

# RESEARCH THEME

XXXVIII cycle – a.y. 2022/2023

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**Title of the doctoral research**

Re-engineering fashion archives  
Digital technologies integration into complex cultural fruition systems

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**Proponent professor**

Daria Casciani

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**Abstract**

From the early XXI century, the introduction of digital technology has ubiquitously changed design, communication and production processes. Propelled by Covid-19, the digital transformation of the fashion sector has accelerated the adoption of virtual prototyping also in re-engineering fashion archives. 3D modelling and simulation software, with the combination of advanced digital technologies such as artificial intelligence (AI), virtual reality (VR), and augmented reality (AR), Haptic and Sonic Technologies may contribute to multiply the narrative levels of the cultural experience, hybridizing the boundaries between the tangible and intangible dimension, and allowing phygital environments and experiences. Digital technologies enable the digitalization of archival fashion, their reproduction both physically through digital prototyping techniques and also virtually, through fashion digital images augmented with correlated and connected fashion contents, thus boosting new curatorial approaches to fashion tangible and intangible heritage. This research aims at exploring the potential and limits offered by recent digital technological implementations applied to the re-production of fashion garments for augmented fashion archives to be perceived digitally, physically and phygitally by users. This PhD research could focus upon the role of design in leading a sectorial transformation in the fashion culture through the experimentation with augmented digital technologies in the cultural heritage domain, through exploring new design approaches emerging as practicable solutions to augment the fruition of fashion archives and designing innovative cultural dissemination strategies fostering the interaction of different audiences with digital, physical and phygital heritage.

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**Keywords**

Fashion virtual prototyping, augmented cultural heritage, digital technologies