

Architecture of an object-oriented modeling framework for human occupation

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Abstract

The limitations of the actual theoretical structure of occupational science are discussed emphasizing on its implications when dealing with the stability and sustainability of social systems. By using a literature review focused on the time evolution and disciplinary distribution of the scientific production about human occupation, it is verified the insufficient production leading to the development of models that facilitate quantitative reasoning to support decision making. As an alternative, the architecture of an object-oriented framework is proposed. The framework is presented by using an UML (Unified Modeling Language) class diagram of a generic occupational system, including the class model of each system's component: attributes and behaviors. Finally, guidelines are given for the use of the models produced with the framework in simulating diverse occupation systems scenarios.

Keywords:

Complex system, Complexity, Human occupation, Modeling framework, Object-oriented modeling, Occupational science, Occupational system