Scope

- Introduction from Meyer and Miller
- Forecasting … and Scenarios
- Demographics as an example
- Communication tools
- Working with Mindmaps
1. The world moves into the future as a result of decisions (or the lack of decisions), not as result of plans.

2. All decisions involve the evaluation of alternative images of the future, and the selection of the most highly valued of feasible alternatives.

3. Evaluation and decisions are influenced by the degree of uncertainty associated with expected consequences.

4. The products of planning should be designed to increase the chance of making better decisions.

5. The result of planning is some form of communication with decision makers.

Chapter 1, pages 2-3
Forecasting:

- Short term extrapolation: The future on the basis of the past
- Applicable to slow incremental change
- We tend to believe that today’s status quo will continue for ever
- We often ignore …
And Scenarios

- A conceptual description of the future based on cause and effect
- Invent and analyze several stories of equally plausible futures to bring forward surprises and unexpected leaps of understanding
- Goal is not to create a future, nor to choose the most probable one, but to make strategic decisions that will be sound (or robust) under all plausible futures
"Scenarios transform information into perceptions... It is a creative experience that generates an 'Aha!' ... and leads to strategic insights beyond the mind's previous reach."

Pierre Wack  GBN
Reading on Scenarios

- “The Art of the Long View” by Peter Schwartz
- “Scenarios: The Art of Strategic Conversation” by Kees van der Heijden

Both authors work for the Global Business Network (www.gbn.com) and come from the Shell Planning Group
Scenarios: Why?

- History is a continuum of pattern breaks.
- We react to uncertainty through denial (that is why a quantitative model is so reassuring!)
- Mental models, and myths, control what you do and keep you from raising the right questions.
- We cannot predict the future with certainty.
- By providing alternative images of the future:
  - We go from facts into perceptions, and,
  - Open multiple perspectives.
- Approach: Suspend disbelief in a story long enough to appreciate its potential impact.
Scenarios: How?

- Examine the environment in which your actions will take place and see how those actions will fit in the prevailing forces, trends, attitudes and influences.

- Identify driving forces and critical uncertainties.

- Challenge prevailing mental modes and be creative about the future of critical variables.

- Rehearse the implications.
Scenarios: Stages

1. Identify focal issue or decision (ie Global warming)
2. Identify driving forces in the local environment
3. Identify driving forces in the macro environment
4. Rank the importance and uncertainty of each
5. Select scenario logics (so as to tell a story)
6. Flesh-out the scenario in terms of driving forces
7. Analyze implications
8. Define leading indicators for monitoring
Scenarios: Rules

Goal:
- Required decisions under each scenario? Vulnerabilities? Can we control the key driving forces?...

- Good scenarios should be plausible, but also surprising by breaking old stereotypes

- Do not assign probabilities to each scenario...

- ... But give a name to each scenario

- A total of 3-4 scenarios: Not just two extremes plus a probable one. Good to have a wildcard
Demographics as an example

- Fertility rate:
  - Avg no. of children born to women over their lifetime

- Birth rate:
  - Total no of births divided by the size of the population

- Canada claims a low fertility rate (1.7) but a high birth rate

Figure by MIT OCW.
Demographics: What do you make of this?
Is age a good predictor for:
- Real estate?
- Transit use?
- Use of hard drugs?

If age is a good predictor, then:
- Establish number of people in each age group
- Define probability for each age group, of participation in a given behavior or activity

Here is a diagram showing the average daily trips per person in the Greater Toronto Area by age group for the years 1986 and 1990:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>1986</th>
<th>1990</th>
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<tbody>
<tr>
<td>5-9</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td>10-14</td>
<td>1.00</td>
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<tr>
<td>15-19</td>
<td>2.00</td>
<td>2.50</td>
</tr>
<tr>
<td>20-24</td>
<td>0.50</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note: Statistics are for 1986.*

A 19 yr old has little money but plenty of time to wait for the bus.

From: "Boom, Bust and Echo" by Prof Foot
According to Professor David K. Foot (“Boom, Bust and Echo”), future scenarios entail some certainty: *In 10 yrs, we will all be 10 yrs older*

Demographics, not only predictable, but inevitable: *The most powerful, yet underutilized tool, to understand the past and foretell the future*

Age is a good predictor of behavior… and therefore, a good forecasting tool
Communication Tools

- Transportation Policy depends to a great extent on two-way communications:
  - Policy analysts ↔ elected officials
  - Elected officials ↔ other politicians
  - Elected officials ↔ mass media
  - Public at large ↔ elected officials
  - ...................... ↔  ......................

- But impact of a message is based on:
  - words (7%),
  - how words are said (38%), and,
  - non verbal clues (55%)
### Communication Tools

<table>
<thead>
<tr>
<th></th>
<th>learned</th>
<th>used</th>
<th>taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>1st</td>
<td>Most (45%)</td>
<td>Least</td>
</tr>
<tr>
<td>Speaking</td>
<td>2nd</td>
<td>Next most (30%)</td>
<td>Next least</td>
</tr>
<tr>
<td>Reading</td>
<td>3rd</td>
<td>Next least (16%)</td>
<td>Next most</td>
</tr>
<tr>
<td>Writing</td>
<td>4th</td>
<td>Least (9%)</td>
<td>Most</td>
</tr>
</tbody>
</table>

**Workshop 1**

*Listening Courses? Toastmasters? Speed reading?...*
Communication Tools

“The Visual Display of Quantitative Information” by Edward R. Tufte plus the two follow-up books – a must-read reference
How Do you Visualize Change???

Remember that simulations could be critical
Other tools of the trade

- Creativity: Lateral thinking, to think-out-of-the-box, thinkertoys...
Out-of-the-box thinkers

- Edward de Bono:
  - Thinking Tools
  - Six thinking hats
  - Lateral Thinking

- Michael Michalko:
  - Cracking Creativity
  - ThinkerToys

- Many others

- The intelligence trap
- The Everest effect
- Plus.Minus.Interesting.
- C.A.F. consider all factors
- O.P.V. Other people view
- To look for Alternatives – beyond the obvious
- Analyze Consequences
- Problem Solving and Lateral Thinking
- Provocations
Mindmapping

See “MindMapping” by Tony Buzan et al.
- You see what you know and where the gaps are
- Clears your mind of mental clutter
- It works well for group brainstorming
Mindmapping

- A whole-brain alternative to linear thinking
- Retain both the overall picture and the details
- Promote associations
Mindmapping

- You see what you know and where the gaps are
- Clears your mind of mental clutter
- It works well for group brainstorming
Mindmapping

- Let us do a joint MindMap
MIT
Massachusetts Institute of Technology

Mind-Mapping

Vacation

- Destination?
- With whom?
- Kind of vacation?
- Financing?
- When?
- Transportation
- For how long?
- Weather
- Budget?
Mind-Mapping

Vacation

- Destination?
  - New places
  - State Dept warnings
  - Speak the language
  - Beach
  - Desert
  - Geography
  - Stay home
- With whom?
  - Alone
  - Work mates
  - Visiting people
  - Mutual decision Compromises
  - Relatives
  - Friends
- Kind of vacation?
  - Seeing things
  - Zone out?
- Work travel
- Paid vacation
- Non paid leave
- Financing?
- When?
  - Work schedule?
    - Season?
  - Transportation
    - Drive
    - Airsavers
    - Frequent Miles
    - Boat
    - Steam boat
    - Cross country skiing
- For how long?
  - Weekend
  - Week
  - European vacation
- Weather
  - Cold
  - Warm
- Budget?
  - Hostels
  - Five Star Hotels