Cyflymu Accelerate

AN INNOVATION CASE STUDY

EDUCATING RITTA

(REAL-TIME INFORMATION TECHNOLOGY TOWARDS ACTIVATION)

PROJECT DURATION: 18 months

PARTNERS: Cardiff University, Velindre University NHS Trust, Watson IBM & Meridian IT UK

PROJECT AIM: To develop an augmented intelligence virtual assistant for patients in oncology

OVERVIEW

Supporting patients living with cancer is a key requirement for a cancer centre. Velindre Cancer Centre has been having meaningful conversation with patients, cares and their families about how best to support their information needs and their desire to want to have a measure of control, empowerment and independence as they make their care choices.

Key areas of need are:

- The gaps between existing services and the lack of tools to support having good quality conversations, anytime, anyplace and anywhere
- Access to appropriate high quality information to support their choices and decisions about their emotional, psychological and physical wellbeing.

Through a person-centred, design thinking process, Velindre in conjunction with Pfizer Oncology and IBM Watson have developed the world's first artificial intelligence enabled virtual assistant, trained in oncology to proof of concept (RiTTA). This dialogue tool is currently trained to answer a small number of 'intents' to demonstrate capability (RiTTA Phase I).

Accelerate is supporting the delivery of phase II; the technical development, scale up, deployment and evaluation of RiTTA. This will involve dedicating the time, care and resources required to develop relevant training sets to educate RiTTA in answering a wider range of patient concerns and questions. RiTTA will be developed for pilot in breast, lung and palliative care based on around 100 – 150 'intents'. The intents will address many of the FAQs patients, carers and families ask about living with cancer. This critical process will be informed by clinicians, patients, academics and industrial partners.

RiTTA 'Chatbot'

RiTTA Intent Domains

EXPECTED OUTCOMES

- Healthcare benefit to cancer patients and NHS staff in Wales through:
- Redefining how patients interface with the Health service i.e. improved engagement, access to robust sources of information and improved wellbeing
- Providing a platform for the development of more advanced features
- Providing Healthcare providers an in-depth insights into patent behavioural patterns, motivators and other indicators
- Data for further academic research collaborations
- Economic growth
- Knowledge generation and insight in the field

POTENTIAL FUTURE OUTCOMES

- Expansion of RiTTA to be trained in other disease areas
- Future collaborations between industry, academic and clinical partners

Feedback from one of the RiTTA project collaborators:

"Accelerate has provided us with a platform for collaborations with local companies and Universities and provides support to access specialist clinical expertise essential for the development of RiTTA. This should ultimately allow the NHS in wales to unlock this important innovation and spread wide-scale adoption to transform health and care services in Wales."

Phil Webb, Associate Director of Planning, Performance and Innovation at Velindre NHS University Trust.