

Active Voice



**Visit to the National
Robotarium at Heriot-Watt
University, Edinburgh**

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About the work

SDWG and NDCAN members have been involved in an exciting piece of research work with Edinburgh Napier University and the Heriot-Watt University. The study seeks to co-design a project in partnership with people with dementia, their carers, and occupational therapists. The aim is to capture views on the potential use of robots in dementia, and to understand if robots can support meaningful person-centred participation in our everyday activities to enhance rehabilitation outcomes in dementia.

This study will include the creation of a survey, distributed to occupational therapists across the United Kingdom to capture existing professional knowledge and awareness of the potential use of robots in dementia practice.

It will also deliver a number of practical workshops at the National Robotarium, to show examples of robots, and to gather participant views on how they could be used in practice. The robots will also be placed in Alzheimer Scotland Brain Health & Dementia Resource Centres to explore how people living with dementia, carers and team members in the facility interact with the device.



In August, SDWG and NDCAN members attended the National Robotarium at Heriot-Watt university where they participated in a workshop and had an interactive tour of the Robotarium.

In this report, we hear from our members about their experiences and insights after the visit

Margaret McCallion - SDWG member

The visit to the National Robotarium was very interesting and informative. Professor Mauro Dragone provided an outstanding presentation that highlighted the excellent progress made in robotics; both for therapeutic and personal use.

On entry to the Robotarium, we saw the incredible Avatar female on a plinth who was highly amusing, with either a smile or frown on the face. It is so great as well as it speaks several languages - I was unable to remember a suitable phrase to say - also, I did enjoy the couple of jokes we were told.



The whale robot which is currently being built was probably almost as big as a whale which will then travel underwater and collect debris. The whale will be remotely controlled and when it is fully filled with debris it will return to shore. This is a much needed robot indeed!

Further to Professor Dragone's presentation, we were taken to view the various robots and provide comments on each of them. I particularly liked the moveable cupboard in the kitchen area. The therapeutic robots were incredible and I am sure they will provide the required support.



The 'wiggly' cushion robots were fascinating as well as the chargeable and remote control aspect of them was terrific, as well as the junior rabbit like robot which is for children with autism. When we said that we were about to leave, we told Ameca the Avatar and she said "I hope you enjoyed your visit with us" - I know I certainly did!

Stuart Dougall - SDWG member

On Tuesday 12 August, members of NDCAN and SDWG had the pleasure of visiting the National Robotarium based at Heriot-Watt University, Edinburgh, as part of project looking into the use of multifunctional robots in occupational therapy and dementia. On entering the Robotarium, the first robot that you see is Ameca. It's called a 'humanoid' robot because it has been designed to look and act in a similar way to a human.

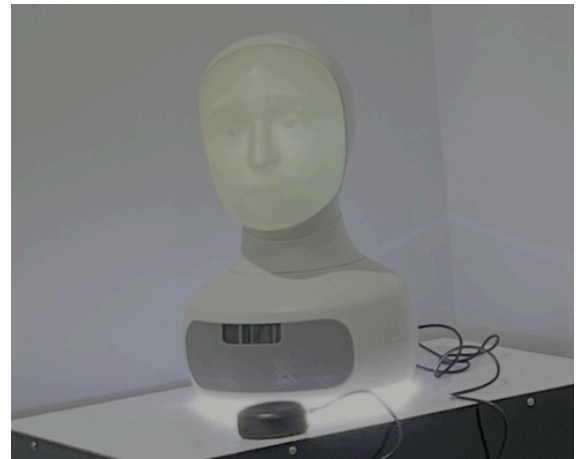
We were then met by Professor Elaine Hunter, Professor Fiona MacLean, Professor Mauro Dragone, Dr Ciara Ryan and Research Assistant Lynne Bushby. After a presentation by Professor Dragone we were given a small tour of what could replicate a household i.e. kitchen, sitting area, bedroom and bathroom with a joining hall to see different style/functionality robots and how they could be used in a practical setting.

For example, Temi and Ohmni are essentially operated via the internet and are basically remote-controlled communication devices. I can see the real benefits of this type of robot being used in different surroundings especially in a care setting and assisting to reduce isolation. Pepper is semi wheeled, and like Furhat, which is static robot head, are designed for social interaction.

Pepper and Maureen from NDCAN, formed a clear bond, which highlighted to me one of the real benefits which could be utilised in the scenario of reducing stress, forming companionship etc. This robot for me was the standout as I can foresee so many benefits in a care home, hospital and home setting.

Furhat is certainly in my opinion more restrictive and designed to give a human like appearance due to being able to produce realistic facial expressions.

Miro and Maah are pet companions designed more to provide companionship. They are designed typically to reduce stress agitation or anxiety. This certainly highlights the exciting times ahead and how robotics can play an important role in occupational therapy and dementia in the future.

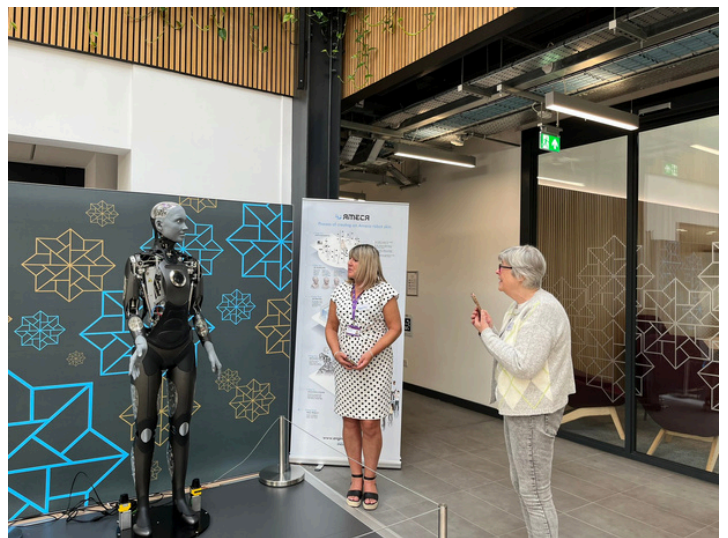


Rynagh Flynn - SDWG member

The Robotarium visit was both marvellous and impressive, for the sheer joy and excitement of seeing robots in action and from learning it's a resource covering the whole of the UK. I came away buzzing from the experience.

In the auditorium just inside the front door, the first thing we came across was Ameca. Ameca is one very sophisticated robot with personality and attitude and it was fun asking her questions and sometimes getting a raised eyebrow or gesture in response rather than a fact, and also to discover that she spoke several languages. We started the session by sitting down for lunch with the academic team so we could get to know each other, and were then given background and information on what to expect from the visit and what feedback would be asked from us after the tour. Then it was time to go to the lab area where Dr Mauro Dragone introduced us to the robots and explained the different ways they functioned to provide support. Some can assist with keeping in touch with loved ones and carers while others carry out household tasks.

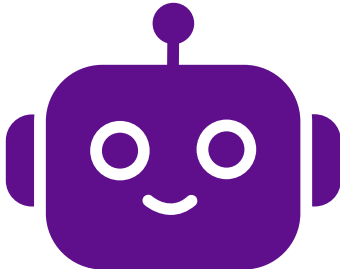
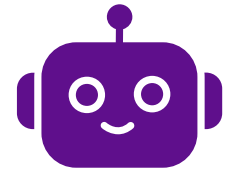
One of the robots we saw in action could navigate its way around an apartment and adjust heat, light and other resources to maintain comfort and perform household chores. Cabinets and sink levels could also be raised or lowered by controls. I could see how useful all of that would be as the disease progresses for either a person with dementia or for a carer. It would also help people with other disabilities or decline to live independently for longer. Then there was the cuddly robot that was sitting on a sofa. Very different to the others as it had a beautiful knitted covering and a caterpillar-like movement that made it seem like a soft toy. It also made purring noises that invited petting. I found myself drawn to it and was surprised that I was responding to a robot emotionally.



We finished the session by joining back up with the academics, providing feedback, completing an assessment form, expressing our admiration and gratitude before saying our goodbyes. All in all a great day.

Some feedback from the day

"I felt the team at the Robotarium really listened to our suggestions." – Maureen Huggins, NDCAN



"I enjoyed our visit to the Robotarium and found it to be very informative. It reinforced my view that, in a real sense, the more a robot can accomplish a wide variety of benevolent duties, the more it moves forward towards behaving like a competent human carer."

– Frank O'Hagan, NDCAN

"It was a privilege to host members of the Scottish Dementia Working Group (SDWG) and the National Dementia Carers Action Network (NDCAN) at the National Robotarium, in support of our research. Their insights and generosity in sharing how their lived experiences may be influenced by the potential use of robotics are invaluable in helping us co-design a technological future that is inclusive, and person-centred."

– Dr Fiona Maclean, Associate Professor of Occupational Therapy, Edinburgh Napier University.



Want to know more about the Active Voice at Alzheimer Scotland?

The Active Voice of people living with dementia and their carers is about upholding rights and driving change. We support people with lived experience to help influence and shape policy and practice – Your Voice Matters! You don't have to be politically minded or need any qualifications to be involved. The only important thing is you know what issues affect you as a person whose life has been affected by dementia. If you would like further information or an informal chat with a member of the Active Team, please email: activevoice@alzscot.org



"Enabling and promoting the diverse voices of people with dementia and carers to campaign for, promote and uphold rights and drive change."