Creativity, for many, seems outside the realm of computation. In this course we develop the notions of computational models of creative designing. Computational processes that have the potential to be used to produce creative products are introduced.

Designing processes such as:
- analogy
- combination
- emergence
- evolution
- first principles
- mutation and
- reverse engineering

are amongst those described, developed and demonstrated.

Situated cognition is introduced to provide the foundation for computational models of social creative processes. Empirical studies to support the situated/constructivist approach are discussed.

Agent-based communities that socially implement their creativity are developed.

The aim of this course is to extend your understanding of the potential of computational systems in designing.