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# CARESSES: The Flower that Taught Robots about Culture

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**Abstract**—The video describes the novel concept of “culturally competent robotics”, which is the main focus of the project CARESSES (Culturally-Aware Robots and Environmental Sensor Systems for Elderly Support). CARESSES a multidisciplinary project whose goal is to design the first socially assistive robots that can adapt to the culture of the older people they are taking care of. Socially assistive robots are required to help the users in many ways including reminding them to take their medication, encouraging them to keep active, helping them keep in touch with family and friends. The video describes a new generation of robots that will perform their actions with attention to the older person’s customs, cultural practices and individual preferences.

**Keywords**—Culturally competent robots; elderly care.

## I. DESCRIPTION OF THE VIDEO

The video<sup>1</sup> describes the ground breaking objective of building culturally competent robots, able to operate in a range of settings from an individual’s home to a care facility.



Culturally competent robots are able to autonomously re-configure their way of acting and speaking, when offering a service, to match the culture, customs, and preferences of the person they are assisting. The need for cultural competence (grounded in cultural-awareness, cultural knowledge and cultural sensitivity) in healthcare has been widely investigated in the nursing literature. The study of Transcultural Nursing

and Cultural Competence plays a crucial role in providing culturally appropriate nursing care, and it is supported by worldwide associations<sup>2</sup>.



The video suggests that making cultural competent systems is key to address one of the major problems in assistive robotics: how to increase acceptability by being more sensitive to the user’s needs, customs and lifestyle, thus producing a greater impact on the quality of life of users and their caregivers, reducing caregiver burden, and improving the system’s efficiency and effectiveness. From the commercial perspective, cultural competence is crucial to overcome the barriers to marketing robots across different countries, and can pave the way to the use of socially assistive robots in a number of different domains, from education to tourism.

## II. ACKNOWLEDGEMENTS

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- [1] B. Bruno, N.Y. Chong, H. Kamide, S. Kanoria, J. Lee, Y. Lim, A. K. Pandey, C. Papadopoulou, I. Papadopoulou, F. Pecora, A. Saffiotti, A. Sgorbissa, 6th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), Lisbon, 201

<sup>1</sup> The video is not archived in the HRI 2019 Proceedings since the authors are not authorized to transfer the copyright of the video. See <https://youtu.be/eLTKhfVYrTw>

<sup>2</sup> <http://europeantransculturalnurses.eu/>

<sup>3</sup> [www.caressesrobot.org](http://www.caressesrobot.org)