

Visual Learning

Building Knowledge, Innovation and Collaboration

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A Fresh Look at Imagery

As cognitive psychology explains more of the mystery behind how images work on the human brain, visual learning increasingly is understood as a powerful tool strategic tool for organizations. At the same time, the digital revolution is connecting a global community through a format that relies on visual language to reduce text and translate across different languages. As a result, the long separated worlds of "art" and "information" are coming together in surprising new ways, facilitating knowledge, innovation, and collaboration.

This paper examines some of the ways images work to enhance learning and communication today. Footnotes link to research that help understand the social and cognitive reasons why visualization is a powerful tool. Examples at the end of each section link to work from the author's portfolio demonstrating these ideas presented in this paper.

Building Knowledge

In knowledge development, researchers have found through empirical studies that people can more quickly integrate and act on information presented visually. [1] Graphics function to create a literal "space" for information in a way that allows people to see patterns and relationships between ideas. At a meeting of the National Science Foundation in December, Robert E. Horn, a visiting scholar at Stanford University said:

"When voice and visual elements are closely entwined, we create something new and we augment our communal intelligence...visual language has the potential for increasing 'human bandwidth' – the capacity to take in, comprehend, and more efficiently synthesize large amounts of new information." [2]

Visual communication can disseminate large amounts of information for quick synthesis. A deft diagram quickly reveals structure, makes comparisons explicit, and displays different levels of analysis. Selecting the ideal image and brief phrase to communicate an idea is an evolving form of practical art.

[1] A concise article summarizing the research is available on the Think Tools website, "In the Eye of the Beholder, Visual and Verbal

Cognitive Capacities in Complex Problem Solving" by Catrin Rode.

http://www.thinktools.com/download/research_report_01.pdf

[2] Horn, Robert E. "Visual Language and Converging Technologies in the Next 10-15 years and Beyond: A Paper for the National

Science Foundation Conference on Converging Technologies, Dec. 2001

<http://www.stanford.edu/~rhorn/images/nsf/artclNSFVisualLangv.pdf>