SCENARIOS AND STORYTELLING

Uses and shortcomings of narrative in foresight

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Scenarios

• A scenario is “a postulated sequence or development of events”

• “A setting, in particular for a work of art or literature”

• “A written outline of a story”

• Method originated with Herman Kahn and Gaston Berger in the 1950s
• Kahn used scenarios as a military planning technique, Berger as a public policy tool
Foresight Methods

- Brainstorming
- Delphi
- Expert Panels
- Extrapolation
- Futures Workshops
- Interviews
- Literature Review
- Scenarios
- SWOT
- Other methods
- Science Fictioning
- Other Techniques
The “Other Techniques”

(Van Notten et al., 2003)
“Commercial SF is often used, mostly informally, as a source of inspiration by people thinking about the future.”*

“A short story, movie or comic based specifically on a science fact for the purpose of exploring the implications, effects and ramifications of that science or technology” +

“It is quite common for scenarios to be illustrated . . . by brief vignettes which use SF-like techniques to illustrate one or another point of the imagined future world.”*

+(Johnson, David, 2011)
Two Barriers to Adoption

1. “Because [science fictioning] involves fiction narrative – and much commercial science fiction is driven more by the need to have adventure or surprise – the method is not very commonly linked to serious governmental or business policy-making.

2. “The main limitation of generating new SF, as a technique, is the difficulty of finding people with inventive, novel and abstract mindsets.”

(Georghiou, Luke, 2009)
Overcoming the Barriers

I have tried to overcome these two barriers in three ways:

1. Emphasize the legitimacy of narrative as a general approach to communication

2. Develop a way to analyze texts, so as to distinguish between useful foresight content and storytelling embellishments

3. Explore techniques that will allow non-authors to generate useful scenario narratives
Barrier #1: Legitimacy

• “...the method is not very commonly linked to serious governmental or business policy-making.”
  • (Georghiou, Luke, 2009)

• Storytelling is traditionally considered an art, not a science

• As an art form, storytelling is understood to be imprecise, trivial or even deceptive

• The phrase “it’s just science fiction” is often used to discredit a narrative
We Think in Stories

“Narrative seems to be the default task orientation of the human mind. By this I mean that if our minds can process information in narrative terms, they automatically will.”

--Brian Boyd
Complex adaptive systems can only be understood in terms of:

- Their History
- Their Context

A history described in context is a story.
Scenario Fictions as a Technique

Methodology: Scenario-based planning

Method: Science-Fictioning

Technique: Scenario fiction
**Crucial Distinction**

SF prototyping is a kind of exploratory thought-experiment which may generate further activities beyond itself.

A scenario fiction is a final deliverable, which may synthesize but primarily sums up an already-completed analysis.

A scenario fiction should make you remember the findings it summarizes more than its own internal elements (characters, plot, drama etc.)
Examples

Science Fiction Prototyping:

Scenario Fiction:
• Schroeder, Karl. “‘Wedia’.” *2020 Media Futures*, 2011.
Research Question

How might we translate existing foresight findings into a fictional narrative in such a way that the reader learns the findings from it, while not introducing new concepts or irrelevant literary details that might confuse or divert attention from those findings?
The Gap

In my literature review, I was only able to find two studies on how to write scenario-oriented science fictions:


• Shearer, Allan. “Applying Burke’s Dramatic Pentad to scenarios.” *Futures* 36, no. 8 (October 2004): 823-835.
Approach

Key activity: find a conceptual framework for translating some set of concepts or findings from didactic to dramatic form.

We are not interested in hermeneutic approaches to literature. The framework must be prescriptive or at least allow us to make prescriptive statements about storytelling.
Traditional Storytelling

A person in a place

Encounters a problem

Tries to solve it

Fails

Changes their approach

Makes supreme effort

Succeeds

Most storytelling manuals emphasize a structural approach such as the 7-point plot structure…

Source: Budrys, Algis (2010)
Have characters talk about security paradigm here

Mention bird flu here

Mention ubiquitous computing

Background news report mentions United Cities

...But this tells us nothing about how to introduce the material we want to talk about.
Solution

Use the classical art of **mnemonics**

Employ the recent theory of video-game criticism, **Unit Operations**, as a method of thinking about stories as composed of bite-sized chunks that be incorporated into stories designed as mnemonics.

Classical Mnemonics

A frame or *locus* encloses the images to be used as the mnemonic. The card is a locus, but so is the backdrop of waves in the image itself.

Specific *images* serve as mnemonics: Swan, turtle, seashell, crystals, fish. The iconography should be familiar to the user. (This card represents a clear-sighted young woman with strong emotional stability.)

--Source: Aleister Crowley, “Thoth” Tarot Deck (1943)
What does this have to do with writing?

Literary structures can employ mnemonics. Example:

“The door dilated.”

Source: Robert A. Heinlein, *Beyond this Horizon* (1942)

In fact, any literary structure that places extraordinary imagery in an ordinary setting is mnemonic.
Another example:

“The car’s heads-up display was flashing.”

Locus Extraordinary imagery

Source: “Safety Glass” (Schroeder, 2006)

The locus establishes a familiar context that gathers together or situates a set of unusual images that constitute the mnemonic.
Case Study: “Safety Glass”

• “Safety Glass” is a scenario fiction constructed to synthesize and summarize the findings of the Prospective Protective Futures Security Workshop (PPFSW), held in Ottawa March 27-29, 2006.

• “Safety Glass” is constructed as a set of mnemonics for the key findings of the conference.
What Do We Want to Remember?

Critical findings of the Prospective Protective Futures Workshop:

1. A new paradigm of security in which individual citizens play a greater role than government agents;
2. The issue of pandemics and similar social disruptors;
3. Computer and network security as primary enablers;
4. The realization that world security and local security are now the same;
5. The “United Cities,” which is itself a mnemonic for the rather more complicated notions of post-sovereignty and the ‘new medievalism.’
Key Technique

Select story elements so that each element is either a mnemonic for one or more of the findings, or so that the element is a neutral locus (setting, container or context) for such mnemonics.

To remember any aspect of the story should automatically mean remembering one or more findings.
Locus & Image: Simple Version

<table>
<thead>
<tr>
<th>Key conference finding</th>
<th>Locus</th>
<th>Mnemonic images</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-sovereignty and the “United Cities”</td>
<td>Coastal B.C.</td>
<td>Protagonist is a citizen of “the cities”</td>
</tr>
<tr>
<td>Citizen security</td>
<td>An ordinary person</td>
<td>‘Wiki-security’ activity she is involved in</td>
</tr>
<tr>
<td>Ubiquitous surveillance and sousveillance</td>
<td>Driving in the country</td>
<td>‘Bugged’ birds; flightplans for cars</td>
</tr>
<tr>
<td>Global and local security are the same</td>
<td>Seemingly trivial events on a back road</td>
<td>Ordinary citizen fights international terrorism</td>
</tr>
<tr>
<td>Social disruptors</td>
<td>Espionage plotline</td>
<td>Flu pandemic as weapon</td>
</tr>
</tbody>
</table>
Multi-Level Construction

Because we are working on the level of the reader’s mental imagery rather than some specific structural level of the text, the locus/frame construction can happen at any level, from overall story down to individual sentence.

The mnemonics operate after the story has been “compiled” in the reader’s imagination, so in their construction they may cut across structural levels of the text. What matters is not the formal structure in the text, but the resulting image in the reader’s mind.
Type of story: spy caper

This forms our locus, because it is a familiar structure, meaning that once we as readers recognize what type of story we’re reading, our attention may be diverted from this ‘frame’ to something inside it.

Mnemonic: An ordinary citizen does weekend espionage work to help catch terrorists who may want to use bird flu as a weapon.
Locus & Image: Setting

The story is set on wooded roads in coastal B.C.

This easily-imagined setting is the frame in which we place self-driving cars, allusions to plurinational identity, ubiquitous surveillance, etc.
“She entered the trees, carrying a cardboard banker’s box…Three birds lay in the box…”

We use the locus of coastal B.C. forest to frame the striking image of a woman walking into the woods carrying a banker’s box. We use the specifically banal detail that this is a banker’s box to create a locus for the striking image of the three dead birds within it.

I.e. she does not just enter the woods carrying a box. She carries a specific kind of box because that specificity aids the mnemonic.
Locus & Image: Sentence Level

“The car’s heads-up display was flashing: pull into the next checkpoint. Achala Camber frowned and pressed the green “Okay” button, returning her attention to the map on her PDA. Outside, damp pines whipped past, slowing, and then with a slight bump the car found its way off the highway and rolled to a stop. Achala looked up, noticed that someone was walking toward the car—a real person, not a bot or simulation—and put down the PDA.”

• **Yellow** signifiers point to a locus; in story terms, they set up expectations about what the reader will be told next.
• **Blue** signifiers violate expectations to introduce novel or clashing elements, which point to the new ideas we want to convey.
• **Green** is interesting: when originally written, it would have been read as striking or novel; now it’s commonplace.
What to Leave Out

Implied in any decision about what to include is what to leave out.

This story is not ‘about’ character, so Achalla is not faced with a life-changing choice in the resolution of the story. Similarly, her history is not what the story is about, so it is not described.
Future Investigations

• The inverse operation of constructing a story is evaluating it.

• The mnemonic approach to writing implies a corresponding evaluative approach to existing stories.

• I.e., we can answer the question “Does story X adequately stand for the set of findings Y?”
Conclusions

• In combination, a constructive and evaluative approach to scenario fictions would allow the technique to be used more broadly.

• This is because the technique replaces subjective, private, aesthetic decisions about how to construct a story with visible, defensible, reproducible ones.