

Realizing Visions for the Web

A common theme that has emerged in several recent books about science is that many of our most significant breakthroughs have resulted from insights gained while trying to answer a particular question which challenged the prevailing paradigms. The best example that comes readily to mind is Michio Kaku's description of Einstein's question which led to his theory of relativity in the book, *Hyperspace*.

This position paper is premised on the view that the semantic web represents a qualitative improvement to the current web. For the Semantic Web Workshop, a pressing question that needs to be asked is, "Does this activity provide us with the opportunity to better realize the visions of Vannevar Bush [1], Douglas Engelbart, Ted Nelson, and Tim Berners-Lee?"

As the semantic web community develops technology to enable background agents to bring the most relevant information to a person (the tool systems), these tools could bring us closer to Engelbart's vision for simultaneous co-evolution of human systems if explicit attention is given to the semantic web as the means to a greater end of the networked computer as the tool to augment the human intellect as first described by Engelbart [2]. A potential danger is if the semantic web community becomes too enamored with the "gee whiz" factor of the tool system, and fails to recognize the importance that the semantic web has for truly enabling augmented human-human conversations within an improved hypertext environment. Unfortunately, this danger has a precedent within the Artificial Intelligence community, where an over-emphasis on technology stunted the broader awareness and acceptance that Engelbart's work has only recently begun to achieve. Similarly, the current web compromises the vision of Tim Berners-Lee, with the current prevailing browsers being passive renderers of HTML instead of an interactive publishing tool (W3C's Amaya is closest to his original vision [3], and does not approach the robustness of Nelson's Xanadu vision and Engelbart's Open Hyperdocument System. Both of these efforts have been reaching for ways to move the web toward a closer realization of these visions, evidenced by the New Xanadu Model for the Web [4] and the OHS Project [5], respectively..

My hope for this workshop is to bring these ideas and perspective to the forefront of the semantic web community, so we do not repeat the past compromises which has kept us from realizing the web's true potential.

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