Letter to the Editor

Gerson, S. 2004. Letter to the editor regarding Hofstetter and Mettier's (Spring 2003) "What Users Want and May Need: Insights from a Survey of Users of a Life-Cycle Tool," *Journal of Industrial Ecology* 7(2): 79–101.

Although your article concentrates more on the quantity and quality of information presented in Life-Cycle software tools, I would like to raise the topic of user interface design. I believe that the medium must match the message - and in learning to think in terms of and design complex systems, we must employ tools which present information in a systemic manner. I recommend Graph-Based Interfaces (GBI) for this purpose, such as Thinkmap, developed by Plumb Design.

Due to its non-linear and web-like visual interface, Thinkmap is an ideal tool for representing complex and relationship-based information. Also, because of its interactivity and organic architecture, it is easily customized to a high degree of specification. The Visual Thesaurus, Plumb Design's prototypical application, beautifully illustrates these capabilities. (Please visit http://www.visualthesaurus.com/online/index.html to view the online version of the Visual Thesaurus.) Conventional thesauruses display synonyms in a linear fashion, merely listing them alongside the original word chosen. The Visual Thesaurus, however, displays the synonyms orbiting the original word, with their proximity and boldness determined by their relationship to each other and the original word; all synonyms are not treated the same, as would be the case in a linear representation, but are placed relatively. If an orbiting synonym is clicked upon, it too becomes surrounded by its own synonyms, some of which may likely be synonyms of the original word, and therefore are linked to both the first and second words chosen. In this manner, words are situated in the context of their meaning, and language is rightly portrayed as a relational web, abundant with interconnections.

For the purposes of Industrial Ecology, the original word and orbiting synonyms could be an original industry orbited by those that would fit well with it in an industrial eco-park, a direct environmental impact of some stressor orbited by multiples indirect ones, or other such IE-related information which could, for the benefit of the user experience, be represented in a web-like form. This interface could alleviate some of the difficulties you noted regarding LCA software tools, assisting in rendering them more modular in terms of quantity and quality of information presented, as users would be able to travel as far into the relational web as they so desired. Ultimately, if we are to think and design systemically, we must develop software tools which are conducive to doing so.

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