

Robots bring sunshine to the elderly

- 1 At the Shintomi care home, 40 elderly people gather in the main hall to watch a double act by robots. The little straight man, Palro, has just led everyone in a dance. Pepper, the taller funny guy, is making old ladies cackle by trying, and failing, to guess their ages. These humanoids are using artificial intelligence to soothe, stimulate and entertain the old.
- 2 The robotic revolution has happened because of the convergence of two forces; robot technology and human ageing. By 2050, 27 percent of the UK population is expected to be 65 or older; in Japan, with a shrinking population, the proportion will be 36.4 per cent.
- 3 A year ago the Japanese government unveiled its 'new strategy for robots', which aims to quadruple the size of the industry. Few sectors offer greater opportunity than that of elderly care. There is the Honda Walking Assist Device, a lightweight apparatus of belt and leg braces buckled to a stroke patient who would hobble awkwardly with a stick but now manages a steady walk.
- 4 Some of the most useful technology is aimed not at the home's patients but at its staff. Many of those who care for the elderly are afflicted by back injuries, from the effort of repeatedly lifting and lowering immobile patients. An exo-suit relieves this burden. Powered by compressed air, it adds 30kg to the amount that a user can lift. Similar devices are being used by construction workers and airport baggage handlers to reduce the burden of their loads. Elderly workers are taking part in trials to see if such devices can extend their working lives.
- 5 Then there are the humanoid robots. "Some people with dementia like talking to people," Tomiko Kuge, of Fujisoft, which makes Palro, said. "They feel self-conscious because they fear that they're repeating themselves or not making sense. Sometimes they get angry with their carers, but a robot soothes them and they can talk to it easily."
- 6 A robot like Palro costs about £4,000, but is available to rent for £180 a month. About 300 are at work, mostly in care homes but some as receptionists in banks.



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Tekst 9

- 1p 35 What is the function of paragraph 2?
A to explain why the scene described in paragraph 1 is typical for Japan
B to mention the causes leading to the scene described in paragraph 1
C to stress that the scene described in paragraph 1 is still a long way off
- 2p 36 Geef van de volgende beweringen over robots aan of deze overeenkomen met de inhoud van de tekst.
Omcirkel achter elk nummer 'wel' of 'niet' in de uitwerkbijlage.
1 Ze zijn vaak zo onhandig dat mensen ze lachwekkend vinden.
2 Men is erin geslaagd ze even soepel te laten lopen als een mens.
3 Ze kunnen bijdragen aan het voorkomen van arbeidsongeschiktheid.
4 Men heeft ze geprogrammeerd om mensen geen kwaad te kunnen doen.
- 1p 37 Why is Palro suitable for working with people with dementia, according to paragraphs 5 and 6?
A He behaves as if he believes them.
B He can be hired for a reasonable price.
C He has a calming effect on them.
D He is very creative and intelligent.
- 1p 38 'Robots bring sunshine to the elderly' (titel)
→ Welke zin uit de tekst heeft dezelfde betekenis?
Citeer (= schrijf over uit de tekst) de eerste twee woorden van deze zin.

Bronvermelding

Een opsomming van de in dit examen gebruikte bronnen, zoals teksten en afbeeldingen, is te vinden in het bij dit examen behorende correctievoorschrift, dat na afloop van het examen wordt gepubliceerd.