Introduction/Overview: Why Studying the Future and Change is Important

Change is happening at an ever faster rate today—driven partly by technological changes leading to changes in all other areas of our lives, and by the increasing interdependence between countries and peoples today, as well as the decentralization of societies and institutions within countries (also furthered by information technologies today). The end of the Cold War is also changing political and economic borders, systems, and alignments, as everyone seeks to become part of a global economy and society, while still maintaining national, ethnic, and cultural identities and meaning. While the danger of all-out nuclear war between the U.S. and U.S.S.R. (now Russia and fourteen other former Republics of the Soviet Union) has greatly receded, with the end of the Cold War, nuclear terrorism remains a danger, and other issues, such as sustainable development and preservation of the environment, have gained greater ascendancy. This has made it necessary for governments, businesses, organizations, and people to better understand change and the future, since we will all be living and working in a future world that promises to be different from today in significant ways. When people better understand change, they also often see more opportunities for their lives and ways to better positively influence the future that is being created.

Disclaimer: The research materials are collated from web based resources.
Brief History of the Future Studies Field

While there have always been futurists, in the sense of people who looked to the future and who tried to understand change, the field of Future Studies itself—which tends to be very interdisciplinary—really arose during World War II and in the postwar period since then.

Range of Futurist Views and Perspectives

Within the Futures field, there have always been a wide range of views and perspectives from people who have come from a very wide range of different disciplines and backgrounds and interests. Futurists run a whole gamut of views between the following two poles, and everything in between:

✓ **"Doom and Gloom" Futurists**: so-called because they tend to focus on current real world problems, without easy solutions (such as the nuclear danger during the Cold War, or the continuing population explosion, world hunger, depletion of fossil fuels and other nonrenewable resources, and environmental preservation and pollution) and project these trends into the future, showing that "if current trends continue,...then the future will be much worse than the present."

It is important to note that even "Doom and Gloom" Futurists are not totally pessimistic, however. Indeed, no futurist would dedicate their whole life to studying change and the future if they were totally pessimistic. The major reason for pointing out negative trends and scenarios for the future is to alert people to the potential problems ahead, so that we humans can be informed and change our current policies so that a more desirable future can be created.

✓ **Futurists who create different scenarios of the future**—from negative, "doom and gloom" views, to most probable or likely views, to positive, visionary views (an in between perspective, that acknowledges all these possibilities for the world future, and which points out that our actions and policies NOW will help to determine which of these scenarios actually transpires in the future).

✓ **Positive, Visionary, and Evolutionary Futurists**: they focus more on positively imaging the more desirable futures that we would like to create; articulating the positive values that we would like a future world to be based on; focusing on technological, societal, and human potentials; tracking groups that are actually trying to create such preferable futures in the world today; and generally empowering people to see that we always have choices (in what we think & feel, and in how we behave in the world), and that we DO have the power to create a more desirable future world by committing in the present to change what we are doing NOW.

Characteristics of a Futurist Perspective

While Futurists themselves represent a wide range of backgrounds, interests, and perspectives (as noted above), there are nonetheless certain characteristics of a futurist perspective that most
futurists would agree upon, and which distinguish Future Studies as a field from many others
disciplines and fields of study. These characteristics include:

✓ Seeing **Change as the Norm and It is Speeding Up**

✓ Seeing **Events as Interrelated** (within a Whole Systems Context), not Separate and
Unconnected.

✓ Taking a **Holistic, or Whole Systems Perspective** in Looking at Change
✓ Accepting as a Premise that there are **Many Alternative Futures**.

✓ **Distinguishing between Possible, Probable, & Preferable Futures:**

  o **Possible Futures**: anything (good or bad, probable or improbable) that could
    happen in the future.

  o **Probable Futures**: what is most likely or probable to happen in the future (based
    on extending past trends or developments into the future in some way).

  o **Preferable Futures**: what is most desirable or preferable to happen in the future.

  o The **Goal** is to make preferable or desirable futures more probable, by visualizing
    clearly what we want to create (including the values that we want a future world to
    be based on), and then committing energy, resources, time, and our lives to
    creating that future world.

  o Another **Goal** is to also note possible futures, that though they might not be
    probable or likely, if they did occur, would have a great impact on people's lives.
    We should thus be aware of such possibilities.

✓ Helping People Realize that there are **always Consequences** to what we do (or don't
  do), and "If we always do what we've always done, then we'll always get what we've
  always gotten."

✓ **The Importance of Ideas, Values, and Positive Visions** in Creating a Better World
  Future.

✓ **Empowering People** to Choose and Act Responsibly and Consciously in the Present,
  Because Those Actions WILL Help in Creating the Future: helping people to realize that
  we are ALL creating the future that we will be living and working in by what we think and
  do every day of our lives, and that we thus always have choices in what we do. In short,
  we CAN all make a difference, and we need to all become conscious of this fact and
  then make a commitment to do something no matter how small it may seem--that we feel
  could help to make this world a better place.

Accepting the Importance of **Short, Medium, and Long-Range Planning**: In short, not leaving
the future to chance, but proactively trying to create the future that we would like to be living in for
ourselves and our posterity.

**Time Periods for Studying the Future**

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There are various time periods for studying the future, which were outlined by Earl Joseph of the Minnesota World Future Society Chapter. These periods are:

- **Near Term Future**: up to one year from now.
- **Short Range Future**: one to five years from now.
- **Middle Range Future**: five to twenty years from now.
- **Long Range Future**: twenty to fifty years from now.
- **Far Future**: fifty plus years from now.

Most individual people, as well as most businesses and governments, only look ahead as much as four to five years in their planning (in politics until the next election and in business through the next five years). It is important to look further ahead, however, in a world undergoing such rapid change today. Joseph stresses that we are creating the world that we will be living in in five to twenty years from now (the Middle Range Future) by what we are doing right now. Thus almost anything can be created—"if" we have a vision of what we want to create AND are also committed personally to that vision—in five to twenty years from now.

It is also important to remember that while past-present-& future are all somehow interconnected, the only place from which to change the future is in the NOW. The power for change resides in the present moment, for that is the only place from which our thoughts or actions can actually be changed.

**Holistic/Systems View of Our Place in the Universe (as Systems within Systems within Systems)**

While it is common, especially in the West, to look at the universe and world as being made up of separate, unconnected individuals and things (which is especially characteristic of industrial-era, Newtonian Physics thinking, as well), Future Studies as a field tends instead to look at the universe and world as being made up of dynamically changing, interdependent parts. The universe and world can thus be seen as being made up of systems within systems within systems within systems. Every system is in turn made up of smaller, interacting, interdependent parts; and each of these parts is in turn another system with its own interdependent, interacting parts.

One could thus diagram these relationships as follows:

**Key Subjects Studied by Futurists**

While futurists can study the future of anything and everything, and while people who call themselves futurists often have a holistic, systems approach that looks at connections and relationships between changes in one area of life as these relate to changes in other areas of life, there are nonetheless certain key subjects that futurists tend to study a lot. These include:

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✓ The Global Megacrisis Issue, including the Relationships Between:

◆ Global Population Growth;
◆ Food and World Hunger;
◆ Energy Sources (Traditional, Nonrenewable Fossil Fuels & Alternative, Renewable Energy Sources);
◆ Environmental Pollution;
◆ Sustainable Development; and
◆ Global Climate Change (including Global Warming); and
◆ Other Global Catastrophes.

✓ Global Peace, Conflict, and War;
✓ The End of the East-West Conflict and the Cold War;
✓ The United Nations System and Global Governance;
✓ North-South Relations, and the Increasing Gap (Both Between and Within Countries) Between Rich and Poor. Today there are not only economic haves and have-nots; there are also technological haves and have-nots, and it is vitally important that everyone who wants access to modern information age technologies (and hence to information about our rapidly changing world) can increasingly gain such access.

✓ The Emergence of Larger Regional Economic Blocs, including the Asia/Pacific Region; the European Community (EC); the North American Free Trade Association (NAFTA); and now other regional blocs, including blocs of countries in the South. In the 1980s, talk that the 21st Century would be the century of the Pacific Rim (or Asia/Pacific), no doubt led Europeans to move more quickly towards a formal European Community (to compete), which in turn furthered development of NAFTA in North America, and the emergence of other regional economic blocs.

✓ Global Economic Trends, including the emergence of a global economy, as well as larger regional economic blocs (above), and privatization of economies within countries, as well as reactions to privatization (as is occurring in parts of the former Soviet Union, such as Russia, where pulls to both the right and left economically and politically are occurring, along with reforms).

✓ Global Political Trends, including democratization, and reactions to that (especially by those who feel disenfranchised or left out of all the modern changes happening in the world).

✓ Societal Fragmentation, as the glue that held the industrial age, centralized nation-state together breaks up and diversifies and decentralizes society; as media diversifies and people no longer all watch the same programs (except perhaps CNN); and old beliefs and identities are challenged by rapid change which creates anxiety in people, fear of change and the future, and hence resistance to change, which sometimes takes the form

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of fundamentalism, and an attempt to go back to an earlier, so-called better, simpler, idealic time (which never existed quite as people remember it). The only problem is that one cannot go back, one can only go forward--while hopefully also taking into the future what was best and worth preserving from the past.

✔ Societal Restructuring and Environmental Impacts of New Technologies, including:

A) **High Technologies**, such as:

- Computers, Telecommunications, Robotics--the First Stage of the Information Revolution;
- The new Interactive, Multimedia, Internet, World Wide Web, Virtual Reality
- Technology Stage of the Information Revolution;
- Genetic Engineering, Recombinant DNA, and Gene Splicing;
- Space Exploration, Industrialization, and Settlement; and
- Nanotechnology.

B) **Appropriate or Intermediate Technologies, tied to Sustainable Development**, Living in Harmony with Nature, & Voluntary Simplicity.

- **Workplace Trends**, including:
  1. New Management Styles;
  2. Employment/Job Trends;
  3. Technology & Jobs;

- **Educational/Learning Trends**;

- **New Scientific Paradigms** (or overarching worldviews);

- **Changing Cultural Paradigms**;

- **Global Spiritual/Religious/Consciousness Traditions and Trends**.

One can also sometimes distinguished between futurists who are generalists (and look at the interactions of changes in a number of diverse areas) and futurists who deal more with change in a particular area, such as the future of energy. In general, however, people who choose to call themselves “futurists” tend to fit the former definition, and even if futurists tend to specialize in particular areas, they usually look at the area within the broader context of numerous other changes happening in the world that impact upon their particular area of interest.

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Methodologies for Studying Change and the Future

Since the future has not yet happened, futurists have had to develop a number of different methodologies for studying the future and change that are different from traditional scientific methodologies for studying the present and the past--on which data already exists or can be generated. These methodologies range from quantitative, left brain methods to visionary, creative, intuitive right brain methods, and various combinations in between. It is important to remember here that futurists believe in many alternative futures--including probable, possible, and preferable futures. Futurists are thus not only interested in looking at probable futures (based on extending past trends and developments into the future), but also at designing preferable alternative futures, and showing how one can plan to get from the present state to this more desirable future. A wide range of methodologies must thus be employed to cover these very diverse different views of the future. Some of the more prominent futures methodologies include the following:

✔ Trend Extrapolation: Projects past trends into the future, for some given period of time. Assumes that the future will in some way be an extension of past trends.

✔ Dynamic Systems Analysis and Computer Modelling: Shows how various variables in different areas interact with each other, within a whole systems context, over time.

✔ Simulations and Games: An attempt to take certain variables from "reality" in some area and create a computer model or game situation in which one can see how those variables might interact with each other over time. Computers or humans (as role players) or both can be involved. With computers, humans can play "what if" games, where by making certain choices, they can then see the consequences (in terms of policy) that follow from those choices.

✔ Cross Impact Analysis: Shows how choices concerning one variable interact with choices concerning another variable, providing a table of all possible combinations of choices for each variable, and showing which combinations are viable and which not.

✔ Technological Forecasting: An attempt to forecast what technological breakthroughs and developments are most likely to occur in future and when they are likely to occur. In an age in which technology is a major driving force for change, such as today, keeping on top of the latest developments in technology is essential--especially if one works in the high technology area today.

✔ Technological Impact Assessment: Looks at how new technologies are likely to impact on society or the environment.

✔ Environmental Impact Assessment: Looks at how new developments in some area will impact on the environment. Often required today, before new building plans can be approved.

✔ Social Impact Assessment: Looks at how new developments in some area will impact on society or on some community.

✔ Delphi Polls of Experts--on Either Probable or Preferable Futures: Poll experts in some area on what events they think are most probable (or preferable) and when they are most likely to occur; also the reasons for their answers. Summarize results; give to experts; ask them to take poll again. If they think other people's reasons for their answers are

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better, they 'can' change their answer the second time; or the third time they take the poll. Gives good results re: experts views of what's likely to occur in future.

✔ Futures Wheels: A group brainstorming technique to quickly determine what some of the first, second, and third order consequences might be, 'if' some event were to occur in the future--either for the first time, or if something were to either decrease or increase in value in future. Everything follows from this event put in the center of the futures wheel.

✔ Scenarios: A possible sequence of events that 'could' happen in the future, based on certain initial conditions or assumptions and what could follow from that. Futurists often construct at least two or three different scenarios about the future in some area, believing that different alternative futures are possible. Examples include: best case, worst case, most probable case, and other type scenarios.

✔ Science Fiction: A possible story of what could happen in some future social or world situation. Based on a scenario of some kind (i.e., a possible sequence of events that 'could' happen in the future) to which characters (with their own personalities, even representing different alien species in some cases) interact with that sequence of events over time. Science Fiction has replaced cowboy movies as an important genre of films today. Both dystopian and utopian science fiction stories are possible. Science fiction does not claim to predict the future, but sometimes good scientists (who know their topic well) intuitively write about something in science fiction that later becomes a reality. The most famous case is Arthur C. Clark and the communications satellite, which first appeared in a science fiction story.

✔ Intuition & Intuitive Forecasting: A right brain 'a ha' experience, in which you suddenly 'know' something to be true, or you suddenly see patterns and relationships between things that you didn't see before. Intuition is another way of knowing, a "sixth sense," beyond our five senses. Intuition is important in future studies because in a world in which change is occurring so fast, and one does not always have time to get all the information that one would like before one must make a decision about what to do, one must often rely on one's intuition to fill in the missing pieces and make a decision. Intuition is also the source of creativity and new ideas--in whatever type of work one is in. Good artists, scientists, corporate executives, and leaders in any area all tend to be intuitive. Our Western culture has not always valued intuition, but its importance to creativity (a key skill in the information age) is increasingly recognized, and training programs seek to develop this skill in many people today.

✔ Experiments in Alternative Lifestyles: One of the best ways to find out if alternative values can work is to try them out in practice. Those new "fads" or alternative lifestyles that work, and respond to some social need, often see themselves becoming more mainstream with time.

✔ Social Action to Change the Future: People willing to join together with others to educate people on some issue and to work for meaningful change often find that their efforts 'can' effect and help to change the future.

✔ Short, Medium, and Long Range Planning: Futurists look at planning in short, medium, and long range terms. [See Earl Joseph's five different time periods for looking at change and the future.]

✔ Relevance Trees: A way to map out the sequence of events, and in what order, that are necessary to get from where you are now to where you want to be as your end goal by some future date.

✔ CERT/CPM Analysis: A method for doing complex planning of great numbers of people and subcontractors working on some large project, such as the space program. Indeed,

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this methodology was first developed for use by NASA in planning how to get to the moon. One begins with a relevance tree, and then adds layers of additional information. A way to map all the different pathways that must be completed between where one begins and the end goal one plans to achieve. One also calculates, from all these pathways, what is the "critical path" (which will take the longest and which one must not get behind on, or the whole project will be delayed). Between any two events along any given pathway, one usually adds estimates of: time needed, number of people needed, budget needed, etc. One can then calculate dates for the completion of each event along a pathway; plug this all into a computer and print all the pathways out, and use this to monitor a project, once it begins, to be sure it stays on time, on budget, etc. If a particular pathway—especially the "critical path"—starts getting behind, one can then move additional resources to that pathway, to correct the problem, so the whole project stays on time.

Steps in Designing an Alternative Future World

There are perhaps unlimited potential versions of the steps that one must go through to design an alternative future world. Marvin Soroos came up with five stages,* to which we have added three additional stages (the last three). We have also added different future studies methodologies (from the previous list above) which are relevant to each of these stages, as follows:

✔ Value Specification
✔ Analysis of the Present and Forecasting Future Developments
✔ Formulation of Designs of Alternative Futures
✔ Evaluation of the Designs of Alternative Futures
✔ Drafting Transition Strategies (Of How One Gets From One's Starting Place to Where One Wants to End Up)
✔ Implementation of Policies
✔ Feedback (On Whether Those Policies are Having the Effects One Planned On, or Not)
✔ Adjustment of Strategies and Policies, Based on Feedback


Key Organizations Involved in the Study of the Future and Change

Two of the most prominent international organizations devoted to the study of the future include:

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✓ The World Future Society. Located in Bethesda, Maryland, USA. Has members from around the world, especially from North America.

✓ The World Futures Studies Federation. Set up by Europeans to not be North America dominated. A smaller group of professional futurists from different countries around the world (East and West, North and South).

Future Studies Conferences, including:

✓ World Future Society Conferences:
  ◆ Regional Conference, Atlanta, Georgia, USA, July 1995.

✓ World Futures Studies Federation Conferences:
  ◆ Regional Conference, St. Petersburg, Russia, July 1996.
  ◆ International Conference, Brisbane, Australia, July 1997.

✓ Other Conferences of Other Groups:

Declarations of Organizations and/or Conferences Related to Our Global, National, or Local Futures

Future Studies Universities and Programs

✓ University of Houston at Clear Lake, Texas, USA
  Established M.A. and Ph.D. Programs in Future Studies.

✓ Selye-Toffler University

✓ Network University of the Green World, Awaji Island, Japan
  Holds summer futures-related seminars of invited faculty and students from different countries, to explore the possibility of establishing an eventual global, networked university. Sponsored by the World Futures Studies Federation.

✓ Eventual Future Generations University, Australia
  A planned university, focusing on Future Generations Studies, to begin after the year 2000. Driving force behind the university is Mr. Yazaki, Future Generations Alliance Foundation, Kyoto, Japan. Foundation also sponsors "Future Generations" conferences in different countries around the world.

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Additional Online Universities, Programs, and Courses

✔ Spectrum Virtual University
✔ World Lecture Hall

Additional Recommended Sources: Both Traditional And Online

Traditional Sources:

Books and Articles:


Films, Videos, CD's, Multimedia:

Simulations, Games, Interactive Exercises:

✔ Futures Ice Breakers. From Global Options.

Both Traditional And Online Sources:

Journals, Magazines, Newsletters:

✔ The Futurist. Published by the World Future Society.

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✓ **Futures Research Quarterly.** Published by the World Future Society.

✓ **Future Survey,** Edited by Michael Marien. Published by the World Future Society. Abstracts of books and articles on numerous futures topics.

✓ **Futures: The Journal of Forecasting and Planning.** An international journal published six times a year by Butterworth Scientific Limited. ISSN 0016-3287.

✓ **Futurics: A Quarterly Journal of Alternative Futures & Futures Research,** published by Minnesota Futurists, a World Future Society Chapter.

✓ **Futuribles,** published in Paris.

✓ **Futresco,** published by UNESCO in Paris. Abstracts futures articles and books from different countries, with a different theme for each issue.


✓ **World Futures: The Journal of General Evolution,** Published in cooperation with the General Evolution Research Group.

**Wired Magazine:** Journal of cutting-edge developments surrounding the internet, world wide web, multimedia, and other cyberspace issues.

Organizations:

✓ **World Future Society.** Bethesda, Md.

✓ **World Futures Studies Federation.**

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