The Self-Organization of Socio-Economic Systems from an Information-theoretic Approach: The Case if Industrial Districts

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Abstract

In the paper we study the self-organization and evolutionary process of a socio-economic system from and informational approach. The case study is based on the concept of Industrial District (ID), defined as a territorial system of small firms specialized in a specific industrial sector. The ID is conceptualized as a cognitive network because the process of self-reproduction that gives existence to the system is based in information transfer, exhibiting three properties: recognition of the perturbations, a learning capability, which allows for the plasticity of the system to adapt to continuous perturbations, and a distributed memory that generates an element of path- dependence. Due to the organization/structure dichotomy we can finally understand why the greater the ability of an ID to renew its structure over time, the more it retains its identity as a self-organizing system.

Trappl, Robert (ed.). *Cybernetics and Systems '96 Volume 2*, Vienna: Austrian Society for Cybernetic Studies, 1996, pp 693-698.