Future Studies

“The future is a symbol through which we order the present and give meaning to the past”
John McHale

“People become human the moment they think about the future, the moment they try to plan for the future”

“Our future must not only be foreseen and dreamt of, but also chosen and built”

Elenora Masini
THE HISTORY OF FUTURES

Wendy Shultz
Hawaii Research Center for Futures Studies, University of Hawaii

in The Futures of Futures, Association of Professional Futurists, 2012
THE HISTORY OF FUTURES

Five Ages

Oral wave of shaman and mystics

Written era of macrohistorians, Nostradamus, and utopians

Enlightenment of science, technology and rationalism

Systems and ecology thinking, cybernetics

Complexity and emergence
THE HISTORY OF FUTURES

1. Oral wave of shaman and mystics

Shaman, mystics, priests and oracles control the future or at least the production of images of it
THE HISTORY OF FUTURES

2. Written era of macrohistorians, Nostradamus, and utopians

Ibn Khaldun in the 14th century was a macrohistorian searching for patterns and repetitive cycles in the past (e.g. conquest, waste, generations)

Nostradamus in the 16th century did his thing

Also in the 16th century, Thomas More’s vision of utopia and future as aspiration/ideal

Robert Boyle in the 17th century and his ‘wishlist of 24 inventions for the future of science’
3. Enlightenment of progress through science, technology and rationalism

Enlightenment + Extraction
Images of Technology + Environment

First Sci Fi literary and visual prototypes:
Late 19th century: Jules Verne - 20,000 leagues under the sea; HG Wells and The Time Machine; Melies and a 'Trip to the Moon'; Fritz Lang and Metropolis

Great Depression and WWII completed this era
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4. Systems and ecology thinking, cybernetics
After WWII - Gaston Berger and notion of ‘prospective’ - the study of possible futures

Think Tanks: RAND (over 3000 today). Herman Kahn - “think the unthinkable” (use of scenario thinking for thermonuclear war)

Social Vision - civilization success linked to core images of the future

Futures studies codified, institutionalized

Limits to growth in 1970s - environmental challenges

Global problematique (ecological + Environment added to tech, space, and economic dynamism

Pessimism in place of utopian optimism
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4 cont. Systems and ecology thinking, cybernetics

Shell and Pierre Wack | Human consciousness and Harman

Strategy from stories and scenarios depicting alternative futures

Post colonial developments and emergence of general knowledge base (Millennium project)

Ibrahim Abdel Rahman of Egypt; Mahdi Elmandjra of Morocco; Uvais Ahamed of Sri Lanka; Ziauddin Sardar of Pakistan; and Ashis Nandy of India
THE HISTORY OF FUTURES

5. Complexity and emergence

From determinism to probabilistic models

Incorporation of psychological evolutionary theories (inner space)

Futures and integral philosophy (Richard Slaughter)

Pacific shift - social and cultural understandings + outside of Europe/US

Impact of digital technologies and platforms
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Where now?

Decentralized, massively distributed and inclusive futures work

Role of big data and social computing

Immersive graphical and game environments

ARG games - SuperStruct, Evoke

Designers and experiential futures for exploratory conversations
Future Studies

Science fiction = fictionalized narrative
Future Studies = non-narrative and non-fictional

Definitions
An empirical and scientifically based approach to understanding the future

Wendell Bell
Purpose: to maintain or improve the freedom and welfare of humankind’

Contribution: prospective thinking - to discover or invent, examine, evaluate, and propose POSSIBLE, PROBABLE, and PREFERABLE futures.
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Stuart Candy

Alternative Futures
Multidimensional and Plural Scenarios

Images of the Future
In our heads and circulating in cultures. Counter reality through religion, philosophy, science, art....

Possible, Probable and Preferable
Image driven, analytically driven, value-driven

<table>
<thead>
<tr>
<th>What can happen?</th>
<th>--&gt; possible</th>
<th>--&gt; exploratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>What will happen?</td>
<td>--&gt; probable</td>
<td>--&gt; predictive</td>
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<tr>
<td>How can a specific target be reached?</td>
<td>--&gt; preferable</td>
<td>--&gt; normative</td>
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Alvin Toffler
Purpose: “to create new, alternative images of the future, visionary explorations of the possible, systematic investigation of the probable, and moral evaluation of the preferable”

Michael Marien
6-fold Purpose: futures thinking involves the “possible, probable and preferable, while examining present changes, taking panoramic views, and questioning”

Ed Cornish
Influence of existential philosophy after WWII. Rejection of determinism and appreciated of possible futures. “preferable futures” - a philosophy of uncertainty and choice, based on human values and decisions.
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Critique
Role of art, humanities and design?

Richard Slaughter
From US empiricism, to European cultural value, to multiculturalism to the integral futures movement.
Inner: subjective reality
Outer: objective reality

Slaughter advocates self-reflection, self-critique and intuition as well as empiricism

Inspiration - heart- personal meaning

Figure
The four Integral quadrants.
(Source: Ken Wilber)
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Millennium Project - 15 Global Challenges

15 Global Challenges
facing humanity

1. Sustainable development and climate change
2. Clean water
3. Population and resources
4. Democratization
5. Long-term perspectives
6. Global convergence of IT
7. Rich - poor gap
8. Health issues
9. Capacity to decide
10. Peace and conflict
11. Status of women
12. Transnational organized crime
13. Energy
14. Science and technology
15. Global ethics

by The Millennium Project
www.millennium-project.org
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Millennium Project - 15 Global Challenges

1. How can sustainable development be achieved for all while addressing global climate change?
2. How can everyone have sufficient clean water without conflict?
3. How can population growth and resources be brought into balance?
4. How can genuine democracy emerge from authoritarian regimes?
5. How can policymaking be made more sensitive to global long-term perspectives?
6. How can the global convergence of information and communications technologies work for everyone?
7. How can ethical market economies be encouraged to help reduce the gap between rich and poor?
8. How can the threat of new and reemerging diseases and immune micro-organisms be reduced?
9. How can the capacity to decide be improved as the nature of work and institutions change?
10. How can shared values and new security strategies reduce ethnic conflicts, terrorism, and the use of weapons of mass destruction?
11. How can the changing status of women help improve the human condition?
12. How can transnational organized crime networks be stopped from becoming more powerful and sophisticated global enterprises?
13. How can growing energy demands be met safely and efficiently?
14. How can scientific and technological breakthroughs be accelerated to improve the human condition?
15. How can ethical considerations become more routinely incorporated into global decisions?
Wicked Problems

Rittel and Webber's 1973 formulation of wicked problems in social policy planning specified ten characteristics:  \[ 2 \] \[ 3 \]

1. There is no definitive formulation of a wicked problem (defining wicked problems is itself a wicked problem).
2. Wicked problems have no stopping rule.
3. Solutions to wicked problems are not true-or-false, but better or worse.
4. There is no immediate and no ultimate test of a solution to a wicked problem.
5. Every solution to a wicked problem is a "one-shot operation"; because there is no opportunity to learn by trial and error, every attempt counts significantly.
6. Wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan.
7. Every wicked problem is essentially unique.
8. Every wicked problem can be considered to be a symptom of another problem.
9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways.
The choice of explanation determines the nature of the problem's resolution.
10. The planner has no right to be wrong (planners are liable for the consequences of the actions they generate).


Conklin later generalized the concept of problem wickedness to areas other than planning and policy.

1. The problem is not understood until after the formulation of a solution.
2. Wicked problems have no stopping rule.
3. Solutions to wicked problems are not right or wrong.
4. Every wicked problem is essentially novel and unique.
5. Every solution to a wicked problem is a 'one shot operation.'
6. Wicked problems have no given alternative solutions.