

Digital doctors are going global

1 Warmer

- a. Companies have been using technology to improve customer services and this includes using digital tools that can communicate with customers in place of a human representative.

Have you ever used a service like this?

What was the experience like?

What are the main issues with automated AI responders?

2 Key words

- a. Fill the sentences with words and phrases from the text. The paragraph numbers are given to help you.

1. The use of computer technology to make computers and other machines think and do things on their own (1) *Through the use of _____, the fast food restaurant has been able to develop a fully automated sales service, and customers interact with a digital representative on a screen.*
2. The services that look after people's health (2) *The country has an advanced _____ service with high quality clinics and hospitals located in every region.*
3. Pieces of software that are designed to do a particular job, especially one that people use on a mobile device (4) *The business had begun moving away from paper publications and developing more _____, allowing their customers to interact with the content and communicate with the writers.*
4. The company's main offices are based there (4) *The global giant still operates from its first offices in San Diego, but it has been _____ in New York since 2008.*
5. To go straight from a job to or position that was lower in status than someone's to one that is higher than theirs (5) *Thanks to a combination of determination and luck, she was able to _____ from a graduate position to senior management.*
6. Changing the corporate image of a company so that consumers recognise a new identity or major change (6) *They hope that _____ and investing in highly-skilled staff will enable them to win back their customers.*

7. A computer program designed to simulate conversation with human users, especially over the internet (7) *He had been trying to contact the company all day, but they hadn't supplied a telephone number for customer service on their website, and the _____ was unhelpful and lacked intuition.*
8. The process of deciding which people in a hospital department should get medical treatment first, according to how serious their condition is (7) *The health regulator questioned the hospital's integrity, stating that it should be offering a fair _____ service rather than prioritising patients based on the cost of treatment and a desire for profit.*
9. Basic, not detailed or developed (8) *His early designs are inexpressive and _____, proving that his employment at the fashion house exposed him to bolder pieces and was the catalyst for more elaborate designs.*
10. Pieces of paper that a doctor gives you that says what types of medicine you need (11) *Patients can meet with the doctor online, receive a diagnosis and then arrange to pick up their _____ at the closest pharmacy.*
11. Reductions in the cost of making and selling products that are made possible because a business is very large (13) *They had been reaping the benefits of their _____ using the profits to boost business growth further and allow the corporation to open offices in the Far East.*
12. The scientific study of infectious diseases and their causes (15) *Despite the recruitment of the world's experts in _____ there are still major hurdles to address in the flow of medical supplies and delays along major trade routes that could disrupt the production of vaccines.*

Rwanda venture tests digital health potential in developing world

BABYLON'S HIGH TAKE-UP MASKS CONCERNS FOR EQUALITY OF ACCESS AND HYPING OF AI CAPABILITIES

BY ANDREW JACK

- 1 When Babylon, a UK-based digital health group, began operations in Rwanda in 2016, there was already strong interest in the use of artificial intelligence to improve the country's medical system.
- 2 Babylon's telemedicine service has since registered 2m users across the African nation and handles 3,500 daily consultations. But its progress highlights the constraints and debates around new technology even as multiple providers expand the use of digital healthcare around the world.
- 3 While digital tools can potentially support more people affordably and efficiently in stretched healthcare systems, critics have raised concerns about unequal access and say that claims about digital tools such as AI can be overhyped and unproven.
- 4 Millions of patients in industrialised nations already use online medical services and apps, and companies are looking further afield for growth. Babylon is scaling up its operations in Africa, Asia and Latin America, while rival Ada Health, headquartered in Germany, is expanding in Tanzania.
- 5 "These countries have an opportunity to leapfrog and not make the same mistakes of our [health] systems created over a couple of centuries," says Ali Parsa, Babylon's founder, referring to the ability to target prevention rather than costly treatments. "They can focus on keeping their people healthy, rather than investing in sickness."
- 6 From his UK base, where Babylon has contracted with the NHS, Mr Parsa agreed to launch in Rwanda — rebranding under the name of "Babyl" — after meeting with Paul Kagame, the country's president. That led to a 10-year contract with the government and the local health insurance system. "It had a small population [12.5m] and an executive that works," he says. "We were picking up something we could handle."
- 7 At the start of 2018, Babyl announced "the first ever fully digital healthcare service in east Africa using artificial intelligence". The service would include a chatbot "to take the power of a doctor's brain and put it on a mobile phone for medical advice and triage".
- 8 In reality, the system remains a more rudimentary form of telemedicine, with plans to test AI over the coming months.
- 9 The effectiveness of Babylon's system in the UK has received mixed reviews. A recent study by researchers at Pennsylvania State University concluded that online symptom checkers "lack the functions to support the whole diagnostic process of an offline medical visit", with often limited scope and focus on particular diseases.
- 10 Academics at the University of Sheffield in the UK wrote in a review of digital symptom checkers globally that they are used primarily by younger, more educated people and there is little evidence of how far medical advice is taken up.
- 11 Shivon Byamukama, Babyl's chief executive, says few people in Rwanda own smartphones (the service is also designed for basic mobile phones, using text messages and voice calls). Instead of using bots to diagnose symptoms, most people text a request for telephone appointments. Nurses call back and transfer them to doctors for consultations. When necessary, patients receive a code for follow-up prescriptions or laboratory tests.
- 12 "We take out people from the system that digital health can handle," says Ms Byamukama. The benefits include swifter and easier access to doctors, even in remote areas, reduced time waiting in clinics and greater privacy.
- 13 An evaluation of Babyl in 2018 by Dalberg, a consultancy, concluded it had scope to cut costs, including through the development of more efficient electronic health records. For now, says Ms Byamukama, the company faces extra costs as it seeks to gain economies of scale from its global systems, including a requirement to store all its data on a local cloud server hosted in Rwanda.

Continued on next page

- 14 Dalberg warned of a “slightly increased risk of fraud through false impersonation” by callers using Babyl, compared with face-to-face consultations. It also highlighted the need to adjust symptom-checking algorithms to “local health and disease patterns and to language and communication practices”.
- 15 Hila Azadzooy, global health initiatives lead for Babyl’s competitor Ada, says use of local health information and languages is critical for algorithm accuracy. “Local epidemiology is core. You need region-specific incidence and prevalence for an optimised disease model,” she says.
- 16 Babylon’s Mr Parsa, who says Babyl did not initially compile such Rwanda-specific data for its system, cautions: “People are hyping AI often because they want to get finance. The reality is we are in day one. It’s really in early infancy. AI will utterly outperform our wildest imaginations in years to come and utterly disappoint us in the short term.”
- 17 Much of the analysis in the field is funded by the companies themselves and not published in peer-reviewed journals. It is limited in scope, with tight restrictions on the medical conditions examined, and often provides no comparison with rival products or the final outcomes for patients.
- 18 Hamish Fraser, a researcher at Brown University’s Center for Biomedical Informatics in the US, recently co-authored an assessment, backed by Ada, of different symptom checkers. He says there is a need for more systematic independent evaluations and clearer requirements by medical regulators for data.
- 19 “It’s a bit crazy no one has funded a large-scale study,” he says. “I find this hard to square with the number of patients using digital tools. If you have too high sensitivity, you could overwhelm the health service. A good system could make a big difference, but a poor system leaves people very vulnerable, without a safety net and not getting access until it’s too late.”

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3 Understanding the article

a. Read the sentences. Decide if they are True or False. Correct the false statements.

1. Babylon began operating in Tanzania in 2018 under the brand Babyl and it provides people with wider access to medical services. T/F
2. Critics are worried that digital tools provide unequal access and think that artificial intelligence is not as reliable as it's claimed to be. T/F
3. Two medical services providers are expanding in new regions, including Africa, Asia and Latin America. T/F
4. Ada Health has a long-term contract with the government and international health insurance providers in Rwanda. T/F
5. Academics at the University of Sheffield found that the online symptom checkers lack proper function to support offline medical appointments. T/F
6. Few people own smartphones in Rwanda and most use Babyl's basic functionality to send appointment requests in text messages. T/F
7. Babyl could cost cuts by developing more efficient electronic health records. T/F
8. Understanding the way that disease spreads through local communities is essential in offering a region-specific services model and so is understanding local language. T/F
9. Analytical information about these kinds of medical services is usually provided by the companies themselves and lacks regulatory oversight. T/F
10. A good system will have a big impact, but a poor system will still have some impact for reduced cost. T/F

4 Business language – words and phrases for processes and actions

a. Match the words to make words and phrases for expressing processes and actions.

- | | |
|------------|----------------|
| 1. scaling | up |
| 2. take | up |
| 3. follow | reviewed |
| 4. co | up |
| 5. peer | up |
| 6. looking | authored |
| 7. picking | further afield |

b. Complete the sentences with the words and phrases.

When Welsh environmental architect, Aneurin Hughes, and Scottish environmental scientist, James Thomas, combined forces to develop green urban housing project In Bloom, they had no idea how quickly it would take off. It began after an idea sparked in the minds of the Oxford graduates who had been reading articles in a (1) _____ journal that provided new evidence of the positive impact urban farms can have on pollution. Fast-forward six years and the pair have delivered housing projects across the UK and America, and now they are (2) _____ at opportunities in South America.

Over the last few years, the UK-based company has established a strong presence in Peru, (3) _____ valuable development space in the centre of Lima. The cost-effective housing has enabled the Peruvian government to develop housing with In Bloom for those on lower incomes, opening up a much wider market and ensuring high (4) _____ of properties.

Since its establishment, the eco-friendly development in the centre of Lima has enabled many residents to face the pollution challenges head-on. Isabella Benson is a journalist documenting the development of green-living initiatives, and she was on site when the first foundations were laid till the final roof garden was installed. She returned to the urban village earlier this year for a (5) _____ interview with the residents.

She was unsurprised to find that they had made great progress, something they had been committed to doing. The residents had worked with In Bloom to build an urban farm using the flat rooves of their homes to create roof-top gardens bursting with fresh fruit and vegetables. This is helping them to make a positive impact on the carbon footprint of the city, bringing green resources to the centre of Lima's most polluted region.

Isabella will be releasing a series of articles (6) _____ with some of the residents. She hopes it will give her readers a special insight into the lives of the people at the heart of the project. She plans to keep following Aneurin and James' progress with In Bloom as they continue (7) _____ in South America, with a new development planned for Paraguay in the spring.

5 Business Language – words with prefixes *over-* and *out-*

hype

live

perform

ran

a. Complete the sentences with the correct form of the words using the prefix *over-* or *out-*.

1. She was annoyed that she had fallen for the _____, believing that his latest release was worth the money, when it was just recycled advice from his first book.
2. The legacy software was expected to _____ the new product, but with poor reviews dominating on social media and sales dropping, it seemed more likely with every passing day.
3. The contestants are pitted against each other, completing challenging tasks every week and aiming to _____ their peers to win the prize.
4. The meeting _____, causing Mohammed to miss his flight.

6 Discussion questions

- How could the level of service between a patient and a chatbot and a patient and a human medical professional differ? Could one outperform the other and how?
- Which kinds of people might benefit most from easier access to medical appointments and how would they benefit?
- How can understanding the local language of the patients help providers to offer better medical services?

7 Wider business theme – adapting technology

- a. **Work in pairs. Choose A or B and read the role play cards below. Take 5 minutes to prepare ideas on what to say to your partner. Then, hold a 10-minute discussion.**

A: You are a senior sales executive of a technology company that has designed a new chatbot feature for websites. The chatbot can offer advice and find key information for customers. The advice it can offer is detailed, and the chatbot will ask questions to get an idea of the customers' personality and use that information to influence its suggestions. You think the functionality could work well for hotels and holiday resorts. You are meeting with the CEO of a family resort chain to discuss adapting the software for their resorts. Persuade the CEO that your product is the best on the market and explain how you can adapt the chatbot to fit with their company.

B: You are the CEO of a family resort chain and you want to improve your website to offer customers automated customer service for basic enquiries. However, you have heard that many competitors have had problems with the functionality of technology like chatbots and you want to make sure you invest in developments that are worthwhile. You are meeting with a senior sales executive of a technology company that has designed a new chatbot and thinks it will work well as a feature adapted for your chain's website. Communicate your concerns about the technology and listen to what they have to say before deciding whether to buy the product.