Global Challenges and Information Society Development

Bled Forum
Slovenia

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www.millennium-project.org
Change over the last 25 years will appear slow, compared to the next 25 years.
Acceleration of Acceleration

• Who would have believed 25 years ago:
  • 100’s of millions would search billions of computer pages is less than one second -- at not cost?
  • No US-USSR nuclear war -- and that USA can only reach the International Space Station on Russian rockets?
  • Writing genetic code to invent completely new life forms?

• Who would be believe today that in 25 years
  • Anyone can have genius capacity
  • Anything that can be connected, will be connected
  • Global brains emerge from Internet to become “Conscious-Technology”
Conscious-Technology
(*Post*-Information Age)

When the distinction between these two trends becomes blurred, we will have reached the *Post*-Information Age

- Humans becoming Cyborgs
  - 2030
  - 2015
  - 2000
  - 1985

- Built Environment becoming Intelligent
## Simplification of History and an Alternative Future

<table>
<thead>
<tr>
<th>Age or Era</th>
<th>Product</th>
<th>Power</th>
<th>Wealth</th>
<th>Place</th>
<th>War</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Extraction</td>
<td>Food/Res</td>
<td>Religion</td>
<td>Land</td>
<td>Earth/Res</td>
<td>Location</td>
<td>Cyclical</td>
</tr>
<tr>
<td>Industrial</td>
<td>Machine</td>
<td>Nation-State</td>
<td>Capital</td>
<td>Factory</td>
<td>Resources</td>
<td>Linear</td>
</tr>
<tr>
<td>Information</td>
<td>Info/serv</td>
<td>Corporation</td>
<td>Access</td>
<td>Office</td>
<td>Perception</td>
<td>Flexible</td>
</tr>
<tr>
<td>Conscious-Technology</td>
<td>Linkage</td>
<td>Individual</td>
<td>Being</td>
<td>Motion</td>
<td>Identity</td>
<td>Invented</td>
</tr>
</tbody>
</table>

This table illustrates the evolution of various aspects across different ages or eras, highlighting how they have shifted from cyclical to linear and flexible patterns.
National Policy For Knowledge Society Development

• High Speed Internet Access for everyone
• Increasing Intelligence as national goal of Education
• National and Individual Collective Intelligence Systems
• Self-Employment: seek markets rather than jobs
• Tele-Nations or e-Nations
Evolution of Management in the Knowledge Society

1. Hierarchy (top down command)
2. Networks (cut across Hierarchies)
3. Nodes (intersection of networks)
4. Fields of Play (linked three or more Nodes)
5. Linkage (linked fields of play)

**Key question:** What is my or my organization’s improvement system AND how do I improve that?
Seeking Markets Instead of Jobs

• Meaning of Information “revolution” world revolves around YOU!
• Example of African Witchdoctor
• Use “retired” people who make a living on the Internet to train others.
• Aging and Economic Necessities
How to increase Intelligence or Mental Performance

1. Responding to feedback
2. Consistency of love, diversity of environment
3. Nutrition
4. Reasoning exercises
5. Believing it is possible (placebo effect)
6. Contact with intelligent people or via VR simulations
7. Software systems and gaming
8. Neuro-pharmacology (enhanced brain chemistry)
9. Memes on classroom walls and else where, for example: *intelligence is sexy*
10. Low stress, stimulating environments, with certain music, color, fragrances improves concentration and performance
11. Longer term:
   - Reverse engineering the brain
   - Applied Epigenetics and genetic engineering
   - Designer microbes to eat the plaque on neurons
Collective Intelligence

- It is an emergent property
- from synergies among
  - data/info/knowledge
  - software/hardware
  - experts
- that continually learns from feedback
- to produce (nearly) just in time knowledge for better decisions
- than these elements acting alone.
Collective Intelligence Software Platform for Prime Minister of Kuwait
The collective intelligence to support the Situation Room will have:

• Climate Science
• Energy
• Mitigation
• Adaptation
• Policy Integration
Global Climate Change Situation Room

Current Situation
- 391 PPM Atmospheric CO₂
- Mountain Ice Melting rate
- Forecasts temp change range
- Country target pledges

Desired Situation
- 350-450 PPM Atmospheric CO₂
- Reduced Mountain Ice Melting rate
- Plausible desirable temp change
- Required country targets

Policies to address the gap
- Carbon Tax
- Cap & Trade
- Import Tax

Green Growth Technologies to address the gap
- Alternative Energy
- Alternative Agriculture
- Improved Standards

Adaptation to address the forecasts
- Resilience Teams
- Migration policies
- Coastal Evacuation Plans
- Work/Life Style Changes
Two Resources from...
The Millennium Project

Futures Research Methodology
Editors Jerome C. Glenn and Theodore J. Gordon
With support from the Rockefeller Foundation

1. Introduction to Futures Research Methodology
2. Environmental Scanning
3. Text Mining for Technology Foresight
4. The Delphi Method
5. Real-Time Delphi
6. The Futures Wheel
7. The Futures Polygon
8. Trend Impact Analysis
9. Cross-Impact Analysis
10. Wild Cards
11. Structural Analysis
12. The Systems Perspectives
13. Decision Modeling
14. Substitution Analysis
15. Statistical Modeling
16. Technology Sequence Analysis
17. Morphological Analysis
18. Relevance Trees
19. Scenarios
20. A Toolbox for Scenario Planning
21. Interactive Scenarios
22. Robust Decisionmaking
23. Participatory Methods
24. Simulation and Games
25. Genius Forecasting, Intuition, and Vision
26. Prediction Markets
27. Using Vision in Futures
28. Normative Forecasting
29. S&T Road Mapping
30. Field Anomaly Relaxation
31. Agent Modeling
32. Chaos and Non-Linear Dynamics
33. Multiple Perspective Concept
34. Heuristics Modeling
35. Causal Layered Analysis
36. Personal Futures
37. State of the Future Index
38. SOFI Software System
39. Integration, Comparisons, and Frontiers of Futures Research Methods


2009 State of the Future

Jerome C. Glenn, Theodore J. Gordon, and Elizabeth Florescu
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