

# RESEARCH THEME

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**Title of the doctoral research**

Artificial Intelligence in the Design Process

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**Abstract**

Today designers need new tools capable of supporting them in dealing with the increasing project's complexity and empowering their performances and capabilities. Artificial intelligence (AI) systems appear to be powerful means to enhance designers' creativity. Indeed, studies suggest that AI could significantly impact the creative phases of the design process, enabling designers to access a broader level of variance and inspiration while reducing the risk of fossilization.

Therefore, the research investigates how to include AI systems in the early stages of the design process, where choices are taken that will strongly impact the designed outcome. The focus is on the implications on the designer's creativity and the kind of Human-AI collaboration established. In this regard, being AI systems intelligent agents, the Human-AI collaboration will be treated as a collaboration between human agents.

The expected result is a solid theoretical ground to address the competency gap within the design discipline concerning the developments in AI, with a specific focus on the design process.

The main expected output is the definition of reliable guidelines helpful to achieving an efficient partnership between human agents and the machine in the design process.

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**Keywords**

Design Process; Artificial Intelligence; Human-AI Collaboration