

Creativity & Innovation ESE 100, Spring 2008

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Art and Science Labs

Our primary reference for this exploratory lab is based upon one of our course books, *ArtScience: Creativity in the Post-Google Generation*, by renowned biochemist, creative writer and social entrepreneur, David Edwards, a professor at Harvard University. In this book, he identifies an area of research into creativity that forges new pathways across disciplinary boundaries in the arts and sciences. Edwards describes how contemporary creators achieve breakthroughs in the arts and sciences by developing their ideas in an intermediate zone of human creativity where neither art nor science is easily defined, but where principles and approaches from both are introduced through structured exploration in order to develop important translational competencies that can yield the unexpected as much as the intentional.

Translation is defined as the ability to render something into another ‘language’, or into one’s native vocabulary from another. Language is broadly defined and also operates as a metaphor; it includes other processes and approaches that involve movement and visual mapping. You could see these ‘languages’ in terms of conceptual frameworks with a set of procedures, methodologies and practices (which may themselves be innovations within the terms of the system). The central movement in a translation is that of *change* from one form into another, as in the translation of thought into action.

Competence is more often thought of as adequacy - a set of required skills or functional knowledge about a given subject or area of human activity. For our purposes, consider its geological definition: “the ability of a fluid medium, as a stream or the wind, to move and carry particulate matter, measured by the size or weight of the largest particle that can be transported”. The degree of competency might be gauged not only by how much information gets converted, but the quality or manner in which the conversion happens, which is variable and dynamic.

Each Art and Science Lab session will be followed by a day of studio experimentation with ideas, images, approaches and techniques that continue to resonate for individuals in the class. Each student will be responsible to follow any particular research pathway that is sparked during the sessions.

Art Lab 1 – Professor Larry Lavender, choreographer and creativity researcher, University of North Carolina, Greensboro

Science Lab 2 – Professor Susan Fahrback, neuroscientist in the department of Biology, Wake Forest

Art Lab 3 - Visiting Lecturer Leigh Ann Hallberg, multimedia artist in the department of Art, and Paul Bright, multimedia artists and associate gallery director, Wake Forest

Science Lab 4 – Professor Dilip Kondepudi, theoretician in the department of Chemistry, Wake Forest

The focus of this month long research project is to locate ideas and methods in one domain or disciplinary area that can be apprehended and explored through creative tactics and approaches in another area. The aim is to open up disciplinary barriers, whether perceptual or operational, allowing us to invent flexible, adaptive and critically creative responses to working with new knowledge and approaches to problem solving. The dialectic of ArtScience could just as well be DanceEnglish or MusicSociology; the point is that through this ArtScience Lab process, one can learn how to invent the kind of translational competencies necessary in this complex globalized environment that we live.

Outcomes will be varied and include a set of “Lab Pages” and a mid-term project where you are responsible for defining the research and objective parameters.