Introduction

The most widely used approach to scenario building for scenario planning purposes is the deductive, ‘axes of uncertainty’ approach developed by Ogilvy and popularized in Schwartz’s (1991) *The Art of the Long View*. It has been critiqued for creating a ‘flatland’ of futures – future worlds in which currently held ideologies and worldviews were insufficiently examined and critiqued. Additionally, the approach is essentially binary – attempting to create four unique futures from only two main drivers of uncertainty. While participants contribute during the process, the final scenarios are often drafted by outside writing talent.

We recently tested an integrated foresight process for participatory scenario generation that addresses those weaknesses. This process builds scenarios up inductively: via layers of timeline mapping using the Three Horizons framework; via implications mapping using Futures Wheels augmented with the Verge Ethnographic Futures Framework; and via influence mapping using systems thinking. The resulting influence maps are reviewed for emerging causal loops that represent accelerated change, or constraints on change. The systems maps then become the contextual ‘backdrop’ or scenery of the scenarios; a framework of Jungian archetypes helps participants to suggest a cast of characters with emotional resonance; and the ‘Hero’s Journey’ narrative arc assists participants in devising a compelling story set against backdrops of turbulent change within complex systems. The process was pilot tested within a Fortune 500 company and produced scenarios that are now significantly embedded within the organizational culture.
Points to Lines to Complications to Attractors

*Points:* After clients frame their issue of interest, identifying relevant emerging change is the foundation of any futures study. This requires scanning:

![Life Cycle of Change](image)

*Figure 1. Growth curve of an emerging issue of change*

Discovering a range of individual datum that collectively indicate patterns of change. Research at this stage is pointillist: many dots of change create a picture, or pictures, of what is emerging and gathering momentum.

*Lines and Layers:* Our dynamic context consists of multiple lines and layers of change. These are not straight lines: emerging changes each have unique life-cycles. These life-cycles vary in tempo and duration: technological change beats swiftly, where social or governmental change can take decades, and environmental change millennia. Most importantly, old change patterns obsolesce: assumptions, paradigms, and business models erode in the flow of emerging change.
Thus a second crucial step is a snapshot of the current state of play. This takes the form of an assumption audit: What do the clients take for granted about their current operating environment? What have they ceased to think about, taking it as a given in decision-making? These internalized assumptions are blind spots. They may be paradigms, business models, or assumptions about who their competitors are, where their market it, or what their infrastructure must look like. This is Horizon 1. The emerging changes of Horizon 3 challenge these Horizon 1 assumptions, and...
threaten them with obsolescence. Horizon 2 is the turbulent space where change, impacts, vulnerabilities, and opportunities erupt. The ‘Hero’s Journey’ (Campbell, 2008), as we shall see, is the journey across the turbulence of Horizon 2 to the aspirational transformations possible in Horizon 3.

In addition, the layers of change constantly interact. Any one change creates multiple impact cascades that collide with the ripples of change around it. Mapping impact cascades via futures wheels lets participants extrapolate waves of change along the Three Horizons timelines.

Figure 3. Mapping change impacts using futures wheels and Verge

At this point the process can also address the Integral Futures critique of scenarios as ‘flatland’, by building depth into the participatory process. The ‘Verge’ Ethnographic Futures Framework provides a structured process for this.
Verge asks participants questions within a six-part conceptual framework:

- How do we **DEFINE** ourselves and the world around us?
- How do we **RELATE** to each other as families, communities, nations, a global society, or part of a changing biosphere?
- How do we **CONNECT** people, places, and things, whether through physical systems, art, language, music, or ideas?
- How do we **CREATE** goods and services?
- How do we acquire and **CONSUME** goods and services?
- How do we **DESTROY**?

**DEFINE** in particular focuses on how we understand ourselves, our environment, our culture, and on what we understand to be the mental models, paradigms, and cultural structures underlying our thinking. But all the Verge questions help people explore and critique those psychological and cultural issues identified by Wilbur and Slaughter as so often missing from futures and foresight research.

Having dug into underlying structures in exploring cascades of change, participants next acknowledge complexity by layering and interconnecting impact cascades.

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**Figure 4.** Converting futures wheel impact cascades to timelines
Complications: Using wall murals and other graphic aids, participants can discuss the layers of impacts cascading along the timeline as a result of relevant trends and emerging issues of change. They can work in groups to map influence among the impacts and changes. The next step is identifying potential causal loops. Participants highlight where amplifying loops might accelerate clusters of change, and where balancing loops might slow or constrain emerging change. This step contributes not only to understanding the strategic landscape, but also to developing narrative dynamics for the scenario story.

Figure 5. Linking influences across impacts to identify causal loops

![Diagram of System Impacts Across Layers]

**Key:**
- **CHANGE:** Changes (data from icons, forecasts)
- **Cr:** Impacts (output from implications wheels) = define, relate, connect, create, consume
- Interconnections and possible system loops
Figure 6. Identifying multiple causal loops as potential change accelerators

From simple causal loops, participant discussion builds more complex system maps, portraying (in this case) three distinct dynamic systems creating different potential outcomes for the global business environment over the next ten or so years.

Figure 7. Scenarios identified from interconnected causal loops
Up until this point, participants:

- audit assumptions about the current operating environment and major drivers of change,
- identify emerging change across the Three Horizons,
- review and prioritize scanning data (acquired from a variety of expert sources),
- explore the impact cascades of high-priority emerging changes,
- map how impacts might influence each other,
- identify causal loops, and
- create three (in this case) complex maps that illustrate what system dynamics might drive change.

All useful activities, each generating insights – but none producing drama. That’s the final challenge, and the final step.

**Attractors:** A compelling story changes minds at deeper and more profound levels than any systems map. Each step of this process produces in its own right valuable output for decision-makers and, more importantly, output they have produced themselves. But if the goal is organizational culture change, the process must create future stories vivid and interesting enough to remember and share easily. These future stories – scenarios – can act as attractors, drawing attention to critical issues and supporting the evolution of adaptive and sustainable competitive strategies.

![The Jungian Archetypal Characters](image_url)

**Figure 8.** The twelve Jungian archetypes organized by core purpose

The final participatory workshop begins by offering participants the refined systems maps – these represent the backdrop, or scenery, of the story we are about to tell. Every good story requires interesting characters – so we asked participants to populate the system landscape with stakeholders and public figures who play the
various Jungian archetypes (Jung, 1981): who’s the Outlaw in this future? Who’s the Explorer, or the Sage? Who is the Innocent? Are we the Lover or the Nurturer? As the system drives change, do we move from one role into another? And can we identify a Hero who will journey from the obsolescing Horizon 1 assumptions through the turbulence of Horizon 2 to achieve the transformations possible in Horizon 3?

**Figure 9.** The twelve stages of the Hero’s Journey

We have the scenery; we have the Hero, and her helpers and opponents. The Hero’s Journey provides the drama – a compelling narrative arc that is the archetypal story of adaptation and evolution in the face of change and challenge. Participants populate the phases of the journey with their own trials, resistance, constraints, mentors, rewards, and growing awareness of future possibilities. We only need to transcribe.

**Conclusion**

Our goals in designing this process were three-fold: 1) to create a participatory, integrated futures process that digs more deeply into organizational cultural assumptions and blind spots; 2) to produce scenarios inductively by interconnecting impacts of multiple variables to mimic more closely the turbulence of real-world change; and 3) engage participants in creating their own richly detailed, vivid, and dramatic stories about possible futures. Feedback from the clients during the process suggests we achieved those goals. Three ‘story’ products resulted:

- Long ‘research scenarios’, which tell how each future evolves using a ‘popular history’ tone of voice – interesting, vivid, dramatic, but from an institutional, not a personal point of view. These research scenarios are designed to
incorporate large amounts of the scanning data.

- Short, vivid ‘dramatic scenarios’ that offer a memorable portrayal of an emerging possible future relevant to strategic issues. These feature a range of characters, and read more like short stories, biographies, or human interest journalism.

- Short (5 – 10 minute) videos that present the dramatic scenarios as high-impact visuals.

Recent feedback from the client indicates that the scenarios – and all project outputs – are now deeply embedded in the corporate strategic culture, and at all levels.

Reflections on the Yeditepe Conference Gathering (Wendy Schultz)

Images of the future can be generated using a myriad of techniques, and expressed in any media: the future imaginary epitomises infinite degrees of freedom. This infinite freedom, however, requires deep commitment to the exploratory and critical focus of futures practice, and a letting go of any urge to predict. Thus it is not a freedom often enjoyed in day-to-day consulting practice, as most clients would choose a prediction over a forecast, and a forecast over a speculation. It is no wonder, then, that perhaps the most popular method for exploring alternative possible futures – the ‘two axes of uncertainty’ approach – by its very nature constrains. Yet as our present constantly evaporates into a future, the futures we experience emerge from the turbulent interplay of multiple changes and their attendant impact cascades, interacting, amplifying, checking, adapting. The dynamics of evolving futures are not binary, but complex and chaotic.

My colleagues and I enjoyed a rare opportunity to create a bespoke state-of-the-art participatory futures approach for an adventurous client whose focus, granted, was less strategy than innovation, creativity, and organizational learning. This poster presents a 40,000-foot view of the essential steps of that process. It sought to link robust scanning with group appreciation for history, the unfolding of multiple layers of change over time, and an appreciation for the diversity of resulting impacts and the turbulence of their interconnections. More essentially, it had as its primary target dramatic narrative and story creation. Narrative and story-telling are the topic of multiple discussions among futures practitioners these days, who often rely on the Hero’s Journey (Campbell, 2008, 3rd edition) to provide the narrative arc. But we suggest that narrative arc alone is not sufficient. Your Hero needs a backdrop for her adventuring, and a cast of characters with whom she can interact. Systems mapping of impact cascades provides the environment, and Jungian archetypes offer templates for interesting characters.

In the context of the panel, the next question would seem to be, how do we scale up this depth of field, this density of interwoven detail and connection, using platforms for crowd-sourcing like those depicted in the other papers? Where’s the sweetspot for futures exploration at the intersection of complex real-time facilitated process and complex asynchronous software supported process?

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References


