Workshop on
Culturally Sensitive Social Robotics for All

Abu Dhabi 2023
iCAR

21st International Conference on Advanced Robotics

Abu Dhabi, UAE

5th December 2023

IEEE Robotics & Automation Society
IEEE
جامعة خليفة
Khalifa University

Workshop on
Culturally Sensitive Social Robotics for All

Agenda

Time	Activity
2:00 pm - 2:10 pm	Welcome and introduction to the goals of the workshop
2:10 pm - 2:40 pm	Raquel Ros, PAL Robotics: *The challenges of social robotics and understanding user needs*
2:40 pm - 3:10 pm	Barbara Bruno, Karlsruhe Institute of Technology: *The nature of cultural competence in human-robot interaction*
3:10 pm - 3:30 pm	David Vernon, Carnegie Mellon University Africa: *The importance of cultural competence for diversity, equity, and inclusion*
3:30 pm - 4:00 pm	Coffee break
4:00 pm - 4:15 pm	The CSSR4All survey: walkthrough of the questionnaire
4:15 pm - 4:45 pm	Completing the CSSR4All online survey
4:45 pm - 5:15 pm	Review of the results of the survey
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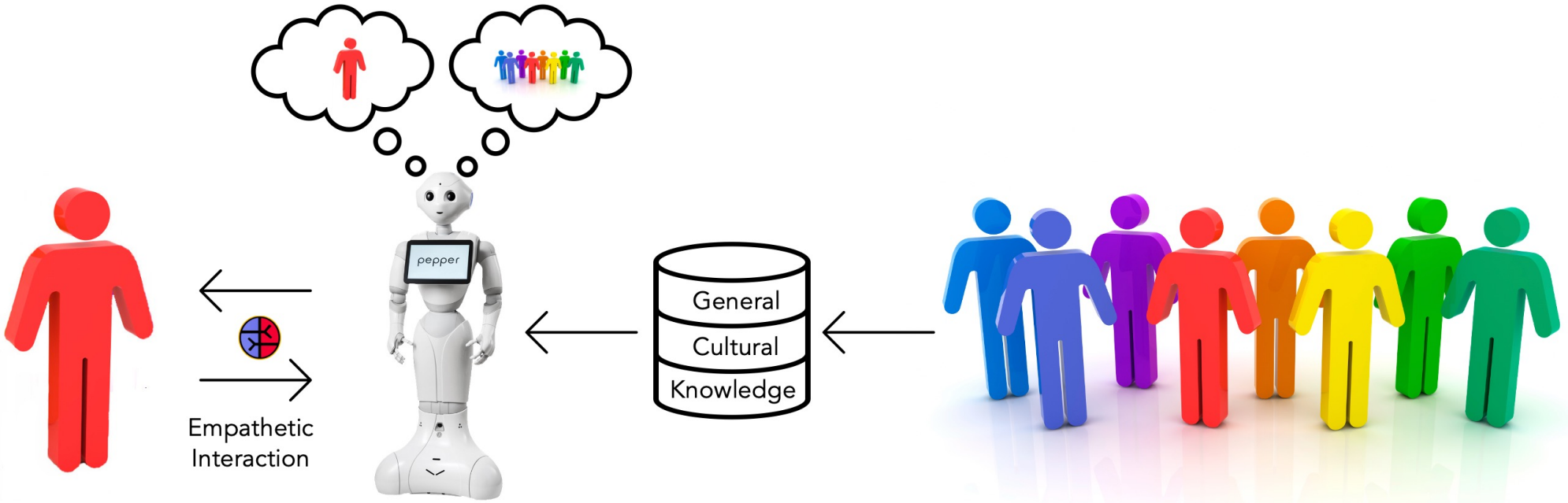

Graphic based based on work by Bruno et al. (2017)

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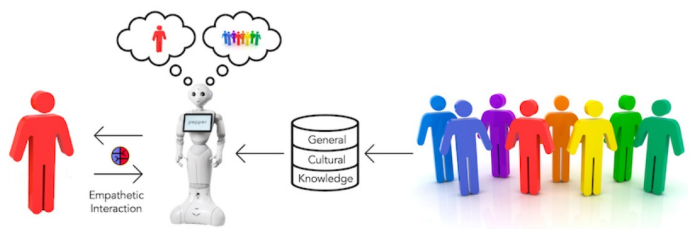
Motivation | Operation | Agenda | Dissemination | Organizer |

Motivation

Robotics has potential to drive economic growth, accelerate development, deliver education, support healthcare, and increase food production, among many other things. However, technological invention in robotics it is not enough because it is innovation, not just invention, that produces social and economic benefits through widespread **adoption** and the consequent change in the people's practices. Adoption depends on the conventions that govern people's behaviour, the practices they find acceptable and unacceptable, and their sense of what is trustworthy. **Cultural competence**, i.e., an awareness of social norms and cultural expectations, is a key element in fostering this acceptance. This is especially important in the fast-growing field of social robotics.[1]

While there are studies on cultural differences in the acceptance of robots in the West and East, similar studies of the cultural factors that impact of acceptance in the Middle East and the Global South are few and far between. Of the fifty studies included in a survey by Lim et al. (2021),[2] only six focus on the MENA region and none target sub-Saharan Africa. Furthermore, only a very small fraction of the participants in these studies are from the MENA region and less than one percent are from sub-Saharan Africa.

The goal of this workshop is to gather cultural knowledge of interaction in the Middle East and North Africa (MENA) and sub-Saharan Africa so that we can equip social robots with the ability to interact sensitively and politely[3] with people in those regions using spatial, non-verbal, and verbal modes of communication.[4]



Based on work by Bruno et al. (2017),[5] this figure illustrates the concept of a culturally competent robot. Cultural competence involves cultural awareness and cultural sensitivity, i.e., the ability to exhibit behaviour based on the general cultural preferences of a population using ethnographic data stored in a cultural knowledge base (the robot's right think bubble). Cultural competence also involves the ability to infer the cultural preferences of an individual and avoid stereotypical interaction (the robot's left think bubble), all of which allows the robot to interact in an empathetic manner.

Format

The workshop is intended to be opportunity for all participants - attendees and organizers - to learn something about cultural sensitivity and cultural competence in social robotics. We begin with three keynote talks focussing on the challenge of social robotics and understanding user needs, on the what it means for social robots to be culturally competent, and why this is important for diversity, equity, and inclusion. We then move on to an information gathering exercise, in which we ask attendees to complete an online questionnaire on cultural knowledge. This will be followed by discussion of the outcome of the survey in an effort to reach a consensus.

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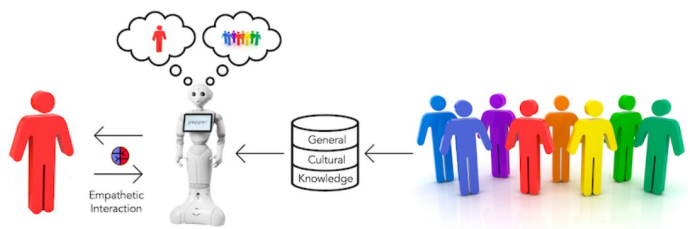

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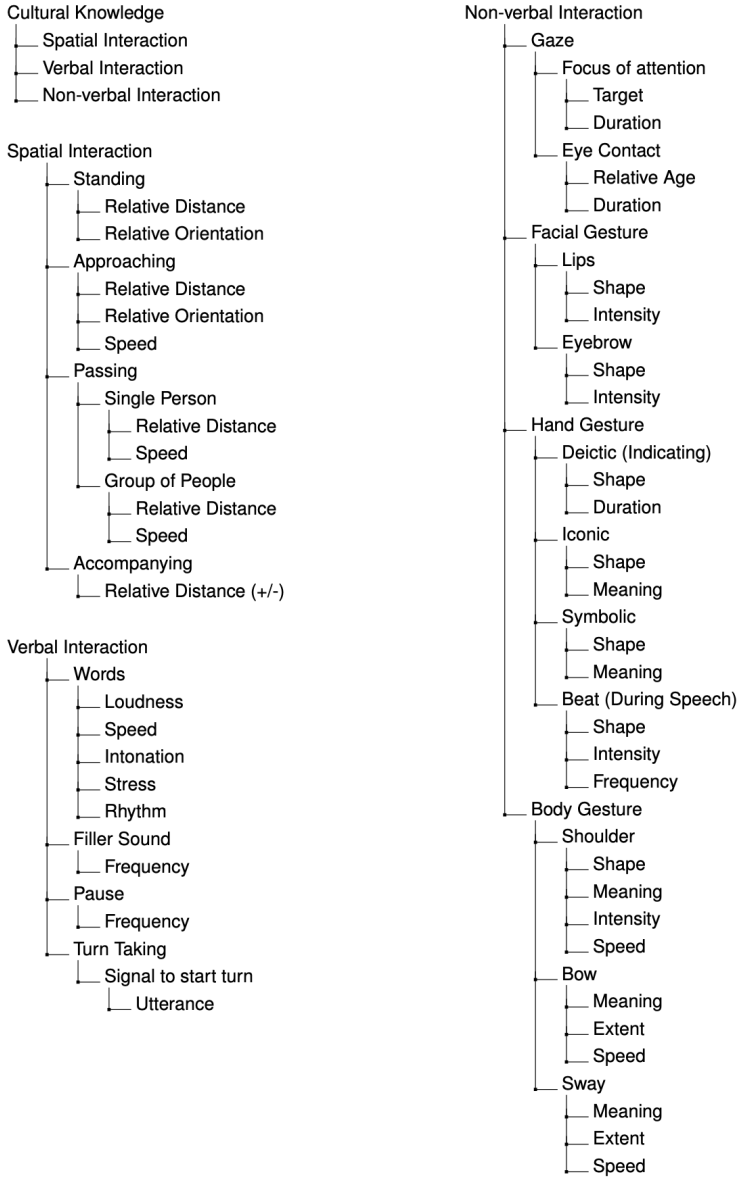

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