

## **Digital Ecosystems Software Modeling from a Niche Perspective**

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**Abstract:** A digital ecosystem is a new technico-social networked platform and collaborative environment derived from properties observed in natural ecosystems. Such properties as openness, loosely-coupling, auto-organising and niche oriented could be used to design new type of applications. In this paper we provide an ecosystem model implemented as a multi-agent system from a niche based perspective. We are introducing the concept of niche from a philosophical perspective and then provide a definition of fundamental and realized niche.

**Keywords:** digital ecosystem, digital specie, formal context, self-organization,, multi-agent systems