

History of Futures Studies Summary
Fall 2014 MOOC: The Emerging Future: Technology Issues and Trends
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Studying the future goes by many names. Some call it prospective, futuribles, or prognostics, while one of the more popular terms is prospective studies. Futurology and futuring are not used quite as much these days, but foresight or strategic foresight seem to be gaining recognition. Not only does futures studies go by many different names, the industry has as many definitions of what it represents. However, the idea of gaining choices of a personal, possible, probable and/or preferable future seems to carry over from one description to another.

A person who formally studies the future is commonly called a futurist. In general, futurists investigate, analyze and discover future possibilities, then provide their insights to others who are free to use this information to choose a desired future outcome to work toward. Foresight, then, involves the assessment of many different areas or subjects and what changes occur within them so that the futurist is able to discover what may lie ahead as a result. Accordingly, futurists offer a number of alternatives from which to choose, any of which could become the actual future reality, ensuring that you are prepared for most reasonable possibilities.

The definition of technological forecasting also varies from source to source, as well as over time, but all the descriptions do have similarities. In 1962, an Air Force representative defined technological forecasting as “the prediction of the invention, characteristics, dimensions, or performance of a machine serving some useful purpose in society.” Thirty plus years later, the definition morphed into the “prediction of the future characteristics of useful machines, procedures, or techniques.”

By 2001, the technological forecasting definition expanded to “apply to all purposeful and systematic attempts to anticipate and understand the potential direction, rate, characteristics, and effects of technological change, especially invention, innovation, adoption, and use.” And further, technological forecasting became “the prediction of the invention, timing, characteristics, dimensions, performance, or rate of diffusion of a machine, material, technique, or process serving some useful purpose.”

Technological forecasting has been around for over 100 years. One of the first formal studies came in 1935, when a government Subcommittee on Technology studied and reported on major inventions and their future social effects on America over a 10-25 year period. Yet it wasn't until after World War II that technological forecasting began to proliferate when military policy incorporated technological foresight into its strategies, beginning with the RAND Corporation in association with the Air Force. Several scientists and researchers from RAND, including Olaf Helmer and Herman Kahn, were instrumental in furthering foresight and developing futurism methodologies, such as the Delphi Technique and scenario planning.

This period of technological forecasting growth by the military from the 1940's through the 1970's also saw an increased interest by the private sector, but for much of the 1970's and 1980's, there was very little progress in the futurism movement or its methodologies as its popularity began to fade along with the Cold War. The last couple of decades, though, have seen enormous and rapid advancements in technology. Technological inventions have sparked a new interest in forecasting the future. As a result, futurism has evolved along with a more globalized and technical world perspective.

In order to obtain and review the relevant information and data for a technological forecast, it is important to have a process from which to guide your actions and identify the best methods for any given situation. The objective in applying a futures methodology procedure is to



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logically discover and analyze as many potential futures imagined in order to gain the advantage of quicker responses to upcoming change. In this way, anticipation of the future through a calculated process opens the door to the future allowing the organization or individual more time to learn about changes and react in the desired manner.

There are many forecasting methods available and their applications may overlap into more than one methodological step within any process. Likewise, futurists regularly use combinations of methods, since each method has unique forecasting capabilities and their own strengths and weaknesses. As such, any given resulting forecast is subject to the chosen method, the limitations and beneficial qualities of that method and the particular expertise of the futurist who applies it.

So far, there does not seem to be a consensus on a particular course to develop a forecast, but most have analogous components following a similar path. Each process outlines various steps to take when executing a new futurism project and each step has within it numerous forecasting methods that allow for successful completion of the foresight study. Accordingly, any futurism procedure fundamentally involves what some describe as: framing; scanning; describing; visioning; planning; and acting. A comparable approach consists of six steps and attaches specific tools to each: mapping; anticipation; timing; deepening; creating alternatives; and transforming.

Within these sample frameworks, many different futurism methods are applied, including, but not limited to historical and trend analysis, systems thinking, futures triangle, environmental scanning, roadmapping, creating alternative scenarios, gaming and simulation, Delphi expert technique, backcasting, visualization, brainstorming, SWOT analyses, strategic planning, and technology assessments.

For a more in-depth list of futures research methods with detailed explanations visit the For-Learn website at http://forlearn.jrc.ec.europa.eu/guide/4_methodology/methods.htm, will help give additional clarification. The World Future Society (WFS) also includes an interactive dictionary of methods: <http://www.wfs.org/methods>, and the Institute for the Future (IFTF) website contains several current Foresite Tools and descriptions: <http://www.iftf.org/what-we-do/foresight-tools/>.



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