

“Ask Oli” chatbot starts an AI revolution in children’s healthcare



Hartree Centre
Science & Technology Facilities Council

A groundbreaking collaboration between the Science and Technology Facilities Council (STFC) Hartree® Centre and Alder Hey Children’s Hospital is harnessing the power of intelligent computing to personalise healthcare and enhance the patient experience.

Challenge

Alder Hey Children’s Hospital in Liverpool treats over 275,000 children and young people each year. Renowned for its commitment to clinical excellence and patient experience, the hospital is now driving to become the UK’s first ‘cognitive hospital’ using intelligent computing technology to enhance the patient experience.

Approach

To turn this aspiration into a reality, the Hartree Centre is developing ways to integrate artificial intelligence (AI) into the hospital using IBM Watson. Working closely with Alder Hey healthcare professionals, AI and data experts from the Hartree Centre are tailoring and training Watson to the hospital’s needs. The first step was the collation of new and existing data to enable Watson to understand how the hospital works and develop a thorough knowledge base. This has been used to create chatbot “Ask Oli”, using the hospital’s mascot elephant character to interact and answer questions in real time, reducing patient and family concerns in a way that is both innovative and fun.

Benefits

Through this project, the Hartree Centre is helping Alder Hey to forge a path towards more personalised treatment, enhanced health outcomes, increased patient satisfaction and significant cost savings. From quicker identification of clinical trends, to monitoring admission patterns to aid planning, the potential is limitless.

At Alder Hey Children’s Hospital, the initial focus is on making medical treatment less daunting for children and their parents or carers. By providing information and reassurance via apps and avatars, this project is one example of how AI technology could result in happier, healthier children. By putting patient engagement at the heart of their treatment in a new and unique way, the project is providing a fresh template for the future of healthcare.

“ This is an unprecedented opportunity to transform working practices in healthcare and enable doctors to spend less time on paperwork and more time with patients. ”

Iain Hennessey
Alder Hey Children’s Hospital

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Partners

Alder Hey Children’s NHS
NHS Foundation Trust





“ We’re really enthusiastic and excited but clear that the technology itself has to be useful and deliver benefits to patients. It’s one of the reasons we’re happy to work with organisations like the Hartree Centre and IBM, because they can match our clinical expertise and patient knowledge with their groundbreaking technology. ”

Iain Hennessey
Alder Hey Children’s Hospital

At a glance

- First step is bespoke chatbot “Ask Oli” trained and tailored to suit needs of the hospital
- Trial version in use within website and app for patients and guardians to help train
- Reduced anxiety for children and families
- Using AI to enhance the patient experience
- More doctor’s time spent with the patient
- Demo brings the potential to improve healthcare services across the UK

Who we are

- 60+ computational scientists and technologists
- World-leading supercomputing and AI infrastructure
- Bespoke small teams built around your project
- Tailored business development support
- Access to our network of industry, academic and technology partners

What we do

- Boost productivity and enhance innovation for industry
- Big data analytics and artificial intelligence (AI)
- High performance computing and quantum simulation
- Training and skills development
- Insights into future technologies



Our impact on UK industry and society

The Hartree Centre was created by UK Government to transform industry by accelerating the adoption of high performance computing (HPC), big data analytics and artificial intelligence (AI) technologies. We play a key role in realising UK Government’s Industrial Strategy by stimulating applied digital research and innovation, creating value for the organisations we work with and generating economic and societal impact for the UK.

The Science and Technology Facilities Council (STFC) Hartree Centre is part of UK Research and Innovation.

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