IBM UK Newsroom

Alder Hey Children's Hospital Set to Become UK's First 'Cognitive' Hospital

Collaboration With STFC Hartree Centre Taps into IBM Watson to Improve Patient Experience

Liverpool, U.K. - 11 May 2016: Alder Hey Children's NHS Foundation Trust today announced a ground-breaking multi-year collaborative programme with the Science and Technology Facilities Council's (STFC) Hartree Centre, supported by IBM (NYSE: IBM), to create the United Kingdom's first 'cognitive' hospital by harnessing 'big data' and the power of IBM's Watson technology platform.

This is the first time that Watson technology will be applied to improve patient experience in the United Kingdom. Alder Hey and the Hartree Centre believe that by applying Watson — an innovation in computing technology — it will enhance patient care and potentially generate savings for both the hospital and the NHS (National Health Service) as a whole.

Using Watson to analyse any feedback that is voluntarily and securely provided by the patients, with appropriate consent as needed, it is anticipated that Alder Hey will be able to greatly enhance patient experience by; identifying patient anxieties and providing information and reassurance on-demand; reminding young patients and their parents about appointments and about aftercare; and providing insightful feedback to clinicians based on the tone and sentiment of these interactions. Using this valuable insight, clinicians at Alder Hey will be able to make a hospitable stay for a child less daunting, by providing a more personalised service for a child while also being able to identify clinical trends more quickly that could affect patient flow and effectively make significant cost savings.

Mr Iain Hennessey, a paediatric surgeon and Director of Innovation at Alder Hey said: "This is an unprecedented opportunity for Alder Hey to pilot this groundbreaking technology and learn how to transform IT capability and working practices in healthcare, not just in the UK but across the world. Helping our patients and their families prepare properly for coming into hospital will really reduce their anxiety and could mean we can get them better and home faster."

Universities and Science Minister Jo Johnson said: "The healthcare sector is undergoing tremendous development right now, driven by data, digital technologies and cognitive computing. This unique

collaboration showcases the UK's role at the forefront of science, innovation and healthcare, and will make a real difference to the care and experience of patients and clinicians in Alder Hey Children's Hospital."

A New Approach to Enabling Patient-Centred Hospital Care

The first stage of this multi-year project is underway, with an initial version of the platform expected to be ready for testing in the hospital around the end of the year. For the next few months, hundreds of Alder Hey patients and their parents are being asked a range of questions on everything from parking, to what they would like to eat, to their favourite games and films, and what they want their bedroom to look like. They will also be asked what questions they have about clinical procedures, general anaesthetic, and surgery. A team of experts from the Hartree Cognitive team, made up of the Hartree Centre and IBM, will use this information to train 'Watson' to anticipate and respond to questions from patients and families before they come into hospital.

Further, using this data, Watson will then provide cognitive analytics that deliver insights enabling the hospital to — in essence — think, sense and feel what is happening within it. Patients and their families at Alder Hey will be able to access this pre-admission to hospital through a digital application on a tablet or smartphone, such as a mobile app. The app is being developed in parallel to the cognitive hospital, using funds raised by Alder Hey Children's Charity.

There are many potential applications of the platform. It could be used to drive vital research projects by proactively matching suitable patients to clinical studies, monitoring admission patterns to help with bed planning or to help management of chronic illnesses through educational applications which could alert patients and their doctors when their symptoms reach the point at which they should seek medical help, or even automatically make an appointment for them.

Lee Hannis, Head of Business Development at STFC's Hartree Centre, said: "Familiarising patients with the hospital and procedure they are about to undertake will help reduce the anxiety of patients and their parents or carers. Our aims are to improve the quality of the precious time patients have with clinical staff and extend the care before and after the patient visit. We are extremely excited about applying these new computing techniques to help improve the experience and quality of care provided at Alder Hey Children's Hospital and look forward to seeing the early interactions between the children and the hospital in coming months."

IBM European Director for Watson, Paul Chong, commented: "This is a significant milestone in our collaboration with the STFC Hartree Centre. Alder Hey Children's Hospital has set a truly inspiring vision for the future of paediatric care. I'm thrilled to see IBM Watson technology applied to help doctors and their patients in the effort to improve the lives of children and their families."

This project with the Hartree Centre, which is part of the Science and Technology Facilities Council (STFC), and based at Sci-Tech Daresbury in Cheshire, is backed by a £115.5 million commitment from Government announced in 2015 and is a joint collaboration with IBM to help UK industry achieve competitive advantage and to benefit from the latest cognitive computing technologies.

Related resources

Site links

YouTube Video: Alder Hey's Iain Hennessey short video

YouTube Video: STFC's Lee Hannis short video

---

https://uk.newsroom.ibm.com/2016-May-11-Alder-Hey-Childrens-Hospital-Set-to-Become-UKs-First-Cognitive-Hospital