

Scoping the dialogue space **Oxford Futures Forum 2011**

What might complexity research & scenario-centred futures work learn with & from each other?

1) Implications of scenario work for complexity research

- Scenarios work often draws on systems theory –in many cases versions of general systems theory- in its quest to encourage and support learning ‘with’ rather than just ‘about’ the future.
- Scenarios as ‘products’ comprise sets of plausible, alternative stories about the future context of something developed for someone(s) for some purpose.
- The emphasis in scenarios on non-linear, multiple and plausible futures (notably the Shell/Oxford School) contrasts with the ‘preferred’ future stance in policy making and the ‘probable’ futures in predictive forecasting or in forms of sensitivity analysis in model-based projections.
- Over half a century, scenario work has proven to be an effective way to engage decision-makers’ attention to assumptions about the context and its future, and the uncertainties in these assumptions, both for government and business.
- Field-level scenario work has also been initiated as a means for global scientific assessment, social learning processes, and systems change such as global environmental change, water management, and political transitions.
- Good scenario work should attend to the ongoing evolution in general systems theory and the new concepts emerging from complexity science: a perspective focusing on the future can help reveal and test assumptions about the nature, boundaries and developing dynamics of systems and their environments.
- Scenarios may provide an ‘on ramp’ for complexity research to better engage with a diversity of worldviews.
- Scenarios can help engage irreducible uncertainty by attending to the social construction of ignorance. This they can do by framing, revealing and respecting alternative histories and plausible futures from different perspectives; by delineating systems in different ways; and through better understanding and addressing puzzling situations that are changing rapidly or unpredictably.
- By obtaining a better appreciation of how scenario work succeeds in engaging the minds of decision-makers (improving the quality of strategic conversation); complexity researchers can rethink how the findings they produce can be usable inputs into decision- and sense- making processes amongst policy makers and strategists.

2) Implications of complexity research for scenario work

- To date much scenarios work deploys methods from general systems theory to explore how scenarios evolve, focusing on important factors or forces that can be assumed to produce large effects. This restricts consideration to a set of drivers all operating at what is assumed to be the same scale. However, complex systems are inherently multi-scale, with behaviour driven by the interactions

- between different scales. What are the implications of this novel perspective on the dynamic properties of scenarios?
- Research on complex systems suggests that it may not always be appropriate to stipulate the architecture and characteristics of a system top-down, and that many system-wide properties emerge in an unanticipated manner when properties and rules are specified bottom-up. How can the notion of bottom-up design inform new approaches to scenario construction and particularly to multi-stakeholder scenarios?
 - Representations and models of complex systems require the ability to identify the boundaries of systems, and differentiate between systems and their environment. For scenarios, it is important to distinguish between the transactional and contextual environments that actors inhabit. In many cases, it is not obvious where these boundaries should be drawn. How can the one context inform the other?
 - How scenario methods can adapt and accommodate such insights is something we shall be exploring in the Forum.

3) An opportunity to learn with and from each other through generative dialogue

Scenario-based research and interventions, general systems theory and complexity science are increasingly being harnessed by individuals, groups and organisations within and across the public, private, military and academic spheres to better appreciate and navigate the messy and puzzling challenges characteristic in an era of increasingly global interdependencies and multi-level changes. Moreover, both approaches encounter challenges in convening, controlling the use, the meaning and the interpretation of the scenarios and models once they are released.

We are inviting a selection of exceptional scholars and practitioners from the fields of complexity and scenarios to come together in a generative dialogue, rather than a conventional conference form to explore and address questions being tackled/better tackled by both communities. Some illustrative questions, meant to stimulate rather than circumscribe debate, are:

- How to develop and inform policy given the limits of conventional 'predict and decide' approaches?
- Can / how can systemic and emerging risks be anticipated and managed?
- Is developing resilience capability a complementary or alternative approach to risk management?
- What are the roles of complexity research and scenario methods in understanding, and even working towards, the challenges of socio-ecologic sustainability?
- Is an activist stance to the future possible? How can we shape the course of human progress in a multi-polar world? And, if not, what is a more effective adaptive stance to the future?
- How can complexity science contribute to evaluate the effectiveness of scenario work?
- What experiments might be launched to better harness complexity science in future scenario work?