# NHS Wales launches AI virtual agent using IBM Watson in response to COVID-19

London, 5th August 2020 - Cwm Taf Morgannwg University Health Board ("Health Board") has today announced the launch of its Welsh and English speaking virtual agent, using IBM Watson Assistant. As Wales comes out of lockdown and adjusts to a different way of living and working, the agent will support patients, healthcare workers and the general public in Cwm Taf Morgannwg by answering questions and providing critical information on the prevention and management of COVID-19.
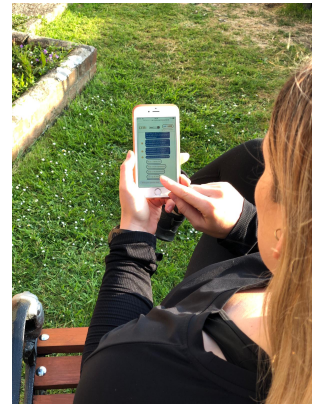
The pandemic evolved quickly and so have the long term implications on healthcare which include a growing expectation for instant and remote access to trusted information. The Health Board has responded by working with IBM and Meridian IT (IBM Platinum Business Partner) at pace to develop a virtual agent that can help answer the unprecedented flood of information requests and reduce the overload on NHS call centres.

The virtual agent is easily accessed via the Health Board's website. To keep in step with the latest Government policies updated versions of the agent will be released at regular points.

Dr Phil Webb, Head of Value Based Healthcare at Cwm Taf Morgannwg University Health Board, commented "We are extremely proud to be working with IBM and Meridian IT and our local community, patients and staff to develop and now launch CERi. From our testing we have already seen significant user interaction and even had over 400 chat episodes recorded in one day. Now launched we expect this level of interaction to grow rapidly, as we expand CERi with different access points.

Using AI and advanced natural language processing capabilities, CERi has been designed to continuously evolve and learn through use and user feedback. In particular we have tried to have a particular focus on the language and way her dialogue shows empathy, caring and understanding. Welsh people speak from their hearts and making sure CERi shows empathy and understanding is critical to us.

She is also a great example of how AI can help with emotional, psychological and mental wellbeing; CERi supporting people dealing with emotions, anxieties and feelings of uncertainty, especially at this moment in time, is just as important as CERi providing helpful advice, specifically on COVID."

The virtual agent provides rapid and consistent answers in a conversational tone to common questions on topics ranging from how to isolate safely and effectively, safe food preparation, to protecting yourself and family members, practical advice on managing symptoms like fatigue, advice on how to deal with anxiety and uncertainty to disinfecting your home.
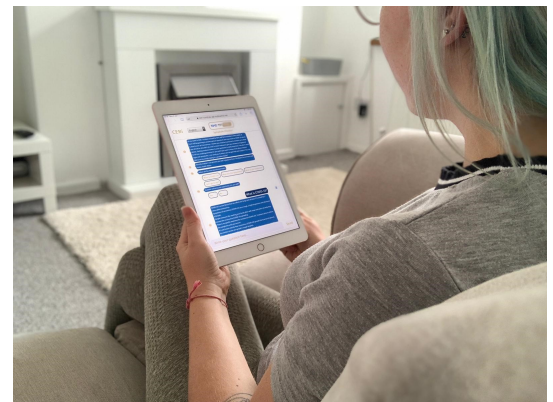
All responses are based on information from trusted sources including Welsh Government, Public Health Wales and Public Health England, and insight from patients and members of the public who have experienced the infection.

The Welsh Ambulance Service Symptom Checker has also been integrated into the virtual agent to provide easy access for people to assess their clinical signs and symptoms. Health Board employees can get quick access to vital information on the virus and hospital policies to support both themselves and patients.

To ensure all responses are locally relevant, the Health Board has set up testing group that reviews the tone of responses and makes sure they can be understood by people who are not medically trained and at a level that is understandable by the local population.

As healthcare organisations and partners across the UK look at options to help people navigate the fast paced pandemic, the Health Board has made its question and answer content used to train the virtual agent available on an open source basis via Github. This allows other NHS trusts to develop and train their own virtual agents at speed.
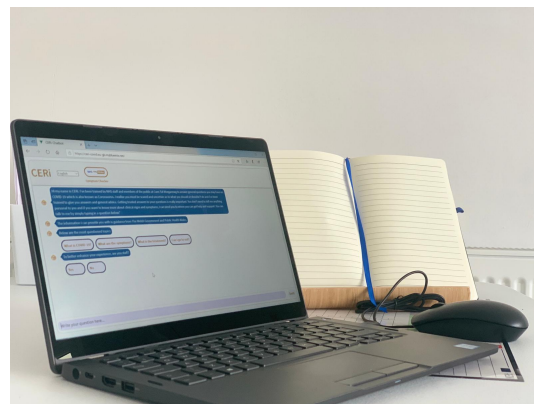
"Innovation is not just limited to the clinical environment; it is also about how the NHS and the health and care system connect with people. This is a great example of how technology can be used to empower the citizens," **said Andreas Haimboeck-Tichy, Director, Healthcare and Life Sciences, IBM UK & Ireland.** "This virtual agent uses AI and natural language processing capabilities to demonstrate how technology can be employed by the Health Board to further enhance the stellar work already being carried out by our healthcare professionals."

As part of the project, Meridian IT, the technology solutions provider, has been working with the Health Board and IBM to develop the capability of the virtual agent, including expanding the question base used by the tool, the integration into the Welsh Ambulance Services Symptom tracker, the integration of the Welsh language translation and the user interface of the virtual agent.

The solution brings together Watson Assistant, Natural Language Processing capabilities from IBM Research, and state-of-art enterprise AI search capabilities from IBM Watson Discovery, to understand and respond to common questions about COVID-19 and continue to enhance its knowledge-base as it learns from the interactions it has with patients, staff and the general public.

For more information about how businesses in any industry can use Watson Assistant, visit: https://www.ibm.com/cloud/watson-assistant/

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About Meridian IT
Meridian is a proven leader in the UK's enterprise technology sector, with over 40 years' experience of helping clients build powerful, reliable IT solutions that create real value. Today, Meridian is one of very few technology partners with the skills to provide true end-to-end solutions across a full spectrum of domains, including Infrastructure, Cloud, Security, Software and Artificial Intelligence. Meridian delivers projects in the UK and worldwide as a member of Meridian Group International, a network of skilled resources that combines global reach with local expertise.

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