Artificial Intelligence is leaving no one behind: Accessible Chatbot for deaf and hearing-impaired persons

Wasel, a new chatbot in sign language to enable access to information for the hearing impaired.

Our world has been transformed in ways just weeks ago we could not have imagined. The human race is fighting for survival. A very tiny virus is changing the world, and affecting every person on earth. How did we reach this moment?

Few months ago, reports came out from a village in China, that people are getting a mysterious virus that attacks the respiratory system and puts people's lives at risk. In a matter of weeks, the coronavirus has touched almost every country in the world, mainly through people traveling from or to their countries.

This is the time where the United Nations is relevant more than any time before since its creation. "COVID-19 is threatening the whole of humanity — and the whole of humanity must fight back," UN Secretary General Antonio Guterres said in announcing a solidarity initiative to respond and recover from COVID-19. As of 31 May, **6,246,012** people are infected by the Coronavirus and **373,348** deaths globally. In Egypt, **24,985** have been infected and **959** lost their lives.

Amid the pandemic, 7 million Egyptians with disabilities are among the most vulnerable groups. How can they test their symptoms? How can they access reliable information, know about symptoms and assess whether they need assistance? *Wasel*, which means in Arabic connected, is an automated testing service that uses chatbot and artificial intelligence technology in sign language to enable access to information for the hearing impaired. It is the first in Africa and in the Middle East to use sign language chatbot technology.

Wasel has provided a platform for the persons with hearing impairments to test their symptoms through the online application. Following the World Health Organization (WHO) and Egypt's Ministry of Health protocol, the chatbot asks the user a number of questions using sign language. The service is available

24/7, including providing support to those experiencing COVID-19 symptoms, through connecting them to the responsible government agency to receive the necessary care.

UNDP, Egypt's Ministry of Communications and Information Technology and Avaya, were able to develop and launch the accessible chatbot, which is now available on Tamkeen, official accessible platform for the Egyptian Ministry of Communications and Information Technology for persons with disabilities, Google Play and soon on Apple Store. The application also provides subtitles in English and Arabic to accommodate for different users.

The chatbot comes in line with the United Nations Secretary General Antonio Guterres announcement that laid out the importance of an inclusive COVID-19 response and recovery efforts: "We must guarantee the equal rights of people with disabilities to access healthcare and lifesaving procedures during the pandemic", he said. "When we secure the rights of people with disabilities, we are investing in our common future", the UN chief added

The sign language chatbot is now providing access to persons with disabilities to seek better health services. "I have seen the Wasel Chatbot and the new service for COVID-19, available in sign language. I have benefited greatly with the information it provides & from using it", said *Wasel* user after using it, upon its launch.

UNDP Egypt explores, tests, applies and scales up new innovation trends, approaches and methods applied in development practice. The office works closely with persons with disabilities, with the purpose of empowering them to become agents of change and facilitate their access to public services, including employment, education and health services.

The sign language chatbot is part of UNDP Egypt's response to COVID-19. In Egypt, we are focusing on financial inclusion and digitalization for short to medium-term and policy advice for the medium to long-term. We are supporting the government, as it develops digital financial solutions to help limit the spread of COVID-19 and alleviate its socio-economic impact among the poor and most marginalized. This support will ensure that no one is left behind, and the country can continue to make progress in achieving the Sustainable Development Goals.

3 GOOD HEALTH AND WELL-BEING

10 REDUCED INEQUALITIES