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Conference Abstract

Applying computational creativity to health and social care

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Abstract

Computational creativity is an inter-disciplinary field that seeks to simulate and replicate creative processes to generate novel and useful outcomes using a computer in order to enhance human creativity. Most computational creativity research has been applied to artistic domains - music, poetry and visual art. This submission reports research that applied computational creativity algorithms in a set of mobile software apps to support the care of older people with dementia.. Each app was developed to support nurses and carers to deliver more effective person-centred care by being more creative and more reflective about the care that is delivered. One app in the set implements new computational creativity algorithms to generate support for a carer or nurse to create new strategies with which to manage challenging behaviours (e.g. verbal aggression, refusing food, violence) exhibited by residents, using information about successful care strategies. A second one implements new computational creativity algorithms to generate support for a carer or nurse to explore and create new forms of care activities, using digital information about the life and activities of each resident. A third app implements reflective learning strategies that a carer and nurse can use to make sense of and learn creatively about each resident's challenging behaviours as recorded digitally in daily care notes. Summative evaluations of some of these apps reported previously have demonstrated the effectiveness of app use to resolve instances of challenging behaviour in older people with dementia. This presentation will make the case for the use of computational creativity algorithms in health and social care, present the different algorithms that have been developed, and demonstrate the potential for their wider uptake in the sector.

Keywords

computational creativity; dementia; person-centred care