

Digital doctors are going global

1 Warmer

- a. Companies have been using technology to improve customer services and this includes using digital tools to communicate with customers in place of a human representative.
- Have you ever used an automated service like this?
 - Was it a good experience?
Why / Why not?
 - What industries and types of companies mostly use this technology?
Do you think it could be used in the medical industry?

2 Key words

- a. Read the definitions and use the section numbers to help you find the words in the article. Then complete the sentences with the words.

1. abilities to do things (subtitle) *He demonstrated his _____ at the interview excellently, so we would like to offer Mr Gladdings the position immediately.*
2. the use of computer technology to make computers and other machines think and do things in the way that people can (1) *We have been taught to worry about _____ taking our jobs, but, in truth, it will take many years for technology to be able to do all the things that people can.*
3. things that limit your freedom to do what you want (2) *Make sure you consider any possible time _____ and add extra time into your schedule when planning your project.*
4. the services that look after people's health (2) *The country has a limited _____ system that badly needs investment if doctors are going to reach people living in the countryside.*
5. the act of taking steps to stop something from happening (5) *It is much cheaper to invest in _____ from the beginning than trying to fix mistakes later.*
6. a computer program designed to simulate conversation with human users, especially over the internet (7) *Customers had complained about the new _____ feature on the website – it appeared to struggle to answer even the simplest questions.*

7. far away from other cities, towns, or people (12) *He decided to rent a small cabin in a _____ location, where he could concentrate on finishing his book in peace.*
8. to change something slightly in order to make it better, more accurate, or more effective (14) *Lemar was welcomed by the team and found it was surprisingly easy to _____ to his new role in another department.*
9. the ability to do something in an accurate way (15) *The data isn't complete and lacks _____, so we will need to run a new report.*
10. used about a person or group that competes against someone or something else (17) *They had been doing well till a _____ restaurant moved in opposite and began stealing all their customers.*
11. someone who is weak or easy to hurt physically or mentally (19) *Victims are often _____ and scared, so it is important that police officers put them in contact with local mental health support.*

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 Azadzoy, 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.”

FT

TK

©The Financial Times

All rights are reserved.

Articles are republished from the Financial Times

3 Understanding the article

a. Are these statements true or false according to the article? Correct the false statements.

1. Babylon is a digital health group based in Rwanda that has been using technology to improve medical services in the country
2. Digital tools can be more affordable and efficient, and critics are not concerned about them.
3. Millions of patients across Africa are using online medical services, and now two digital health groups are expanding in other countries.
4. Babylon is known as Babyl in Rwanda, and they have a long-term contract with the government and local health insurance systems.
5. In 2018, Babyl claimed it had become the first fully digital health provider in east Africa, but in reality the system is still very basic.
6. Babylon's performance in the UK has received both good and bad reviews, and a recent study found that a function that allows patients to check their symptoms lacks focus on diseases.
7. A study by Pennsylvania State University found that software that allows patients to check their symptoms is usually used by old people who are not educated.
8. Most people in Rwanda own advanced mobile phones and so they often use Babyl's basic functions.
9. Dalberg found that Babyl could cut its costs by developing more efficient electronic health records.
10. Independent evaluations and clear requirements should be provided by medical regulators to ensure that companies offer a good service.

4 Business Language – Compound nouns

a. Complete the sentences with the words in the box.

telemedicine health insurance healthcare chatbot smartphone

1. People don't remember a lot of basic information or numbers these days because everyone has a _____ in their pocket and can check it at any time.
2. The _____ system in the UK is called the NHS and considered one of the best in the world.

3. I got really annoyed with their online customer service because it just sends you to a _____, and it's impossible to talk to a real human representative.
4. If you don't have _____ and get injured while on your business trip in the US, you will pay a lot in medical bills.
5. During the Covid19 pandemic, _____ became very popular in Poland because in-person consultations could contribute to the spread of the virus.

- b. Write sentences about your own life or work using the words from the word box.
- c. Can you think of any other compound nouns that start with the same words as those in the exercise, e.g. *health*? What are some examples? How are they spelled?

5 Business Language – prepositional phrases and phrasal verbs

- a. Match the prepositional phrases and phrasal verbs with the definitions.

1. keeping healthy
2. under the name
3. over the coming [time]
4. call back
5. cut costs
6. take out
7. in years to come

- a. to telephone someone again or to telephone someone who telephoned you earlier
- b. to reduce money that a company has to spend to operate
- c. in the far future
- d. staying fit, eating a nutritious diet, and taking care of your health
- e. using a name that is not your real or original name
- f. taking place over a defined period
- g. to remove from a place

- b. Match the phrases with their synonyms.

- | | |
|----------------------------------|-----------------------------|
| 1. registered as/to _____ | 5. Remove/exit _____ |
| 2. in the future _____ | 6. Reply _____ |
| 3. taking care of yourself _____ | 7. During this period _____ |
| 4. reduce spending _____ | |

6 Discussion questions

a. Discuss these questions.

- Do you think patients would find an online appointment more comfortable if they had sensitive issues to discuss with the doctor? Why/Why not?
- When do you think patients would be advised not to have an online appointment and to go into the physical clinic instead? What kinds of medical problems might they have?
- Digital healthcare is likely to become more common as time goes on. What do you think digital medical services will look like in 20 years' time?

7 Wider business theme – assessing technology

a. Work in pairs to do the role play. Read the role description for **A** or **B**.

A: You are the designer of a new type of software that helps patients staying in hospitals with mental health support. The software can talk to the patient on their mobile phone and send them positive messages to help them improve their health. It has advanced artificial intelligence that allows it to take note of a person's tone of voice and read their facial expressions to help it understand their emotional state. It can then adjust the support depending on the individual and how they are feeling. You are going to give a lecture about the software and then provide a question-and-answer (Q&A) session with staff at a large hospital that is interested in buying it. You need to assure them that your software can deliver an excellent mental health support service and get the staff to see the positives of buying your product.

B: You are a senior nurse on a busy ward in a hospital. You know that the managing director of the hospital is planning to run a mental health campaign that will encourage patients to install mental health support software on their phones. You are keen for patients to access this kind of technology as it will help them recover and stay positive. However, you are worried that the technology will be too basic and unable to help patients. The designer of a new type of support software is coming into the hospital to give a Q&A session with staff about the software's capabilities. You need to make sure that you have asked key questions to help you decide whether you want the hospital to adopt the software.