



Oxford Futures Forum Abstracts *(version 2)*

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Appendix: Scoping Document by Conveners

Aliakseyeu, Dzmitry

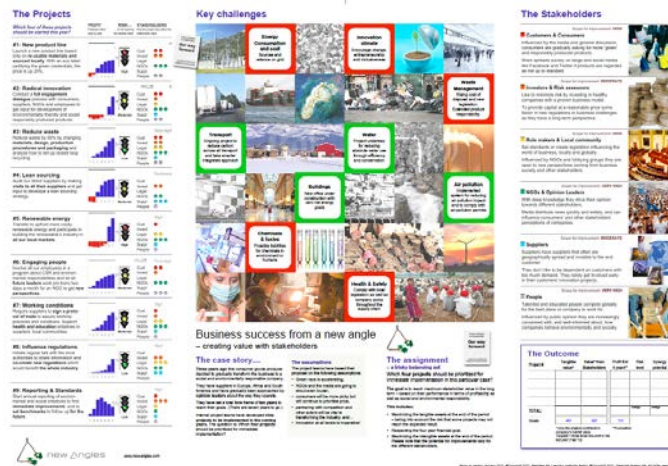


PHILIPS

Philips Research has been using scenario planning within projects for about four years for the purpose of supporting the ideation and concept creation process for new products and services. The created scenarios are used as input for creative workshops and brainstorm sessions and consequently our scenarios and scenario planning has caught the attention of Philips Design. The desire to work together on scenario creation is strong and numerous activities and meetings have taken place; however, while the intended use of the scenarios is the same (inspiration for ideation), we have observed a difference between how the two sides understand and develop their scenarios. Philips Research follows an approach that is similar to that described in the Oxford Scenario Programme where the scenarios are plausible visions of how the current context may change in the future. Then new ideas and strategic options are developed and tested against the scenarios. In contrast, Philips Design's approach is to mix these two phases. The processes behind developing the scenarios are similar, with trend analysis, understanding the company and the domain and also the identification of driving forces. These are then combined with ideas on how Philips can create and lead in this future. These ideas are then written into scenarios for presentation to management. Design has the need to create plausible visions for the company quickly, where as Research first has the desire to analyse different futures and then explore visions for the domain. Our question that we would like to bring in to the forum is how can these two approaches be made to be compatible?

Dzmitry Aliakseyeu, Sanae Chraibi and Jon Mason
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Barchan, Margareta



Abstract: Rehearsing for the future

Visualizing the future is an effective way to help people imagine and better understand the changing environment. Complex concepts represented with their key components, helps the individual to see patterns, make conclusions and take action for long--term results.

For almost 30 years the author has been involved in designing strategic concepts and make them tangible and visual with the purpose to stimulate dialogue and create understanding of plausible future Scenarios and strategies for business. Assumptions about the future are not always shared and discussed with the result that decisions are made from different departure point, which creates scattered behaviors and weak results.

The purpose of this example (picture) is to raise awareness of the value of a strong relationship with stakeholders. It contains key challenges facing the business, the main stakeholders and examples of projects that may address the challenges and please stakeholders. The assignment is to choose the four projects that create most value. These three different perspectives give the insight into decision- making in uncertainty with multilevel considerations.

The purpose of graphically designing a strategic concept or different scenarios is to make people come to their own understanding and conclusion (Mellander1993). Important is to extract and provide key component of the concept in order for people to find different combinations, see causes and get a understanding of resulting effects. It gives a holistic view of different dimensions of the present or future reality- the perspective from a crane (Normann 2001). Altogether it gives stronger commitment to decisions and aligns language and actions.

Margareta Barchan specializes in helping organizations create and implement strategies that support a sustainable future. She is an entrepreneur who has started several successful companies and foundations, always with a focus on the human side of change where business ethics and governance are critical elements. She is a senior partner at New Angles, an affiliate professor in strategy, sustainability and leadership and serves as a director on several corporate boards.

Bason, Christian



Oxford Futures Forum 2014: Scenarios and Design

Christian Bason

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Abstract

Designing public futures: Prototyping scenarios to transform public governance

Managers in the public sector increasingly look to designers to help them drive innovation in policies and services. Design is brought in from external consultancies but also increasingly established as an internal capacity through 'innovation labs' or studios. As design is applied in the context of public organisations, a complex interplay arises between design approaches on the one hand, and the commissioning manager's actions and decision on the other hand.

As a future-oriented activity, like scenarios, design allows managers to relate to alternative, potential futures in highly concrete ways. In particular, the creation and collaborative use of prototypes (models, sketches, stories, audio-visual media, enactments, etc.) characterise 'designerly' ways of working with public sector innovation.

The relationship between public managers' efforts to identify more effective policies and services, design practice, and scenario methods, is however largely unexplored. How can design and scenario methodology enrich each other in catalysing public managers' ability to articulate new governance models?

Drawing on Boland & Collopy's (2004) concept design attitude, this paper explores how managers in the public sector relate to design methods, and particular prototypes, as scenario tools. A particular emphasis will be placed on Michlewski's (2008) notion of *Creating, bringing to life* as a design attitude: How does design and scenario methodology catalyse the managers' desire to affect change in the world, "creatively manifesting the ideas" that will later shape successful products, services or experiences (Michlewski, 2008: 379)?

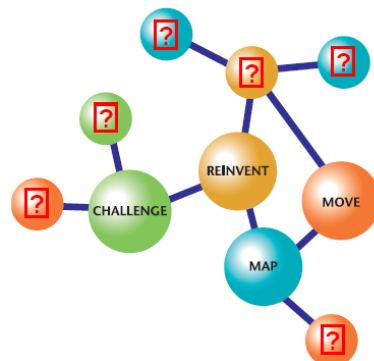
The paper examines the potential role of combining scenarios and design in influencing public managers' perception of the possibilities, risk and viability of alternative public futures and models of governance. It considers if and how the underlying attitude of public managers matter to the outcome. The research draws on data from 20 qualitative interviews with public managers in five different countries and public policy contexts including education, social welfare, and health care.

Image: *Materials for crafting prototypes in public design workshop.* Source: MindLab

References (tentative)

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Bock, Ute



Abstract – Oxford Future Forum 2014

Scenario and Design

by Ute Bock, 14h January 2014

Fiat SpA, is the automobile holding within the Fiat Group (Fiat SpA, Fiat Industrial SpA, Chrysler), which has just concluded the 100 % acquisition of Chrysler, the US based automobile manufacturer. The author is employed in the Fiat Group as a manager the central Risk Management function. In that role she is considering some important questions that arise from this acquisition:

- whether and how the art of scenario-based strategic planning was at play, in 2009 when the decision was taken, to become shareholder of Chrysler and
- whether and how it could be used when designing the next steps of the Group, that will affect the companies' development in the next 5-10 year's.

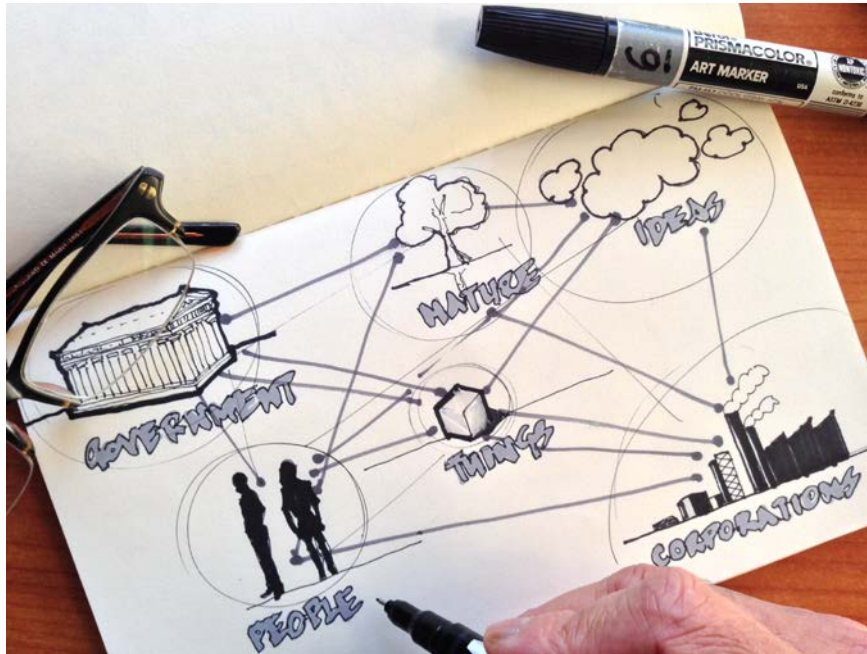
Various researchers suggest, that one key driver for future success might be how companies are able to "successfully" manage "risk" (the author chooses to link "risk" with "uncertainty"). Following the approach of Kees van der Heijden , both, the contextual and the transactional environments, will be at force.

The questions important in this context are:

- Will the decision makers in the holding company be willing to allow, in the design process, the questions that provoke, disrupt and are troublesome, in order to surface new propositions?
- Will the decision makers in the holding company be willing to promote and support the human capital, able to manage "uncertainty" and "risk", to surface contingencies, in the range of possible futures, while driving change and transformation?
- Will the decision makers in the holding company realize, understand and promote the diversity and the communication skills necessary in the design and implementation process?

The author assumes that scenarios could be one way to support both, teams and individuals, to react more efficiently and effectively to unprecedented challenges. Creating through scenarios a blue print that would be helpful, for people to evaluate probable corrective actions, in times of turbulence.

Boradkar, Prasad



Future Configurations of Things

Prasad Boradkar
Arizona State University

In material culture we are concerned at least as much with how things make people as the other way around.
- Daniel Miller

We shape our buildings; thereafter they shape us.
- Winston Churchill

If the process of design can be described as one in which people give configuration to things, things themselves can be said to, in some respects, configure human societies. People and things together possess *agency*, and they act in conjunction with each other in making the world. Latour describes things as “participants in the course of action waiting to be given a figuration” (2005: 71). The word “configure,” derived from Latin *con* (“together”) and *figurare* (“to shape”), succinctly encapsulates the reciprocal form of the engagement between us and the material world in which we live. *People and things configure each other*. This reciprocity of agency directly influences how we produce our material landscape, cultural forms, and social structures.

We can therefore say that the future is configured by the agentive powers of things and people. While scenarios often recognize the role that people (designers, users and other stakeholders) play, I am curious about the agency and power of things in such situations. Do we give things the same consideration in scenarios as we do people?

I would like to discuss the notions of agency and configuration in the shaping of future scenarios.

Latour, B. (2005), *Reassembling the Social: An Introduction to Actor-Network Theory*, Oxford: Oxford University Press.

Brassett, Jamie

Scenarios & Design

Oxford Futures Forum 2014

Abstract

First: any act of designing is a momentary snapshot of its transcendental flow that passes from the future to the past (Brassett, 2013). A design is not a thing, but things are designed & in being so, are refugees from future contexts in the present. To engage in the development of the scenarios that articulate such possible contexts, designers – and the innovators & innovation managers that are driven by shared processes – need to understand both the nature of design's transcendently creative flow, & the material & expressive resources (De Landa, 2006) that have been, are & will be deployed by this flow as it coalesces.

Second: strategy, philosopher of Science Michel Serres states in his essay on Lucretius (1982), is about dynamics & energetics, but is first & foremost a *topology*. While strategy and scenario building are not equivalents, their relation to a space as the contextual locating of time – & possible times – (Bachelard, 1962) will demand a shared cartographic function, even if their outputs differ. Furthermore, the immanent nature of the relationship between the transcendental conditions for action & the material expressions of those conditions will mean that any movement enacting strategic plans, or any scenario narrativising a plan of possible action(s), will change the ontological status of all the components of these fields.

So sparks that result from a collision between strategic-designing & creative-scenario building may illuminate activities that are both future-oriented & materially impactful.

(237 words)

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Serres, M. (1982) Lucretius: Science & Religion, *Hermes. Literature, Science, Philosophy*, ed. Josué V. Harari & David F. Bell, London & Baltimore MA, Johns Hopkins University Press, pp.98-124

Candy, Stuart

Scaling experiential scenarios

In recent years a romance between foresight and design has blossomed, with much engaging and media-rich output emanating from the encounter (Antonelli 2008; Sterling 2009; Candy 2010; Haldenby 2013; Dunne and Raby 2013). Notably, hybrid practices such as "design fiction" and "experiential futures" have been entering common currency * (Bleecker 2009; Raford 2012; Turney 2013).

I have collaboratively developed experiential futures (a broader term, encompassing design fiction) across wildly different contexts - public art installations, client workshops, massively multiplayer online games, and so on. Hybridising scenarios and design brings visceral engagement into a dry tradition that otherwise threatens to fall short of its culture- and history-catalyzing potential (Candy 2010).

So what's next?

The task of putting design more impactfully in service of scenarios poses two complementary questions:

* What kinds of **scaled-up immersion** are possible -- considering, for instance, a transmedia intervention during the Arab Spring whereby multiple Tunisian media - press, radio and TV - reported "from" 14 June 2014, three years into the future, for a whole day? (Candy 2011)

* What **structures of participation** are most effective for scaffolding experiential futures design – e.g., what makes a successful brief for students translating textual scenario premises into tangible, immersive form? (Candy 2013, 2014; Candy and Dunagan forthcoming)

Having been involved in the futures field since 1997 as (variously) a student, researcher, consultant, artist, and educator, my interest in these topics spans all these modes. The work has not always generated the expected results, but it has always been illuminating.

(250 words)

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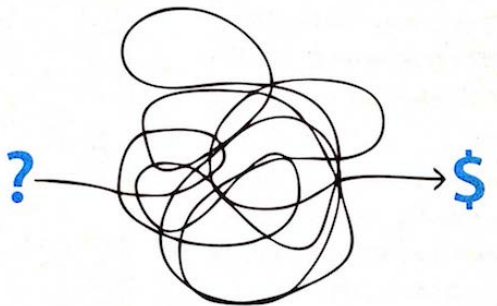
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Chermack, Tom

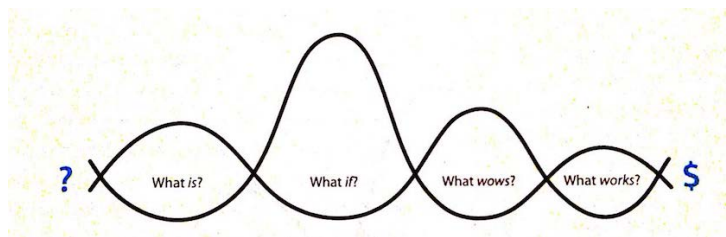
Preliminary Ideas: Integrating Scenario Planning and Design Thinking Thomas J. Chermack

Liedtka and Ogilvie (2011) asked Tim Brennan of Apple Creative Services to describe design thinking, and he drew this:



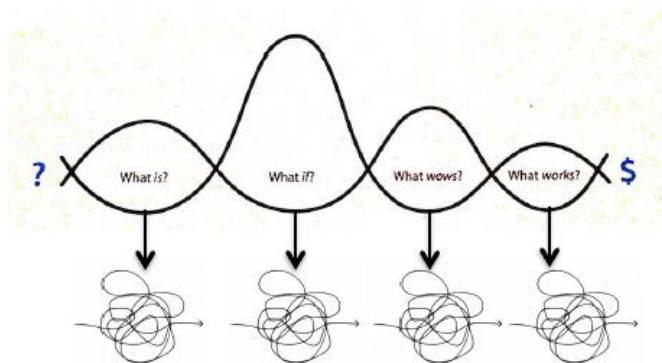
(Liedtka & Ogilvie, 2011, p. 3)

The authors then examined their own experience with design thinking and drew this:



(Liedtka & Ogilvie, 2011, p. 3)

The framework suggested by Liedtka and Ogilvie can easily accommodate the major components of scenario work. In merging these two conceptualizations of design thinking, we find this:



“What is?” could refer to current state analysis

“What if?” could refer to scenario building

“What wows” could refer to connecting the scenarios to mental models

“What works” could refer to the ongoing refinement of scenario work

Scenario planning can be viewed as a specific application of design thinking. There are various scenario planning frameworks that have developed over the years that all include design thinking as part of their application. Scenario projects require adjustments to the framework and design thinking to deliver a successful outcome. The purposes, objectives, industry and personalities of the participants can drive design choices, from the project level (how much time, how many workshops) to the details of a specific workshop (the order in which scenarios are engaged).

I am fascinated by the intersection of scenario planning and design thinking. I believe my efforts in designing scenario experiences for a variety of clients supports the intent of the Oxford Futures Forum in 2014.

Reference

Liedtka, J., & Ogilvie, T. (2011). *Designing for growth*. Columbia Business School Publishing, New York, NY: Columbia University Press.

Chraibi, Sanae



PHILIPS

Philips has been using scenario planning for supporting the ideation and concept creation process for new products and services. The scenarios are used as input for creative workshops and brainstorm sessions to help the participants think from new viewpoints and see how the world may be from future perspectives. We have found value in using scenario thinking for topic areas where the project teams are seemingly 'stuck' in their way of thinking and require a boost to show them other potential directions. The scenario planning is carried out by a core team consisting of a few scenario planning experts and a few project members. The methods used in scenario planning provide the core team with valuable contextual insights and ways of exploring how trends or events may react with one another, which goes beyond typical trend analysis. When the scenarios are used outside of the core team, with other participants in the creative sessions, they prevent designers'/thinkers' block by introducing subjects to discuss and debate. Finding the implications for different stakeholders becomes the catalyst of new ideas. Therefore, for us the scenarios have proven to be an effective means of exploring the 'fuzzy front end' of a topic area for our projects and for inspiring researchers, designers and scientists to work together in generating new ideas. Our contribution to the Oxford Forum will be to share our experiences of using scenario planning with multi-disciplinary teams and how scenarios can be used for supporting the ideation of new products and services.

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Collyns, Napier

Although practitioners and academicians have written much about scenarios, storytelling, design and cognition, it appears that they have focused mainly on tools, techniques, methods and approaches. Little attention seems to have been paid to understanding the meta-processes for re-thinking that marks the early innovations in scenario planning in the 1960s and 70s. Therefore, I suggest a reinvigorating attention in both scenario and design practices on the stages of reperception that grant special leverage in solving wicked problems. Drawing from the work of Pierre Wack, an early scenario planner, this study examines (a) Wack's notes on professional experiences and personal meditations, (b) interviews of his former colleagues, and (c) Wack's academic writings. While some of this material has been mined towards other ends, this research study focuses on meta-processes of perception and posits an interdisciplinary framework grounded in writings from eastern philosophy and psychology. From this, space for new insights open up. During the OFF, I hope to explore the ways that reperception might be fruitfully supported through design practices, and how to fortify time-tested scenario methodologies focused on reperception.

Crook, Paul



[Dawga Cad Road after construction](#)

Scenarios and Design
Physical Infrastructure – Impact on Poverty
Consequences for Geopolitics and Socio-economic Growth

OECD's New Deal approach (is it design or desire?) for Fragile States sees short-term results as precedence addressing fragility longer termⁱ: *Is this the first assumption where scenario work can build to look at fragile settings within or beyond the state and allow better design of projects knowing an end state or seeking to avoid consequences of inaction or inappropriate action?*

The example of design chosen – www.Dhamays.com - Construction of the Road Project Dawga Cad road (to Ceel Shiekh – Somaliland) – is a community initiative with the stated objective of improving road safety on existing thoroughfares. Intrinsically, the community is primarily a single sub-clan (in a complex Somali social set up) with a broader scenario to use road development as a means to change the nexus of development.

In key parts of Africa exploitation of natural resources has accelerated: *Scenarios based on multiplicity of factors reinforcing the non-homogenous nature of Africa, exploring nodes of influence and issues allowing these nodes to influence (in what way)? Synchronised behavioural traits? Arab awakening: Role of ICT in other [cultural] spheres? WEF factors for 2014ⁱⁱ. Natural resource management or overt exploitation? Are we able to design for inclusion and address disenfranchisement? An engine of inclusion addressing inequity and poverty? Note design failings of infrastructure done as 'payment' for natural resource exploitation.*

The Dhamays example exemplifies physical design as a means to; possibly, challenge the role of the state. Somaliland unilaterally seceded from the union with Somalia in 1991 and has remained unrecognised this then. It has made strides in development and laid out a 'Vision 2030' which exemplifies the paucity of scenario work in the Aid and Development industry. Whilst trends and patterns are there, the disruptive technology and single path interventions which turn socio-economic practices are not to be seen.

This community initiative is partially to exploit natural resources. Once the area is fully opened, the thinking as to how to manage fragile ecosystems has not been fully undertaken. Further exploration may find other natural resources (talk of minerals for the Global market – already small scale export to China). Design work is initially for meagre amounts (no real figures) of through traffic to Djibouti. Already desire by osmosis sees the possibility of an extension to Hargeisa University, partnering with Dubai's marine sciences school, to Ceel Sheikh – a completely unspoilt small town presently 50plus kilometres from the nearest piece of tarmac road and on a pristine coast line.

Issues of impact of greenhouse gas emissions; African governments stated they want development (without defining) first and foremost looking next 5 or 10 years (Security, youthⁱⁱⁱ employment and extremist issues) – driven by necessity or unaccountability and lack of true inclusion of people?

The state, however inchoate in terms of capability, gains its strength from the people (Question?)? Somaliland is not recognised as a state but the connection with the people is strong. If people, community or clan, take actions without state sanction, does this start to undermine the homogeneity of intention of Somaliland?

*The international community are fixated with unitary state and engagement with Somalia. Federalism, however defined, is talked about. But the what ifs have not been laid out and so we see strategy by emergence and thence reactive working as people 'see' opportunity given vacuums power or singular issues amongst leaders. Reference back to: **To What Extent Do Venezuela's Causal Textures Allow Scenarios to Work toward Social Dialogue – Thomas M in Business Planning for Turbulent Times ed Ramirez, Selsky and Van der Heijden.** Are people with power and influence intrinsically undertaking scenario thinking to design and deliver physical infrastructure which, once in place, will generate an accumulation of use thus causing changes in physical focus to routing of goods and commence a process of wider change? Points of causative change (in layman's use of physics term – points of bifurcation – actions taken change properties of social and economic system irreplaceably) through design without wider scale scenario development showing impact after enacting at point of influence? To be considered as a scenario: The issues of break-up of state, or simply ill defined decentralisation of otherwise central economies, causing infrastructural developments to be undertaken at different levels without fully connecting the levels. Macro level investments inter-regional often built for 'one-off' exploitation of natural resources (see hydrocarbon exploitation of East and Central Africa and flow of resources eastward to [mainly] China rather than to West) and micro level engagements (typified by the Dawga Cad road with its implications on statehood for Somaliland).*

A Key:-

How can (physical) infrastructure design be used creating access and improving proximity; this as means to prime work addressing inequality of opportunity (hence inequity?) beyond trending work noted by way of validation leaving aside present governance issues? How will the (current) logistical advantages of mass production importation (related export of primary resources) change in next XX years^{iv}?

de Ruijter, Paul

Dear OFF2014 people,

Thanks very much for selecting Scenarios and Design as the theme for the 2014 Oxford Futures Forum. With over 20 years of experience in the scenario practice, and as a business and mechanical engineer by training, you have combined two disciplines that are very close to my heart.

Where scenarios are meant to explore the future context, design helps us to create the future. We all know that expression; the best way to predict the future is to create or invent it (ascribed to Peter Drucker, Alan Kay, Abraham Lincoln). As a business engineer I have been educated in design theory and we applied it to "business" as a social construct. Design thinking applied to mechanical engineering is easy; the machine that you design does not talk back and does not have a will of its own. Design thinking applied to organizations, cities or even countries do have this problem. These social objects talk back and don't always behave as engineered. Even worse, the engineer is part of the system itself, and we enter the world of self referential systems; systems that define themselves. This reflexivity creates academic problems in terms of a key values like "objectivity and non interference". This is why the scenario practice is often seen as non scientific. In the scenario practice this also create problems, since scenario are, by definition, stories about the context that are outside the sphere of influence of those who write them. But given the reflexivity of the system, I have experienced more than once that scenarios had a self fulfilling or self denying character. Words and images about the future can actually change the future.

I have uploaded six images from my work. Five of which were drawn by the industrial designers of Jam Visual Thinking that we often collaborate with. For the city of Heemskerk we ran an interactive process with politicians, citizens and stakeholders to explore three scenarios for the future of Heemskerk. Inspired by these contextual scenarios we reflected on the future that Heemskerk could actually create for itself, resulting in a vision. Also uploaded is a similar set of scenarios for North Amsterdam. These scenarios where also used as a starting point for developing a vision.

The sixth visual is the cover of a magazine made by BAM. With BAM we develop three scenarios for the future of The Netherlands, which were used internally to test BAM's strategy and to create options. These scenarios were later made public to inspire architects and clients of BAM. For BAM the scenarios were contextual, but by sharing the stories (written and drawn) with their transactional environment, the stories now have to power to become self fulfilling (or self denying).

These three cases and six visuals are just a selection of the many collaborations between scenarios and design. For me this is all part of the discipline "social engineering" (first coined by Van Marken, 1894). And I will gladly share my thought and cases with the Oxford Futures Forum!

Warm regards,

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DiPaola, Paul

Designing for Today and Tomorrow: The Marriage of Scenario Planning & Participatory Design

Effective organizational design and adaptability requires future focused design methods and anticipation of current, as well as changing customer needs.

As organizations continue to face environmental turbulence, the use of scenario planning at the front end of their design approaches helps ensure that structures, processes and products meet or exceed societal needs and design requirements in an adaptable and continuous way.

Financial institutions, such as Bank of America, Wells Fargo and AIG, have been actively developing Business Architecture practices to build anticipatory capability into design efforts. I have been developing and leading a team of business architects/designers at AIG to help the organization redesign its structure and operating model globally.

In order to do so, we are blending several design methodologies (Participatory Design, Design For Six Sigma, Target Operating Model Design, Ambidextrous Design) with Scenario Planning to create an approach that ensures what we design today stays relevant and flexible to adapt to future needs and requirements.

There is much to learn and share about how scenario planning supports robust design of organizational structures, products and processes as well as the role scenario planning elements play within on-going strategy, organizational design and day-to-day business processes.

This year my team is focused on deploying our strategic design approach in the EMEA, APAC and Americas regions.

I would like to share with the OFF community what we have learned to-date about how to pragmatically apply scenario planning within the initial and continuing organizational design process.

Drenth, Gerard

"Context-specificity of intervention design"

I am interested to explore the area where scenario interventions and the *design* of these same interventions meet. At a certain point in the preparation of any intervention, scenario practitioners will need to make a call as to what the appropriate amount of design (and of process) is that maximises the chance on a productive intervention. We all know of examples where under-design or over-design of a workshop led to sub-optimal results.

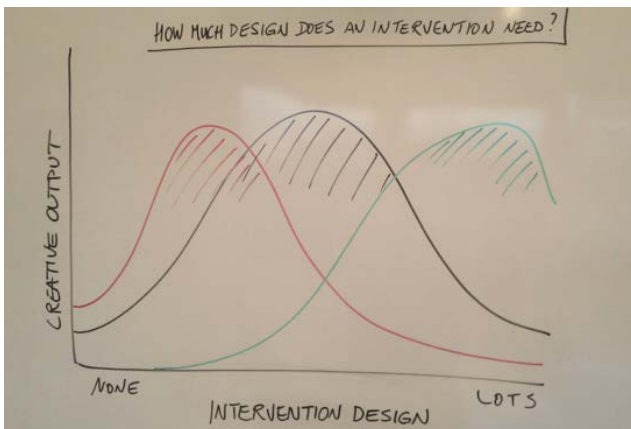
The amount of design needed depends on a number of variables that together form the 'intervention context':

- the participants and any national, cultural, language dimensions they represent
- the work-habitat of participants and the dominant culture of their industry or field
- purpose of the intervention (either made explicit or implicit)
- the complexity of the subject under study
- the stage in the overall project that the intervention could be part of
- physical variables such as location, room layout, (non)availability of props
- amount of time available for the intervention
- time of day the intervention is held
- preferred facilitation style(s) of the facilitator

The tension between under- and over-design

There is tension between creating sufficient order for creative and spontaneous processes to work and imposing too much process, which would stifle creativity.

In the chart below the shaded areas are 'sweetspots' for different types of contexts. We have all seen interventions in a 'red' context: they need (or want) little design and would not produce creative ideas in a design-straightjacket. But we also experienced interventions where participants can't produce anything unless they are told what to do, facilitated in a very directive manner, or guided with a detailed process.



Are there any 'rules' we could define that help us gauge the appropriate amount of design for a given intervention-context?

Gerard D Drenth
Associate Fellow, Saïd Business School
Partner, NormannPartners

Dunagan, Jake



Jake Dunagan, Ph.D
Research Director, Tech Horizons and Governance Futures Lab
Institute for the Future
Palo Alto, CA

Information, as defined by Greg Bateson, is a “difference that makes a difference.” There are no future facts, but scenarios, insofar as they are a vehicle to allow future images to in-form the present, must be intentionally formulated to provoke new insights (to make a difference) in the minds of the audience. Therefore, commitment to thoughtful and original forms of foresight communication are foundational to good futures practice. There is a long history of futurists using novel techniques to communicate foresight, but the last decade has seen an explosion of new design-performance- media experiments.

I have been intimately involved in the theory and practice of bringing design into futures, and futures and design. Working closely with colleague and collaborator Stuart Candy over the past 8 years, I've helped create a series of diverse installations, videos, street art, artifacts from the future, and performances that have attempted to inject the future into the present in a way that effectively tunes minds toward alternative futures. The mode and genre of delivery has been as varied as the contexts, audience and clients I've worked with. These include the state of Hawaii, the city of Honolulu, the California Academy of Sciences, the Judiciary of the state of California, the ASU Emerge Festival, and many other private and non-profit clients. In addition, for the past three years, I've taught Strategic Foresight at the California College of Arts MBA in Design Strategy program.

For the Oxford forum, I hope to contribute lessons from these experiences with scenarios and design in civic, academic, non-profit, and consulting contexts.

Eden, Grace

Image – the Engineering and Physical Sciences Research Council (EPSRC) ICT portfolio



The *Framework for Responsible Research and Innovation in ICT (FRR/ICT)*, is a UK-based project working towards the develop of a framework for responsible innovation in Information and Communication Technology (ICT) that will be co-developed with the UK ICT research community. One aspect of this framework will be a set of scaffolding questions that researchers can ask themselves as a community at different phases in the research process - from visioning and strategy development to the description of research project aims and outputs including its purposes and motivations. Another aspect will be to engage researchers and the general public in scenario development in order to clarify implicit assumptions related to the social value of ICT research. Additionally, the framework will also motivate an understanding of the general public's aspirations regarding the desirability and acceptability of the stated aims and goals of ICT research purposes and products.

This work lies at the interface between scenario practice *and* design as we grapple with approaches for recalibrating the proposed long-term visions for society developed by policymakers with the alternative pathways proposed by general publics and other stakeholders (e.g. NGOs). One goal is to facilitate discussion and debate around the materiality of ICT research outputs as they are developed into prototypes (application-oriented research). Another is to engage the ICT research community and the general public in the development of scenarios related to the conceptual, moral and social implications of novel ICTs (grand challenges & fundamental research).

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Eidinow, Esther

Designing—and Re--designing—the Future Esther Eidinow, University of Nottingham

The most fundamental of design tasks that occurs in the process of scenario creation is the implicit formation of a mental model of 'the future'. Those participating in scenario processes are likely to start with one model—which may change during their experiences. Such mental models are a composite of cognitive processes and cultural influences. Research demonstrates that our cognitive processes include both mental and bodily experiences—encompassing interaction with objects and technologies, as well as literature and art.

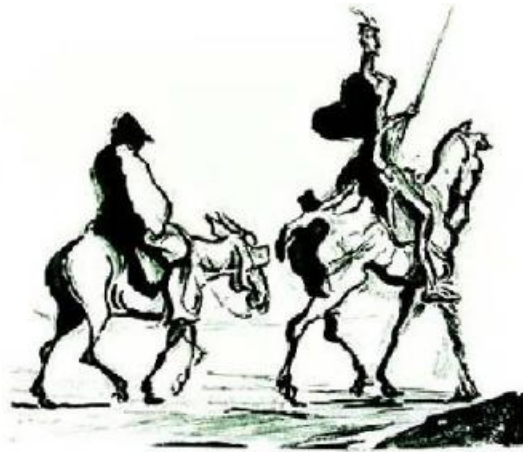
Different interactions, experiences and contexts forge different mental models of the future. For example, contrast current popular images of 'the future' as a 'place' ahead of us, a destination reached through navigation, with those found in ancient Greek literature and art, which may depict the future of individuals as comprising a process of weaving, or as the allocation of 'lots', good and bad. (The object accompanying this abstract is a colossal *astragalos* ('knucklebone') cast in bronze and dedicated to Apollo at the oracle of Didyma, Asia Minor; *astragaloï* were used to cast lots for divination.)

Drawing on these ideas, this proposal asks us to think about our mental models of the future—and their design. What are our models, how are they created, how do they differ over time and place, what shapes them—and how will they change? What role will the design of objects and processes play in reshaping our mental models of the future—and can scenario processes harness these models and use them to enhance futures thinking?

Image:

<http://www.louvre.fr/en/oeuvre---notices/weight---shape---knucklebone>

Elahi, Shirin



OFF 2014: Scenarios and Design
Scenarios, Design and Don Quixote
Shirin Elahi

Don Quixote was written four centuries ago by Miguel de Cervantes, and this Spanish novel remains one of the greatest and inspiring works of Western literature. A recent Daumier exhibition at the Royal Academy noted that for Daumier and his 19th century European contemporaries this story held special significance. The innate tensions between the visionary Don Quixote and the pragmatic Sancho Panza were a powerful metaphor for the creative process, at a time of tumultuous change, one picked up by not only Daumier, but Picasso and many other designers and creators.

Whatever the differences between scenarios and design, my thesis is that they share this same tension. In both cases, the ideals and dreams about the future confront and collide, sometimes painfully so, with the concrete realities on the ground.

When reflecting on the design or scenarios process, one has to ask what the purpose of the exercise might be. Which one is dominant? Is it the Don Quixote tilting at windmills trying to change the world, or the down to earth Sanchez who simply wants to keep going and keep the mission afloat? In terms of the output, are the scenarios or design creative flights of fancy that end up as redundant waste material or are they alternatively pedestrian affairs that simply confirm the status quo or current power and economic dynamics within the system?

Whilst there are many dimensions that will determine what is 'good' design (or scenarios) and what is 'bad' design (or scenarios), a critical factor in both cases will be how the balance is struck between the ideals and practicalities that Quixote and Sancho Panza personify. Design and scenarios are both attempts to use human creativity and inventiveness to make sense and create order in the future. The question is how they do so, and whether it is undertaken like Sanchez with feet firmly on the ground based on the current reality and what can be seen, touched or understood by everyone, or like Don Quixote, with a vision that transcends the everyday and therefore misunderstood by some, is as relevant today as it was four centuries ago.

Flinn, Joanne



Connections, Courage and Clarity

OFF2014's briefing triggered reflection. As a practitioner, I consider scenarios in light of their derivative process, their communicative stories and impact.

The questions and design prompted an integration of two different perspectives:

- My practice in the field of large scale transformation and the project-portfolio space reflected on the implications of unfolding knowledge (Theme I Iterative Discovery) and explicit and implicit intent (Theme II Purposeful).
- My experience as an artist explored of the role of design as a form of impact (Theme III Materiality), experience generation (Theme IV Human Experience) and action (Theme V Mediating/Translating)

As a contributor coming from reflective practice, I bring to the conversations conscious connections between the five themes in the practice of scenarios as a form of active engagement in change and as a form of art. Art appears in the choice of courageous conversations, and in the clarity and incisiveness sought.

As a practitioner, I would like to explore the design implications on conscious involvement of human experience distinguishing metic's logos, pathos and ethos (IV). These later two are particularly impactful for un/successful behavioral change processes (II).

As an artist, I would like to contribute conscious reflection on Scenarios as designed art both as a creative process and a creative product and explore the extent to which others have used multi-modal process in scenario development and dissemination.

Forlano, Laura

As a social scientist with a background in science and technology studies and communications and 7 years of research and teaching in a design school setting, I am primarily interested in the use of scenarios for thinking through the ethics and values at stake in complex public policy questions around emerging technologies such as digital fabrication, the 'internet of things,' wearable technology, health and medical technologies, biofabrication and cultured meat. In particular, I believe that scenarios (Wilkinson 1995) can be useful when combined with design methods such as participatory design and codesign methods (Sanders 2008), science fiction (Bell and Dourish 2007), design fiction (Bleecker 2009), critical design (Dunne 2001), critical making (Ratto 2011) and speculative design (DiSalvo 2012). In my Fall 2013 Networked Cities workshop at the Institute of Design at Illinois Institute of Technology, my graduate students successfully used scenarios to think through questions related to cultured meat. Specifically, one team designed a series of critical design artifacts about the future of cultured meat, which were displayed in an exhibit, and hosted a dinner party with experts including journalists, nutritionists, vegans and organic farmers in order to convene a conversation about the topic. Previously, I have used scenarios as part of a series of codesign workshops about the future of cities and urban technology as one way of allowing participants to think through possible future contexts, challenges and realities (see Designing Policy Toolkit image uploaded to Flickr). Finally, I used scenarios in a team project for an Interaction Design course that I took at the School of Visual Arts in Summer 2013 in order to think through the everyday use of an Internet-enabled locking system, which we prototyped as a platform to enable a sharing economy apartment rental service through the customization of a range of ambient features and amenities such as temperature and lighting as well as media and music. For me, one of the most challenging (and exciting) aspects of using scenarios at the nexus of social science and design around questions related to emerging technologies, is the need to be reflexive and critical while, at the same time, imaginative and generative.

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Fuller, Ted

Ted Fuller

Professor of Entrepreneurship and Strategic Foresight, University of Lincoln, UK and Editor in Chief of Futures Journal.

Abstract

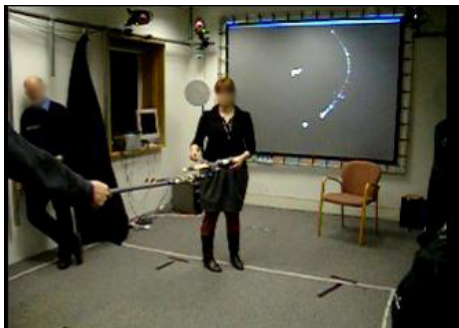
An exploration of scenarios in active anticipatory design

My research on innovation is grounded mainly in case studies of creative and entrepreneurial activity. Scenarios, in a formalised cognitive sense, have little part in explaining the emergence and stabilisation of innovations; as artefacts, routines, models of practice etc. Innovation involves anticipatory design. Can the anticipatory design processes observed in innovation practice inform the design of scenarios and can those scenarios assist anticipatory design?

Practices of innovation utilise experimentation (including thought experiments) [Cf iterative discovery], sensing of differences [mediating], actions and responses [human experiences], the formation of concepts and identities [translating] and alternative organising routines [purposeful].

How then can scenarios, as socially constructed shared (alternative) narratives can help shape, assess and anticipate the value of emerging designed innovations. The paper first addresses how (the design of) processes for creating scenarios can mimic observed processes of innovation; where alternative contexts (as created scenarios) produce different outcomes. Secondly, the paper considers the [material and embodied] emergent or anticipated innovation in context. In this case scenarios are narratives explaining alternative possible relationships between strata (agents/artefacts/structures); requiring multi-layered perspectives.

The intersections of such scenario with design are considered in terms of opposing roles; i.e. when design intent is to destabilise existing structures (scenarios of new relationships) and when scenarios help re-stabilise alternative practices to become structural (scenarios of alternative value creation). This particular view of the creative design of innovation is informed both by social constructionist and critical realist (dispositional realism) perspectives.



The illustration is still from video made during a small EPSRC project that was concerned with the emergence of novelty and the creation of value from the interactions between computer scientists and artists (visual and music) through the application of motion capture systems. Some related publications are listed below.

Relevant publications

- De Smedt, P., Borch, K., & Fuller, T. (2013). Future scenarios to inspire innovation. *Technological Forecasting and Social Change*, 80(3), 432-443.
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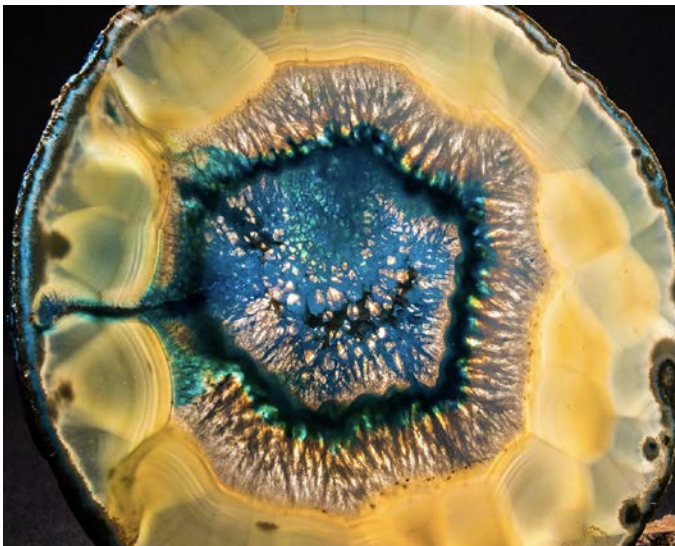
Gano, Gretchen

Gretchen Gano
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Confronting the Future Pseudomorph: Materiality and Embodiment in Scenario Planning and Design

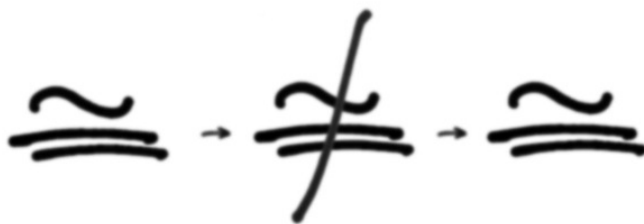
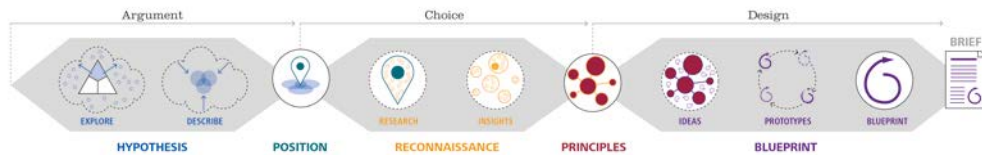
A rock may retain its structure after certain elements have been leached out of it and been replaced by an entirely different kind of material. Since the apparent structure of the old rock remains, the new product is termed a pseudomorph. A similar metamorphosis is possible in culture: new forces, activities, institutions, instead of crystalizing independently into their own appropriate forms, may creep into the structure of an existing civilization (Mumford 1963, 265). Cultural pseudomorphism as a concern and a constraint on innovation poses a challenge for both designers and scenario planners who view their craft as a way to probe entrenched ideas and contexts by facilitating a process for envisioning alternative futures. I argue that cultural pseudomorphism as diagnosed by architectural and technology critic Lewis Mumford, a term derived geology meaning “false form,” is an under theorized factor that impacts both the terms for decision making and the framework for analyzing the efficacy of a given scenario or design. Do scenario processes intended to transform produce merely a future pseudomorph where the shape of a future that appears to be novel in fact clings to legacy contexts and ideas? Does the use of props, narratives, images and material objects in design and scenario processes alleviate or accentuate conditions that lead participants to envision futures with pseudomorphic qualities? I will explore this question by analyzing how material and experiential devices in scenario work contribute to the production of future narratives. My research in critical technology studies on the nature of collective capacities as intertwined and constrained by technological systems will inform how I theorize design and scenario work. This work will evolve my practice as an organizer of participatory technology assessment

Mumford, Lewis. 1963. *Technics and Civilization*. Harcourt Brace Jovanovich. 4th Oxford Futures Forum: May 30 and 31, 2014 *Scenarios and Design*



An agate with pseudomorphic inclusions

Gatti, Luca



Our paper explores the integration of design thinking and scenario thinking as key to effective management of strategic risk, an area of growing concern in large organisations, most evidently in financial institutions.

Strategic risk presents a definitional and practical problem of real importance to key decision makers, regulators, practitioners and researchers. Over the last years we have developed and implemented a conceptual framework that integrates representations of the future, a systemic approach to understanding an organisation and its business identity, and a design based process for building options to manage the strategic risks identified and articulated in the process.

Our framework draws on the disciplines of scenario thinking, applied to the representation of the future in terms of a rich array of meaningful and socialised images of future states of the context, and of design thinking, applied to the material creation of experiential strategic learning positions. The combination of futures and design thinking and its application in organisational settings builds dynamic organisational and leadership capabilities with which to manage uncertainty and entrepreneurially leverage its implications, leading to robust arguments for Strategic Innovation. We will review concepts, processes, resources and outcomes.

We articulate in conclusion design principles for developing a dynamic visual and interactive decision making system that supports Strategic Innovation to manage Strategic Risk: it structures strategic conversations and resolutions informed by a systemic representation of future problems, represents solutions being designed, captures and leverages qualitative judgement, and ultimately empowers key decision makers to address critical strategic uncertainties.

[250 words]
Alain Wouters & Luca Gatti

Gentzel, Todd

Making the Future: Explorations at the Intersection of Design and Materials Science

With so little of modern existence beyond the reach of design, it is reasonable for scenario planners to look to the discipline and its use of specialised materials as primary drivers of plausible futures.

While every designer brings a unique perspective to the work, formal training and experience yields common practice. Constrained by the laws of physics, geometry and the limitations of currently available materials, designers attempt to exploit the opportunities available to them in ways that can be observed and generally anticipated over time. As new materials are developed and introduced, designers leverage the properties of the mediums and adjust their mental models and professional practices accordingly.

In many ways, the relationship between design and materials science is fundamental to the story of human progress. As increasingly sophisticated materials are introduced, designers respond with solutions that take advantage of the unique opportunities those materials provide.

Today, we find ourselves at the dawn of a new age in materials science. Staggering increases in computational power, coupled with major advances in quantum mechanics, have made high-throughput computational materials design a reality (2013, Ceder and Persson). The result of this greatly increased capacity for research and development will inevitably have a profound impact on the future.

As scenario planners, it is important that we acknowledge the fundamental importance of materials science and its impact on design processes. Key inquiries relate to the nature of the materials being developed, the likely application of those materials and the potential impact of downstream technologies.

A few of the more interesting questions being surfaced at the intersection of materials science and design include:

How will architects use shape memory alloys (SMAs) and fluoropolymers to reshape the physical environments which we live and work?!

How will advances in permeable surface technologies improve water reclamation and conservation efforts in urban environments?!

How will mechanical engineers use phononic crystal technology to manage wave propagation in metal components and improve the safety and performance of bridges and industrial plants?!

How will design engineers use lightweight rigid alloys in airplanes and motor vehicles to improve fuel efficiency and decrease emissions?!

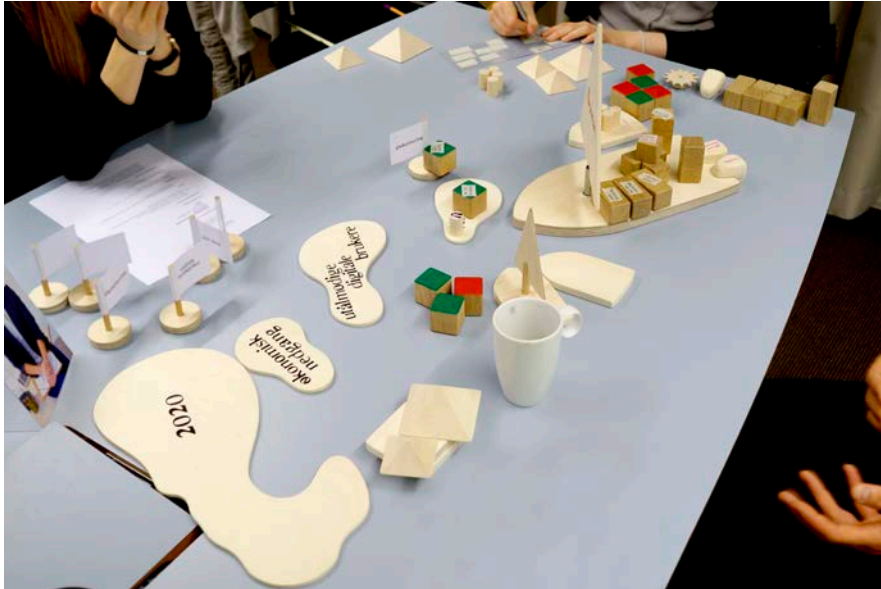
How will chemical engineers use synthetic cell technology to develop clean energy alternatives?!

How will biomechanical engineers use carbon nanotubes (CNTs) to improve delivery of advanced therapeutics?!



in

Grönquist, Daniel



Scenarios and service design capabilities for service innovation

Daniel Grönquist ^c, Annita Fjuk ^{b,a}, Berit Lindquister ^a

^c Principal, Bekk Mgmt Consulting and research partner, Center for Service Innovation/NHH. (Invited and attending OFF.)

^{b,a} Program Director, Telenor Group and Center for Service Innovation/NHH

^a Researcher and Teacher Service Design, School of Architecture and Design, Oslo and research partner, Center for Service Innovation/NHH

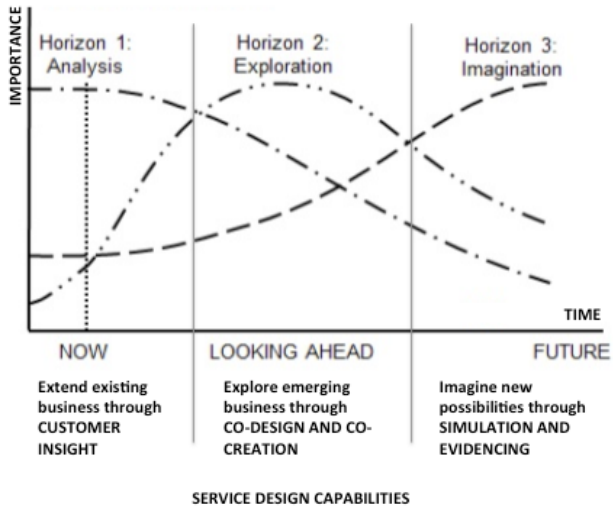
“... to innovate successfully one must develop an idea about what people will value in the future, visualize possible propositions and engage in a debate with users and stakeholders. Collaboration between the different disciplines both in and outside the company is key in this process.”

Paul Gardien, Head of Design & Innovation, Philips.

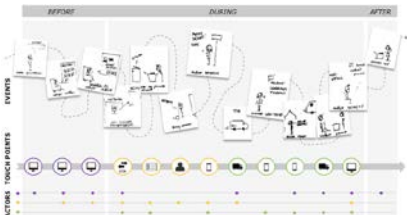
Service innovation is foremost a process of re---framing the view a firm has of its customers, from consumers of products and services to co---creators of value and experiences, requiring a transformation of business logic and design of services that fit with the customers' value creating process and experience expectations (Normann 2001).

Our on-going research (Customer Care 2015) studies how capabilities for customer centric scenario thinking, i.e. exploration of plausible future contexts of customers, and service design thinking, i.e. giving shape and form to service concepts as a way of exploring them, support such transformation by helping service providers sense the environment, seize opportunities and reconfigure shape and resources (Teece 2007; Ramirez, Österman, Grönquist 2013, Clatworthy 2014).

Building on the Three Horizons framework (Curry, Hodgson 2008) our research suggests different service design capabilities are required for service innovation in the different horizons. Furthermore, managerial attention to all three horizons simultaneously is key for these capabilities to develop and co---exist.



Examples



Horizon1: Analysis of customer interactions and journeys – deepening customer insight (Bekk/Bring)



Horizon2: Exploring the future by engaging with it – co---design and co---creation (CC2015/AHO)



Horizon3: Purposeful evidencing – imagining new possibilities (Telenor Visual Self Service)

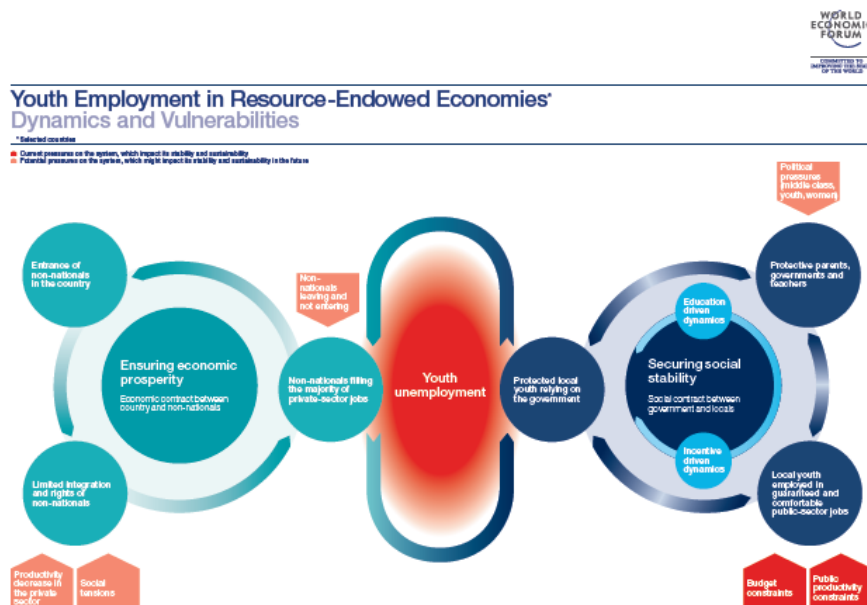
Future research and input to OFF 2014 discussion topics

- *Designing for flexibility --- the capability of holding multiple or even contradictory meanings or views simultaneously*

- *Service design capabilities and cognitive aspects of sensing*
- *Evidencing as a process – using scenario unfolding analysis for continuous explorative evidencing and prototyping*

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Fourth Oxford Futures Forum (OFF 2014)

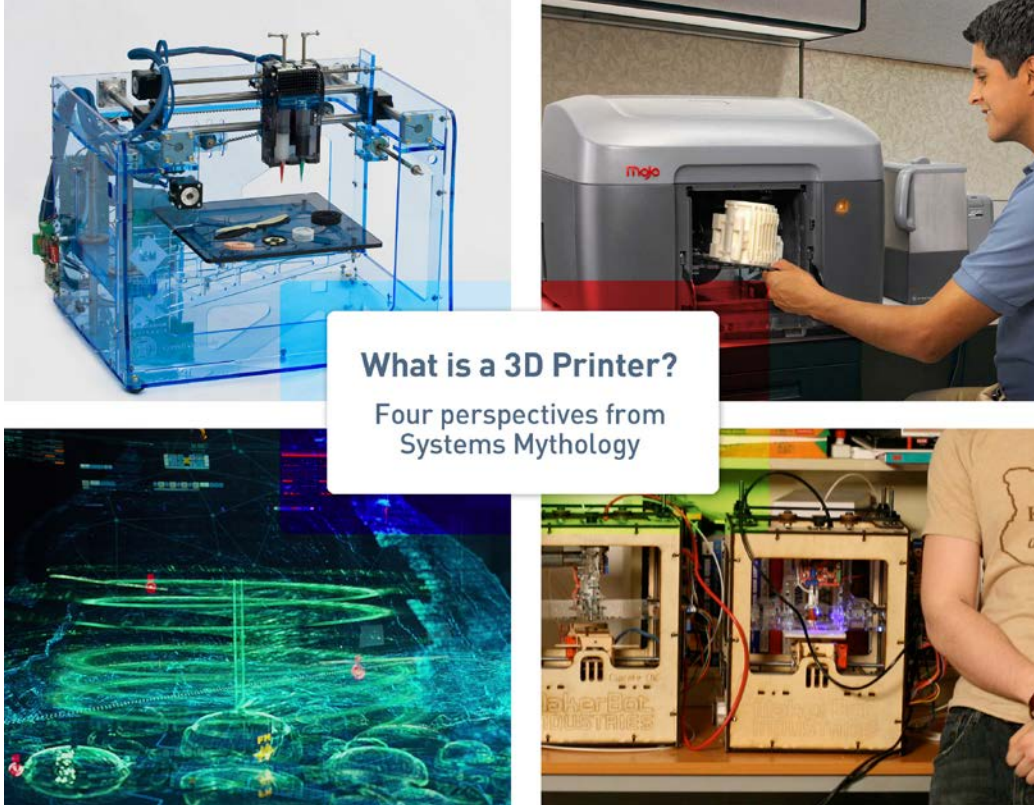
I would like to contribute our experience in combining systems thinking, scenarios and graphic design. Design can be the bridge between analysis and action if it communicates results of an analysis in a way that allows decision makers to capture its essence.

Design can be leveraged for complex issues that require decisions of a number of leaders who in turn have to convince those who legitimate their leadership. Design can be the beautiful simplification of complex issues without compromising their depth.

We used system thinking to understand the complex issue of youth unemployment in resource-endowed economies. Stakeholders seem to be aligned on what needs to be done, yet implementation is slow. The understanding of underlying system dynamics helps to unlock the impediments to implementation. Designing this understanding provides a framework to test the alignment on the problem among decision makers as well as the effectiveness of policy interventions, within a limited timeframe. Scenarios come into play to test the sustainability of policy interventions in the context of possible futures and are represented in the pressures that surround system dynamics.

Powerful design helps capturing knowledge in a way that makes it accessible to decision makers with limited attention spans. In addition, it inspires people's mind to develop new ideas. Thus, design is a tool to frame and structure discussions about policy interventions. The challenge lies in making it simple enough to work with, yet comprehensive enough to capture the most important causalities. It forces the thinker to focus on the essence.

Hendricks, Dylan

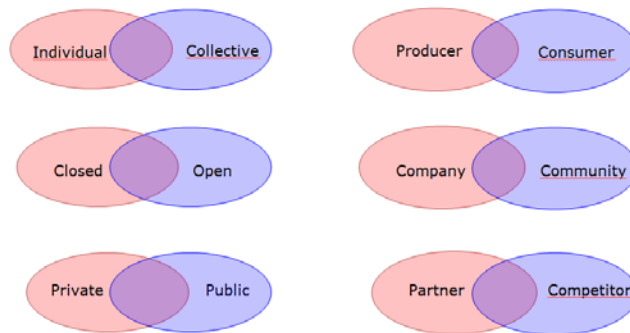


Systems mythology is a conceptual design schema and futures scenario methodology that confronts how a system “feels” when a human interacts with it. It borrows from the language of systems thinking, with a core emphasis on the non-intellectual, intuitive relationship formed through the feedback loops of interaction. From this perspective, systems mythology addresses the biases that we introduce to the design of any system, and provides clear handles for understanding how those biases inform our implicit understanding of how a system works, what it’s for, and what it ultimately “means” in the context of our lives.

Systems mythology is divided into four conceptual categories, identified by the colours red, green, blue and purple. Colours are used to convey the non-hierarchical and value neutral distinctions between the categories, while still providing a clear shorthand for referring to those distinctions.

The easiest way to understand the four categories is through a “calibration”, where multiple images from each system ‘colour’ are presented in sequence, creating a strong semantic relationship between the colour categories and the systems that manifest those ‘colours’. The first and second order consequence of a system having one ‘colour’ or another are suggested through this process. As a framework, systems mythology also deconstructs the feedback loops that define our relationships with systems, distinguishing between those that do or do not suggest an end condition for the relationship, and those that refer to a bounded or unbounded system. In combination, these attributes can be used to determine a system’s ‘colour’.

Hesseldahl, Peter



Hybrid Zones: It is crucial not to think of the future in terms of absolute changes. Rather, the reality will tend to be a messy mix of old and new paradigms. The fascinating and fertile parts to study are the expanding hybrid zones: this is where the new rules are written, and where consequences are visible for real.

Submission for the Oxford Future Forum 2014

Peter Hesseldahl,
Denmark
Personal website: <http://www.nynatur.dk>
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I am not a scholar, I am practioner, and my interest is to find or develop effective tools, that produce better designs and strategic decisions.

I have facilitated scenario-building since the mid-nineties, for a long list of companies and public institutions. I have worked as in-house futurist in LEGO and in Danfoss, two of the largest Danish companies. My current work, in the Danish think tank The Universe Foundation, is to identify and examine better approaches to innovation.

I have written several books on futures thinking (published in Danish, but available in English online):

- "[Snapshots from the future](#)" – popularized scenarios illustrated by a cartoonist
- "[Ground rules for the 21st. century](#)", a comprehensive analysis of the main drivers in the future economy.

My method is typically the classic GBN method of identifying trends and uncertainties, creating a matrix and exploring the circumstances in each of the quadrants.

However, I have created a few additional elements to the method over the years, which I would like to develop further – among them:

- *Hybrid zones*, areas where old and new paradigms blend (see image)
- *Snapshots* are very brief orientations from external experts or from one of the participants.
- The "*insights and action*" sheet is filled out by participant during the stages of scenario building to generate concrete action points.
- The "*Wish list*" identifies resources, decisions and support from key players, that would promote the preferred scenario.

My current interest is in honing the later parts of process; transforming the insights from the scenario process into actions and change.

It seems that Oxford Future Forum's focus this year on the design process could lead to some very useful new tools in this respect.

Hichert, Tanja

Integrating scenarios and design to produce interventions which build resilience and equity for Nairobi's informal sector.

The Nairobi Informal City 2040 Challenge¹ workshops set out to purposefully combine scenario and design principles, tools and techniques in order to cultivate resiliency and inclusivity for the urban poor. Both the scenario and innovation (idea generation and intervention design) workshops were characterised by being:

- Highly participative, experiential, immersive and emotional: All participants, many of whom lived and worked in Nairobi's slums, built scenarios, creatively depicted alternative futures (skits, drawing, music) and engaged around what is understood by 'innovation', 'resilience' and 'inclusivity'. Thereafter all participants generated ideas and materially co-created interventions which, over time, could help their city become one that expands opportunity, and where individuals, families and communities are more resilient to the changes and uncertainties identified in the alternative futures.
- Human-centred, engaging and culturally relevant: By, amongst others, using the VERGE (ethnographic futures) framework, which focuses on people and society (in this case around the intersection of the formal and informal in Nairobi's alternative futures).
- Nuanced and contextually empowering: Participants portrayed futures, and prototyped interventions that were neither idealistic and over-optimistic nor deterministic, but rather rooted in local knowledge and building on local strengths.

The intersection of scenario planning and design ultimately produced more *relevant* innovation activity, resulting in interventions (depicted as visualisations and artefacts) that were at the same time feasible, adaptable, contextual, robust and 'future-proof'.

From a practitioner's perspective value can be added by sharing experience about;

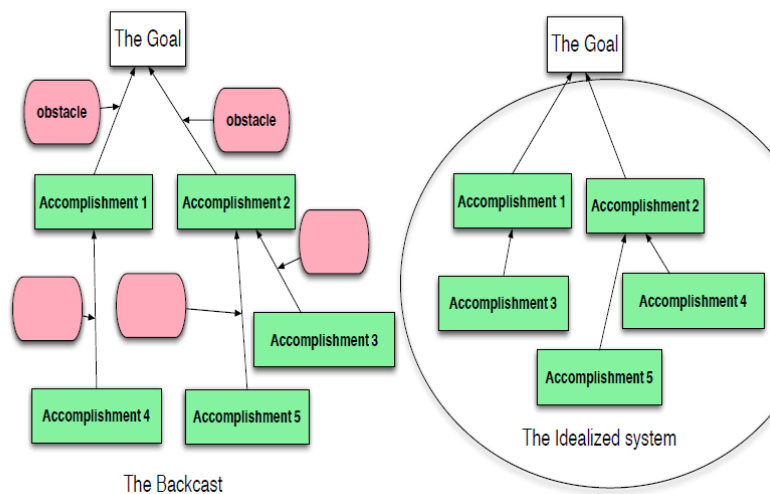
- 1) the application of scenario and design approaches that help local (poor) people with local knowledge deal with complex problems, and
- 2) how experimental and exploratory approaches to integrating scenarios and design in a workshop process can contribute to improving lives and promoting social good – especially in a non-Western milieu.

¹ During 2013 scenario and innovation workshops took place in six Global South cities: Accra, Bangkok, Chennai, Lima, Manila and Nairobi as part of the '*Informal Cities Dialogues: The 2040 Challenge*' project, which set out to foster a conversation about the informal urban realm, and how it can be cultivated and harnessed for the benefit of all. One innovation was selected in each city to be further refined and brought to life through funding from the Rockefeller Foundation's City Innovation Grants.

Hirschhorn, Larry

Backcasting helps people design systems that enable them to reach and sustain a goal. Its merits can be understood by comparing it to what Ackoff called "idealized design." The latter stimulates people to envision an alternate reality without regard to constraints. It therefore frees up the imagination. The strength of idealized design is its weakness. It can be difficult to imagine how the ideal can be implemented in the face of constraints that have been ignored.

Backcasting integrates these two dimensions, enabling the user to envision an ideal system while suggesting how constraints can be overcome. It does this by stimulating thinking both about obstacles and the accomplishments that overcome them. The accomplishments require creative thinking for their explication. When considered as a set, they become the ideal conditions for sustaining the desired goal. This feature of backcasting is frequently unrecognized because people confuse a project plan with a backcast. In the former, steps along the way to the goal become irrelevant once they are achieved. In the latter, accomplishments are forever relevant because they enable users to sustain the goal.

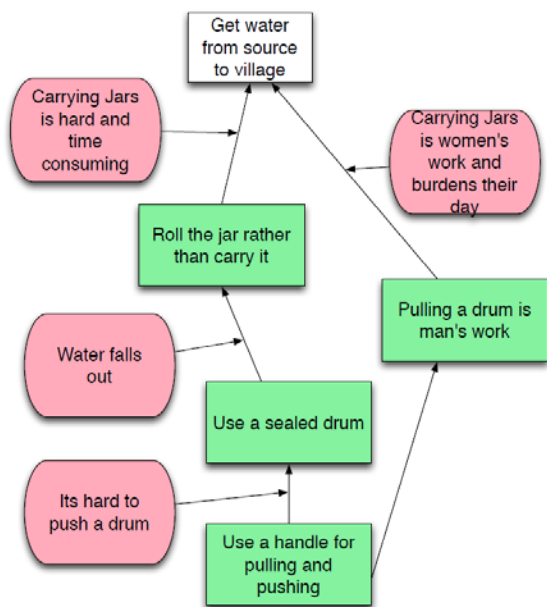


Backcasting can in fact be seen as a logical transform of product design. In product design, the obstacles are the contextual factors that condition use -----the constraints----- while the accomplishments are the product's features. The features' interdependence constitutes the product as an integrated system.

The problem



A Solution



It is worth exploring if and how backcasting can be used as meta-method for designing both the social and technical dimensions of a human system.

Hoffmann, Jonas



Abstract

I have explored in my research and practice two challenges in design:

- Anticipating not just possible uses but usage potential, that is, how the new artefact makes sense for the user (or community of users) regarding knowledge, practices, social identity and l'air du temps (Hoffmann, 2007). This is central in the complex exercise of social construction characterizing the diffusion of innovations, like decoupling wealth creation from resource consumption (Sempels and Hoffmann, 2013).
- Being the carrier and enabler to build marketplace myths and cultural innovations. Iconic brands are indeed a result of a meaningful design (including ambivalences and oppositions) that fit with a certain historical context (Holt, 2004). Holt and Cameron (2010) propose that identifying "social disruptions" is a central step in building a cultural innovation and its consequent myths and cultural codes. Storytelling is central here as it is in scenarios. Although scenarios are fundamental to identify forces leading to social disruption, they have not been explored in this research stream.

Scenarios enlighten these challenges by rendering explicit and examinable assumptions and worldviews. Related to Inyadula (2009) study of myths in scenario making, one path for further research is the role of marketplace myths and cultural codes in conceiving scenarios. For instance, as much as individuals build their identities using marketplace artefacts, to which extent marketplace myths can inform or bias the construction of alternative futures? What is the influence of institutional settings and, furthermore, how institutional theory can inform the intersection of design and scenarios?

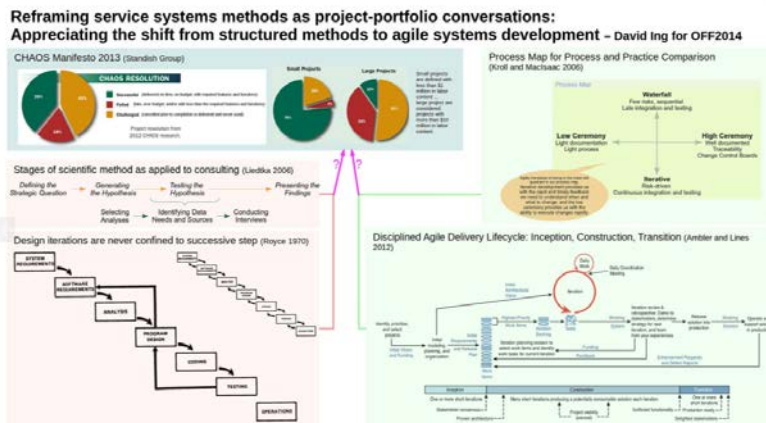
Picture of ArNano (attached)

A product the consulting company I collaborate has helped to develop. It is a laser lithography for micro etching thin film on sapphire disks pieces (flat pieces of any size from 10 mm to 200 mm) to archive documents and make micro-decoration (more on arnano.fr) that can last for more than a 1000 years. It has taken several iterative design cycles to find these two applications for this nanotechnology. Interestingly, this is a technology that can last for a long future to archive the present and the past. Future, past, present, the crane (Normann, 2001); it seems to me a good metaphor for the intersection between scenarios and design.

Short bio

I am Associate Professor at SKEMA Business School and Innovation Consultant at Ixiade (ixiade.com). I have been researching and consulting for the last 10 years on "usage-driven" design and innovation collaborating with designers, sociologists, anthropologists and strategists in international projects. Related to the OFF 2014 topic, I have co-authored the book "Sustainable Innovation Strategy" (2013, Palgrave-Macmillan) and co-edited the book "L'Innovation par les Usages" (*in press*).

Ing, David



David Ing -- Service systems thinking with evolving design and scenario practices

Service systems thinking aims to progress the transdisciplinary perspective on service science, service management, service engineering and service design (often abbreviated as SSMD) with systems thinking (e.g. the socio-psychological, socio-technical and socio-ecological systems perspectives). The style of this approach is to appreciate both concrete practices with a long-standing tradition and emerging practices enabled with new technologies through a systemic frame.

Scenario artifacts and design activities are at the centre of many service systems development domains. Focusing on software development, failures are statistically high: only 39% of projects succeed (i.e. on time, on budget, with required features and functions), 43% of projects are challenged (i.e. late, over budget and/or with less than required features and functions); and 18% of projects fail (i.e. cancelled prior to completion or delivered and never used), according to the Standish Group Chaos Manifesto 2013.

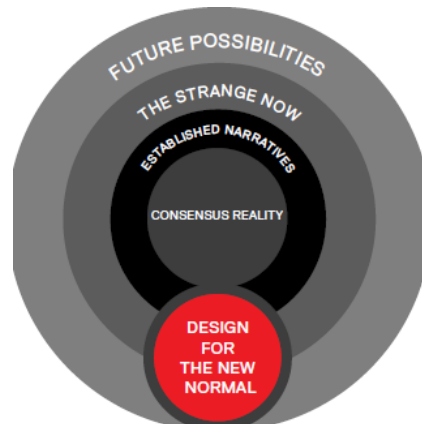
The contrast between the success of 76% for small projects (with less than \$1M in labour content) contrasts the success of only 10% for large projects (with more than \$10M in labour content). The conventional way that that scenarios and design are done can now be contrasted.

Large projects have traditionally followed a structured (viz. waterfall) process with high ceremony. Scenarios are developed only in the initiation phase, and design occurs after analysis and before construction. Small projects now follow an iterative process with low ceremony, known as agile. Scenarios have evolved to become user stories where periodic conversations are preferred over exhaustive documentation, and design evolves through participation in iteration reviews where in-progress deliverables are gradually refined rather than being graded against a written specification.

To scale up agile practices, methods such as Disciplined Agile Delivery have recently been formalized. However, the core practices in scenario and design activities remain intact, in the preparation of user stories, agile estimating and agile planning.

Jain, Anab

superflux



Applicant: Anab Jain

Role: Designer, Director Superflux, London. www.superflux.in

As 2013 came to a close, Google acquired Boston Dynamics, the makers of large scale autonomous robots like the 'Wild Cat' and Big Dog', Edward Snowden continued to reveal the mass surveillance strategies of the NSA, India set off on a Mars Mission, China landed on the Moon, extreme weather events brought turmoil around the globe as climate change denial grew even stronger.

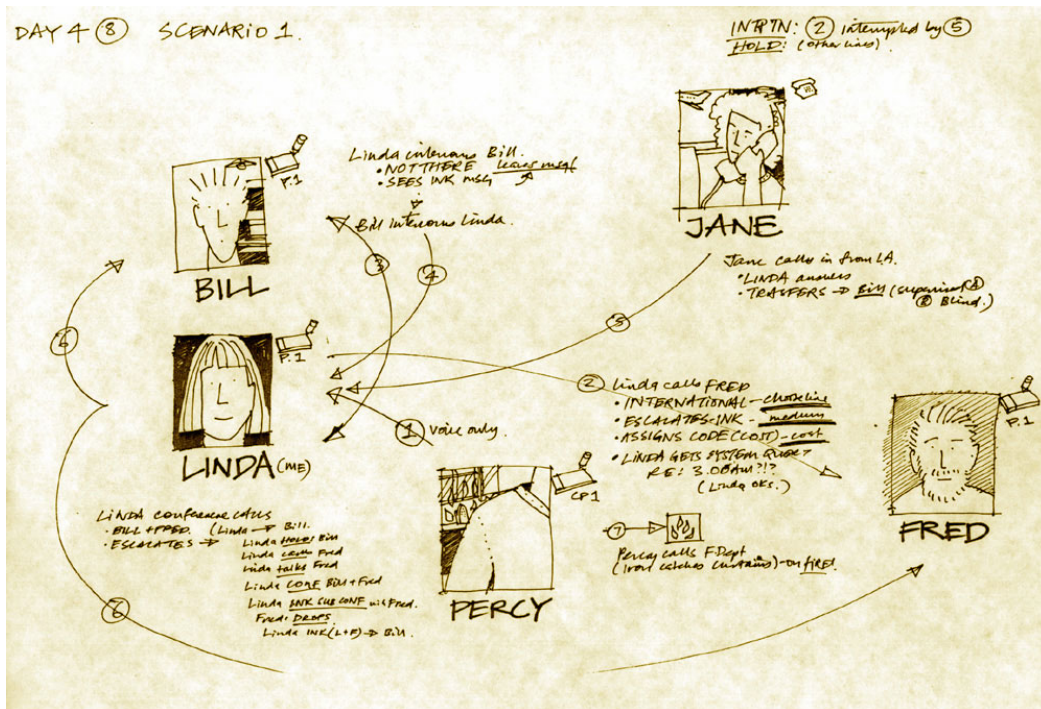
Whilst this sort of convergence of the weird and uncanny has historic precedents, the power of the network has created a certain kind of superdensity which is unsurpassed. We are living in conditions where the social, technological, economic, political and environmental conditions we had previously taken for granted no longer seem to pertain. This state of cultural turbulence, technological acceleration and increasing complexity is something me and my team of designers explore at our studio Superflux. As designers creating experiences and interactions around emerging technologies for a range of clients and commissioners, we find ourselves constantly questioning the consequences of the technological promises, and considering its wider implications.

Our work aims to cut through established narratives about the present and the future, often using stories, cautionary tales, super fictions, scenarios and artefacts to engage with the breadth of, often exciting, yet unsettling possibilities that lie ahead of us. We believe design-led futures work of this kind can create new perspectives, to consider alternate presents and imagine future possibilities. We work with the conscious intention not shy away from complexity, but instead embrace it, in order create tools which allow a view beyond the seductive simplifications of media hype and political slogans. To look past personal prejudices and see the fully spectrum possibilities inherent within a technology. Ultimately seeking to understand, and convey, the nature of 'future', not to try and predict future events but to understand something of its materiality.

This is the perspective I would like to bring to the Oxford Futures Forum. It is not meant to be a strict ideology, but a loose framework for critical thinking and action.

Image is a slide I created for a conference talk titled "[Design for the New Normal](#)".

Joe, Phillip



Has digital changed scenario planning or design?

Research into how scenario planning and design differ, are similar, or overlap, is a common academic and professional theme. There is discussion on common techniques, divergent viewpoints and merged focus areas. But how much have the 'raw material' or inputs to both of these fields changed, and if so, if it has any significant impact? If it has, then what is it? And how might it adjust our thinking about both or either area?

Professionally, I started out as an industrial designer – but for the vast majority of my professional practice I have designed software. As software designers, we were interested in more than the 'aesthetic instant' of when you first saw a product, and we used storyboard user scenarios to manage the creative process of this 'intangible' experience. Almost immediately, our industrial design colleagues also included 'stories and 'users' in their creative dialogue.

These days, working as a design consultant of a large product and service 'manufacturer', I work with businesses that are all concerned with their 'digital' futures. And if things like 'big data' can offer a computing tool for 'what if' scenarios, or if hyper-connectivity (between customers and businesses, or within public communities) is going to be a business threat or opportunity. If crowd-sourced opinion, products or political movements are all necessary considerations in plotting future scenarios. Do we have to adjust our scenario and design tools, techniques and thinking to lend more accuracy or impact?

Kasprzak, Michelle

The obsession with innovation is at an all-time peak. The Dutch government has set a target of being “one of the world's top five knowledge economies” by 2020 (Verhagen 2011, p. 15). The creative industries (design, architecture, fine art) are being increasingly called upon to also contribute to this agenda by grouping them with sectors more traditionally associated with innovation such as high-tech and healthcare. (Verhagen 2011, p. 5).

Through research and production at V2_Lab in Rotterdam, myself and my collaborator Boris Debackere have been responding to this innovation agenda by leading expert meetings on the subject of what we term “innovation in extreme scenarios”, and commissioning designers to create new works based on this premise. We were inspired by both the Dutch innovation agenda and truly innovative, but sometimes eccentric, concepts generated under pressure. Our primary historical source of inspiration was the World War II story of Churchill, operating in the extreme scenario of war, commissioning the creation of a prototype aircraft carrier made of a special kind of ice which could withstand bullets in order to combat German U-boats.

In presenting this ongoing research project at V2_, I wish to highlight the methodologies by which we work with designers who produce works reflecting on extreme scenarios such as the nascent field of space law and the economics of harvesting valuable materials from outer space (Image: new work by Ilona Gaynor, *Paper Moon*, commissioned in 2013), and our methods for engaging in scenario-based practice to generate reflection with our peer organisations who work in the fields of art, design, and media in our expert meetings.

Citations:

Verhagen, M. (2011) *To the Top: Towards a New Enterprise Policy*. Retrieved from: <http://www.government.nl/ministries/ez/documents-and-publications/parliamentary-documents/2011/02/04/to-the-top-towards-a-new-enterprise-policy.html>

Kelliher, Aisling

Everyday Open Design Futures Dr. Aisling Kelliher Research through design is an emerging field of inquiry that uses methods and processes from design practice in tackling ill-defined *wicked* problems, such as sustainability or social justice [4, 5]. Within this context, multidisciplinary teams use reflective design practices in conceiving and developing products, systems, and services addressing preferable alternative futures. Noteworthy design approaches encountered here include *ludic design*, *critical design*, *ambiguous design* and *design fiction* [1, 3]. The primary outcomes of this type of work aim to embody and embed futures thinking in the material and networked world of everyday experience.

Typically, these projects are encountered and discussed either within the relatively privileged walls of academia or at exhibitions in galleries and museums [2]. This affords a particular type of audience, but the opportunity surely exists to extend the reach and impact of futures focused design to include and embrace additional stakeholders. At the level of futures participation, this could mean involving diverse constituents (e.g. children, undocumented immigrants) in the co-design of speculative scenarios and artifacts, or investigating new environments for encountering the work, such as in the home or on social media platforms. As an extension of design practice, this invites experimentation with democratizing activities and platforms such as DIY, Instructables, Maker culture, and the fledgling Open Design movement.

For the Forum, I am interested in sharing insights gleaned both from the field of research through design and from my own work making, researching and teaching speculative design. The intent is to craft an exploratory space for Forum participants to contribute and expand the reference, practice and participant domains of design futures

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Kera, Denisa

Design and Scenarios in Hardware Hackathons: Prototypes as Precedents rather than Props

I will use a case study of the global "[BioStrike](#)" hackathon on open antibiotics discovery to address the fifth, mediating and translating function of the intersection between design and scenarios based on boundary objects and contradictions (Selin 2006) surrounding complex, contested and uncertain futures. I follow various formats of collective tinkering, such as community hackathons or global, group to group challenges and interactions, which use scenarios and design prototypes to address such liminal futures. The tools of future-making, such as stories, artefacts, sketches, simulations, models, prototypes etc. help us imagine, discuss, assess, prepare for, and even co-create futures while involving various actors and stakeholders in the process. Ideally they lead to negotiations of expectations and goals or even policy decisions based on simulations and deliberations. My thesis is that the narrative, visual, performative, but also material practices and artefacts in both scenarios and design are means of experimental rather than purely deliberative future making. Hackathons and similar global prototyping efforts around hackerspaces and makerspaces have an infrastructure to support such experimental rather than purely deliberative approach to policy through design and scenarios. These global prototypes are not only tools of correcting decision-making biases (Schoemaker 1993) or learning (de Geus 1988; van der Heijden 2005) etc., but means of experimenting and testing futures by using the tools and living with them. In this sense, the collective prototyping efforts are "future precedents" more than policy props, and they open a possibility of experimental politics based on prototypes. I will address the issue of scale and size of collective prototyping efforts and analyse other important factors in group prototyping, such as diversity, geographic and geopolitical aspects related to actors and stakeholders, time scale etc. "BioStrike" as an example of such global prototyping game and citizen science project is trying to introduce a precedent in open drug discovery of antibiotics based on crowdsourcing soil samples from around the world and supporting open licences for drug discovery. It is a design prototype, but also a scenario for post-antibiotics future, where the governments support citizen science organizations rather than big pharma in discovering new antibiotics. Can BioStrike global hackathon and citizen science effort restore broken stakeholders' relations and offer a new design, but also narrative on the relations between policy, industry and licences surrounding drug discovery? The research into hardware hackathons as a format and method connecting design and scenarios is part of larger effort of mapping the territory between present open hardware, prototyping tools, expiring patents and emergent patents, where OSHW can be used for more "lean" and adaptive translational research and experimental policy.

Klimczuk, Stephen

REVISED ABSTRACT SUBMISSION - A.T. KEARNEY GLOBAL BUSINESS POLICY COUNCIL, WASHINGTON, DC (28 Feb 2014)

Submitted by Stephen Klimczuk-Massion, Senior Adviser & Fellow, A.T. Kearney Global Business Policy Council

CORPORATE SCENARIOS, DESIGN AND THE IDEA OF 'GESAMTKUNSTWERK'

The German word 'Gesamtkunstwerk' ('total work of art') originated in music in the 19th Century, but is best known today for its use, since the 20th century, in connection with architecture. It represents the ideal of design coherence in every aspect of a building or house, with the complete integration of design, materials, landscaping and craftsmanship, from the exterior to the light fittings and furniture down to the last carefully-designed coffee spoon.

In reference to the scoping paper, this concept links closely to what is called 'Materiality & Embodiment.'

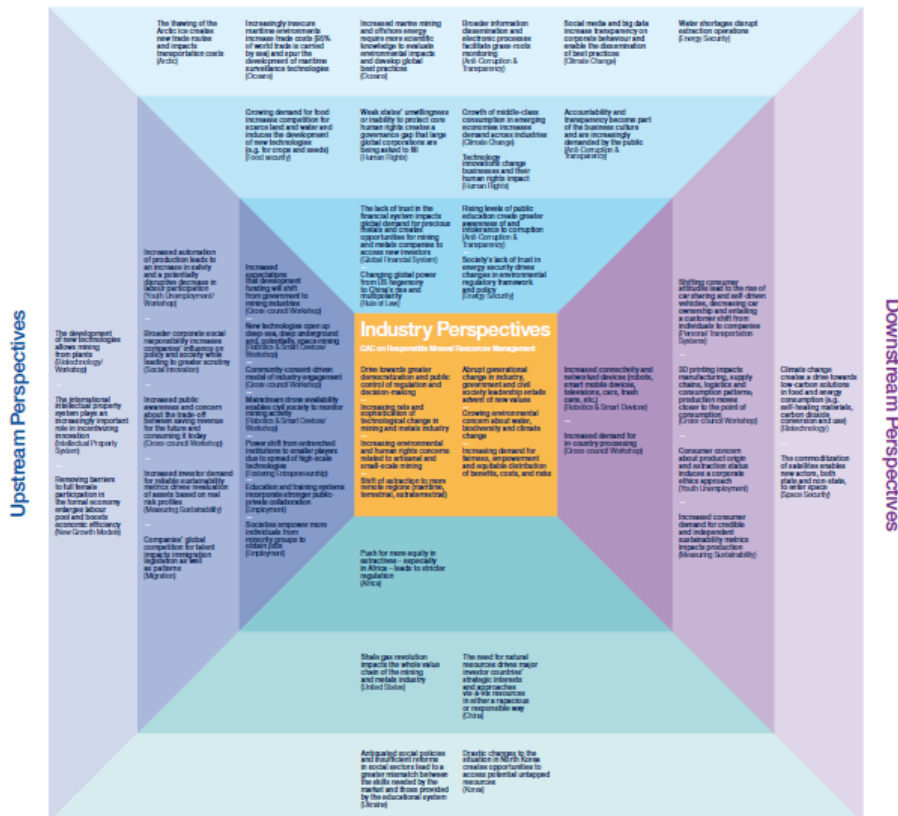
Today in the corporate sphere, this idea (if not the expression) has emerged as a necessary ideal to be strived for: that a company's strategy, corporate identity, product design, branding, service execution, internal culture, operations, external relationships, recruiting, philanthropy and much else should be in self-reinforcing harmony and fit together convincingly. Dissonance is easier to spot thanks to the Internet and social media, and consumers and stakeholders have become less tolerant of companies that say one thing and do another. Companies lacking design coherence (in this sense) are at risk commercially and reputationally.

Though there is little evidence that companies are today using scenario planning to challenge assumptions about overall corporate coherence under different possible future contexts, one can argue that scenarios have a valuable role to play in helping companies raise uncomfortable questions about their unspoken or even explicitly planned views about how their interlinked corporate identity, branding, culture, strategy, product design and other dimensions might function (or not) under different future business environments. In reference to the scoping paper, a company's vision of overall corporate 'design' coherence for the future needs to be tested by 'rehearsing alternative futures.'

Image: Volkswagen's Autostadt in Wolfsburg, Germany - a Gesamtkunstwerk integration of automotive factory, futuristic tower-silo new car storage, customer centre, museum, luxury hotel, public art and, more generally, a total VW brand experience.

Mining and Metals Transformations from the Summit on the Global Agenda 2013

Global Perspectives



Transformation maps: the intersection of design and building inductive scenarios

The World Economic Forum is exploring the use of transformation maps to render an understanding of emerging changes across multiple jurisdictions – industry, public sector, issue areas. Although the design of these maps and the data architecture on which they are to be based are in the very early stages of development, in this submission I would like to discuss their promise for providing another method for developing inductive scenarios.

Scenarios are developed using either deductive or inductive methods (van der Heijden 2005). Deductive methods start with the development of a framework that is relevant to the purpose of the intervention and then the scenario narratives are fleshed out based on this framework. Inductive methods conversely start with rendering the important scenario narratives for the purpose of the intervention and then a framework is developed which allows the scenarios to be compared and communicated. Developing scenarios inductively is advantageous in contexts where there are multiple perspectives to be incorporated or the telling of stories rather than analytical judgement is the preferred method of exploration. However, inductive methods can be more challenging because of working with less structured inputs.

In the tradition of design science which Simon (as cited in Jelinek 2008:318) argues can “overcome the isolation of specialists by providing a common ground for bringing our diverse interests together in a search for more desirable states of (organizational affairs)” the Strategic Foresight Team designed a process for bringing together the insights of the Forum's 86 Global Agenda Council's, structuring these in maps and designing a workshop which enabled participants to explore interconnections between the different drivers to identify interesting scenario narratives. An example I would like to contribute to the discussion at OFF2014 is the map designed for the Mining and Metals industry (please see attached). In particular, I will explain the design choices we made with the intent of effectively communicating the perspectives of those upstream and downstream of the industry as well as those working on global and regional issues and which lead to the identification of three potential scenario narratives.

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Lockton, Dan

Model(led) Citizens: Scenarios and design in the era of 'behaviour change'

Dan Lockton
Helen Hamlyn Centre for Design, Royal College of Art, London

"An interventionist is a man struggling to make his model of man come true." (Argyris and Schön, 1974)

Scenarios, like anything designed, each "encode a hypothesis about human behaviour" (Greenfield, 2013). Assumptions are inscribed into these visions: how 'the public' thinks and decides, cultural and social values and norms, and—perhaps most significantly in the era of the political 'behaviour change' intervention—how people will react to measures designed to influence them.

A scenario, or any design fiction, is a *frame*, a bounded treatment of the nature of a 'problem', but the underlying model is often neither explicitly recognised, nor questioned. This weakens scenarios' utility in terms of iterative discovery, and can establish largely uncritical narratives, treading similar paths. Two current examples: Greenfield (2013) notes the extreme homogeneity of 'smart city' proposals, in terms of the models of human behaviour assumed; and Hazas et al (2012) criticise the pervasive model of individual householders' "constant and active choices" inherent in most 'sustainable design' proposals for energy feedback.

Unexamined models raise at least three areas of concern:

- 1) The degree of *variety* (in the cybernetic sense: Dubberly & Pangaro, 2007) assumed within human societies—the heterogeneity of culture, motivations, attitudes, beliefs, priorities and decision heuristics.
- 2) Attribution errors (Ross & Nisbett, 1991): despite scenarios being visions of *contexts*, many models encode assumptions of individual decision-making driven primarily by *internal* factors. Segmentation by participants' assumed values (e.g. DEFRA, 2008) is often taken as a proxy for predicting behaviour along these lines.
- 3) Reflexivity: the assumed participants in scenarios would of course themselves bring their own values, models and framings of the situation to their 'role', and these might not align with those assumed by the scenarios' creators. How many scenario processes explicitly consider the differences in public understanding of these potentially large, complex systems?

So, to ensure that we use scenarios and design fiction in ways which help us understand and debate the future(s) we might want, we need to be much more explicit about our models, and willing to surface our assumptions. We must 'show our working'.

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Lykketoft, Kit



If everything is an experiment, how can we explore the future?

Abstract for OFF 2014, Kit Lykketoft

“Rehearsing the future” is a fundamental and natural part of the design thinking approach that MindLab has when working to improve public sector solutions. Ethnographic research, prototyping and testing are the tools in use and iterations are in-built necessities. MindLab is experiencing an increasing recognition within the public sector institutions that solutions should be rather seen as in on-going beta-versions than as finished products. The complexity and the constant change of the public challenges, demands solutions to be not packages delivered but continuous iterative experiments. This is a ground-rule in design driven solutions as well as in scenario-making. The two approaches also share the aim to transform complexity into concrete and tangible possibilities.

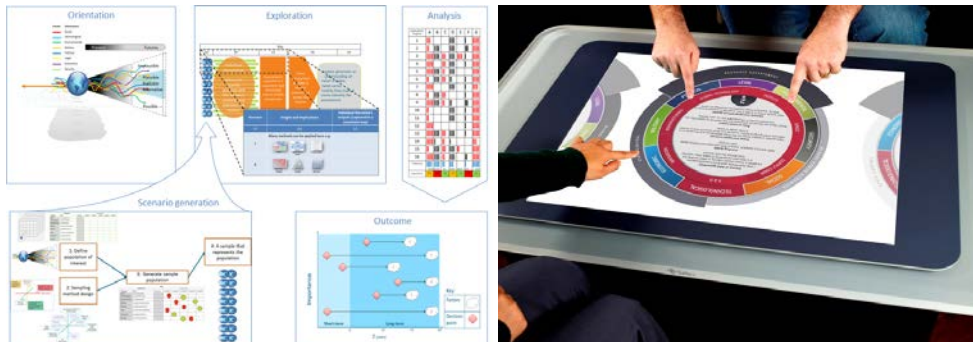
The two approaches not only meet in the space where abstractions become concrete and testable strategies. The ethnographic methods in the design-approach give flesh and blood examples to the impact of transactional and contextual factors. This is important in the early phases of mapping the present and defining the right problem.

MindLab’s expertise is within the design-research, producing not only solutions, but also theories formed from practice. What in the beginning seemed to be an approach more fitted for service-projects has over the past seven years proven to be highly relevant also in policy-making. Concrete projects and solutions have shown patterns of insights to transform overall strategic policy-making and implementation principles. This means both that a new theoretical fundament for policy-making is emerging, and that a new praxis has been made possible. Early insights from “reality” and early experiments are now informing the policy-work with reforms and bridging the gap between the intended policies and the ground-level. The development is pushing reform-making in a more strategic iterative direction which makes it ever the more relevant to look to the possible benefits of combining design with scenarios.

What I suggest to be explored further is the consequences of the “everything is an experiment” approach. This potentially influences the design-approach when in need for explaining expected out-comes. If practice is an on-going change-process is it then possible to capture it in a meaningful theoretical form that is more than an abstraction? Maybe the answer is to be found in a useful combination between design-thinking and scenario-building.

I can contribute with both MindLab’s practice experience and theoretical insights.

Maltby, James



Dstl's FutureWorlds: using creative design in long-term planning for UK defence and security

The UK Government needs to conduct long-term (over 5 years) planning and strategy (HoCPASC, 2012). For the UK's long-term policy to be effective, it should be evidence based (Department for Business, Innovation and Skills 2010) and strengthened by good horizon scanning (Cabinet Office 2013).

Scenarios are the most widely used tools for long-term planning (Bishop 2007), but their effectiveness is poorly understood (Wilkinson 2009; Wright 2012; Derbyshire 2013). This work has identified two reasons why those problems arise and how they can be addressed in a practical way.

One reason for this is that many scenarios methods are largely dependent on human judgement. We know that there are naturally errors in humans' long-term judgement (for example Tetlock (2005) and Kahneman (2011)). However, there is some understanding of how we can reduce these errors (Hastie and Dawes 2009), using carefully structured and systematic analysis. Therefore, structured and systematic analysis should be used to ensure the UK's long-term planning and strategy is evidence based (an audit of the assumptions and research drawn upon).

The second reason is that the traditional management science approach, reductionist and linear (Harford 2012; Macfarlane 2010), impedes good planning. A "design thinking" approach, which enables a more iterative approach to discovery, has been shown to provide improvements to the outcome of long-term planning (Derbyshire 2013).

Dstl has developed a structured approach, the FutureWorlds™ (working with the Technology Strategy Board's, Design Special Interest Group); in an attempt to practically respond to these issues and improve the UK's long-term planning.

Word count: 250

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Maniam, Aaron

SERIOUS LEADERSHIP, SERIOUS GAMES: SCENARIOS AND DESIGN AS LEADERSHIP COMPETENCIES

Successful exercises that expose and interrogate assumptions, like scenarios and design, require leaders attuned to the pitfalls and possibilities of each process. Scenarists and designers are *producers*; organizational leaders are critical *consumers*, affecting projects depending on their understanding of how scenarios and design are meant to work.

In terms of the 5 Characteristics at the scenarios-design intersection in the scoping document, leaders' challenges as consumers involve balancing:

- iterative discovery, with the **inevitable time pressures** of a constantly evolving operating environment;
- purposefulness, with the reality that purpose is often unclear *ex ante*, and leaders need to **sense-make** possible purposes with teams;
- materiality/embodiment, human experiences, and mediating/translating [predicated on the validity of emergent/experiential perception frames], with a widespread **bureaucratic preference for abstract Cartesian rational/analytical frames** as lenses to evaluate success.

These dilemmas/balances makes two additional demands on leaders, over and above the scoping document's 5 points. First, they must be **tension-literate** polarity managers (Koestenbaum 1991; Johnson 1996). Second, they must be **time-literate** (Trompenaars & Hampden-Turner 2012), creating strategic space when immediate success is elusive.

Serious games build tension- and time-literacy by simulating complexity/imperfect information and requiring, nonetheless, clear decisions. At OFF, I hope to explore

1. reactions to the ideas of tension- and time-literacy;
2. other leadership skills participants consider necessary for consumers of scenarios/design;
3. how scenario/design principles apply to serious game-formulation - sharing the work of Singapore's Applied Simulation Team and learning from other organisations.

(248 words)

NB: The photo I posted on the flickr site is of a serious game developed by Singapore's Applied Simulation Team.

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Mayer, Martin



Collaborative Futures - integrating foresight with design in large scale innovation processes: The Network of European Foundations Initiative to Create a New and Better Future for Europe

Angela Wilkinson, Strategic Foresight Counsellor, OECD
Mayer, Martin, Independent Futures and Innovation Consultant
Ringler, Verena, Europe Project Manager, Stiftung Mercator, Germany

Abstract

Recent crisis –whether labelled as financial, political and environmental are not simple problems with an easy fix. Understanding and resolving these puzzling and socially messy situations requires knowledge sharing, social learning and collaboration between multiple stakeholders representing different interests. These situations are characteristic of open, complex and adaptive systems which have become rigid and stuck, unable to self-organise and transform. These problematic situations also present opportunities for learning with multiple futures - the normative (shared vision), plausible (scenarios) and official (expert projections) – to create the future. Combining design principles and futures practices in a process of interactive discovery is especially valuable in the European Union where cultural diversity and plurality coexist alongside aspirations for single markets, economic convergence and integration. We explore the intersection of scenarios and design through reference to a specific case study aimed at unleashing an open-ended process of collaborative innovation and co-creation of new potentialities for Europe. This particular initiative was hosted by the Network of European Foundations (NEF), a Brussels-based platform of European public interest foundations. Working in an organic rather than mechanical metaphor, participants refreshed their understanding of the present by revisiting corridors of history, navigating the forests of the present and exploring alternative futures to co-design seeds and co-create a greenhouse for growing the futures of Europe.

Keywords: Foresight, Futures Thinking, Design, Co-creation, Innovation, Learning with Futures, Collaborative Futures, Grand scale transformations, Europe, European Union, political innovation, foundations, civil society

Maze, Ramia



The Future is Not Empty – Design imaginaries and design determinism Ramia Mazé

Design has a long history of giving form to cultural imaginaries about the future. *Acceptera*, the first manifesto of Swedish Modern design, distributed by the publishing arm of the Social Democratic party, evokes in text and image a modern, or future, 'A-Europe', "The society we are building for", versus 'B-Europe', or "Sweden-then". It is a manifesto for development in a predetermined direction, creation on the basis of time, a specific arrow of time leading to a singular socio-political, as well as technological and design, ideal future. Design – as manifesto-like visions of the future, as scenario methods for planning, strategy and foresight, or as 'transition arenas' such as change labs and Living Labs – is increasingly employed in future-oriented governance strategies and 'corporate imagination'.

In the theory of history, and futures, however, there has been a shift from diachronic (linear) thinking, and an argument that causality itself might be understood as an essentially narrative category. I argue that the future is not a destination but a 'supervalence', an outside to an experienced present that is necessary to establish critical distance, to imagine and live alternatives. From this perspective, I rethink the forms and politics of design futures, discussing around a series of design examples from my own practice-based research (Mazé, ed. *Switch! Energy Futures*, 2013) and other's examples of design fictions and lived utopias (Ericson and Mazé, eds. *DESIGN ACT*, 2011). Further, I reflect upon the power of design futures in shaping the present. I argue that this requires not only rethinking the forms and politics of design futures, but critical consideration of 'ontological politics', or the political reasons for preferring and enacting one reality over another.

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McAllum, Michael

INFLECTION POINT: CONSIDERATIONS ON THE INTERSECTION OF SCENARIOS AND DESIGN IN A NETWORKED AND DISTRIBUTED FUTURE.

An increasing number of counter-hegemonic, plausible scenarios focus on possible responses to concerns about planetary limits and how humanity might rapidly navigate from unsustainable, mechanistic, socio-economic arrangements to a sustainable, distributed and networked future. If realized, the revolution these scenarios portray, will drive a transformation in how we conceive form and space, in ways far more profound than those that shaped the second industrial revolution, of the 20th century. The discontinuities they contemplate provide the opportunity for radical departures in design. If embraced they could; rapidly recalibrate urban settlement dynamics, disintermediate conventional energy systems, redefine value creation and economic activity through network centric business model design, assist in the development of new food systems in a world of insecurity and repurpose institutions. However to realize this potential and to counteract the vested interests of a late stage sensate society, it will assist foresightful, 'soft and hard' design leaders to connect with an emergent transmodernist philosophical ethos that can nurture and stimulate their collective endeavours. What I posit is that the frameworks and dialogues that inform the current hegemony are insufficient for the transformation in thinking and design that a distributed future demands. In their place credible and engaging narratives (scenarios) and a new social ethos, what the 14th century macrohistorian Khaldun characterized as 'asabiya,' are required. I contend that these elements are integral to and critical for a systemic shift, to a new civilizational construct. Therefore they are a necessary precondition for a design revolution that matters.

Michael McAllum

Murphy, Claudia

As an organization development and design practitioner for twenty years, scenario planning has become an important offering for clients who are dealing with increasingly volatile and uncertain environments. Some of our projects include work with Shell Lubricants on the “Future of Car Care”, with academics, climate scientists and government policy makers on the “Future of Energy in Arizona”, with organization design practitioners considering the “Future of Organizing” and most recently with a group of eleven utilities from across the United States on the “Future of Grid-Connected Devices and Customer Relationships”.

I am interested in contributing to the Forum in the following ways:

- Human Experience: Practice in designing conditions for deep, trusting, and vulnerable conversations. Ensuring the entire scenario development process results in the group ‘owning’ the scenarios. The future of their organization, their business model, or their community is theirs. As designers and facilitators of the process, we either create or inhibit this result.
- Translation/Engagement: How do we mitigate the reaction of being introduced to scenarios feeling like “viewing someone else’s vacation photos?” We have been experimenting with story telling, graphic facilitation, videos and large group methodology to quickly envisage and relate to a future a participant did not create.
- Organization Design: If we are designing for multiple futures, what is the impact of scenarios on the methodology and output for creating models of organizing work? We are using rapid prototyping for structure and core process design, and paying more attention to the design of human connection, collaboration and communication.

Nelson, Ruben

Sustainable Futures By Design: Exploring the Challenge of Consciously Co-Creating the Next Form of Civilization and the Contributions of Design Theory and Scenario Planning to this Work. (A Programmatic Probe)

Ruben Nelson
Foresight Canada

Mine will be a programmatic essay that probes the presuppositions of both design theory and scenario planning. As such it will not extend the existing literature of either design theory or scenario planning. Rather, it will challenge both these fields to become aware of and then reach beyond its own present civilizational presuppositions and limitations. This is not to say that there is no literature that is consistent with the view to be presented. If this were so, the essay would be mere speculation and not an exercise in foresight. Nor is it to say that the thesis offered is well established. In this were so, my contribution would be redundant.

I shall argue that the core work for the strategic leaders of the 21st Century will be to learn to enable and empower the conscious co-creation of the next form of civilization; and that such work lies beyond the horizon of both design theory and scenario planning. That is, both of these practices have been developed within and overwhelmingly serve the extension of the Modern/Industrial form of civilization – the form of civilization that not only dominates the present, but the future horizon of most official agencies in virtually every sector of societies globally. Since there is growing evidence that the Modern/ Industrial form of civilization is not sustainable, tragedy awaits our species on the path to which we are now, largely unconsciously, committed.

I shall also argue that one can adequately construe the dots of existing data to make this perspective both visible and defensible. In short, ours is a rare, but not wholly unprecedented, time in human history during which the taken-for-granted trajectory of history is changing onto a new course. What is more, several features of this course change are unprecedented. Ours is the first time in human experience in which such a civilizational trajectory change (a) is required, rather than optional; (b) must be rapid, rather than slow; (c) must be reflexively conscious, rather than unconscious; and (d) must be scalable to the whole globe, rather than local/regional.

As if this task is not enough, our distress is deepened by the realization that one cannot design whole living systems at a form-of-civilization scale. What then is the contribution of design to this new work? An analogous question is raised for scenario planning: in world of civilizational-scale changes, what features are secure enough serve as the basis of alternative scenarios that are more than just fanciful?

One way for both design theory and scenario planning to extend their reach and to contribute to this new work will be offered.

(Note: this approach does not directly compare and contrast design and scenario work with each other. Rather, the approach is to test the adequacy and contribution of each to a task that lies outside the normal practice of both. It is assumed that this approach will generate insights not normally seen by a direct comparison.)



Nevejan, Caroline

Artistic research for scenario thinking and design

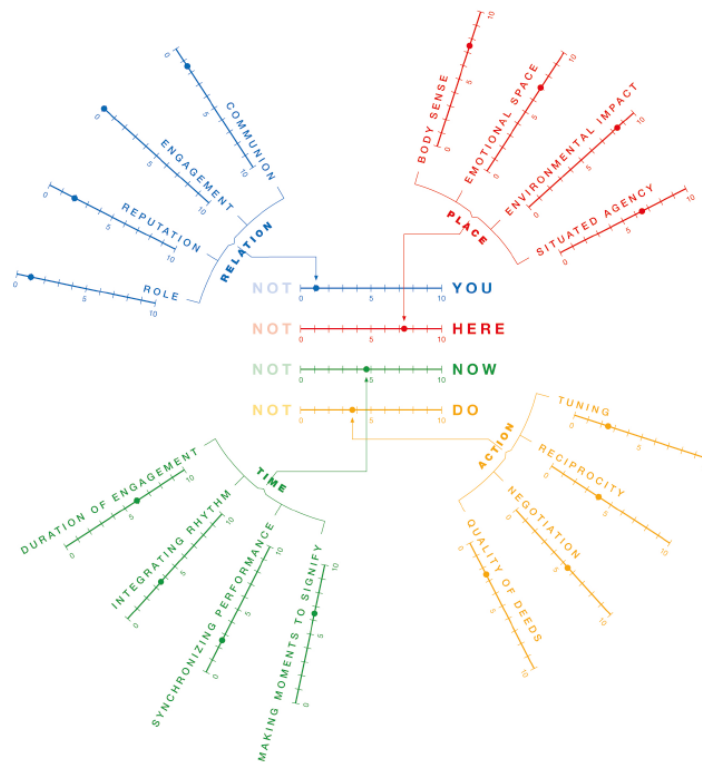
Caroline Nevejan
Participatory systems initiative, Delft University of Technology

Participatory systems are diverse: from Wikipedia to Green Wheels, from Smart Energy Grids to Open Design Forums, from Local Exchange Trading systems to Crisis Management platforms. Why these systems work and how successful systems can be designed is subject of current research at the interdisciplinary Participatory Systems Initiative at Delft University of Technology in the Netherlands. Scenario thinking is key to these design processes.

Participatory systems consist of a physical infrastructure, distributed ICT and social (and economic) engagement. In human experience these different realities merge into one context in which people act. Artistic research studies underlying dynamics of human experience in human-network interaction to contribute to the complex design process of participatory systems.

Design of self-organizing and emergent participatory systems needs an evolving process of continuous (re) design in which different tools and methods play distinct roles at specific times. Scenario's explore possible futures and are foundational for designing an applied serious game. Serious games are interactive simulations, based on real data to offer stakeholders embodied experience of different scenario dynamics and outcomes. In the next design phase outcomes of the serious game are simulated and emulated when applied on a large distributed scale to offer insight in participatory systems dynamics of self-organization and emergence.

Inspired by artistic research different levels of trust, autonomy and engagement are explored throughout the design process in scenario's, serious games, simulations and emulations for understanding outcomes of human-network interaction. Artistic research on witnessing, presence and trust has resulted in the YUTPA framework, which inspires current scenario building and design of a variety of participatory systems. Artistic research, the YUTPA framework and simulations can be presented at OFF 2014.



The YUTPA framework (to be with You in Unity of Time, Place and Action) indicates how individuals make trade-offs for presence and trust. It is a conversation tool that supports designing and analyzing scenarios for participatory systems, in which onand offline realities merge in human experience.

Please visit www.being-here.net for seeing scientific and artistic research (work in progress) that is foundational to this framework.

Pula, Shekhar

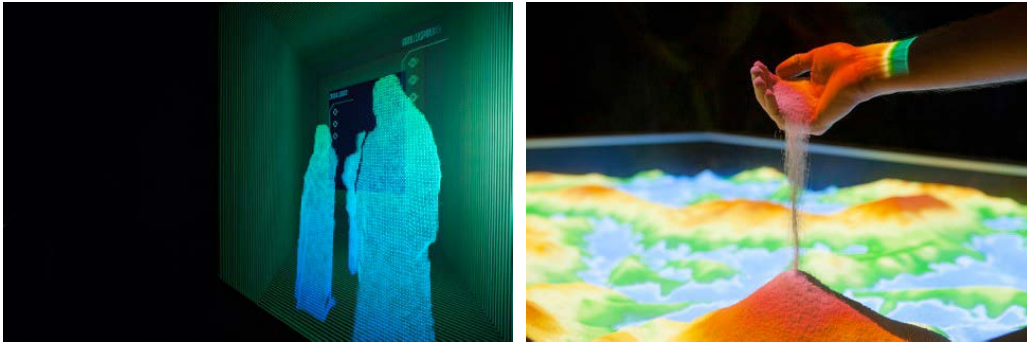
Scenario-planning process is able to shift paradigms, create plausible futures, connect to wider context and render alternative stories. The power is its ability to combine and complement other processes with these rich features, in a variety of professional disciplines. We can do this in business strategy, as a perfect precursor to new business design and then use 'blue ocean strategy' steps to prototype new business in different scenarios. Concretely, a recruitment firm recently faced disruptive change and developed scenarios. Further, they used the blue ocean strategy process to develop a new service-line and capability for the firm.

Scenario-planning can also be used in the emerging field of 'social design' (also, 'human centred design') where understanding the users' context/complexity and co-designing solutions are paramount. Social design's early entrenchment with users increases effectiveness and avoids waste. They tell stories, explore scenarios, test alternatives and blend unfamiliar with the familiar – all in the field and on a human scale. This application is being explored in discussions with engaged social design actors in Amsterdam.

Many architects still work with a single optimal scenario of the future. Scenario-planning can expand their options and dialogue with society. Similar to social design, scenario-planning can aid new developments in urban architecture, where multiple uncertain futures should be considered. Scenario planning principles resonate with Christopher Alexander's ideas of architectural process as a self-revealing "timeless way" and "aesthetic" (Alexander, 1979). Scenario-planning can be a catalytic tool with a back-to-basics attempt at 'adaptation', 'harmony-seeking' and of finding plausible centres within a coherent societal whole.

(253 words)

Raford, Noah



The Museum of the Future: Foresight, Design, and the Political Imagination

Noah Raford, Oxford Futures Forum 2014

Political scientist John Kingdon argued that public policy emerges from the intersection of “agendas, alternatives and trade-offs” (1984). Agenda setting is said to be most powerful, with images, stories, and metaphors about the future exerting particular influence (Lakoff and Johnson, 2003; Stone, 2001; Polak, 1973). Activist and author Stephen Duncombe suggests, for example, that, “politics, at its core, is about imagining what sort of a future world we want to live in” (2007).

While scenarios are distinct from normative visions, they represent future alternatives that can become important in the agenda setting process. Their impact can be minimised, however, by their mode of communication and the way that policy-makers experience their concepts.

To date, most scenario work relies on paper- and report-based media. The popularity of video sharing sites, easier access to industrial- and product-design “artifacts”, and theatrical, immersive approaches have enabled new means of communicating scenario narratives. These media can reach larger audiences, convey more complex aesthetic and emotional nuance, and allow for more direct experience. Taken as a whole, these design-based approaches suggest an alternate way of embodying future narratives that could become more popular, and perhaps, more influential, in policy framing.

The Museum of Future Government Services, launched in Dubai in February 2014, tested this hypothesis. Led by the UAE Prime Minister's Office, the Museum was the world's largest “design futures” exhibitions to date. Over 3,500 senior government officials from around the world took part in the exhibition, including the entire UAE Cabinet, ministers from multiple countries (including the UK Cabinet Minister Francis Maude), and a large number of CEO's and academics (including Professor Jeffery Sachs, Sir Richard Branson, and others).

The Museum was structured as an immersive, interactive experience that explored the future of key government services. It did so by creating “diegetic prototypes” (Bleeker, 2009) of working future services that participants could interact with and experience for themselves. The effect was powerful, garnering significant international media attention. This led to a national conversation about the role of big data, automation, robotics, personal genetics, and interactive teaching, where previously these issues were not even on the policy agenda. Several policy initiatives were launched as a direct result, including the world's first and largest international award for using drones in civilian government services (which has received over 2.6 million views on YouTube).

The experience of the Museum suggests that design futures can help augment and accelerate the traditional role of scenarios in public policy. They align language, demonstrate possibilities, and build support for policy alternatives. It would therefore be my privilege to reflect more deeply upon the Museum as an example of interactive design futures for scenarios in public policy at OFF 2015.

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Raven, Paul

Title: Rhetorics of futurity: integrating narrative theory into scenarios and critical design practice

Author: Mr Paul Graham Raven, MA, APF^{2*}

*University of Sheffield (Pennine Water Group / Sheffield Urban Institute)

Abstract:

Scenarios and design fictions are members of the broader category of *narratives of futurity* ("futures"), which also contains texts developed for commercial/promotional, political/rhetorical and entertainment purposes. While scenario development *per se* may be an under-theorised practice (Wright *et al*, 2012), the territory of its techniques is far from unexplored: any such practice draws instrumentally upon an established foundation of narrative theory, which relates techniques and structures to the cognitive and emotional effects they engender in the reader/viewer. By way of analogy, consider architecture, a high-order discipline that requires the concrete, practical knowledges of civil engineering to reify its visions: narrative theory is to futures practice what civil engineering is to architecture.

Alongside narrative theory, frameworks from film studies and literary criticism, particularly the science fictional subgenres thereof, provide a ready-made toolkit for the production and/or critique of futures. For example, a quadrant map based on a Modal Axis (Diegesis ↔ Mimesis) and a Logical Axis (Narrative ↔ Spectacular) offers a typology of narrative strategies based on criteria which can be objectively identified in a text; different combinations of these modes and logics will result in the emphasis or de-emphasis of different narrative elements, which in turn changes the effect of the narrative on an audience.

With narrative as the unit of analysis, other criteria – such as voice (e.g. first-person, second-person, limited or omniscient third-person; reliable vs unreliable; homodiegetic vs heterodiegetic vs extradiegetic), authorship (overt, covert or implied) and intentionality (normative, positive, proximate, speculative/rhetorical, allegorical) – are revealed as crucial elements in the positional framing of scenarios and critical designs. Through (re)familiarisation with the building materials and techniques available, more effective scenario and critical design practice is enabled.

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Wright G, Cairns G, Bradfield R, 2012. CFP for special issue on "Scenario Method: Current developments in theory and practice", *Technological Forecasting and Social Change* 79(1), p1. ISSN 0040-1625, <http://dx.doi.org/10.1016/j.techfore.2011.07.001>.

Biography:

Paul Graham Raven is a postgraduate researcher in infrastructure futures and theory at the University of Sheffield, as well as a futurist, writer, literary critic and occasional journalist. He holds a Masters (with merit) in Creative Writing from Middlesex University, and his work has appeared in such venues as *New Scientist*, *Wired UK*, *ARC Magazine* and *The Guardian*, as well as an assortment of academic journals. He lives a stone's throw from the site of the Battle of Orgreave in the company of a duplicitous cat, three guitars he can hardly play, and sufficient books to constitute an insurance-invalidating fire hazard.

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Ravetz, Jerome

Oxford Futures Forum 2014.

ABSTRACT

Bridging the gap between quantity and quality: designing a graphical arithmetic for scenarios.

Jerome Ravetz

One serious obstacle to the diffusion of scenario methods is the disjunction between their subject matter and the constraints of ordinary management. In the scenarios, participants use a variety of creative discourses to stretch their imaginations about possible challenges and opportunities. Then they return to the world of spreadsheets and numbers. It can be difficult to convince colleagues back there, that the rich qualitative experiences and insights can be translated back into the world of hard quantities.

A possible bridge between the two worlds is provided by 'Dynamical Arithmetic'. This applies principles of design to the languages of quantities and their manipulation. It uses graphical methods to display the qualitative aspects of quantitative information. Simple techniques, using IT, provide a vivid representation of information, allowing metadata to be shown integrally with the quantities themselves. By this means, scenarios can include discussions of estimates that have 'not even one significant digit'. And the development of scenarios can be accompanied by the evolution of a 'policy portrait'.

By this use of design there can be a creative synergy between the quantitative and the qualitative worlds, achieved in scenarios using 'dynamical arithmetic'. Scenario practice can thereby be enhanced and made more powerful and applicable.

Regenass, Karen



Designing a transboundary basin-wide water resources management (WRM) plan for the Amazon using Scenarios

The project will use scenario planning for a shared vision formulation that will constitute the societal, legal and institutional basis for designing the Strategic Action Plan. The scenario-based vision will articulate the goal towards which the strategies designed under the SAP will be targeted.

In this project, scenarios are “pre-design” work that should allow for design efficiency in terms of:

Local Ownership: Engagement of local stakeholders will happen directly from the outset of the intervention, prior to its actual design, and then throughout it in an iterative way so that the actors can own the management of their resources. The scenarios help the designers stay aligned with the needs, concerns and aspirations of the people/users/clients.

Representation of Diversity of Interests: The Amazon is immense in all of its dimensions (geographic, social, economic, political, ethnic and cultural), each indigenous group facing different challenges, a different past and different legal and institutional frameworks. In order for the WRM plan to be efficiently designed, while representing this rainbow of interests in its full, the project will use an interdisciplinary scenario approach to break with current positivism and linear traditions of thinking. Additionally, they will allow for quick communication (under various forms) of “usage” alternatives among the many different stakeholders.

Political Support: Comes through the communication of the scenarios with active participation of local stakeholders. They will help the designers reflect about the alternative consequences of their products and services. The narratives will help visualize interactive systems that can be declined into various outreach formats.

Vision Development: In Tim Brown about design: “there is a need to answer the right question”. The Scenario visioning process answers the question: “who do we collectively want to be and where do we want to go?” They allow for divergent, complex and paradoxical opinions and concepts to be raised, discussed and eventually prioritized. The design thinking process answers the question: “what do we need/and under which form in order to get there? The scenarios enable alternative spaces for design prototypes to be tested and consequences evaluated.

SCENAM - Ask Scenarios
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8047 Zürich, Switzerland

Robinson, Matthew

Impactful scenario analysis: lessons from designers

Matthew Robinson

Abstract for Oxford Futures Forum 2014

It used to be thought that scenario planning often failed because of the inability to think the unthinkable. This is no longer true: the VUCA world has transformed today's futurists into seasoned observers of "black swans". In the "noughties", a number of futurists and economists^v correctly predicted a global economic crisis. Yet few were taken seriously. Why does scenario planning often fail to generate engagement and response?

According to Wack, "scenarios deal with two worlds: the world of facts and the world of perceptions".^{vi} Today's futurists may be eloquent at exploring the facts, but perhaps less skilled at aiming at perceptions inside the heads of the audience. As people have ever higher expectations of design and an immersion in contingent futures—thanks to their experiences of visual stimulus and gamification elsewhere, such as in video games and interactive apps—the aesthetic element of scenario analysis has perhaps never been more relevant.

To inject the personal touch into scenario analysis, principles and techniques used by designers have much to offer. We invite designers to communicate the future to the present and to make the unthinkable plausible. But design also shares much common ground with scenario thinking in its iterative process, multi-disciplinary coverage, forward-looking nature and a need for empathy with the audience.

According to Dieter Rams, the man who inspired Apple's chief designer Sir Jonathan Ive, a good design should be simple in concept and aesthetic in presentation. Simplicity refers to the elimination of the unnecessary to focus on the core. In the terrain of scenario planning, it is the ability to be "in the right state of focus and [to] put your finger unerringly on the key facts or insights".^{vii} Glimpses of the future should not just be informative and helpful; they need to be comprehensible and attractive if they are to be laid down as "memories". Perhaps too few futurists currently harness the power of the infographic or the analogy as powerfully as the US National Intelligence Council when it served up a three-course menu in its "World in 2030" report. The best of scenarios—as with the best of designs—should be self-explanatory. Well-rendered futures are works of communication rather than works of art, bringing as they do abstract concepts to ground level and providing space for individuals' self-expression in the scenario.

Sky Cycle (London)



Swim to work (London)



Sources: Foster and Partners (left); Y/N studio (right).

Roubelat, Fabrice

Ephemeral design and pop-up scenarios: epistemological and methodological issues

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Proposed abstract

While the concept of ephemerality has influenced various fields such as design, architecture and arts, as well as information technology or marketing, recent scenario literature suggested to enhance scenario thinking to pay attention to low probability scenarios. Challenging the concepts of probability and of plausibility in scenario thinking also leads to explore new approaches in scenario planning, such as moving scenarios. Visiting short duration scenarios, this paper proposes to assess the benefits from an ephemeral perspective in scenario design.

In this paper, we first critically examine time issues that frame both design and scenario thinking and propose to investigate experiences from ephemeral art and design. In such a perspective, ephemerality refers both to the design of ephemeral objects and to the capture of ephemeral realities. From these viewpoints, we then discuss epistemological and methodological consequences of an ephemerality perspective in scenario planning. Firstly, ephemerality addresses time issues such as irreversibility, flexibility and resilience on the one hand, as well as concepts of sustainability, transformation and recycling on the other hand. Secondly, ephemerality suggests an iterative design of pop-up scenarios to be transformed in action processes and questions the fragmentation of the scenarios to be explored and assessed. The third part examines how pop-up scenarios, as well as ephemeral design thinking, interact with different scenario types, as ephemerality relates to various phenomena and to various fields of implementation.

In conclusion the paper emphasizes the growing importance of movement in scenario planning and discusses further research linking design and scenario

Scupelli, Peter



Dexign the future: lessons learned from teaching a design studio course on human-centered innovation for exponential times.

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Increasingly, corporations, governments and NGOs are faced with rapid change in core businesses and service offerings. New challenges, opportunities, and paradigms require thinking and acting anew. Increasingly, designers are designing content within larger contexts (e.g., technological, social, political, environmental, global). Long-range strategic scenarios highlight forces shaping such future oriented design spaces. Unfortunately, traditional design pedagogy ill prepares designers to integrate long-range strategic scenarios with human-centered design methods often used by communication designers, industrial designers, and interaction designers. In the Dexign the Future course taught at Carnegie Mellon University Fall 2013, students learned design methods and tools to operate within uncertain futures. Students explored forces that drive change (i.e., social, economic, political, environmental, technological), and learned to align design action strategically with the trajectories of those forces in mega-metropolitan regions where in 2050, 70% of global population will reside. In a semester long project, students created scenarios for Life in Pittsburgh 2050 designing within urban systems such as Sustainable Production & Consumption, Lifelong Learning, Human Development, and Sharing economy. Students were challenged by: (a) the 2050 timeframe, establishing benchmark goals, and articulating forces of change in decade-by-decade pathways; (b) interpreting early signs as future signals for 2050; (c) creating a three-generation persona family to articulate generational needs credibly grounded in 2050; (d) discovering and understanding the materials forms, emotional needs, values, and alternative worlds created for 2050; and (e) to deeply explore and present the connections between forces of change, three-generation persona families, and benchmark goals for 2050.

Sample of student team project:
<http://invis.io/Q7JJRZJP>

Course materials
<http://ixdcourse.com/>

Selsky, John

BAMBOO SCAFFOLDINGS FOR ECOSYSTEMS

Dr. John Selsky, Institute for Washington's Future

I am intrigued by the notion of scenarios as 'bamboo scaffolding,' adaptable and temporary but essential supports for strategic conversations to be able to deliver new insights about the future (OFF scoping document, p3). I want to explore how this applies to designing ecosystems of organizations.

Ecosystems are 'local environments' consisting of other organizations (stakeholders) with which a particular organization has interactions (e.g., industries, supply chains, value constellations, policy sectors, communities). An organization's design uses a configuration of tasks, structures, people, rewards and information/decision processes to convert inputs and processes into outputs, and thereby achieve financial and market goals. Today's turbulent environments call for designs to be both agile (temporary) and resilient (adaptable) because the external context is changing in uncertain and threatening ways.³

Designing for ecosystems differs from designing for organizations (e.g., no hierarchical control or stable set of roles). How can ecosystems be designed for agility and resiliency, so that they deliver 'comparative advantage' for the members operating in it? What role can scenarios play?

At the ecosystem level scenarios may stimulate insights into multiple, plausible futures of the ecosystem's context. How can scenarios be used to design into an ecosystem the capabilities needed to cope with turbulence?⁴ E.g., in what novel and improvisational ways can scenarios be used, especially design interventions, to build dynamic (temporary and adaptable) collaborative capabilities that may help to manage contextual volatility?⁵

Thus, *scenarios* are bamboo scaffolding for iterative discovery and insights into alternative futures of ecosystems, and *ecosystem designs* are bamboo scaffolding for the kinds of flexible institutions and platforms needed to cope with turbulent contexts.



Who designed that?!

³ See G. Schreyogg & J. Sydow, "Organizing for fluidity? Dilemmas of new organizational forms," *Organization Science*, 21(6), 2010; and J. McCann & J. Selsky, *Mastering Turbulence*, Jossey-Bass/Wiley, 2012.

⁴ J. Selsky, R. Ramirez & O. Baburoglu, "Collaborative capability design: redundancy of potentialities," *Systemic Practice and Action Research*, 26(5), 2013.

⁵ J. Selsky & J. McCann, "Managing disruptive change and turbulence through continuous-change thinking and scenarios," Chapter 10 in *Business Planning for Turbulent Times*. Earthscan, 2008, 2010.

Smith, Scott

4th Oxford Futures Forum: May 30 and 31, 2014
Scenarios and Design

Scott Smith
Changeist LLC
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Design Toolsets for Lightweight Scenario Development

While traditional scenario development practices may provide for thorough, deliberative and time-tested means of synthesizing the views and uncertainties of many stakeholders into structured alternative depictions of futures, in many circumstances where futures methods are being brought to bear as one of several approaches to quickly and iteratively synthesize insights and explore many possible futures in rapid fashion, they provide less perceived value. My experience has been that in both commercial R&D and innovation environments and educational contexts, blended approaches from foresight design (including horizon scanning, implications wheels) and design (including rapid prototyping, gamestorming), and even practices such as live-action role play (LARP) and storytelling can provide sufficiently sturdy and sticky toolsets to enable lightweight, fast cycle combinatorial exploration and engagement with futures in a way that can still bring multiple streams of understanding together, involve a diverse set of stakeholders, and make these practices both living and legible to a wider audience.

In particular, these explorations of materiality and embodiment often give audiences new to futures means of exploring and probing the depth of possibility through more comfortable and legible affordances, be they physical forms of prototypes or enacted scenarios, creating socially constructed artifacts or situations that also open up channels for interaction and interrogation. My interest lies in further formalizing the description of these approaches as well as understanding how they can become sufficiently structured and documented as a provide a new toolset for current and future practitioners developing scenarios at the intersection of design and foresight.

Stanford, Naomi

Oxford Futures Forum

Submission: Naomi Stanford

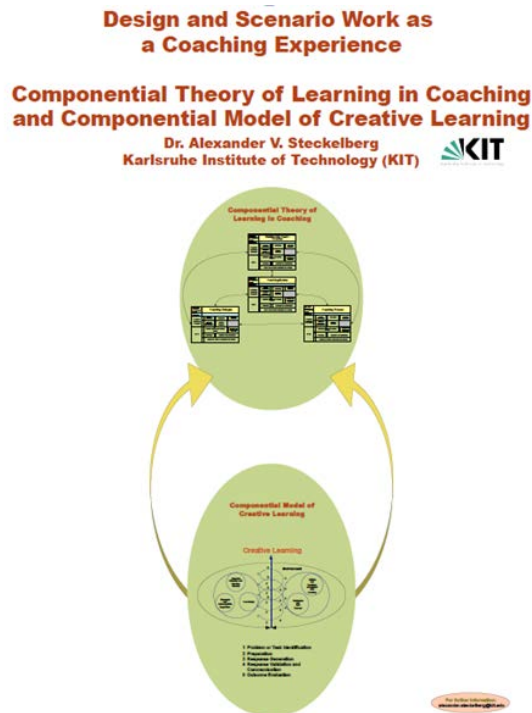
Dieter Rams, John Maeda, and the *Global Agenda Council on Design* have each proposed a set of principles on which to develop physical/visual designs. These principles are very different from the humanistic values or the 'nine tests' that are used to develop organization designs. Typically 'real' designers are associated with working in a visual or tactile space: think for example of brand images, office space, office furniture, products and product packaging, these come from a 'designer'. Conversely organizational designers of business models, business systems and processes, business strategy and even business values design these aspects of organization predominantly through language and linguistic meaning making. (Gareth Morgan's book 'Images of Organization' contains no visual images – his images are language based metaphors).

Visual and design methodologies have the potential to upend traditional concepts of organizational form and function at a time when it is becoming imperative to do. Current organizational forms – deriving for the most part from open systems theories - do not have the capability to handle the turbulent context being brought about by accelerating technological and social changes.

Scenarios offer practical and energizing platforms that can enable the identification and recognition of an organization's future and/or potential 'seizable issues' (Ramirez, Osterman, & Gronquist, 2013). They function to enable participants to:

- question assumptions that the future will look much like the present, or the past
- create new and/or different contextual awareness
- decide what to consider and observe
- explore and imagine alternatives
- reflect with skepticism before deciding what to do

Using the capabilities called on in scenario planning I would like to contribute to the Forum an exploration of one or two common phrases that organizations aspire to embrace and that they think will take them into the future e.g. 'everyone a leader', or 'future-fit and agile' or 'people are our greatest asset' or 'innovate and collaborate'. In this exploration we would develop, using 'real' design principles and methodologies, a/some scenarios relevant to participants that would take these types of statements from the realm of the laudable but vacuous, non-achievable, language-based concept into the realm of experiential design context related testability e.g. through rapid prototyping that could result in new forms of organization.



Design and Scenario Work as a Coaching Experience

Scholars have already described scenario work and design thinking in terms of learning and creativity (de Geus 1988, Schoemaker 1993, Schwartz 1996, van der Heijden 2005, Cross 2006, Beckman and Barry 2007, Buxton 2007, Binder et al. 2011, Bhatti et al. 2013). In understanding of Oxford Futures Forum both are about “collective action” and team work, “rather than a matter of individual skill” (Bhatti et al. 2013).

Describing design as accompanying use of future scenarios for generating prototypes with the goal of creating new forms and possible disruption of the past and scenario planning as supporting use of design techniques for manufacturing of possible future scenarios as feasible ways of development of the past we see some similarities and differences of the both clearly. However, iterative discovery and purposefulness together with materiality and embodiment (Bhatti et al. 2013) result in a coaching process (Steckelberg 2014). Human experiences and Mediating/Translating (Bhatti et al. 2013) are impossible without coaching dialogue and relationship (Steckelberg 2014). Therefore, we can see design and scenario work as forms of (team)-(self)-coaching.

Hence, the Componential Theory of Learning in Coaching and the underlying Componential Model of Creative Learning (Steckelberg 2014) provide understanding the mechanisms and support of every design or scenario team member individual contribution to the team work. Both models promote applying educational theory and practice as well as methods and experiences of learning psychology to design and scenario work. This approach can help make design and scenario building and use more successful and productive.

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Thuesen, Lars

The best example of how we integrate process design and scenario work is our recent organization process that I have been leading for the last years. The department of Prison and probation are facing severe budget cuts and needs to reorganize, e.g. changing the management and administrative structure by putting the clients (inmates) in the very center of what we do. This requires new and improved leadership skills, new partnership structures etc. in order to develop our goals, design criteria for the new organization, performance management system, the HR processes among other things.

We have designed a comprehensive process that has involved a lot of internal and external stakeholders to make sure we design and implement things in an effective way. In this work a combination of careful process design, analysis, involvement, and decision power has proven to be effective. Scenario thinking has been and is integrated part of this process. We facilitated several workshops for top and middle management where scenarios were used to visualize possible outcomes of strategic choice in the reorganization process. For example we developed axes of centralization / decentralization and regulation/ liberalization and used these axes to develop cases of the possible outcomes and consequences of our choices. This helped us to understand and decide on what alternatives to proceed with.

Tonkinwise, Cameron

Around the Corner:
The Being-There of World-making Design Scenarios

Cameron Tonkinwise
Director of Design Studies
Carnegie Mellon University

Ideally, designing makes decisions about which futures to materialize without having to full-scale field-test those futures. This is what, in theory, lifts designing out of trial-and-error evolution, allowing it to make creative leaps that are nevertheless less risky [Jones, 1992; Alexander, 1964].

(This aspect of designing is being challenged at the moment, by 'build it and see' design thinkers and hacker-makers on the one hand [Morozov 2014], and Proactionary Principle advocates [contra the Precautionary Principle: Fuller 2012] on the other.)

The domains in which designing makes those non-empirical decisions are sketches, scenarios and prototypes. In addition to the visualization skills needed, designing entails the ability to project yourself performatively into the situation-being-designed [Schön 1992].

Forecasting also recognizes that a scenario's plausibility [Selin & Pereira 2013] – especially at 'black swan' limits of possibility [Ramirez & Selin 2014, Wilkinson, Kupers & Mangalagiu 2013, Goodwin & Wright 2010] – or force [Selin 2006] is only as good as your team's acting skills [e.g., Frittaion, Duinker & Grant 2011] and their props [e.g., Heugens & Ooserthout 2001].

A crucial difference lies in the fact that designs aim to be incorporated prosthetics. In the same way that Bruno Latour [1994] foregrounds the third entity that is "a-man-with-a-gun," so a user of a useful design is a different person in a different world. This has been called the ontological aspect to design's constructivism [Winograd & Flores 1986, Willis 2000, Escobar 2013]. Part of the acumen of a designer is to feel how the world is experienced when mediated through what is being designed, to sense the other futures that become possible in a future lived with-and-through a design (Arvola & Artman 2007). Design-oriented scenarios aim to anticipate these transformative multiplier effects (which arise not only from the design alone, but also from other contextual system effects), adding to Scenario Forecasting the capacity to see, *not just branch points, but around the corners of those branches*.

(This is important in our World Risk Society [Beck 2008] when it comes to the 'unknown unknowns' that lie 'just around the corner'.)

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Van der Elst, Kristel



As part of the Strategic Foresight activities at the World Economic Forum we pay careful attention to design, whether it is designing our 'multi-stakeholder' client, designing the scenario process knowledge objects and reports, the scenario frameworks or designing new tools to communicate on plausible, alternative futures.

We experimented this year with a new, highly designed product for our scenario project called 'The Future of Government'. The aim was to create pictures of the future in which the role of government could be highly different from today to provide a wind-tunnelling context for improvement initiatives – as expressed in the projects Best Practise Toolbox - and to provide an exploratory tool to uncover new options. We wanted the different futures to be easily accessible so they can spur reflection in strategic discussions without needing too long of a ramp to acquire the understanding of the worlds.

To achieve this we developed posters to communicate the scenarios.

The posters were designed to:

- Be visually intriguing so senior executives would be attracted to engage with them
- Minimize the time for learning – moving from being intrigued to understanding the content. We worked on the flow of the poster, how to get in the content (top left, overview of the world and how to get there), continuing vertically down the middle with the core scenarios depicted in 4 key characteristics of the world, and leave the scenarios (bottom right) with questions these scenarios could raise.
- Spur immediate thoughts involving scenario thinking

The scenarios can be seen as unified boundary objects around which diverse stakeholders can come together and learn while looking at it from their own perspective, and hold interpretative flexibility so they can interact and learn with them.

The posters have been used in Davos and spurred great discussions around the role of government in the future and the actions to be taken to deliver effectively and efficiently these roles.

We would be glad to bring the posters to the OFF. Attached you will find a pdf file showing the posters. In reality they are A0 or A1 format.

We would also be happy to bring other designed features of our scenarios work such as our designed scenario frameworks and reports.

Kristel Van der Elst
Senior Director, Head of Strategic Foresight
World Economic Forum

Van der Leeuw, Sander

Title: "Learning from the past, about the present, for the future"

Our societies, and our science, has for several centuries emphasized the relationship between present and past in explaining the present. In society at large, this is clear [until the 18th](#) century at least (see Girard 1990), while in science this has lasted until much more recently, as our empirical science with its need for 'proof' to advance one's knowledge and career, has systematically related present to past in 'explaining' the present, using an 'ex post' approach (searching for origins or explanations of modern-day phenomena). The very long term perspective that is mine as an archaeologist leads me to think that these tendencies have effectively suppressed our capacity to trust our human 'ex ante' thinking and reasoning (often now referred to as intuition, but more correctly designated as anticipation). If we are to deal with the very 'hairy' problems facing us in the 21st century, we need to re-develop our 'ex ante' (emergence) thinking.

This re-development of our anticipatory capacities can be aided by integrating some of the ideas of the Complex Adaptive Systems approach with the possibilities offered by the rapid development of ICT. Scenarios can be fruitfully augmented by rich data, maintaining a narrative structure that is attuned to rendering causal linkages from hordes of data. Design, with a focus on visual representation, comes into the equation as a means of rendering the complexity of alternative trajectories. Given knotty complexity and the challenges of meaningfully relaying it, both in terms of information and cognitive load, the question is: how can design practices enable better understanding and open up for other ways of thinking?

Vervoort, Joost

A sense of change: scenarios researchers, media designers and artists explore new modes of engagement with complex systems

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Fostering societal engagement with the complexity that characterizes interacting human and natural systems is essential to help navigate future uncertainty around core issues such as resource use, food security and environmental change. The nexus of scenarios methodology and game/interactive media design has potential for offering new modes of engagement with uncertainty in complex systems. We report on two collaborative processes between scenarios researchers and game/interactive media designers/artists aimed at exploring the possibilities of this combination. The two processes resulted in 86 interactive media/game concepts which were selected and evaluated using set criteria by communication and media design experts and a panel of scenarios/complex systems researchers. The top eight concepts fell into the categories of games, group interaction concepts and social media storytelling. The games emerging from this process focused directly on scenarios around complex systems characteristics and were evaluated to be intuitive and engaging designs that combined transparency and complexity well. The group interaction concepts focused mostly on feedbacks and non-linearity but were fully developed and tested in the workshops, and evaluated as engaging, accessible and easy to implement in workshops and educational settings. The social media storytelling concepts involved less direct representations of complex system dynamics but were seen as highly accessible forms of scenario storytelling. Our results and process demonstrate the value of more structural collaboration between scenarios researchers and designer/artist communities for the development of new modes of scenario-based engagement with complex systems.

Werle, Felix

Oxford Futures Forum 2014 on 'Scenarios & Design'

The role of (deliberate) design artefacts as boundary objects for sensemaking and strategizing in inter-organizational scenario processes

Felix Werle, Institute for Innovation and Change Methodologies (IICM) Dr. Felix von Held, Institute for Innovation and Change Methodologies (IICM)

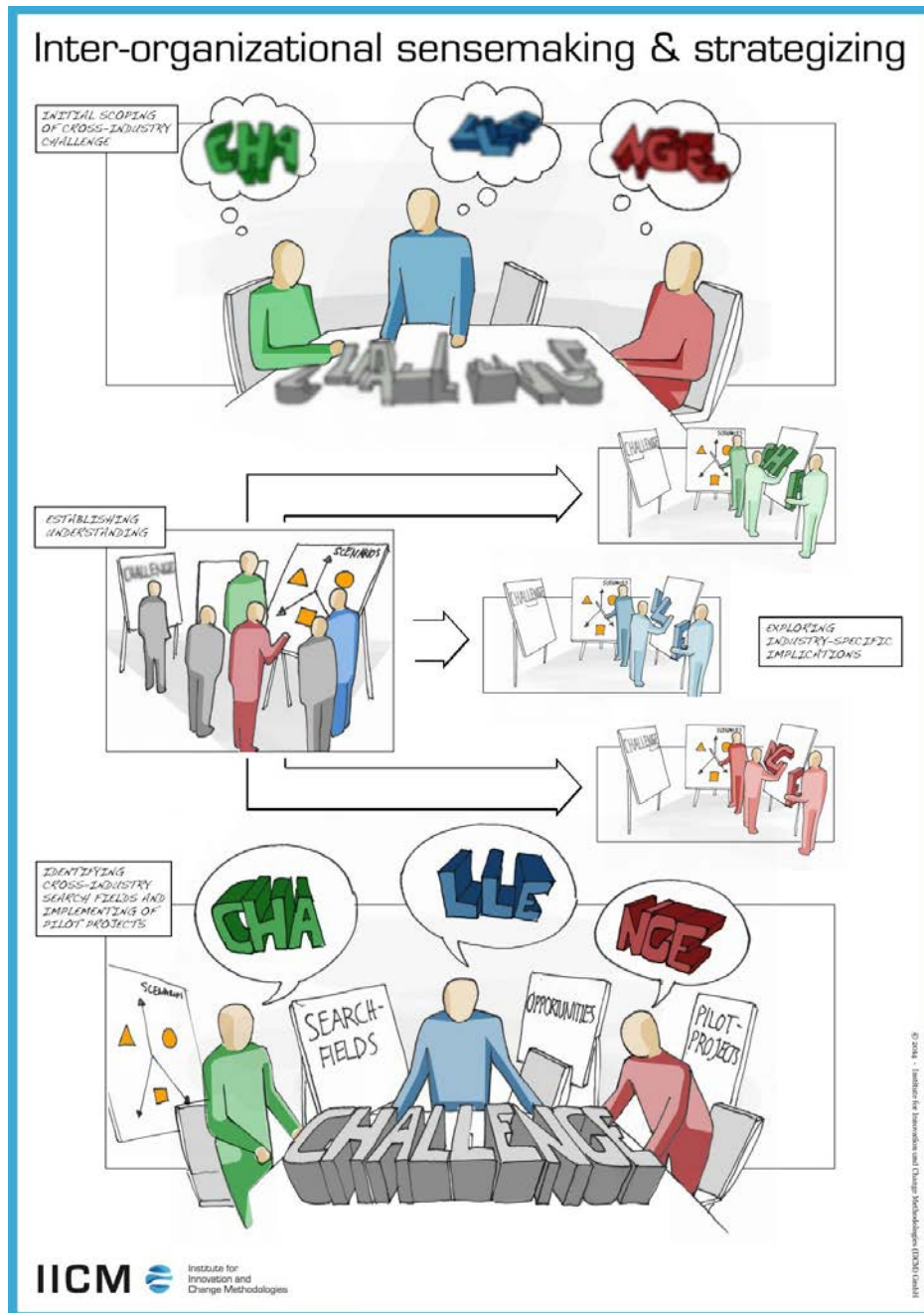
From our consulting practice and research we recognize the vital role of material design artefacts for appreciating and approaching the complexities involved in explorative process formats. Many issues that drive scenario processes deal with topics or so-called "metaproblems" (Hardy et al. 2006, Selsky & Parker 2005) which are 'objects of enquiry' that are "characteristically open, question-generating and complex" (Knorr Cetina 1997). Organizations get drawn into inter-organizational strategizing on such topics due to their complexity which as pointed out by Nicolini et al. (2012) fuels not only their attachment for the object but also keeps together collectives of actors. Here design and its respective material instantiations of the topic act as "boundary objects" (Carlile 2002) which describes how material artefacts can both enable and constrain knowledge sharing across organizational boundaries. More specifically such objects assist in the transfer, translation and transformation of knowledge across organizational boundaries. Nicolini et al. (2012) stress that "because of this open-ended nature, boundary objects acquire a deep emotional holding power and generate intimate attachment that creates social bonds, either because their complexity requires joining forces or because the drive and desire toward the same object constitutes the basis for mutual recognition and sense of belonging".

Figure 1 shows two critical design aspects which are relevant specifically for cross-industry scenario processes: (I) the role of visually rendering (Salewski et al. 2008) a complex issue as a purposeful boundary object; (II) as well as to communicate the actual scenario process in a way that is accessible for participants. These aspects should be critical design enablers on the way of making materials (such as maps, timelines, etc.) a "part of the machinery that produces strategic knowledge" (Kaplan 2011).

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Figure 1: Empirical account of a process map on cross-industry sensemaking and strategizing process using scenarios as key component for material representation of “challenge” (topic)

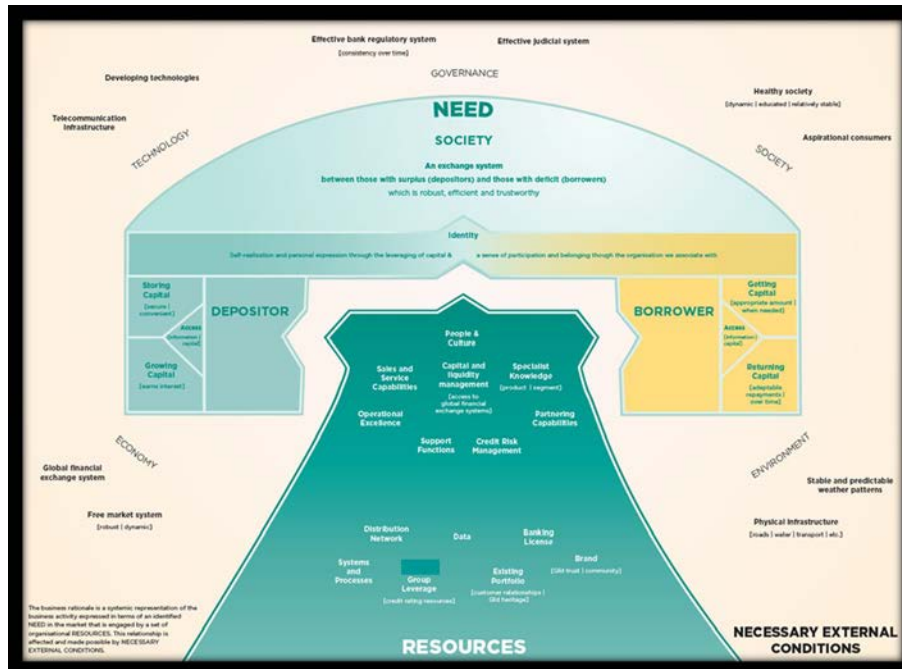


Wilkinson, Angela

Redesigning Policy To Create Better Futures

The OECD mission is to help governments, individually and through collaboration, to create a better future. The OECD has been active in futures research since the 1960's. It has used a variety of methods, including horizon scanning, baseline forecasts and exploratory scenarios. These practices are either well suited to, or struggle to gain traction with, the incremental learning and problem solving model of public policy. In this model, uncertainty justifies inaction until problems can be sufficiently well defined and competently assigned to a relevant Ministry or government department. In grappling with wicked problems, turbulent changes and the systemic nature of today's significant challenges, networked and transformational foresight practices are emerging which combination systems thinking, scenario planning and strategic dialogue in a process of learning with futures to co-create the future i.e. goal-led collaborative innovation and social learning. Given the conservative, evidence-based culture of public policy this paper asks: can/how central governments shift policy making from a research-based problem solving model of policymaking rooted in the comfort of predict-decide-defend to less comfortable, more courageous processes involving search-design-prototype-relearn?

Wouters, Alain



We explore how organisational Identity is an object of Design, and how effectiveness in representing Identity affords representations of the Future (Scenarios) informed by designerly principles of imagination, relevance and experience. We draw on two cases in which the articulation of a Business Rationale was the starting point of a systemic and long term engagement with future Scenarios and their strategic significance. We will specifically review the importance of an ethnographic understanding of Identity as emergent from systemic relationships, and the extent to which user based Design theory and practice allows mapping, and synoptically representing, a systems view of the firm. The high degree of structural and dynamic complexity that is thus subsumed and resolved produces an image of the organisational Self that is causally driven by need, articulates systemically and dynamically how the firm engages that need, and the conditions that are necessary to the exchange.

In each of the cases reviewed a set of Scenarios was articulated, their reflective and learning value being a function of the application of Design principles that assured user based relevance, highly participative processes, breadth in the range of Scenarios rendered, iconic and emotive effect of each Scenario and a robust consolidation from possibility to relevance to action. We argue that the intersection of design thinking and scenario thinking can make the practice of design more strategic and the practice of scenarios leaner and therefore better tailored to the direct involvement of key decision makers.

ⁱ <http://www.g7plus.org/new-deal-document/>, <http://www.oecd.org/dac/infac/internationaldialogueandpartnership.htm>

ⁱⁱ <http://www.economist.com/blogs/theworldin2014/2013/12/predictions-2014>, <http://www.economist.com/blogs/theworldin2014/2013/12/social-unrest-2014>

ⁱⁱⁱ Youth/young people and air of despondency – the youth bulge to push economic (inclusive growth?) activity or a rump of people ripe for manipulation (consumerism, exploitation by extremists?)

^{iv} Note Programme for Infrastructure Development for Africa (PIDA - <http://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/programme-for-infrastructure-development-in-africa-pida/>) and use of (currently) public funds for some 51 infrastructure in what is seen as a 30 year strategy – ‘based on a common vision to emanate from consultative/validation workshops at sector, regional and continental levels’.

^v such as Dean Baker, Robert Shiller and Nouriel Roubini

^{vi} Wack, Pierre, “Scenarios: Shooting the rapids”, Harvard Business Review, November 1985.

^{vii} The Economist, “Guru: Pierre Wack”, August 29, 2008.

Appendix: Scoping Document by Conveners



Scenarios and Design *Scoping the dialogue space for Oxford Futures Forum 2014*

5-12-13

Yasser Bhatti, Lucy Kimbell, Rafael Ramirez, and Cynthia Selin

Introduction & Background

Scenarios are structured conceptual systems of equally plausible future contexts, often presented as narrative descriptions and systems maps. Scenarios are manufactured for someone and for a purpose, and typically to provide inputs for further work.

Scenarios have been used for over half a century in public and private work, and have always inhabited a practice-led field. Scenarios have been a practice-led field since their inception(s) in France with Gaston Berger (Bradfield et al 2005) and in the USA with Herman Kahn (**Schnaars 1987**). Scholars study these practices and help ascertain with theory which practices work well and why – and which fail, and why and how.

Understanding how scenarios work and why has thus not been derived from social science theory - instead it has been an object of study by social science.

Scholars have suggested that scenario work can be explained in terms of correcting decision-making biases (Schoemaker 1993); learning (de Geus 1988; van der Heijden 2005); Belbin team roles [Islei, Lockett, & Naudé 1999]; cultural theory (Inayatullah 2009); social ecology (Ramírez, Selsky, and van der Heijden 2010); and social capital (Lang 2012). Schwartz (1996) and van der Heijden (2005) considered scenarios to be an art, not a science.

Despite these diverse efforts, Wilkinson (2009) and Wright et al. (2012) proposed that the practice-led field of scenarios remains under-theorized. The Oxford Futures Forum (www.oxfordfuturesforum.org.uk) has sought to confront scholarship from different fields with scenario practice to advance scholarly understanding of why and how scenarios work. We subscribe to Kurt Lewin's view that good theory is 'good' if and in as much as it informs and improves practice.

In the 2005 Forum we confronted causal textures theory and social ecology with scenarios which lead to the production of two edited volumes. In the 2008 Forum we confronted sense-making research with scenarios. Several papers and v'Beyond the Financial Crisis Oxford Scenarios' were produced from work in that forum, and a further workshop on plausibility was co-produced with Arizona State University on their campus. The 2011 Forum confronted complexity theories with scenarios, and so far one paper has been produced from that event.

Introduction to the 2014 Forum

In the 2014 Oxford Futures Forum, we propose exploring the new theoretical terrain opened up through focusing on design, a field which is becoming more theorized and also emerges from practice. In doing so, we hope to support

rigorous and practical reflection, and methodological invention in both fields; and to produce publications following the event itself.

From the perspective of design research and practice, the intersection with scenarios is uncontentious. Even if designing an object, a designer is designing for future use, perhaps with a specific user in mind. How she grasps the object, where she encounters it, the practices it becomes part of, what new possibilities it affords or others that it disrupts - these are all already implicated in the work of designing and in the user's own (re)designing in use. A designer designs things for future situations, and if paying attention to the context of the design, would consider scenarios as a plausible set of contextual conditions of these situations.

In practice these future situations unfold; scenarios help to explore how they may depart from how any designer imagined things would play out. In this way, designers and strategists are in the same situation, and can use scenarios in comparable ways.

From the perspective of scenarios scholarship and practice, scenario sets render explicit the assumptions a design and/or a designer have made of the future context. They ascertain if alternative plausible contexts need to be considered to ensure the design works as intended.

The encounter between a capitalised Scenarios and Design envisaged in the Oxford Futures Forum goes beyond this. We aim to bring together - we believe for the first time - the leading practitioners and researchers who are working productively in both fields and at their intersection. This intersection is the territory where people with design backgrounds are involved in creating future objects, uses and practices that explicitly aim to provoke, disrupt and be troublesome, as a way of surfacing and rendering explicit, palpable and tangible and examinable relevant assumptions and differences of understanding or worldview - or even underlying myth, as Inyatullyah (2009) has helped us see. This is also the territory where people working with scenarios pay attention to the material, aesthetic and affective dimensions of their work (Davies et al 2012); where they render explicit the choices they make in deciding how to convene and run workshops, engage stakeholders, and ensure their scenarios are used and communicated effectively.

Scenario planners and designers build up and immerse those they work with in potential futures. Each has and can offer unique approaches, views, ideas, and tools to assess an uncertain, unforecastable, or problematic situation; and to set the stage for courageous conversations and even transformation.

There is often in this work a shared focus on sustainability and socio-cultural change, bound by intention and fueled by careful study. Honing in on the intersection between Scenarios and Design, we propose five characteristics shared by both practices to kick off the conversation at OFF 2014. Considering each of these, even in brief, allows us to bring into view common foci that can unfold differently in the distinct organisational routines and structures in which Scenarios and Design work take place.

Five characteristics at the intersection of scenarios and design that will be explored in the 2014 Oxford Futures Forum

I. Iterative Discovery

In this Oxford Futures Forum design and scenario building and use are both understood as iterative processes. Scenario planners build scenarios to help users to rehearse alternative futures. Scenarios are defined and built through a process of co-inquiry that involves multiple phases of research, peer-review, and reflection. Often starting with a broad review of strategic challenges and an imaginative brainstorm of contextual factors tethered to the purpose, the unwieldiness of wildly dispersed factors is then structured in frameworks that enable comparison and understanding between stories. The use of scenarios often involves 2D media such as paper, powerpoint slides, or wall displays. In producing scenario system diagrams and stories, stakeholders are identified and engaged with, trends and their unsustainability are defined and assessed; ideas are rendered, tested, disposed of, and resurrected; and in doing this, clarity and improved intelligibility is manufactured. Ambassador Lam of Singapore called scenarios 'bamboo scaffolding': they are adaptable and temporary, but essential to support the beginnings of difficult, courageous 'strategic conversations' that support insight, 'ah-has' that reframe understanding (Normann 2001), and surface new propositions or questions.

Designers have been described as exhibiting divergent and convergent thinking (Buxton 2007), or opening up and closing down possibilities during their work (Binder et al 2011). Whether "design thinking" is understood as an organizational learning journey (Beckman and Barry 2007), or as a cognitive style (Cross 2006), like scenarios, design thinking is seen to unfold through collaborative cycles of exploration and inspiration, rigour and intuition, ideation and repeated prototyping. Influenced by researchers/designers working within Scandinavian Participatory Design traditions and

workplace studies (eg Ehn 2008; Suchman 2003), design as we understand it in the Oxford Futures Forum is about collective action, rather than a matter of individual skill, and draws attention to the wider groups of stakeholders involved.

II. Purposeful

Both scenarios and good design rely on a strong guiding purpose. Both aim for a deep understanding of the needs of the clients and the people they aim to serve. At their core, these disciplines have in common the intent behind Herbert Simon's definition of design as "devising courses of action aimed at changing existing situations into preferred ones" (1996: 111).

Scenarios as understood in the Oxford Futures Forum are a set of possible future contexts, designed and specifically manufactured for someone for a purpose and with an intended use. In scenario planning, the future is taken as a conceptual category that allows perspectives on the present; producing scenarios to –say– 2040 does not suggest they will be used in 2039; instead it proposes that looking at the present and nearer term future from the perspective of 2040 is helpful. Part of the help is to contrast at least two and not more than four such perspectives with each other.

In Oxford we contrast strategy (what one intends to do) with scenarios (possible future homes of those intentions, especially once implemented). It is in this surfacing and contesting of assumptions about the future contexts one's intentions will inhabit that scenario sets support strategic decision making. But scenarios can also be used for other purposes such as assessing values in dispute, sensemaking (OFF 2008) and appreciating complex situations (OFF 2011).

The practices of scenario work have all been designed, mostly with the designing itself remaining implicit. This Oxford Futures Forum seeks to make these design choices explicit and understandable with the help of world-class designers and design scholars.

Each approach works to achieve a rich contextual understanding of the intent of the intervention and both regularly refer back and again to the purpose of the engagement. Neither is an engagement itself, both are essential aspects of such engagements.

III. Materiality and Embodiment

At first glance, Design's historical focus on materiality might be seen to be distinct from the conceptual nature of scenarios work. A core practice within design is giving shape and form to concepts as a way of developing and exploring them. To instigate organizational change, many designers start with redesigning spaces, changing or moving furniture, or otherwise disrupting normal work flows. They make mock-ups and prototypes to make things concrete. But this depiction of Design ignores that such realizations are as conceptual as they are material. Embedded in an imagined future practice, the interactions with artefacts such as sketches or models can open up possibilities for organizational teams. Design firms focusing on future technologies such as BERG London, IDEO or Arup typically make films to explore and communicate (or 'render') the future interactions people will have with technological objects they design. For example, BERG London's film about Nearness (<http://berglondon.com/films/>) sets up a playful set of encounters between material and digital artefacts, and by doing so, poses questions about human-computer interaction. In such films, or mock-ups, the materials "speak back" (Schön 1983) – they don't merely communicate what a designer intends.

At the same time some scenario practitioners are focusing on materiality to render possible futures more concrete (Candy 2010; Byrne et al 2012). Enlivening scenario work results with genres that exist now, such as theatre plays, newspaper articles, advertisements, street signs, or product packaging, helps convey the differences between the present and future in a cultural language people can readily assimilate.. For example, a cereal box from 2040 claiming that the cultivation of its ingredients results in a net removal of CO2 from the atmosphere might be used to express a future world deeply engaged in the issue of greenhouse gas reductions. These so-called "Artifacts from the Future" hack existing products or make use of 3-D printing, or simply Photoshop to create objects.

Further, scenarios are not just conversations and stories but are built within – and used- material circumstances that matter. The 'strategy as practice' movement (Strategy 2010) studies how practices such as room set-ups; tools such as white boards, hexagons, post-its, pens, flip charts, PC programmes; and embodied practices & practitioners such as consultants and strategists come together to coproduce strategy practices such as scenarios. Hodgkinson and Healy (2008) have assessed such choices in their scholarship on scenario design options.

IV. Human Experiences

Design is self-consciously concerned with people's experiences. Contemporary design fields, with their focus on the design of interactions, experiences, and services, aim to change behaviour, not just design artefacts - whether they are explicit about this or not. Singleton (2011) went as far as saying that design should recognize the *metec* – a Greek term denoting cunning that surfaces concerns about the trickery of design. He considered *metec* to be a core part of the intellectual DNA designers should reclaim. The take-up of ethnographic research within design, innovation and new product development, evidenced in communities such as the annual Ethnographic Practice in Industry Conference (<http://epiconference.com>), manifests increasing rigour in thinking through why and how human experience can be captured for organizational work.

When scenario practices explicitly consider design, attention seems to focus on individual experience in relation to group dynamics in workshop settings. This concerns levels of participation, power relations, the politics of who participates, and the social psychology of the setting (Bradfield 2008).

OFF 2014 invites exploration of emerging scenario practices which seek to create an intimate, human-centered sense of time travel, luring scenario builders and users to get a sense of the everyday and sensual features of an alternative world, as Radford (2012) has proposed doing with 'experiential scenarios'. [2](#)

V. Mediating/Translating

Both designers and scenario planners trade in nuanced approaches to capture, manifest, share, render, and communicate unusual, contrarian, and even difficult ideas and to make them accessible to participants or users. They both seek to enhance creativity (eg <http://www.maketools.com>).

Both aim to mediate the then and there with the here and now. Both aim to help assimilating and translating complex phenomenon into action.

The so-called sociology of translation (Czarniawska and Joerges 1996; Mueller and Whittle 2011)) has considered how concepts from one realm are enrolled by someone into another realm. Henderson (1999) showed how important visual representations were to teams of engineering designers. Carlile (2002) showed how knowledge is transformed through creating visual devices. That research has not extended, to our knowledge, into how designers and scenario practitioners work.

Scenarios have been conceived as boundary objects, as devices that can help individuals and teams to hold multiple and even contradictory meanings or views simultaneously (Selin 2006) and which can make disagreement an asset in developmental ways that avoid regression (Winnicott 1960). Scenario sets are structured imaginations rendered communicable and memorable; they use stories, pictures, performance, props, films, and other artefacts to this effect. Because they come in sets, scenarios allow differences of opinion to be shared, mapped and compared. Because they are situated in the conceptual future and offer broader perspectives than present viewpoints offer, scenarios invite perspective shifts to avoid the constraints of present politics and past left-overs. Normann (2001) said building scenarios was like building oneself a crane that allows an otherwise impossible point of view and whose hook allows one to come down to earth and compare the view with the here and now reality.

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