ARTIFICIAL INTELLIGENCE: BOON OR BANE

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AI – CARTOON

"We're looking for someone with your exact qualifications, but a mechanical version."

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Introduction

* **Artificial Intelligence is not just about robots. This is a technology.**

* **"Like other applications of AI, it's about trying to make humans more efficient, not take them out of the process entirely," says Paul Clarke, Ocado's chief technology officer.**

Roles of AI

* **Supply chain**
* **Customer services**
* **Medical and high tech areas**
* **Accounting and finance services**
* **Human Resources Management**

Supply chain and Logistics

* **AI can inspect products on assembly lines and spot flaws**
* **AI to predict when their equipment might fail**
* **Inventory management and demand forecasting**
* **Lineage's (a firm that keeps food cold for clients) boss, adding that using AI for smart placement has boosted efficiency by 20%.**
* **AI is also helping firms track the movement of their goods.**
* **Goldman Sachs expects AI to bring logistics costs down by at least 5%**
* **Amazon is moving into the logistics business**

Supply chain and Logistics
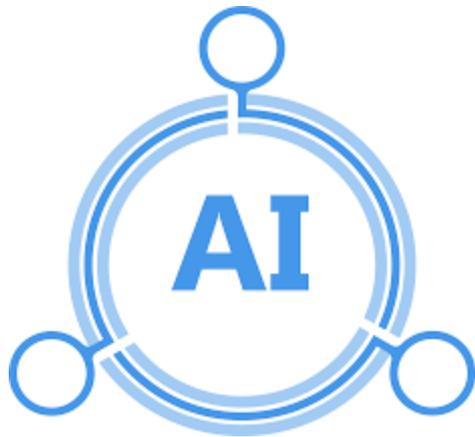
Customer Services

* **Automation can deliver a level of responsiveness that isn't humanly possible. (Quick Response)**

* **By 2020, 85% of all customer interactions will be handled without a human agent. (Effective Communication)**

* **Resolving customer service issues before they arise could significantly lower customer abandonment rates. (Loyal customers – Good Retention)**

AI &
THE
FUTURE
OF
CUSTOMER
SERVICE

Customer services

* **AI will change customer service as much as the telephone did in its day. Reducing customer complaints and improving consumer satisfaction.**

* **AI will also enhance customer-service agents' knowledge, performance and speed.**

* **Some companies are experimenting with "voice-printing" technology which recognizes clients' voices and alerts agents if a caller is impersonating (imitate) someone else.**

* **One Australian bank is experimenting with a standalone smart voice-controlled speaker to listen in on agents' conversations about loans. If the agent forgets something or makes a mistake, it jumps in**

Customer services

* Between 2017 and 2021 the share of customer-service interactions worldwide handled entirely by AI will rise fivefold, to 15%, and by 2019 at least 40% of such interactions will involve an element of AI, according to Gartner, a research firm.

* British online grocer, receives around 10,000 e-mails from customers every day and uses AI to detect the prevailing sentiment in them.

* It now replies to the most urgent ones first, and is planning to route complaints to agents with expertise in the relevant field.

Customer services

* Customer service and human resources AI offers a return on investment of around 20%.

* Some insurers, including Ping An of China, use AI to let customers file a claim after a car accident. Instead of having to phone the insurance company and fill in lots of forms, customers take photos of the damage to their car and submit them through an app for a quick quote for repairs.

* Watson is an IBM supercomputer that combines artificial intelligence (AI) and sophisticated analytical software for optimal performance as a "question answering" machine. The supercomputer is named for IBM's founder, Thomas J. Watson.

Medical, Manufacturing, home services….

* Robots can do complicated medical operations successfully. Surgeon will sit far away place and through robots, surgeon can operate the patients.
* Home robots are becoming popular.

Accounting and finance services

* **Preparation of invoices & Ordering dispatches**
* **Reminding clients about due dates (aging and scheduling)**
* **Reminding accounts manager about payment due to suppliers.**
* **KPMG looks to using AI to drive higher-confidence outcomes, greater insight, and employee empowerment, high-quality audit.**
* **AI assists solving difficult and specific business problems.**
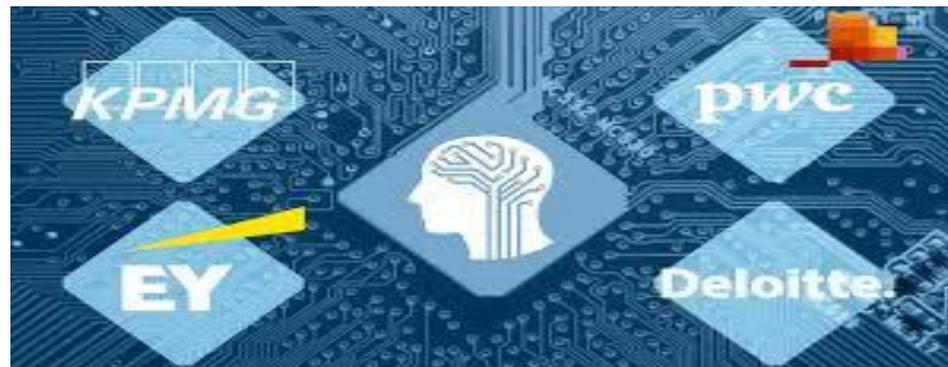
Human Resources services

* **AI-enabled systems can scan applications far more quickly than humans and work out whether candidates are a good fit.**

* **Only around 15-20% of applicants typically hold the right qualifications for a job, but they are rarely told why they were not hired, nor are they pointed to more suitable jobs. Technology is helping "give respect back to candidates"**

* **Hilton, a hotel chain, has shortened the average time it takes to hire a candidate from 42 days to five with the help of HireVue, a startup. It analyses videos of candidates answering questions and uses AI to judge their verbal skills, intonation and gestures.**

* **AI to improve job descriptions.**

Human Resources services

* **Recruiters often come across candidates who have good qualifications but are not the right fit for the particular position. Use them in right place at right is possible with AI.**

* **AI to improve internal mobility.**

* **AI is to help employers reduce staff turnover**

* **AI may also be used to determine pay**

Privacy?

* All these points to a broader issue in AI: transparency and privacy.

* AI track their location and interactions. Microchip badges.

* Data from their employees' badges are integrated with information from their e-mail and calendars to form a full picture of how they spend their time at work.

* Employers can already check who is looking at a document, when employees are working and whether they might be stealing company files and contacts

Privacy?

* AI will allow the company to measure their employees' productivity and accuracy

* Computer vision to check whether employees are wearing appropriate <u>safety</u> gear. Ex: Mining companies

* Employees will also be able to track their own movements. Microsoft, the software giant, already offers a programme called MyAnalytics which puts together data from e-mails, calendars and so on to show employees how they spend their time, how often they are in touch with key contacts and whether they multitask too much.

Privacy?

* In China increasing numbers of firms, and even some cities, use cameras to identify employees for the purpose of giving them access to buildings.

* As more companies rely on outside firms to collect and crunch employee information, privacy concerns will increase, and employees may feel violated if they do not think they have given their consent to sharing their data.

A threat for Competition?

* **Jeff Dean, director of Google Brain, the search giant's AI-research arm, estimates there are 10m organisations in the world that "have a problem that would be cooperative to a machine-learning solution. They have the data but don't have the experts on staff."**

* **In future tech firms will develop more specialized hardware that will help companies critical point huge data loads more quickly. Google has a lead in this area; it has built some remarkably powerful custom chips, called Tensor Processing Units (TPUs), and uses other customized accelerators to increase the processing speed of its data centers.**

A threat for Competition?

* **Big firms that adopt AI early on will get ever bigger, attracting more customers, saving costs and offering lower prices. Such firms may also reinvest any extra profits from this source, ensuring that they stay ahead of competitors.**

* **Smaller companies could find themselves left behind.**

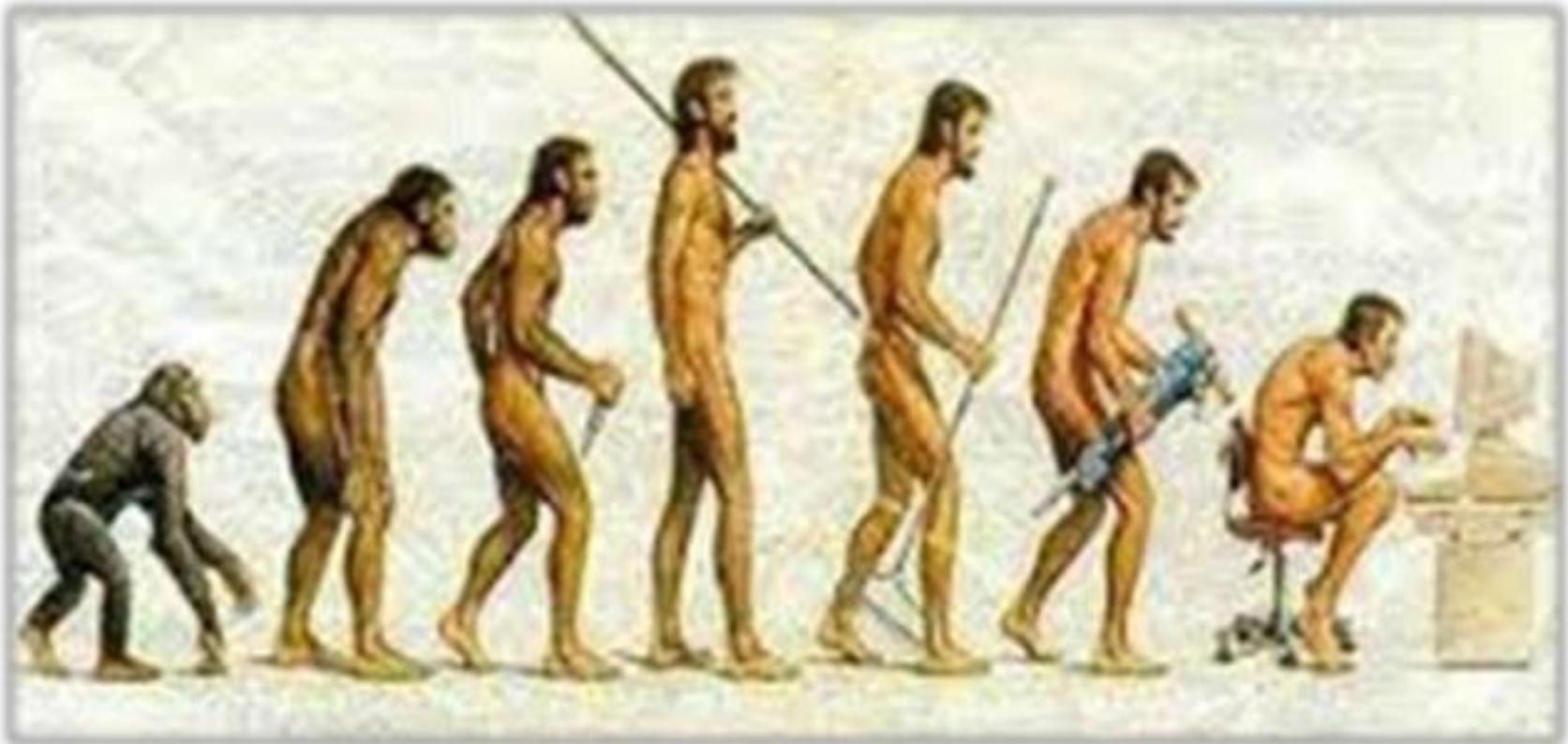* **Amazon, which uses AI extensively, controls around 40% of online commerce in America**

Way forward?

* **First, data should be anonymized where possible.** Microsoft, for example, has a product that shows individuals how they manage their time in the office, but gives managers information only in aggregated form.

* **Second, the use of AI ought to be transparent. Employees should be told what technologies are being used in their workplaces and which data are being gathered. As a matter of routine, algorithms used by firms to hire, fire and promote should be tested for bias and unintended consequences.**

* **Last, countries should let individuals request their own data, whether they are ex-workers wishing to contest a dismissal or jobseekers hoping to demonstrate their ability to prospective employers.**

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In a world run by intelligent machines, our lives could get a lot simpler.

Would that make us less intelligent?

Thank you

Thank you