









Bringing Science and Parliament together

Digital Health in the 21st Century

Digital technology provides innovative opportunities to reduce health inequalities and support the most marginalised in society. This evening we heard from three expert speakers about the innovative ways new technology is being used. Prof. Matthew Kiernan, Professor of Mental Health and Veteran Studies at Northumbria University, spoke to us about using data visualisation to better support veterans in the UK. Dr Gemma Wilson-Menzfeld, Associate Professor of Ageing and Digital Health Psychologist at Northumbria University, discussed new technologies being used to reach the digitally excluded portion of the population. Lastly, Prof. Abi Durrant, Professor of Interaction Design at Newcastle University, spoke to us about how we can make sure new technologies work for patients and citizens. Unfortunately, Prof. David J Burn of Newcastle University and Prof. George Marston of Northumbria University were not able to attend the discussion, but their presentation was covered by Prof. Durrant. We had a varied Q&A session with many questions focusing on the nature of digital exclusion.

Digital technologies allow us to support those who need it in increasingly efficient ways. Prof. Kiernan explained how access to more data has allowed for a more comprehensive picture of the veteran community's needs in the UK. The MONARCH study achieved just this. The study took in data from the many charities supporting veterans across the UK, anonymising the data at an individual level, and grouping the data to make easily usable by policymakers and resources providers alike. Al algorithms allow for better interface with the dataset also, with such programmes being able to provide answer directly to questions using the data gathered, thus creating an interactive system.

Digital technologies are arising constantly that our everyday lives easier; from programmes reminding

you to stay hydrated to new fitness programmes. However, it is important to remember that there are many people who are still digitally excluded, meaning they have no easy access to these technologies. Dr Wilson-Menzfeld discussed a major study around digital exclusion carried out in the North-East of England. The study took place across North Tyneside, sending out a survey to over ninety eight thousand individuals. The survey got over nine thousands responses, including around 1500 individuals who were considered digitally excluded. This represents one of the largest studies of its kind, and a vital tool in making sure that those communities which do not easy digital access are not left out of technological developments.

As digital technology develops and becomes evermore widespread throughout society, it is important to always analyse the benefits and costs to communities. Prof. Durrant explained how new health technology is able to address health inequalities in the North East, one of the most deprived areas in the UK. The Northern Health Futures Digital Health Hub seeks to address this. This hub aims to be patient centred and use specific data from communities in order to support those communities. Data from communities is gathered in a variety of ways, with Newcastle developing the use of wearable digital devices to get more coverage of the community. Prof. Durrant emphasised that when using new technologies one must take into account existing social inequalities if we want to make sure the technologies are as benefical to communities as possible, which is what researchers hope to achieve through the Hub's development.

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