Business English News 57 – Robots: Back to the Future

While **generative AI** has been **grabbing the headlines** lately, the world of **robotics** has been developing at a **rapid clip**. The **robot** industry has been expanding exponentially, albeit mainly outside the **spotlight** of the **mass media**. And, as MSN explains, business is **booming:**

According to an announcement by the International Federation of Robotics, the **stock** of **operational** robots around the world has now reached 3.5 million **units**, and the **value** of **installations** has reached an **estimated** $16 billion. According to the Federation, robotics now **plays** a **fundamental role** in the changing **demands** of manufacturers around the world.

Of course, talk of robots will immediately **call to mind automotive** manufacturing, and car-makers were certainly one of the **earliest adopters**. But it's not just the automotive industry anymore. Robots are being **deployed** on smaller **scales**, alongside humans, outside of **assembly-line** manufacturing. Robots have found **applications** throughout the economy, for companies big and small, as Yahoo notes:

SMEs are increasingly adopting **collaborative** robots, leading to significant economic opportunities in the industry. These "**cobots**" provide SMEs with a cost-effective and **customizable automation** option. This is especially **tempting** considering the lower **startup** and operating costs compared to **traditional** robots. This **affordability** and **versatility** enables SMEs to **implement** automation technologies that can **scale** with business growth.

Cobots have certainly made life easier for human workers. They also **enhance quality control** and efficiency, from a cost **perspective**. And while cobots are working alongside **flesh and blood** humans on many tasks, there are other jobs that can be completely automated. There are many **repetitive** human tasks that people find **soul-destroying**, or in which humans are unfortunately **prone to error**. This has **prompted** many companies to **embrace** what is called Robotic Process Automation. As Allied Market Research describes it:

Robotic process automation, or RPA, is an **emerging** technology that helps automate **routine** business practices using software **bots** to handle repetitive tasks. Its **use cases range** from telecom to retail, banking to accounting, healthcare to HR, and IT. RPA helps **enterprises** in processing a transaction, **triggering** responses, **manipulating** data, and communicating with other digital systems.

As robots become more **ubiquitous**, they are becoming more deeply **embedded** in everyday life. It's not just about the **factory floor** anymore. Even service industries see robots as a **boon**, given the ongoing challenges in **recruitment** and **retention**. A **prominent case in point** is the healthcare industry. For example, tests in hospital settings are revealing the **promise** that robots **hold**. As Time magazine reports:

The results of the tests showed that robots were able to **perform** routine tasks like greeting **patients**, providing directions, and answering questions during the **initial trial**. They were also able to understand group conversations and **facilitate** assistance based on what patients asked of them. These **advances** were made possible by the progress seen in **large language models**, the type of **artificial intelligence** that powers **ChatGPT**.

As noted, this kind of human-robot **interaction** requires robots to have a certain **degree** of intelligence. Moving beyond **menial** or repetitive tasks has required advances in the related **field** of artificial intelligence. While AI is **overshadowing** robotics in the media, robots actually rely heavily on AI to do what they do, as Forbes explains:

AI is **transforming** robotics, although we are still in the early stages of developing use cases. Companies are now developing advanced robots equipped with AI that can learn and **adapt** to new tasks. They now function in **real-world** situations that **pre-programmed** systems frequently fail to operate **autonomously** in. The overall goal is that by combining highly **reliable** but inflexible technology like robotics with a highly flexible but less reliable technology like AI **algorithms**, you will get **the best of both worlds**.

As we've seen, the use of robots is no longer **confined** to the automotive industry, or even manufacturing more broadly. They're appearing in all kinds of human **settings**, from healthcare to hospitality. Could it be that robots are the solution to the ongoing hiring **crisis**? Or could it be that humans will finally be **relieved** of painful or boring tasks? As the Business Reporter tells it:

The **transition** from industrial to intelligent robotics is already transforming industrial processes and is set to do so **well into the future**. Designed into the robots of today is a sense of freedom and autonomy – they now have a level of intelligence that means they can make their own decisions, free of human **interference**. This in turn **frees up** human labor to focus on the jobs robots cannot do. **In short**, their impact on industry, as well as **work-life balance**, will be **game-changing.**

Vocabulary

Generative AI: A type of artificial intelligence that creates new content. "Generative AI can write stories and create images."

To grab headlines: To attract a lot of public attention. "The new technology grabbed headlines around the world."

Robotics: The science and technology of robots. "Robotics is used to build machines that can do work for humans."

Rapid clip: Moving very fast. "Technology is advancing at a rapid clip these days."

Robot: A machine capable of carrying out a series of actions automatically. "The factory uses robots to assemble cars."

Spotlight: Intense public attention. "The new product was in the spotlight at the tech show."

Mass media: Means of communication that reach a large audience, like TV and newspapers. "The mass media reported on the new invention."

To boom: To grow quickly and become very successful. "The tech industry continues to boom."

Stock: A supply of goods or materials. "The store has a large stock of electronics."

Operational: Ready to use and functioning. "The new system will be operational next month."

Unit: A single thing or part of something larger. "Each unit is tested before leaving the factory."

Value: The importance, worth, or usefulness of something. "The value of the software lies in its simplicity."

Installation: The process of putting something in place so it can be used. "The installation of the new machines took two days."

Estimated: Roughly calculated or guessed. "The project will be completed in an estimated six months."

To play a role: To be involved in something. "Technology plays a big role in our daily lives."

Fundamental: Basic and important. "Trust is fundamental to any relationship."

Demands: Needs or requirements. "The job has high demands, but it's rewarding."

To call to mind: To remember or think of something. "The smell of cookies calls to mind my grandmother's kitchen."

Automotive: Related to cars and vehicles. "The automotive industry is investing in electric cars."

Early adopter: A person who starts using new technology before most others. "As an early adopter, he always has the latest gadgets."

To deploy: To put into use. "The company will deploy new software next week."

Scale: The size or level of something. "We need to increase the scale of our operations."

Assembly-line: A manufacturing process in which parts are added in a sequence. "Cars are built on an assembly-line to speed up production."

Application: The use of something for a specific purpose. "This app has many practical applications."

SME: Small and Medium-sized Enterprises. "SMEs play a crucial role in the economy."

Collaborative: Working together with others. "We use collaborative tools to improve teamwork."

Cobot: A robot designed to work alongside humans. "Cobots help workers in factories by handling repetitive tasks."

Customizable: Able to be changed to suit personal needs. "The software is customizable to fit each user's preferences."

Automation: Using machines to do work automatically. "Automation in factories speeds up production."

Tempting: Attractive or appealing. "The offer is tempting, but I need to think about it."

Startup: A new business, usually in its early stages. "He invested in a tech startup that's developing innovative apps."

Traditional: Following old methods or customs. "Traditional cooking methods are still popular today."

Affordability: Being within one's financial means. "The affordability of the product makes it accessible to more people."

Versatility: The ability to adapt to many different functions. "The tool's versatility makes it useful for various tasks."

To implement: To put into action or use. "The company plans to implement new policies next year."

To scale: To increase in size or number. "We need to scale our production to meet demand."

To enhance: To improve or make better. "We added features to enhance the user experience."

Quality control: The process of ensuring products meet certain standards. "Quality control is essential in manufacturing."

Perspective: A particular way of viewing something. "From her perspective, the solution was simple."

Flesh and blood: A real, living person. "It's hard to believe the robot isn't flesh and blood."

Repetitive: Doing the same thing over and over. "The job is repetitive, but it pays well."

Soul-destroying: Very boring and making you feel unhappy. "Filling out endless forms is soul-destroying."

Prone to error: Likely to make mistakes. "Human workers are more prone to error than machines."

To prompt: To cause something to happen. "The announcement prompted a lot of questions."

To embrace: To accept or adopt something enthusiastically. "They decided to embrace new technologies in their work."

Emerging: Starting to become known or noticed. "Emerging markets offer new opportunities for investors."

Routine: A regular way of doing things. "Having a morning routine helps me stay organized."

Bot: A computer program that performs automated tasks. "Chatbots help answer customer queries online."

Use case: A situation where something is used. "This software has many use cases in different industries."

To range: To vary within certain limits. "Prices range from $10 to $50 depending on the model."

Enterprise: A business or company. "The enterprise expanded its operations globally."

To trigger: To cause something to start. "The alarm was triggered by a security breach."

To manipulate: To control or influence something or someone. "He knows how to manipulate the data to get the results he wants."

Ubiquitous: Present everywhere. "Smartphones have become ubiquitous in modern life."

Embedded: Fixed into the surface of something. "The sensors are embedded in the factory floor."

Factory floor: The area in a factory where products are made. "Workers on the factory floor are using new machines."

Boon: Something that is very helpful or beneficial. "The new software is a boon to our productivity."

Recruitment: The process of finding and hiring new employees. "The company is focusing on recruitment to fill open positions."

Retention: The ability to keep employees. "Improving work conditions helps with employee retention."

Prominent: Important or well-known. "She is a prominent figure in the tech industry."

Case in point: An example that shows a particular point. "He is always late, case in point, he missed today's meeting."

To hold promise: To show potential for future success. "The new technology holds promise for many applications."

To perform: To carry out a task or action. "The robot can perform various tasks with precision."

Patient: A person receiving medical care. "The doctor was very kind to the patient."

Initial: Occurring at the beginning. "We had an initial meeting to discuss the project."

Trial: A test of something new to see if it is effective. "The new drug is currently in trials."

To facilitate: To make something easier. "These tools facilitate remote work."

Advances: Progress or improvements in a field. "Recent advances in technology have improved our lives."

Large language model: A type of AI trained on vast amounts of text. "ChatGPT is an example of a large language model."

Artificial intelligence / AI: Machines designed to simulate human intelligence. "AI can help with tasks like data analysis."

ChatGPT: A language model developed by OpenAI. "ChatGPT can help answer your questions."

Interaction: Communication or direct involvement with someone or something. "Our interaction with the new system was smooth."

Degree: The amount or level of something. "There is a high degree of trust in this technology."

Menial: Low-skilled and not requiring much thought. "The robot handles menial tasks, freeing up workers for complex jobs."

Field: An area of work or study. "He is an expert in the field of robotics."

To overshadow: To make something less noticeable. "The new product overshadowed last year's model."

To transform: To change something completely. "AI has the potential to transform many industries."

To adapt: To change in order to fit a new situation. "Businesses must adapt to stay competitive."

Real-world: Existing in actual experience, not theoretical. "We need real-world solutions to these problems."

Pre-programmed: Set to follow instructions given in advance. "The robot follows pre-programmed routines."

Autonomously: Operating independently without human control. "The drone can fly autonomously."

Reliable: Dependable and trustworthy. "This system is very reliable and rarely fails."

Algorithm: A set of rules for solving a problem. "Search engines use complex algorithms to find results."

The best of both worlds: Combining two different advantages. "This hybrid car offers the best of both worlds: efficiency and power."

Confined: Limited to a particular space or area. "The experiment was confined to the lab."

Setting: The place or environment where something happens. "The conference took place in a formal setting."

Crisis: A time of intense difficulty or danger. "The company managed to survive the financial crisis."

To relieve: To reduce or remove something unpleasant. "This medicine helps to relieve pain."

Transition: A change from one state or condition to another. "The transition to remote work was smooth."

Well into the future: Continuing for a long time ahead. "These changes will affect us well into the future."

Interference: Disruption or unwanted involvement. "Interference in the system caused delays."

To free up: To make something available. "Automating tasks can free up employees for more important work."

In short: To summarize briefly. "In short, we need to improve our processes."

Work-life balance: The balance between work and personal life. "Flexible hours can improve work-life balance."

Game-changing: Having a significant impact. "This new technology is game-changing for the industry."

Language Review

A. Collocations

Match words from each column to make collocations found in the article.

1. Flesh and	a. Changing	
2. To hold	b. Destroying	
3. To call to	c. Clip	
4. Soul-	d. Promise	
5. Game-	e. Error	
6. Rapid	f. Worlds	
7. Best of both	g. Blood	
8. Prone to	h. Mind	

B. Vocabulary Quiz

1. Which term best describes technology that creates new content, like text or images?
   a. Automation
   b. Robotics
   c. Generative AI
   d. Ubiquitous

2. A hybrid system that combines two advantages offers:
   a. Rapid clip
   b. The best of both worlds
   c. A game-changing approach
   d. Work-life balance

3. Which of the following words describes tasks that are boring and repetitive?
   a. Transformative
   b. Game-changing
   c. Soul-destroying
   d. Ubiquitous

4. Which of these is NOT a benefit of automation?
    a. Increased efficiency
    b. Reduced errors
    c. Enhanced creativity
    d. Faster processes

5. Which term refers to a collaborative robot designed to work alongside humans?
    a. Bot
    b. Cobot
    c. Installation
    d. Algorithm

6. Generative AI and large language models are transforming many industries. They are:
    a. Prone to error
    b. Rapid clip
    c. Game-changing
    d. Flesh and blood

7. What does the term 'flesh and blood' imply when comparing humans to robots?
    a. Real and human
    b. Ubiquitous
    c. Pre-programmed
    d. Prone to error

8. The development of large language models has been at a:
    a. Game-changing pace
    b. Rapid clip
    c. Prone to error
    d. Work-life balance

9. Which of the following best describes a key benefit of work-life balance?
    a. Rapid clip
    b. Soul-destroying tasks
    c. Improved personal and professional life
    d. To hold promise

10. The widespread use of smartphones and the internet can be described as:
    a. Ubiquitous
    b. Prone to error
    c. Soul-destroying
    d. Well into the future

Answers

A. Collocations
1/g, 2/d, 3/h, 4/b, 5/a, 6/c, 7/f, 8/e

B. Vocabulary Quiz

1/c, 2/b, 3/c, 4/c, 5/b, 6/c, 7/a, 8/b, 9/c, 10/a

