

INTERUNIVERSITY PH.D. PROGRAM BETWEEN

POLITECNICO DI BARI AND UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO



IN INDUSTRY 4.0

## **Extended Reality in Retailing:**

Reshaping the future of the Customer Experience

Cycle XXXVI

## PhD candidate

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## Tutor

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## Description of the research program

Nowadays, in the era of Industry 4.0, digital innovation is progressively shaping the way consumers experience shopping. As the number of digital users gaining consumer power online increases, the retail industry needs to attract and retain customers not only through traditional offline channels but also online. Thus, in this complex and ever-changing scenario, we consider Extended Reality as a relevant technology, as one of the areas of interest where extended reality is expanding is precisely the retail sector.

In particular, with Extended Reality (XR) we refer to a term that we could define "umbrella", since, according to the most recent definitions of the scientific literature, it includes Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR).

In this regard, three main objectives of my research activity have been defined. The first one is to address the Extended Reality technology in the retail sector through the investigation of user behavior in relation to the adoption of reference technologies.

The second is to compensate for the lack of sensory feedback in virtual environments (in particular tactile and auditory feedback).

The third one concerns, finally, the design of Extended Reality systems to be adopted in real stores (or other scenarios) with the aim of improving the customer experience.