

Communities of Creative Survival

Shared Understandings of a Sustainable Future

Summary

A lack of sustainable management of energy resources, and the linked issue of man-made climate change, continues to mount a global crisis, with most government policies and industry regulations falling short of achieving their stated goals since the 1970s. Increasingly organisations and governments are obliged to examine new ways of attempting to manage transitions that take into account the evolving social structures of our time: where traditional educational and political campaigns have failed, it becomes important to consider non-traditional forms of engagement.

This project proposes a framework for engaging stakeholders with complex systemic challenges through collaborative speculative world-building. The framework includes principles adapted from the fields of serious games, design fiction, and systems thinking.

The four-month project piloted this framework as a form of collaborative play simulating a catastrophe in a shared ecosystem. This experience challenged participants to orient all decision-making in relation to complex systemic factors and interrelationship: this was *systems play*, a method with promise for cultivating resilience-focused group problem-solving.

This systems play experience was created and tested by Information Experience Design (IED) specialists from the Royal College of Art. The method employs the unconventional strengths of art and design experimentation, most notably an active orientation toward complexity and uncertainty, to generate social cohesion and creative problem-solving around shared goals through creative experimentation and world-building.

The project focuses on *relationship generation and building social capacity for innovation* rather than focusing on one-off innovation outcomes. This addresses a major gap in sustainability research and policy, which broadly neglect social connectedness as an innovation outcome in itself. This is despite stark evidence surfaced by the Covid pandemic that social cohesion is crucial to generating the social buy-in necessary to solving complex problems collectively, whether in small or large groups.

Objectives

The objectives of the research are:

- To pilot a model of socio-environmental community building that adapts principles of speculative design and live modelling, empowering individuals and communities to interrogate and work with infrastructural and policy constraints to solve realistic problems in a mode of semi-serious play.
 - To generate a suite of plausible or viable solutions to net zero challenges, developed collaboratively with actors from art and design, government, third sector, industry and local community groups.
 - To establish a model of analysis specific to this form of inter-sectoral community engagement.
 - To provide a policy-accessible analysis and presentation of findings, solutions and methods for adaptation to other socio-environmental contexts (net zero but not limited to net zero), which can be used to build communities and generate solutions simultaneously.
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Methods

Objectives of the project and its outcomes are to build greater capacity for uncertainty, to develop greater flexibility of perspective, and to encourage connectedness amongst participants who are engaged in addressing shared challenges. This was achieved through a stepped process of collaborative world-building informed by methods adapted from speculative design, design fiction and game design.

The methodology uses design fiction and 'worlding' as a tool for generating social cohesion around a complex imaginary that can become a proxy for a real-world challenge. In turn, the process of generating greater cohesion produces a more resilient social structure within which future problems can be solved.

Design fiction is a design practice aimed at exploring and criticizing possible futures by creating speculative, and often provocative, scenarios narrated through designed artefacts. By inspiring new imaginaries about the future, Design Fiction moves forward innovation perspectives and "suspends disbelief about change." (Sterling, 2013) Design fiction uses

- **"What if?" questions.** This questioning format stimulates the exploration of tensions and sticking points, leading to construction of "New Normals".
- **Objects.** Imagination and social interaction are activated through tangible artefacts and prototypes that 'come from' a possible future world, suggesting outlines of possible realities and opening gaps that participants fill in together.
- **World building.** Designing new possible worlds, even playfully, helps break down boundaries of real-world conflicting agendas, and to help participants create bonds through shared imagining and creating. This has an interesting parallel in policy-making, where policy-building can be seen as another form of world-building.

Principles for Systems Play

The project established a series of eight principles for designing a systems play scenario. The purpose of systems play is to prime groups for better real-world problem-solving through speculative world-building. In this instance 'better' describes problem-solving that is collective and inclusive, oriented toward overall system resilience, having tolerance of perspectival difference, and having capacity and inclination to act despite uncertainty. The eight principles are:

1. **The world is complex.** *The given setting is a complex (but legible) system that can be researched and built upon.* Examples: a rainforest ecosystem; metropolitan Paris; a middle-class smart home in northern California; the microbiome of a field mouse; a herd of elephants; the Thames estuary.
2. **Perspectives are shifted.** *Participants are positioned in a unique or unexpected way within the system, providing perspectival novelty.* Examples: engage from the perspective of another species, or another specific person; engage without a particular sense (hearing, sight, touch) or having a sense enhanced; engage at a micro-scale, or a macro-scale only; engage as a collective rather than an individual.
3. **A hyper-event emerges.** *A large and complex event appears, requiring attention from diverse agents across the system.* Examples: an extreme weather trend; a threatening social trend such as an increasing rise in crime; a stark world-changing event such as a sudden disappearance of all the oil in the world; a cascading-effects event such as a pandemic.
4. **Micro-cultures mobilise.** *Small groups take on specific, time-based tasks with direct outcomes, that relate to the ongoing event.* Examples: develop a five-year, stepped process for all households in town to prepare for extreme flooding. Develop and outline principles integrated into the curriculum of a single boys' school in metropolitan Paris to combat a continuing rise in male crime rates.
5. **Micro-societies negotiate collective agendas.** *Micro-cultures are exposed to the ideas of other groups, and have impetus to join forces or exchange commodities. This generates society.* Examples: a town forum where different members of the community debate on each neighbourhood's approach to crime. An app-based map where different species groups submit ideas and form alliances to address

habitat challenges together. A symbiotic marketplace where microbial communities hire out their traits and abilities in exchange for those of others.

6. **The field is shifted.** *Facilitators play with the expansion and contraction of the field of reference, zooming in and zooming out, constraining and opening up.* Examples: expand the geographic scale of the challenge(s) to bring in more actors; focus on the dynamics of a square inch of space; expand the time scale to bring in more generations; design a solution relevant for a world that will end in 8 days.
7. **Verifiable truth is unstable.** *Facilitators allow or invite chaotic elements into the system, including new voices, new problems, blurring of fiction and reality, misinformation, etc.* Examples: Suddenly enable different species to communicate; invite new participants into the experience; decline to verify information as true or false; create a giant time lapse.
8. **Insights translate.** *Participants translate outcomes in the speculative world to insight in the real world.* Examples: a policy proposal; a risk mitigation strategy; a white paper; a workshop topic; a prototype.

The principles could ideally be activated as an experience within a single day's workshop, or as a weeks-long experience involving participants from around the world. The model will be developed for use as an out-of-the-box product (ie. a downloadable package including scenarios, instructions and game cards), as well as a facilitated short course for teams and organisations. This framework will be tested and further refined by partners at Shenkar College of Engineering, Design and Art from October 2022, with involved teams developing an application for further funding beyond 2022 to test the method in other domains including technology futures and well-being. The research team is completing a detailed analysis of initial outcomes for submission to *Futures*, which has a special focus on the model's potentials for complexity navigation skills-building and strategic foresight for organisations.

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