

ArtScience: Integrative Collaboration To Create a Sustainable Future

Interdisciplinary, transdisciplinary, cross-disciplinary, intermedia, transmedia, and multimedia are becoming ever more prominent within the sciences, technology, and arts. These new ways of conceiving knowledge and its products creates opportunities and confusion about objectives. To stimulate discussion about where new arts and sciences should intersect, we propose an overarching synthesis we call “ArtScience”. (1) ArtScience integrates all human knowledge through the processes of invention and exploration (2). It is both new and old; conservative and revolutionary; playful and serious. It enfold the work of such liminal figures as Etienne Jules Marey, Loie Fuller, Harold “Doc” Edgerton, Alexander Calder, Lejaren Hiller, John Cage, Gerald Oster, Frank Malina, Lillian Schwartz, Buckminster Fuller, Gyorgy Kepes, and Piotr Kowalski, yet it proffers an infinite variety of future possibilities. ArtScience will move art out of galleries and museums, science from its laboratories and journals, into newly invented spaces and places, such as MIT’s Media Lab (3), *La Laboratoire* in Paris (4), *SymbioticA* in Perth (5), and Harvard University’s Initiative for Innovative Computing (IIC) (6), which already do scientific exploration, engineering, design, and artistic display in a single space. Other novel venues will be invented. In that inventiveness lies the excitement of ArtScience.

ArtScience Manifesto:

- 1) Everything can be understood through art but that understanding is incomplete.
- 2) Everything can be understood through science but that understanding is incomplete.
- 3) ArtScience enables us to achieve a more complete and universal understanding of things.
- 4) ArtScience involves understanding the human experience of nature through the synthesis of artistic and scientific modes of exploration and expression.
- 5) ArtScience melds subjective, sensory, emotional, and personal understanding with objective, analytical, rational, public understanding.
- 6) ArtScience embodies the convergence of artistic and scientific processes and skills, not from their products.
- 7) ArtScience is not Art + Science or Art-and-Science or Art/Science, in which the components retain their disciplinary distinctions and compartmentalization.
- 8) ArtScience transcends and integrates all disciplines or forms of knowledge.
- 9) One who practices ArtScience is both an Artist and a Scientist simultaneously, and one who produces things that are both artistic and scientific simultaneously.
- 10) Every major artistic advance, technological breakthrough, scientific discovery, and medical innovation since the beginning of civilization has resulted from the process of ArtScience.
- 11) Every major inventor and innovator in history was an ArtScience practitioner.
- 12) We must teach Art, Science, Technology, Engineering, and Mathematics as integrated disciplines, not separately.
- 13) We must create curricula based in the history, philosophy, and practice of ArtScience, using best practices in experiential learning.
- 14) The vision of ArtScience is the re-humanization of all knowledge.
- 15) The mission of ArtScience is the re-integration of all knowledge.
- 16) The goal of ArtScience is to cultivate a New Renaissance.

- 17) The objective of ArtScience is to inspire open-mindedness, curiosity, creativity, imagination, critical thinking, problem solving, and innovation through innovation and collaboration!

ArtScience, in sum, *connects*. The future of humanity and civil society depend on these connections. ArtScience is a new way to explore culture, society, human experience, that is synaesthetic experience integrated with analytical exploration. It is knowing, analyzing, experiencing and feeling simultaneously.

“The acute problems of the world can be solved only by whole men [and women], not by people who refuse to be, publicly, anything more than a technologist, or a pure scientist, or an artist. In the world of today, you have got to be everything or you are going to be nothing.” (7) Conrad Hal Waddington, biologist, philosopher, artist, and historian. (8)

Signed,

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References

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- (3) Brand, S. *Inventing the Future at MIT*. Penguin Books, 1988.
- (4) Edwards D. *ArtScience. Creativity in the Post-Google Generation*. Harvard University Press, 2009.
- (5) <http://www.symbiotica.uwa.edu.au/>
- (6) <http://iic.seas.harvard.edu/>
- (7) Waddington CH. *Biology and the History of the Future*. Edinburgh University Press, 1972, p. 360.
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