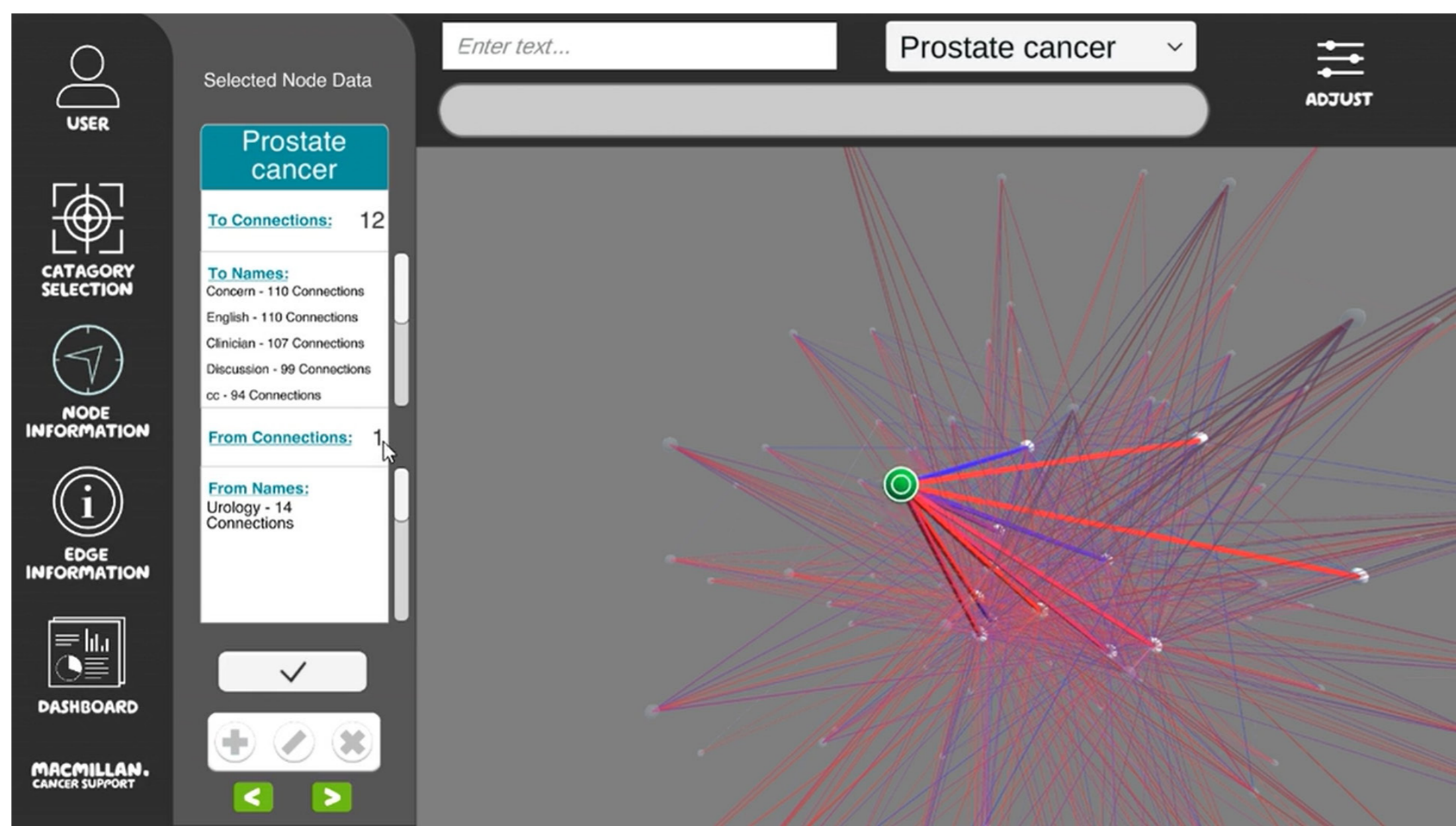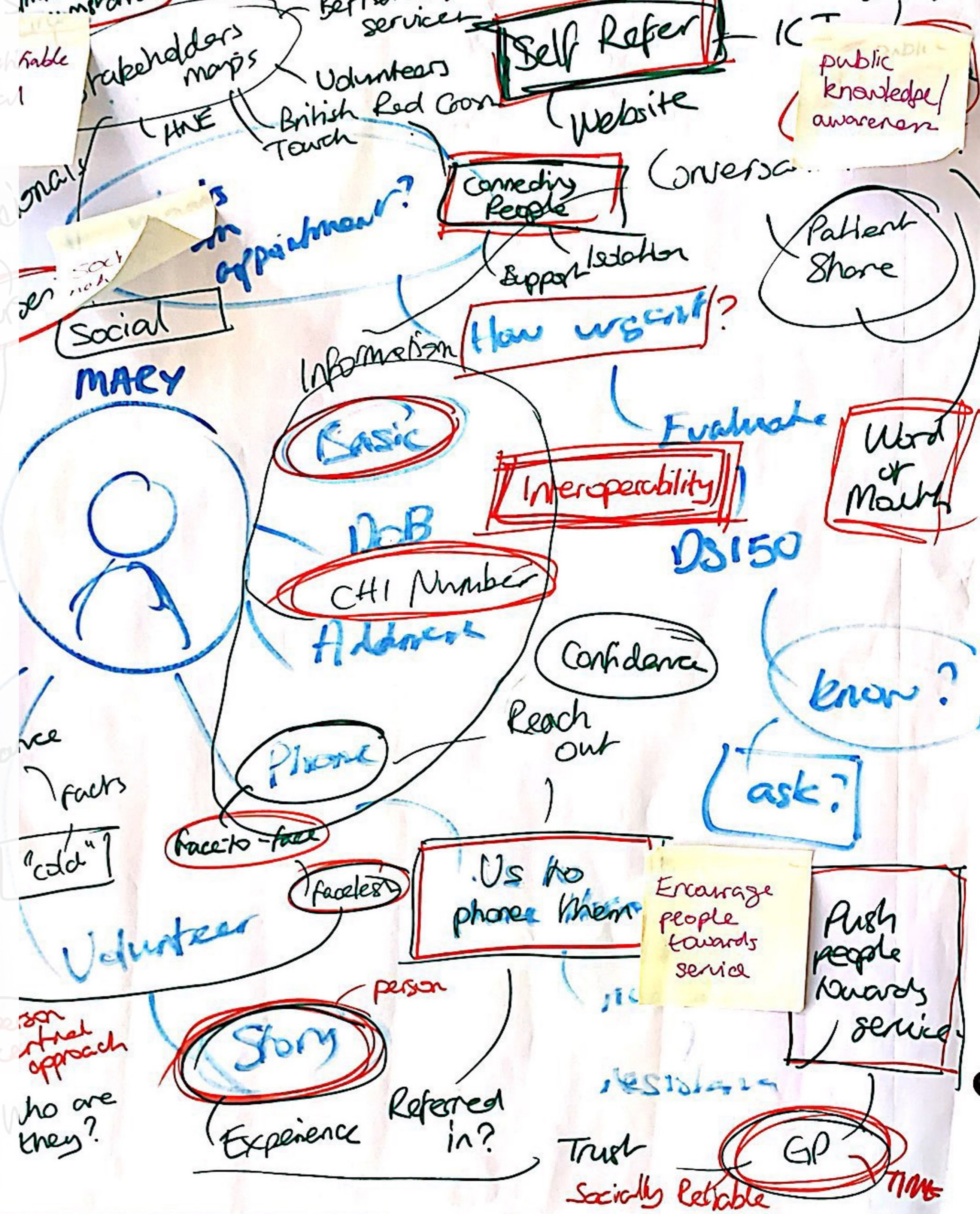# My Cancer mAI Care

There is a need to maximise efficiency in the health and social care system by leveraging new technologies to improve the quality of care.

Macmillan Cancer Support commissioned the DHI in collaboration with Abertay University to apply gaming theory combined with Artificial Intelligence (AI) to develop a visual tool to show the service needs of patients with cancer in the future.

This tool will have both patient facing and health professional facing interfaces, aiming to ultimately offer a tailored digital referral service for individuals, enable better planning and utilisation of resources for services, and a more personalised service for patients and carers.

"Artificial intelligence (AI) and machine learning systems are being adopted by an increasing range of organisations to unlock data value in a cost-effective manner."

Translating Insights into Concepts

To support the Requirements Capture process, design workshops were held with Macmillan staff to identify where AI could be applied most effectively and appropriately to support day to day tasks. During the pandemic, these workshops were held online and involved a lange number of participants representing a range of roles across the organisation.

By applying a rule-mining Machine Learning algorithm to the data that Macmillan have collected over the years from their Glasgow Improving Cancer Journey service, patterns and connections can be found and displayed visually in the form of a 3D graph.

The requirements identified through a process of design driven workshops helped inform system functionality, including the ability to *visualise connections* between data such as Cancer Type and Available Services alongside *user's concerns* like Confidence or Support.

"GSA's knowledge of both service design and technology utility has been an amazing asset, complementing the games designers and researchers at Abertay. Fast forward to a global pandemic and the restrictions. The GSA team swiftly and superbly transitioned to online workshops unlike any I had ever experienced."

Margaret Greer, Partnership Assurance Lead, Macmillan

Digital Health & Care Innovation Centre