A formal ontological model of creativity for supporting and sharing creative insights of 'digital living artifacts'

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The use of semantic technologies to enable the automated annotation process of 'living' artefacts with formal concepts to be shared and re-used in meaningful ways provides interesting insights into contextualizing the potential process and products of creativity across domains. It has the potential to facilitate innovation through interdisciplinary exchange. It is the small 'c' of creativity where the process of problem solving engages with concepts of creativity of elaboration, fluency and flexibility and the products of such processes result in 'new' knowledge of elaboration, fluency, flexibility, originality and usefulness. This research and model builds on the previous use of semantic technologies as an annotation process that enabled knowledge co-construction were nothing is lost in the process and co-construction takes place as a digital means. Act becomes 'a knowledge artifact' because contribution is through conceptual knowledge that is shared between the knowledge base, the interface and most importantly the users. As a designer of an artifact adds and changes knowledge this is reflected in the knowledge base and users of that knowledge base can have access to that. The resources that embed within a digital artifact now have explicit representations and contextual knowledge to enable re-use and sharing and knowledge construction going beyond common linked data techniques. The benefit of this annotation process is that formal semantics of 'design' can be used to provide contextual insight.

Although this aspect of using conceptual creativity annotations are in the initial stages of being applied to fostering creative thinking in students the approach has some generalizable methodology and process properties that may foster interdisciplinary exchange between different domains that can be categorized by creative processes and products. The use of semantic technology approach of automatic formal annotations of content to facilitate knowledge sharing, exchange and construction across domains through the concepts of creativity has the potential to support diversity exchanges between-communities/domains and cultures thus may result in providing new insights into problem and solutions constructed on a common vocabulary of creativity.

Related references to this work

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