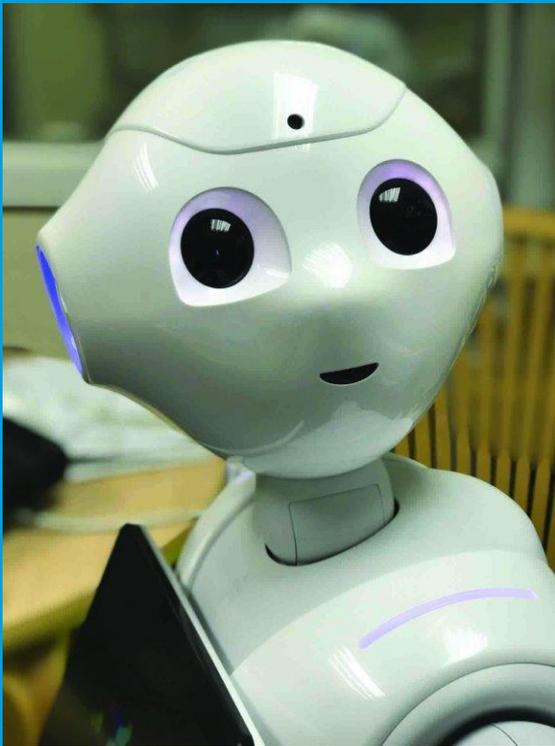


Pepper the Robot



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Director of Adult Services and Housing

Pepper the Robot

Pepper is a humanoid robot and one of the newest recruits at Southend on Sea Borough Council. Pepper's sophisticated features are capable of recognising human emotions. Facial recognition enables Pepper to adapt behaviours that compliment an individual's mood, encouraging emotional connectivity and sensory engagement.

Pepper and the Service Transformation / Robotics team are currently working in partnership with the charity SAFE (Supporting Families Living with Asperger's and Autism in Essex). SAFE provides support and social opportunities to individuals and their families. Through various services and activities SAFE promotes social inclusion and equality of opportunity.

Andrea Walters is the SAFE development officer supporting community engagement across Essex. Her vast experience and knowledge of neurobehavioral symptoms associated with Autism and Asperger's syndrome has helped shape how we work with Pepper and the group. For example developing our understanding of hypersensitivity enabled us to appreciate neurological and psychological responses that can influence social interpretation and emotional regulation. These insights informed the work we have done with the group to address the potential challenges for

individuals in developing positive and meaningful relationships.

We decided to invite Pepper to attend a weekly social group run by SAFE. The members are aged between 12-20 years, and are accompanied to the group by parents and/or carers. The group were both excited and apprehensive on the first evening, however Pepper's friendly demeanour very quickly put them at ease. The session involved group members asking Pepper questions, touching Pepper and playing some games. We anticipated the group would expect AI features such as with Alexa or Siri which Pepper does not currently host. However this wasn't an issue as the majority of the group said they disliked AI features and described them as "invasive" and "scary".

Two young men shared technical advice about the room acoustics to help stabilise connectivity supporting the session. Interestingly three of the group highlighted Pepper may be "good for helping older people remember things" and were keen to share personal experiences in relation to this, requesting that Pepper visit their grandparents.

Some of the group preferred to observe rather than engage with Pepper. We observed a degree of self-evaluation and changes in behaviours among the group, e.g. group members apologising for rough handling of Pepper and others encouraging

their peers to “be nice to Pepper” and more careful. One young man in particular (Jacob) was particularly enthusiastic and motivated to engage with Pepper. We were told that Jacob has difficulty with forming relationships and engaging with strangers. However, in one to one interaction with Pepper, his behaviour appeared to be transformed. Embracing the opportunity to talk to Pepper and clearly encouraged by the responses, Jacob initiated all interaction requiring little support to maintain engagement.

Jacob's assertiveness was instrumental in leading the session and his confidence grew as peers joined the room. Jacob remained focused, offering enthusiastic commentary about Pepper's responses. Jacob showed his peer's how to engage effectively with Pepper by demonstrating how he adapted his own communication style to that of Pepper.



Ruth (Jacob's mother) joined us at the end of the session and explained Jacob dislikes social situations, generally feeling more comfortable avoiding these. Ruth explained Jacob's enthusiasm to interact was

unusual for him advising “this isn't what Jacob does”. Ruth explained she often experiences resistance when asking Jacob to attend the group with his sister Jessica. We learned Jacob lives with Autism and Jessica lives with Asperger's Syndrome. Whilst Jessica enjoys her time at the group we understood Jacob finds this challenging. Ruth explained Jacob will usually remain alongside her at the group. We learned he experiences challenges communicating with peers and persistently asks to leave the group. We learnt Jacob immerses himself in his electronic tablet and prefers to use his earphones to distract himself during social situations. The confident young man we had met with Pepper did not reflect this description.



We understood Jacob has been attending the SAFE group with his family for the past 2 years. Ruth explained he has never spoken to the two sessional leaders. We learnt Jacob had spoken directly to one of the leaders following his one to one session with Pepper, independently initiating a conversation. Jacob's engagement with Pepper enabled Ruth to spend time talking to other parents which made a positive

change for her. Ruth was delighted to see that Jacob remained motivated, communicative and confident throughout the session and that he had established new peer connections.

Ruth explained that Jacob has had a strong aversion to females since infancy and that managing this has been a significant challenge in the life of the family. Ruth was astonished and pleased that Pepper had encouraged Jacob to interact and engage with mixed peers. The fact that he independently identified Pepper as female was a surprising and significant point.

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The work with Pepper and Jacob helps us consider ways to develop interventions extending beyond traditional methods of care and support. Jacobs’s experiences may inform opportunities to develop emotional resilience and coping strategies to alleviate anxiety in social situations. Our learning from this work is supported by Jacob and Ruth’s honest reflections of living with Autism. Jacobs’s experiences encourage innovative thinking about the role of technology in enhancing social

relationships and promoting connectivity. Artificial intelligence could be a useful means of capturing lived experience and promoting strength based approaches to care and support planning.

SAFE continue to support our work with Pepper developing intergenerational projects in Southend. Currently Jacob is considering co-producing a creative writing session with the social group. We hope the project will enable the group to work alongside Pepper to share their narratives and express themselves. Whilst AI offers a platform for social connectivity it is important for us to encourage a balance between virtual and real interaction. This example of our work with SAFE confirms our belief that there is a role for AI and developing technologies in promoting individual and community wellbeing, and alternatives to traditional approaches to care and support. It demonstrates the potential for strength based practice to change the dynamic in social care and to shift service-centric thinking to person centred solutions.

