

Topics

- A Study of Global Ethical Issues
- The March of Science
- What "Moral Business" Will Mean

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The Ethics Study

- Millennium Project, 2004- 05
- Identify the key ethical issues of the next 50 years
- Identify the key solution principles.
- 300 participants Europe, Latin America, North America, Asia, Middle East, Africa Academics, consultants, NGO's, government, corporate

Ethical Norms: Fundamental to What is Right

-Responsibility -Protection of the family -Protection of the future -Security -Protection of the planet -Freedom -Justice -Compassion

What Drives Value Change?

Technology

- •Cyclicity: fathers and sons
- The conflict between science and religion
- The media
- Education
 Politics
- Demographics
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Some Future Issues

Is it right to allow organizations to pollute if they pay a fee ?
Is it right to intervene when a country is endangering people?
What are the ethical ways to develop artificial intelligence?
Should religions give up claims of superiority?
Should scientists be responsible for consequences of their work?
Should international intervention stop violence against women?
Should ve clone ourselves, make "designer babies", recreate extinct species, alter genetic lines?
Should a person be constrained for propensity to crime?
Is it ethical to extend lifespan, no matter what the cost?
Do demands of collective intelligence outweigh those of individual

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identity? •Is information pollution a crime?

Respondent Comments The Outlook Extremes

• The traditional nucleus of society- the familywill disappear; the concept of offspring will disappear, the human being will be seen as a couple of chemical reactions inside a bag. Birth and death will not be the basic points of life but singularities of machines. The machine society in which the human being is just another machine, that is the ethics of the future; no ethics at all as we see it today; no values at all as we see them today. Good and bad will have no meaning for the future generations.

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Respondent Comments The Outlook Extremes

 I think that humanity will be better every year, will be more opened and compassionate, with great science and technology achievements in its favor and in favor of the planet. ... That process is gradual; but the difficult thing will be to detect and support populations that suffer religious and ideological oppressors, whose tendency to grow is evident now in Latin-America and Africa, disguised very well in pseudo-democratic postulates.

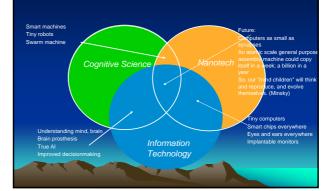
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- Building on prior science
- Communications
- Synergy
- Instrumentation
- Globalization



Synergy: The Big One



Some Dangers

Privacy compromised: technology tracks everyone.

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- Confusion over what is real •
- Computers that evolve
- Super intelligent computer viruses
- Biological WMD Loss of biodiversity; altered varieties. Internet: drugs, dangerous tech More sophisticated military weaponry.

- Creation of new species (e.g. bacteria)



Energy A surveillance society Brain decoding Decision science Social Epidemiology The transhuman "singularity"

A Surveillance Society:

• Who is where

- An artificial nose sniffing for traces of explosives
- Telemetry sensors in reservoirs to detect a deadly microbes
- Smart cameras ID people by gait or the shape of their ears.
- A lab chip analyzing the human thermal plume (sweat, odor)
 Tiny cameras, London now has 500,000 cameras
- Future: Skin mapping, pores, wrinkles, DNA sensing

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- Who does what:
 - <u>E-Z Pass</u> scans
 - Credit card purchases
 - Logging PC keystrokes

Brain Decoding

Chimeras: laboratory mice with human brain cells
Mapping the synapses
Human- computer symbiosis, (neural caps)
Human to human transfer: synapse interconnect
Brain boosters
Computers as legal persons with emotions Methods to improve collective intelligence
Tailored psychotropes (dream pills) Intuition, spiritual, and para-psychological phenomena
Brain implants for improved memory, blindness, epilepsy, depression, Parkinson's, deafness

Decision Science

- Elements
 - Economics Logical anomalies Risk behavior Neuropsychology Intuition
- Implications Training of politicians and executives Maybe grading of decision makers Increased sensitivity to the future

Toward Immortality: A New Science of Aging

Hayflick's Limit: 100 cell divisions Modification of an aging gene Telomeres: telomerase ends shortening Free Radicals: oxidation destroys DNA Carmelization: sugars bind with proteins Cold and hungry: Slow metabolism Clock genes: Mutants in aged animals Cryonics: Freeze till a cure is found

Social Epidemiology

- Develops from:
 - Consumer and medical data bases Surveillance photos Tracking by individual characteristics
- Gives social sciences new empirical rigor
- Offers the "soft" equivalent of natural laws, forecasting
 - Social behavior
 - The effectiveness and spread of memes and propaganda The popularity of candidates The success of products

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Transhuman Singularity

- · Acceleration of acceleration of change
- When humans transcend biology
- The merger of man and machine
- · Implants, nanobots
- Artificial intelligence far exceeds human intelligence

Four Future Social Rights

- The right to see or to be not seen
- The right to influence
- The right to constrain based on anticipation
- · The right to intervene based on behavior

Ethics for Business: What "Moral Business" Will Mean

- Do no harm
- Be fair •
- Show tolerance
- Serve society
- Mitigate suffering
- Enhance human survival (educate)
- Care for future generations
- Treat customers and other organizations the way the you would like to be treated
- Serve as a standard for other businesses

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