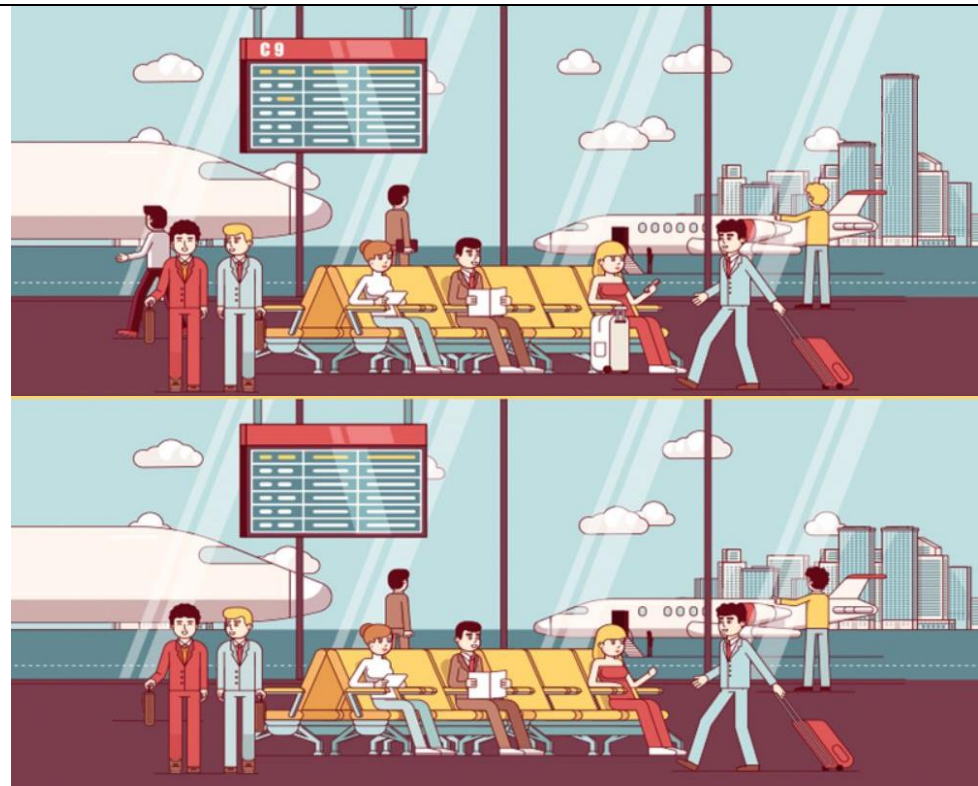


The junior high school went on their farmstay last week. It sounded like a lot of fun. I would like to try it myself one day. I love being out of the city. Staying on a farm sounds like a perfect vacation for me. I would love to help on the farm but, more than that, I would love to be able to see all of the stars at night. There is too much light pollution¹ in Sapporo.



There are 30 differences this week! How many can you find?
Last week's answer



Something you didn't know about factories:

1. The first factory was in 1104 in Venice. They mass-produced² ships on an assembly line³ using premade parts⁴. 16,000 people worked there and made one ship a day.
2. The first modern factory was built in 1769. His workers spun cotton⁵ on a water-powered machine.
3. People made cotton in their houses before factories. Factories meant more could be made more cheaply.
4. People worked the same hours as farmers did. Dawn to dusk⁶, 6 days a week. People started moving from the countryside to the cities for work.

Nissan's New Intelligent Plant

Nissan is building a new "intelligent factory" that will start running next April. The factory will build many of Nissan's new cars. The factory is almost completely staffed by robots and AI systems. Up until now, robots could do all of the construction, but human workers were necessary for adjustments⁷, quality control⁸, and repairs. These new robots can do all of that themselves. The robots build the cars and the artificial systems



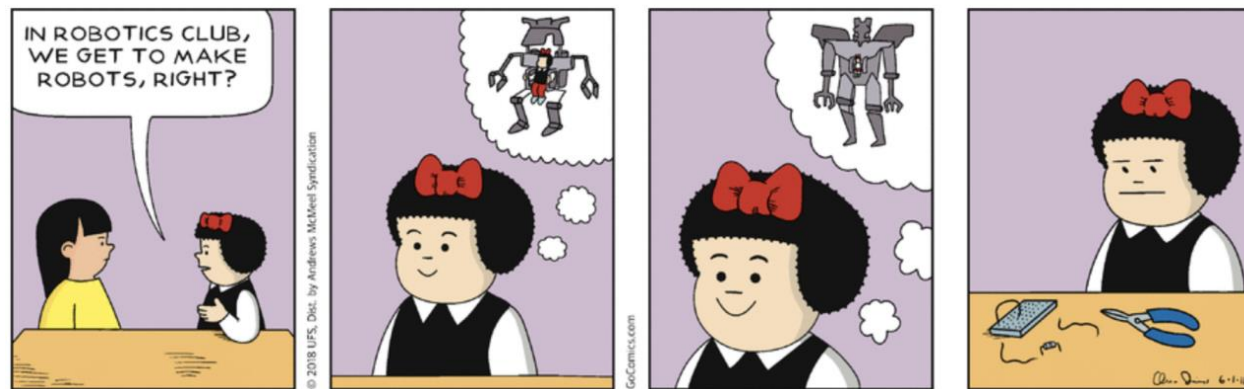
analyze the data and perform quality control. The robots can convert themselves to build different types of Nissan cars on the same production line. The idea is that the AI system



can monitor market demand⁹ and change the type of car the factory produces in real-time to meet the demand. The few workers that are in the factory can analyze the data that the AI produces and maintain the equipment. I don't think it will be long before that role is taken by machines as well. Nissan's plant is not the first to be completely automatized and it

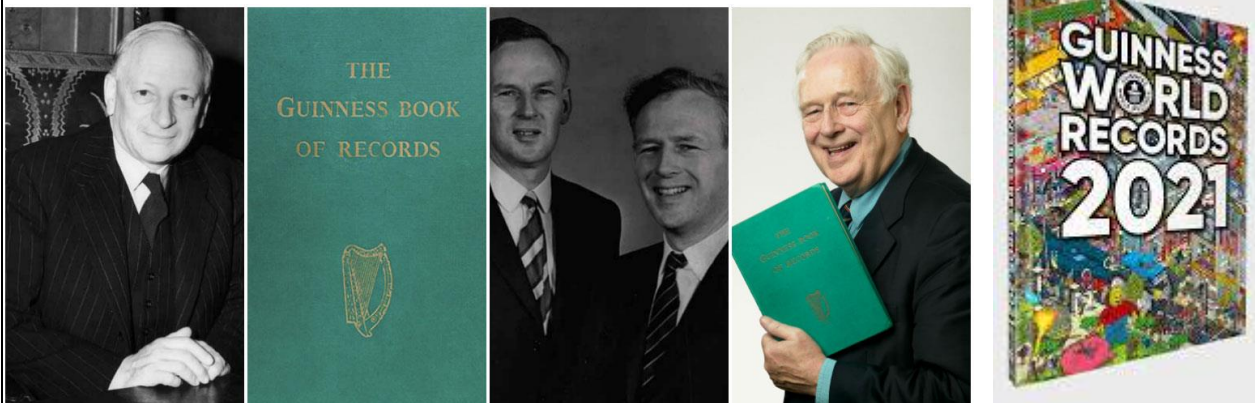
won't be the last. The aging and declining population in Japan means that there is a labor shortage. Automation can solve that problem. How far will this go, though? Studies into AI and automation have shown that they will replace close to 100 million jobs by 2025. What will happen after that is anyone's guess. Will we have mass unemployment¹⁰? Or will humans find new types of job?

1.light pollution 光害 2.mass-produced 大量生産 3.assembly line 組立ライン 4.premade parts 出来上がった部品 5.spin cotton 綿を紡いで糸にする 6.dawn to dusk 日の出から日没まで 7.adjustments 調整 8.quality control 品質管理 9.market demand 市場の需要 10.mass unemployment 大量失業



World record

I write a about a world record every week. Have you ever wondered where the idea for the Guinness World Records book came from? In 1951, Hugh Beaver, the managing director¹ of Guinness Breweries² went shooting in Ireland. He tried to shoot a bird and missed because it was very fast. He then got into an argument³ with his friend about what the fastest bird in Europe was. That evening, they looked in books but couldn't find the answer. He thought that many other people must have had similar questions and a book with the answers would be very popular. There were two brothers, Norris and Ross McWhirter that had a fact-finding agency in London. (Remember, this is long before Google.) Hugh Beaver hired them to write a book. The first Guinness Book of Records went on sale in August 1954. Since then, it has sold over 100 million copies.



Don't wait for the perfect moment.
Take the moment and make it
perfect.

A monument

Let's have a look at the Sydney Opera House. Maybe you don't know much about it, but you will definitely⁴ have seen pictures of it. It is very easy to recognize⁵ and is probably the most famous landmark in Sydney. It is 67m tall at its highest and has a series of concrete shells. The idea for an opera house started in 1948. An international



design competition was held and Danish architect⁶ Jørn Utzon's idea was chosen. Construction began in 1959 but it took the builders four years to work out how to make the concrete shells. In they end they used computers for structural analysis⁷ and this is the first time computers were used in a project like this. The Australian government started to get angry about

the rising costs and people complained about Utzon's design. In 1966, he resigned⁸ and was replaced by a different architect. The design was changed quite a lot. The opera house was finally finished in 1973. When Utzon submitted⁹ his idea, he said it would cost \$68 million and be finished in 1963. It actually cost \$993 million and was finished in 1973.



1.managing director 最高経営責任者 2.brewery 醸造所 3.get into an argument about~について 議論を始める 4.definitely 絶対 5.easy to recognize 見分けるのが簡単である 6.architect 建築家 7.structural analysis 構造解析 8.resign やめる 9.submit 提出する