



TRACK 13: Strategy Practice and Research: the role of qualitative and quantitative modelling

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Abstract

The impending economic crisis clearly shows how in globalised and heavily interconnected economic systems local events may have global dramatic consequences so that industries, markets and businesses are in a continuous evolution. The metaphor of the snowball effect that depicts a process that builds upon itself, as a small ball of snow rolling down a snow-covered hillside and gaining more mass, is now more than ever a particularly effective allegoric image to describe far-reaching consequences of apparently innocuous or irrelevant pieces of information. Economists adopting traditional forecasting and econometrics failed to foresee what was materialising. What about managers and researchers in strategy? Have they been less silent and elusive in delineating unfolding scenarios? Interconnectedness among economic systems and resources, and self-reinforcing mechanisms at work in many of the emerging industries (e.g. telecommunication, internet) makes it very complex to foresee long term consequences of strategic decisions and to design robust strategies to guarantee long term durability to organizations. We suggest that strategy practice and research may enormously benefit from adopting rigorous methodology to deal with complexity when articulating long-term scenarios that often emerge as unexpected, counterintuitive and undesired. The track's main objective is to stimulate debate and confront different views regarding the use of modelling both to support strategic practice and to articulate theoretical hypotheses on long term strategic behaviour. In particular, the track addresses the use of modelling to design the strategy implementation process, to articulate scenario analysis and to analyse real options. We accept both qualitative and quantitative contributions. In the area of quantitative modelling, we encourage both formal modelling associated with mathematical analysis, such as

game theoretic approach, and computational approaches such as system dynamics, agent-based modelling, genetic algorithms or neural networks.

Abstract of special session on "Experiencing simulation-supported strategy formation for the biggest challenge of all - climate change."

Track chair: Dr. Kim Warren, Chairman of Global Strategy Dynamics.

Discussant: Dr. Stefano Armenia, System Dynamics Italian Chapter (SYDIC).

Abstract:

This session will demonstrate the power of simulation to both capture a complex situation in an understandable way and provide a tool for developing and evaluating strategic alternatives. You will explore and learn about the biggest 'strategic challenge' of all - climate change. Last December, delegates from all nations on earth met in Copenhagen to negotiate an agreement to slow and reverse the emission of greenhouse gases, and take other actions to combat climate change and mitigate its impact on human populations. The negotiations were challenging for all who take part. Developed nations as the major emitters have the largest scope to contribute but the greatest structural changes to make. Rapidly developing economies need to contribute whilst not threatening their growth. The least developed countries need to seek economic progress for their people, requiring substantial increases in energy use. This session will give you a chance to experience exactly those pressures, by playing the role of the Copenhagen delegates and negotiating commitments to act on behalf of the main country-groups. A simulation, validated by the Intergovernmental Panel on Climate Change [IPCC] and used by many delegates prior to that conference, will show you the impact of the deal that you manage to agree amongst yourselves - what will happen to greenhouse gas levels, global temperatures and sea levels over coming years, and what impact will this have on human populations? You will then have an opportunity to negotiate improved proposals. The session will give you a powerful understanding of climate change issues and the political challenges in confronting them. Finally, as instructors, you will have access to all of the materials