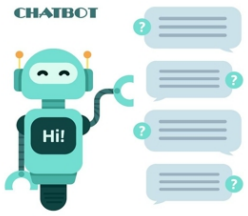
AI IN OUR EVERYDAY LIFE

START-UP

I. When someone mentions 'artificial intelligence' (AI), what is the first thing that comes to your mind?

II. In pairs, look at the pictures below and answer the questions:



1. How would you define AI (Artificial Intelligence)?
2. What activities are computers better at than humans now? What are humans better at than computers?
3. Computers get faster and better every year. Is it just a matter of time before they become more intelligent than humans?

READING, COMPREHENSION AND VOCABULARY PRACTICE

III. Use the words given in capitals at the end of sentences and the suffixes below to make new words and fill in the gaps:

-ment	-ion	-ive	-y	-ity	-ous	-able	-ed

Many times researchers study some areas to satisfy their …… but as a result new things are invented. (CURIOUS)

Recent …… in machine learning has allowed us to create machines that can win with humans in some areas. (DEVELOP)

Their …… was quickly confirmed, making it the first confirmation of planets outside our Solar System. (DISCOVER)

Engineers can now apply …… technological solutions to automate many tasks that required human input. (ADVANCE)

The …… of gunpowder was one of the most significant achievements of the Middle Ages in China. (INVENT)

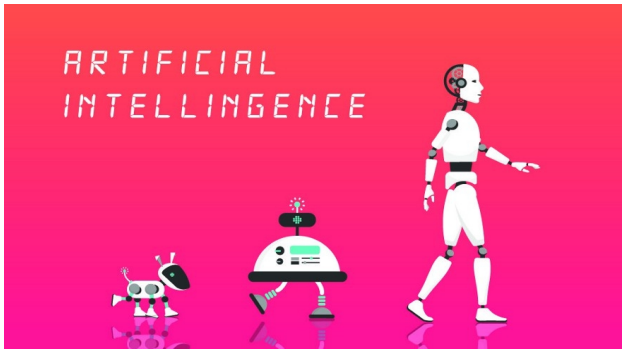
Machines are not always …… and sometimes break down so we should limit how much we depend on them in everyday life. (RELY)

There are …… reasons why we should create artificial intelligence. (NUMBER)

Some people believe that AI is such a …… technology that it will change our lives just as the Internet or TV did. (TRANSFORM)

IV. Match the synonyms given below:

1. mission	a. present
2. smart	b. whole
3. current	c. frightening
4. intervention	d. forecast
5. entire	e. clever
6. scary	f. beginning
7. anticipate	g. task
8. infancy	h. interference



The Rise of Artificial Intelligence

The term "artificial intelligence" dates back to 1956 and belongs to a Stanford researcher John McCarthy, who coined the term and defined the key mission of AI as a sub-field of computer science.

Basically, artificial intelligence (AI) is the ability of a machine or a computer program to think and learn. The concept of AI is based on the idea of building machines capable of thinking, acting, and learning like humans.

A more nuanced definition is that artificial intelligence is an interdisciplinary concept that studies the possibility of creating machines capable of interacting with their environment and acting upon the received data in the manner considered intelligent. While some people falsely consider AI a technology, the more accurate approach would be seeing it as a broad concept in which machines are able to deal with tasks in a way we would call intelligent or smart.

There are certain things a machine/computer program must be capable of to be considered AI.

First, it should be able to mimic human thought process and behavior. Second, it should act in a human-like way – intelligent, rational, and ethical.

AI is not the same as machine learning. Although the two terms are often used interchangeably, they are different. Artificial intelligence is a broader concept, while machine learning is the most common application of AI. We should understand machine learning as a current application of AI that is focused on development of computer programs that can access data and learn from it automatically, without human assistance or intervention. The entire machine learning concept is based on the assumption that we should give machines access to information and let them learn from it themselves.

Artificial intelligence, in its turn, is a bunch of technologies that include machine learning and some other technologies like natural language processing, inference algorithms, neural networks, etc.

Many people associate AI with the distant future. They incorrectly believe that despite all the buzz around artificial intelligence, the technology is not likely to become a part of their lives anytime soon. Little do they know how many aspects of their lives are already affected by AI.

There are intelligent gadgets able to recognize our speech (read: "understand what we want or need"), analyze the information they have access to, and provide an answer or solution. What is remarkable (and a little scary) about such assistants is that they continuously learn about their users until the point at which they are able to accurately anticipate users' needs.

Spotify, Pandora, and Apple Music are some other touching points between AI and you. These services are capable of recommending music based on your interests. These apps monitor the choices you make, insert them into a learning algorithm, and suggest music you are most likely to enjoy. This particular use of AI is probably one of the simplest among all, but it does a good job helping us discover new songs and artists.

AI is making headway in areas you might least expect it. The current state of artificial intelligence already allows for some basic robot writing. It might be not yet ready to compose in-depth articles or creative stories, but does a pretty good job writing short and simple articles like sport recaps and financial summaries.

Other examples of artificial intelligence in use today include smart home devices like Google's NEST, self-driving cars like those produced by Tesla, and online games like Alien: Isolation.

Some people claim that AI is still in its infancy. Others assure us that we are only a few years away from AI gaining control over humanity. The truth, however, lies somewhere in between. According to the most trustworthy forecasts out there, AI will outsmart humans at virtually everything in the following 45 years.

Obviously, this won't happen overnight. Industries will be falling under AI's spell one-by-one. Experts predict that within the next decade AI will outperform humans in relatively simple tasks such as translating languages, writing school essays, and driving trucks. More complicated tasks like writing a bestselling book or working as a surgeon, however, will take machines much more time to learn. AI is expected to master these two skills by 2049 and 2053 accordingly.

V. Say whether these statements are true or false and why:

1. Artificial intelligence is a relatively new field of cognitive science.
2. AI is identical to machine learning.
3. The entire machine learning concept is based on the assumption that we can't give machines access to information and let them learn from it themselves.
4. AI is already capable of composing in-depth articles or creative stories.
5. Intelligent gadgets analyze information and are able to accurately anticipate users' needs.
6. AI has limited application.

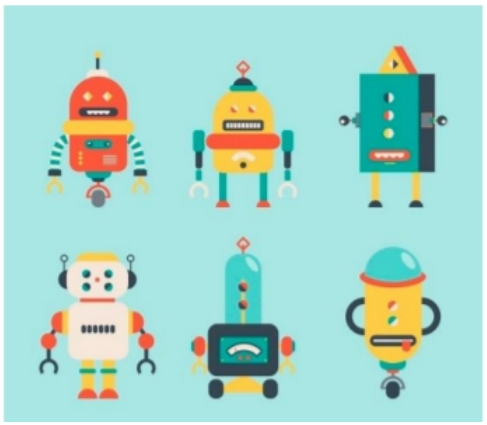
VI. In pairs, discuss the following points:

1. What are the things a machine/computer program must be capable of to be considered AI?
2. What are the key advantages of this technology in your opinion?
3. How could the artificial intelligence technology be used in the future?
4. What aspects of AI can make it dangerous?
5. Why might some people think that too much technology in our lives can cause problems?

WATCHING AND SPEAKING

VII. What kind of professions will disappear in the next 10-15 years and which ones will become more common? Fill in the table below:

DYING PROFESSIONS	TOP FUTURE JOBS



✓ Do you think more jobs will be created or lost because of technology?

VIII. Match the words with their definitions:

1. MIMIC	a. Make determined efforts to deal with (a problem or difficult task)
2. BREAKTHROUGHS	b. Highly advanced; innovative or pioneering.
3. REMARKABLE	c. Imitate (someone or their actions or words)
4. CUTTING EDGE	d. Be clearly better or more significant than someone or something.
5. TO OUTPERFORM	e. A sudden, dramatic, and important discovery or development
6. TO STAND OUT	f. To do something better than someone or something else
7. TO TACKLE	g. Worthy of attention; striking

IX. Watch TED talk and answer the questions:

a) What were the findings of the study carried out at Oxford University?

…….

b) What does machine learning enable?

…….

c) What could machine learning do in the 1990s and what can it do now?

…….

d) What are the things that humans can do and machines can't?

…….

e) How was the microwave oven invented?

…….

f) What two examples of tasks that humans are better at did the speaker mention?

…….

X. Fill in the gaps with the vocabulary from exercise VIII:

1. Artificial intelligence allows machines to learn from data and …… some of the things that humans can do.
2. The speaker's company, Kaggle, operates on the …… of machine learning.
3. People have made dramatic …… in terms of machine learning over the past few years.
4. Machines are going to …… humans at tasks like grading essays or doing eye check-ups.
5. The invention of microwave oven is a particularly …… example of creativity.
6. A marketing copy has to …… from the crowd.
7. Humans are better at tasks that involve …… novel situations.

LANGUAGE FOCUS

Participle review

XI. Define the type of Participle used in the following word combinations, translate into Russian:

	Participle I		Participle II (Past Participle)
	Simple	Perfect	
Active Voice	doing	having done	–
Passive Voice	being done	having been done	done

Jobs replaced by computers, self-driving and parking cars, apps learning from every single user interaction, tasks performed by humans, software installed on your system, AI gathering information about your preferences, apps enhancing the user experience, device unlocked with biometrics, ads based on your search history, algorithms working to prevent cyberbullying, face recognition improving security.

XII. Choose the right form of the Participle in the following sentences:

1. ***Having been learned / having learned*** the principles of programming, I decided to write some programs for my course project.
2. Spotify monitors the choices you make, inserts them into a ***learned / learning*** algorithm, and suggests music you are most likely to enjoy.
3. ***Worked / working*** with the CAD system, the designer creates the lines that form the object and stores this model in the computer database.
4. ***When writing / being written*** a program, software developers try to define its purpose first.
5. It's not rare to see people ***spent / spending*** tens or hundreds of hours on their favorite, well-designed games.
6. Some pages ***adopting / adopted*** chatbot software make their sites more interactive and friendly.
7. ***Having been interacted / interacting*** with a virtual reality program, you have a sense of being completely immersed in it.
8. ***Processing / processed*** lots of data through deep neural networks, Twitter uses AI behind the scenes to enhance its product.

XIII. Divide into two groups. Think about the future of AI and automation: will it bring more good or bad into our lives?

You would need to come up with the arguments to support your team's debating position. It's also important to anticipate the opposition's arguments to help you defend your team's point of view.

1st proposition speaker: ✓ States the topic; ✓ States several arguments to support the team's position	1st opposition speaker: ✓ Rebuts the opposition's points; ✓ States his/her points
3/4 turns … final summary to demonstrate why the side has prevailed	

Useful language to use in formal debates:

Building your Argument Introducing your point: To begin with… First of all… Connecting your points: Also… Furthermore… What's more… Showing importance: More importantly… What's worse… Above all else… Giving examples: For instance… For example…
Opinions, Preferences: In my opinion..., The way I see it..., As far as I'm concerned..., If it were up to me..., I suppose..., I suspect that..., I'm pretty sure that..., I honestly feel that, Without a doubt…
Disagreeing: Don't you think it would be better..., Shouldn't we consider..., But what about..., I'm afraid I don't agree..., Frankly, I doubt if..., The truth of the matter is..., The problem with your point of view is that..., It's a fact that…, According to …, The reality of the situation is…, The numbers show that…, The fact is this:…
Partially agreeing: I agree with you to a point however…, I see where you are coming from but…, I see what you are saying but …
Delaying Strategies I can't answer that directly..., I'll need time to think about that..., That's a very interesting question, because…, That's a difficult question to answer
Asking someone to repeat Pardon me? Pardon? Excuse me? Sorry? I'm sorry? I beg your pardon?
Holding the floor Hold on..., Hold on a second..., Yes, I was about to mention that...., Well, I was about to come to that..., Sorry, I haven't finished yet ., I haven't made my point yet …
Expressing solutions and alternatives The solution is to…, Then you will…, The best way to … is …, To …, you really have to …., There are many choices....