American Society for Cybernetics Conference
"Resilience and Ethics: Implications"
2017 presentations

Summary by Allenna Leonard for the Ontario Systems Meeting of September 20, 2017

John Vargo spoke about the work done in New Zealand before and after the earthquake that devastated Christ Church. He is part of a consultancy that spun off from the university to concentrate on implementing resilience measures. Christ Church rethought and rebuilt in a far more eco-friendly and resilient manner.

Richard Knowles spoke about the work he had done as an organizational anthropologist and problem solver in DuPont and described the Process Enneagram (not to be confused with the psychological or mystical) exercise that takes an organization through nine steps toward stronger identity, more risk, especially safety risk, avoidance and commitment to a common identity and direction

Pille Bunnell presented a slide show "The Soul of Resilience" based on her work in cybernetics, her association with Hollings Resilience Alliance and her own poetry and photographs. Hollings' Adaptive Cycle (exploitation, conservation, release, reorganization).

Donald Hoffman, a researcher in neuroscience, discussed his work on how what we see is not based on reality but on fitness measures conducive to survival. These measures are superior to perceptions of 'reality' for survival but if these are interfered with, an organism or a species can be at grave risk. See: Atlantic article and TED talk.

Phillip Baron described his teaching methods based on Gordon Pask's Conversation Theory about designing the communication between teacher and learner. Teachers can respond with intuition but up to now AI cannot. A humorous approach using puppets from Kung Foo Panda was used to illustrate points.

Paul Pangaro's topic was designing conversations (including their cadence and who needs to be included) for resilience based on the work of Pask, Rittel and Webber and Von Glasersfeld and the 'taming' as opposed to 'solving' wicked problems. He offered a definition of resilience as the continuous regulation of variety. As a counter example he offered the case of General Motors getting better and better at making the wrong car.

Mitchell Waldrup talked about the scientist as detective and the challenges of organizing and making sense of data once it has been gathered. We lack sufficient sense making technologies and the ones we have are vulnerable to hacking and distortion. He had many examples from his work as a science writer/editor at Nature and in his books.

Klaus Krippendorff talked about self-organizing systems and their boundaries. Their origins and trajectories are not transparent, in contrast to AI that is often proprietary and absent context and intention. Discourses create possibilities out of their recurring practices and their conscious inclusion of a communicating relationship between an observer and communication with other observers.

David Chandler's topic was resilience and ethics. He talked about a more reflexive and embedded approach to resilience that looks at threats as messages that must be responded to internally rather than viewing them as totally external. An example of this approach is Google's monitoring of purchase of over-the counter medications as tagging the emergence of flu.

Thomas Fischer described his teaching of cybernetics in Humbolt University in Berlin. He made use of a toy Watt Steam Governor to illustrate feedback results along with a simpler machine using lights as a way of teaching cybernetics in a design context.

Candy Herr described a project by an architecture student to design resilient housing and other buildings in Mauritius that conformed to and updated its Creole heritage. Mauritius is an island off Madagascar that has a mixed race/mixed language heritage that combined French and English influences in their historic buildings. This project was to design new buildings that retained these influences.

Faisal Kadri's topic was measurement. The clarity of the nominal, ordinal, interval and ratio measures and their ability to describe phenomena in terms compatible with physics can mislead researchers when they are applied in life sciences. He discussed his work on measurement of animal behavior and its limits when applied to motivation. Measurement can only be applied to empirical data but the same data can be interpreted in different ways depending upon the observer.

Lance Nizami critiqued studies of infant response to auditory stimuli which has severe methodological problems as it is not clear what or who is being measured when children were less than a year old.

Stephen Uzzo from the NY Hall of Science, associated with Colombia University, showed slides and described their work in developing interactive exhibits. They apply knowledge about/from neurophysiology and human development to what looks like an amazing museum experience.

David Hurst is an Ontario writer and consultant on management (and perhaps a speaker?). He presented a slide show that discussed identity and its vulnerability when environmental circumstances change. The example was the African Bush people who had a physically and ethically healthy identity and life style that was strong on collective action and collaboration in the bush but who lost it when they were moved into towns

and cities. Some have recognized this problem and are returning to their traditional lifestyles.

Scott Harris's topic was 'the cybernetics of living well'. He started with a quote from Jacob Bronowski that it is not the business of science to inherit the truth but the moral imagination surrounding it. He talked about how Wiener and Von Neumann worked for the military in WWII but that afterwards Wiener did not want to continue and went to the Salk institute instead to work on biology. One highlight was an analysis of a painting of Rafael with a square in an octagon that is squaring the circle. The painting depicts Plato as finding problems, Aristotle as solving them and a later addition of Heraclitus to indicate ultimate lack of certainty.

The final presentation was a Ranulph Glanville Memorial panel discussion of design featuring five architects/designers, one of whom (Ted Kreuger) helped organize the ASC conference in 2010 in Troy NY. The basic question they asked was what kind of conversations do we have when we design. One of the architectural leaders they discussed was Thom Mayne – the man who designed the U of T dorm at the corner of Harbord and Spadina with the big TORONTO sign sticking out over the street that many in the neighborhood regarded as a middle finger. My favorite quote was from Bucky Fuller: "If it's not beautiful, I'm not done."