

# Social robots in the cultural heritage experience

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**Purpose** – A recent stream of research is about the interaction between AI technologies and users and the robot acceptance/rejection (e.g. Mele et al., 2020). Relational services, with a strong human interaction, should benefit little from AI replacement (Huang and Rust, 2018) even if they could provide customized services to individuals (Wirtz et al., 2018) and could potentially make them feel they are in the company of another social entity, what van Doorn et al., (2017) called ASP - automated social presence. Anyway, the debate is still open and we wanted to analyse audience attitude towards robots in the cultural heritage context (Del Vacchio et al., 2020).

**Design/Methodology** – We conducted a single exploratory case study (Yin, 2014; Gummesson, 2017) and we chose evidences from cultural heritage context, in particular we analysed the MAV (Virtual Archaeological Museum) which, at the end of 2019, introduced Pepper as robot guide that welcomes visitors and guides them to visit. We made a survey on a sample of about 100 subjects including families, young students and tourists.

**Findings** – The 69.1% consider the range of services offered by Pepper excellent. The 93.8% believe that Pepper can improve customer satisfaction. The 76.5% think that Pepper greets the audience as a real human being, the 22.2% in a neutral way and the 1.3% consider Pepper's greeting are rude. The 39.5% of users believe that human-robot interaction can never replace that between human beings, the 43.2% believe that robots will replace humans and the 17.3% that human-robot interaction won't change the current reality.

**Research limitations/implications** – Most users place utmost confidence in the advantages offered by AI to museums: Pepper is considered a great satisfaction tool and it's not perceived as an artificial machine as respondents compare the robot to a real human being, with polite and kind ways. This research underlines that robots' acceptance is growing very rapidly also for relational services but further investigations in other field of research are needed, analyzing other typologies of AI perhaps with a larger sample.

**Originality/value** – This work offers a better understanding of the impact that social robots may have on consumers in the cultural heritage context: through the direct observation of audience interacting with Pepper in the museum and thanks to the survey results, it has been possible to understand consumers' attitude towards robots which can be useful to improve experience and satisfaction.

**Keywords** – Human machine, service interaction, cultural heritage, social robots, bot

**Paper type** – Research paper