points from various data sources, and ends with visual reports and dashboards	It starts by training computer systems to think and work like humans, and ends with predictive insights about the future
Usefulness	BI is helpful in descriptive analytics	AI is a key player in prescriptive analytics

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To Sum Up



Human Resource in the AI - Age



<https://yellow.ai/employee-experience/role-of-ai-in-employee-performance-management/>

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How have Assessments Changed?



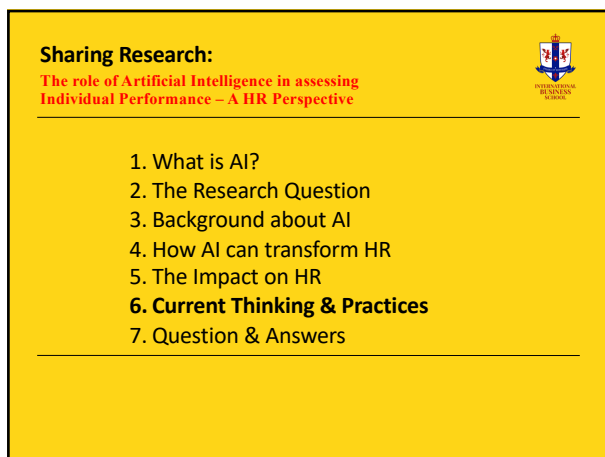
- **Advantages**
 1. Predictions Based on More Precise Data
 2. Never-Ending Assessment Based on Real-Time Data Analysis
 3. Better Management
- **Disadvantages**
 1. Price
 2. Lacks Human Element
 3. Question of Ethics

<https://performance.eleapsoftware.com/the-role-of-artificial-intelligence-in-performance-management/>

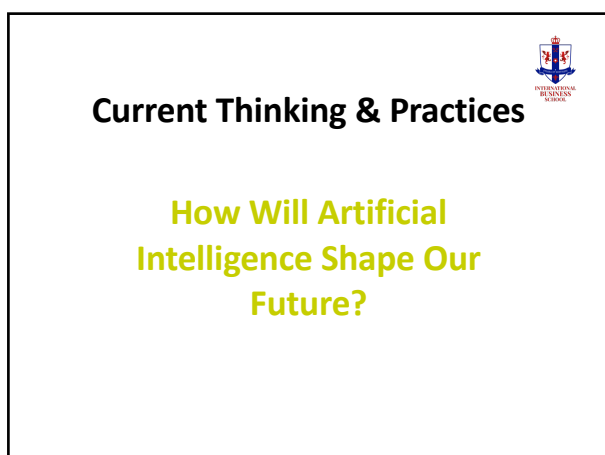
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How Will Artificial Intelligence Shape Our Future?

1. People Are Starting to Like Robots More
2. Artificial Intelligence Will Work Best in the Healthcare Sector
3. Unemployment Is the Cause of Fear
4. The Physical and Digital World Will Be Introspected





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What Are The Negative Impacts Of Artificial Intelligence (AI)?

1. AI Bias
2. Loss of certain Jobs
3. A shift in Human Experience
4. Global Regulations
5. Accelerated Hacking
6. AI Terrorism

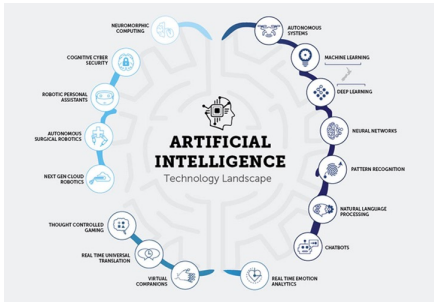




<https://bernardmar.com/what-are-the-negative-impacts-of-artificial-intelligence-ai/>

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The Technology Landscape





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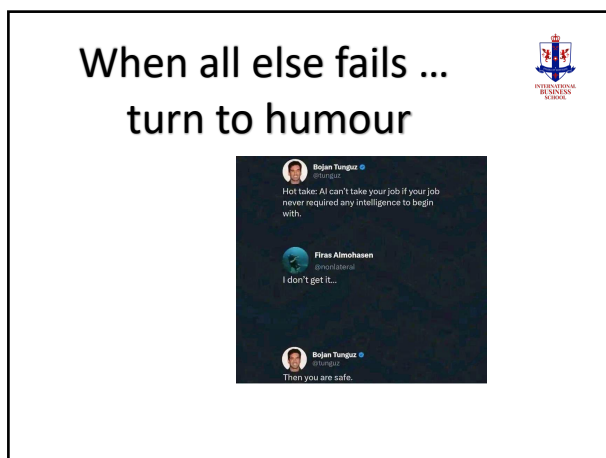
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TO ERR IS HUMAN BUT TO REALLY FOUL THINGS UP YOU NEED A COMPUTER!

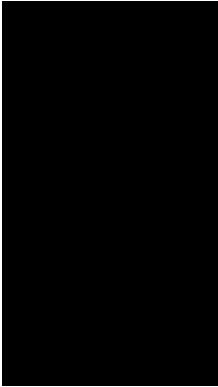
TO ERR IS HUMAN
TO BLAME IT ON SOMEONE ELSE SHOWS
MANAGEMENT POTENTIAL.

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Are Robots taking jobs from human beings?

Here's what the comedian Ismo Leikola says!



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