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Refereed Article

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On the Design of Software Individuals

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Abstract: *In this article we address the question of design principles for software individuals, and approach it as a software design issue. We use the term 'software individuals' to designate aggregates of programs and data that have the following properties:*

- *They exist in a population of similar, but not identical individuals.*
- *Individuals are able to interact with their surrounding environment, with each other, and/or with people. While doing so they may modify their internal state.*
- *Each individual contains the safeguards that may be required in order to select which influences to accomodate and which ones to ignore.*
- *The aggregate of programs and data that define an individual, and that in particular define its behavior, is a part of its internal state and can therefore be modified as the result of the interactions where the individual is involved.*
- *Individuals or small groups of individuals are able to create new individuals that inherit the features of their parent(s).*
- *The program/data aggregate that defines an individual is symbolic in character. The ability for knowledge representation is designed into individuals from the start.*

Publication and review history

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