Strategic Foresight

Change & The Future

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Nature of Change
Sociology and Social Change

- Tables of contents from the 10 highest ranked sociology textbooks on Amazon.com
  - Average of 15 sections in each book (15 weeks in a semester)
  - Three did not have a chapter on social change
  - Seven did...
    » 7% of the chapters
    » 3% of the pages

- No social change textbook in print for years
Four Basic Concepts

Sources

Times

Change

Levels

Rates

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Sources of Change

Anticipate…
*Intelligence*

Influence…
*Policy*

**INBOUND**
Change that happens to us.

**OUTBOUND**
Change we create ourselves.

...but within limits

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Levels of Change

- Economic
- Technological
- Environmental
- Transactional Environment
- Enterprise
- Demographic
- Social
- Political
- Cultural

STEEP

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Horizons of Change

Present

Future

Tactical

Operational

Strategic

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Rates of Change

- **Continuous change**
  - gradual improvement over long periods
  - usually preserves the framework/context

- **Discontinuous change**
  - sudden change to new levels
  - usually destroys the framework/context
  - always involves short-term loss
The Real Shape of Change

S-Curve

1. **Old era**
   - **No problem.**

2. **Transition**
   - **What is going on here?**

3. **New era**
   - **Whew!**

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Past Disruptions

- Airlines
- Automobiles
- Telephones
- Television
- Health care
- Retail
- Utilities
- Newspapers
- Military
- Elections
- Schools?

The Common Element
Destruction of Monopolies
Appearance of Competition
Eras in Information Technology

![Graph showing the evolution of MIPS (Million Instructions Per Second) over time. The graph illustrates the transition from manual calculations to modern computers, highlighting key technological milestones such as vacuum tube computers, transistor-based computers, and integrated circuits. The x-axis represents the year, ranging from 1880 to 2020, while the y-axis represents MIPS in logarithmic scale.]
Other disruptions

Source: http://www.bsos.umd.edu/socy/vanneman/socy441/trends/divorce.jpg
Punctuated Equilibrium

Eras
Incremental, Continuous

Transitions
Transformational, Discontinuous
Civilization Eras

Apparent Change

Actual change: a series of episodes, called era.

Hunting/Gathering

Agrarian

Agricultural

Industrial
Different types of society have different primary energy sources.

The complexity of a society is a function of the energy it has.
Transportation Eras

- Speed
- Running
- Riding
- Motoring
- Flying

Law of diminishing returns

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Communication Eras

Capability

Inherent capacity for performance

Internet

Radio, TV

Print

Voice

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The Gap

Transitions *inevitability* create problems...

...but problems are investments toward a better future.

Old era

New era
The Types of Change

Improvement

Substantive solving problems

Procedural altering procedures

Normative changing attitudes

Cognitive adjusting assumptions

Transformation

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Change and Stability

Nothing changes everything
Strategic Forecasting
The Purpose of Forecasting

- Knowledge of a future state
  - single prediction or multiple possibilities
  - evidence and assumptions explicit or implicit

- Understanding the dynamics of change
  - general feel or specific causal relationships
  - general domain or focus on a specific issue

- Discovering assumptions about change in general or current conditions in particular
  - accept or challenge those assumptions
Knowing Different Times

Assumptions

History

Assumptions

Present

Evidence

Visions Images

Events Artifacts Issues

Drawings Bones Structures

Writings Trends

Forecast

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Doubt is an unpleasant state, but certainty is a ridiculous one.

-- Voltaire, from Richards Heuer, The Psychology of Intelligence Analysis
Sources of Uncertainty

- Insufficient or incorrect information
- Insufficient or incorrect understanding
- Inherently unpredictable systems (chaos)
- Inherently critical systems
- Inherently novel, creative self-organizing systems
- Human choice
Making the call

Assumptions resolve uncertainty…
…but resolving uncertainty may not be the right thing to do.

Resolve as much uncertainty as you can, but no more.

Katrina

Rita

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The Cone of Plausibility

The Future is many, not one.

Source: Charles Taylor, Army War College
## Two Types of Futures Thinking

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Scanning
The Two Phases of a Scanning Project

- Research
  - establishes what the general consensus about the future is today
  - traditional research activity
  - consists of filling in a framework document
  - acts as the active benchmark for scanning

- Scanning
  - identifies what has changed or could change since the last framework exercise
  - must change something in the framework
  - optimizes the twin criteria of novelty and impact/relevance
    - novel hits tend to have longer term impacts
    - more relevant hits tend to be shorter term
  - update the framework periodically to incorporate all hits since the last time
The Real Purpose of Scanning

Surprises
Two ways to the top

Being surprised in little ways over a long time...

...rather than in a big way all at once!
Issue Emergence

Much Influence
Little Effort

Legislated

Litigated

Event

Framed

Emerging

Wildcard

Little Influence
Much Effort

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Data Sources

Less focused

- Visionary: Art, fiction
- Uninhibited: Fringe media, underground
- Specifics: Notes, speeches, monographs
- Corroboration: Tech journals, stat documents, abstracts
- Diffusion: Popular tech journals, insider newsletters
- Response: Intellectual magazines, general newsletters
- Mass awareness: General interest pubs, books
- Politicization: Surveys, government reports
- Instant analysis: News, radio, TV, Internet
- Education: Education journals, textbooks
- History: Doctoral dissertations

More focused

Source: G. Molitor, Public Policy Forecasting, Inc.
Scanning hits

Changing our image of the future

Confirming - 1
Being surprised in little ways over a long time

Creating - 5

Resolving - 3
rather than in a big way all at once.

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Criteria for a Good Scanning Hit

- **Credibility**
  - Is the source reputable?
  - Are there confirmations elsewhere?

- **Novelty**
  - Is the hit new? Or has it been widely reported?
  - Is it new to the client/audience?

- **Likelihood**
  - What are the chances that the hit will amount to something?
  - Will it change the future?

- **Impact**
  - If it does, how big a change will that be?
  - Will it change the framework document?
Criteria for a Good Scanning Hit

- **Relevance**
  - How important is that change to the client or the domain?
  - Is the relevance direct or indirect?

- **Timeliness 1 (time to awareness)**
  - How long before this information is widely known?
  - When will it appear in a mainstream newspaper or magazine?

- **Timeliness 2 (time to prepare)**
  - How long before this hit begins to change the future?
  - Is it too late to do anything about it?
  - Is it so far off that action now would be premature?

- **Ability to influence**
  - Can we do anything to prepare for or capitalize on this future?
For Additional Information

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