

**AO ACCELERATED LEARNING SYSTEM  
GLOSSARY RESOURCE**

(Alphabetically Organized)	
<b>Anticipatory Organization™</b>	An Anticipatory Organization applies the methodology of separating Hard Trends that <i>will</i> happen from Soft Trends that might happen to its innovation and decision making processes. Employees of an Anticipatory Organization understand that those who can see the future most accurately have the biggest advantage. They actively embrace the fact that many future disruptions, problems, and game-changing opportunities are predictable and represent unprecedented ways to gain advantage. Employees know that it's better to solve predictable problems before they happen, and that predictable future problems often represent the biggest opportunities. They know that being anticipatory means modifying plans to keep them relevant and from becoming obsolete before they are implemented, based on the Hard Trends that are shaping the future. They are confident and empowered by having a shared view of the future based on the Science of Certainty. (See Science of Certainty)
<b>Anticipatory Mindset</b>	People who value the power of actively shaping the future by applying the Anticipatory Organization Model to anticipate disruptions before they happen, turning disruption into a choice, and identifying problems and pre-solving them before they occur. They deliver results in the present, and they schedule time to scan the horizon for emerging opportunities to accelerate innovation and transform results.
<b>Both/And Principle</b>	To see the future of technology-driven change more accurately, it is important to apply the both/and principle. We tend to greet innovation with an either/or assumption, either we keep the old, or get the new. But this is not an either/or world; it is a both/and world—a world of paper and paperless, online and in-person, digital and analog, old media and new media, mainframes and smartphones. By integrating the old with the new in innovative ways you can create higher value than either would have on their own. Legacy systems are not the problem; it's legacy thinking!
<b>Burrus Golden Rule of Business</b>	Give your customers the ability to do what they can't currently do but would want to do if they only knew it was possible.
<b>Burrus Law of Bandwidth</b>	The Burrus Law of Digital Bandwidth, first introduced by Burrus in 1983, states that bandwidth will double every eighteen months as the price drops in half. Bandwidth refers to the transmission capacity of an electronic communications device or system; the speed of data transfer. You may recall how long it took to download a large document in the mid-1990s. It was very slow compared to today's video streaming capabilities. (See Processing Power "Moore's Law" and Burrus Law of Digital Storage)
<b>Burrus Law of Digital Storage</b>	The Burrus Law of Digital Storage, first introduced by Burrus in 1983, states that digital storage will double every eighteen months as the price drops in half. Digital storage refers to the method in which data is maintained, managed and backed up. You may recall how large and expensive computer hard drives were in the mid-1990s compared to today's flash drives, smartphones, and virtual servers that store seemingly unlimited amounts of data. (See Processing Power "Moore's Law" and Burrus Law of Bandwidth)

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<b>Burrus Law of Opposites</b>	The Burrus Law of Opposites, first introduced by Burrus in 1983, states that by taking a problem, a product, or a service, and flipping the core concept around in the opposite direction, invisible opportunities and innovative solutions will become visible, allowing you to both innovate and move forward faster. By looking in the opposite direction, where no one else is looking, you can see what no one else is seeing.
<b>Certainty</b>	Strategy based on certainty has low risk. Uncertainty can open the door to a sale, but certainty is the ultimate closing tool because it provides the confidence to say yes. (See Science of Certainty and Uncertainty)
<b>Change</b>	Change is to make or become different. It is incremental. What it was before the change resembles what it is after the change. (See Transformation)
<b>Choose To Be Extraordinary</b>	One of the most powerful ways to accelerate personal success, and the success of your organization, is to choose to be extraordinary on a daily basis. At some point in the life of an extraordinary person, they start doing things that ordinary people are not doing. The key to becoming extraordinary is to realize that every day, you have a choice to do whatever you are about to do, in an extraordinary way. Before beginning an activity of any kind, spend a few minutes asking yourself what would an extraordinary person do, and then do that instead of what you were about to do. In time, people will be saying you are extraordinary, and that's because you are.
<b>Convergence</b> (Hard Trend Pathway to Innovation)	You can converge features and functions just as we have done with smartphones, and you can also converge industries. You can see the future if you use Hard Trends to predict the industries that will converge, which creates new competition, as well as new customers and strategic partners.
<b>Cooperating vs. Collaborating</b>	Cooperating is a much lower level activity than collaborating. You Cooperate because you have to, and you Collaborate because you want to. Cooperation is based on scarcity, "I want to protect and defend my piece of the pie," versus Collaboration, which is based on abundance, meaning "how can we work together to create a bigger pie for everyone." Cooperation is contractive and exclusive; Collaboration is expansive and inclusive. Collaboration is a function of genuine communication where parties work together in a joint effort to create a desired result.
<b>Cyclical Change</b>	A cyclical change is any change that occurs in some orderly fashion in which the events constantly repeat (biological cycles, seasonal cycles, economic cycles) similar to a pendulum swinging back and forth. Economists are masters at using the cycles to predict the future. The trouble is they tend to ignore Linear and Exponential Change. (See Linear and Exponential Change)

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<b>Dematerialization</b> (Hard Trend Pathway to Innovation)	Dematerialization allows us to find new ways to add value by reducing the size of many of the tools we use and the products we rely on by reducing the amount of material it takes to build them while improving their capacity and performance. You can find new ways to innovate by asking the question, “What would have greater value if it were smaller in size?” Knowing that we have the ability to increasingly make anything smaller becomes a powerful innovation strategy.
<b>Demographic Hard Trends</b>	Hard Trends that are driven by demographics such as aging baby-boomers. A few examples include baby-boomers retiring, which creates predictable problems and opportunities, and millennials who want to learn and work in different ways. (See Technology Hard Trends and Regulatory Hard Trends)
<b>Economy of Abundance</b>	The economy of abundance is defined as creating economic value and wealth by the production and consumption of unlimited, non-physical things. Unlike the richest people of the 20th century who made their fortune extracting “scarce” resources from the earth, turning them into a product and selling it to the masses, the richest people today have made their fortunes by creating software and services. Virtualization, the cloud, wireless networking and advanced mobile devices are a few examples of tools that can be used to create economic abundance. (See Economy of Scarcity)
<b>Economy of Scarcity</b>	Our historic economic model has been based on the production and consumption of physical goods and services where every transaction depletes finite resources. If I sell you an acre of land, a truckload of lumber, or a barrel of oil, my own supply, as well as the source supply are now depleted by that same amount. Economics is called the “dismal science” because it is the study of the ongoing process of depletion. (See Economy of Abundance)
<b>Embrace and Extend</b>	This strategy is about embracing the Hard Trends that will happen, even if they will disrupt your current products and services. Then, apply those forces of change to extend the life of your current cash cows and create new cash cows that will extend long into the future. (See Protect and Defend)
<b>Everyday Innovation</b>	When we think of innovation, we tend to think of the big innovations that disrupt industries or create a new product or service line. This type of innovation doesn’t happen very often, has long time frames from ideation to implementation and only a small percent of all employees will be involved in the process. Everyday innovation empowers all employees, on a daily basis, to find inventive solutions to everyday problems by providing easy-to-use methods for rapid problem-solving, as well as a way to identify and pre-solve problems before they happen. It also is about using the Eight Pathways to Innovation as a way to make invisible opportunities for innovation visible.

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<b>Exponential Change</b>	Exponential Change starts out slowly and then rapidly builds. An arithmetic change curve follows a sequence that starts with 1 followed by 2 and then 3. An Exponential Change demonstrates the process of doubling and starts out with a 1 followed by 2 then 4 then 8. Imagine taking a penny and doubling it every day. Tomorrow, you'd have \$.02; the next day, \$.04, then \$.08 and so on. By the end of the week, you would have \$.64. By the end of week two, it would have grown to \$81.92. Not too exciting. But by day twenty-eight, just two weeks later, your pile of pennies would exceed \$1 million; and by day 31 you would have more than \$10 million. That's Exponential Change. (See Cyclical and Linear Change)
<b>Exponential Innovation</b>	A form of significant, disruptive innovation that accelerates at an exponential rate that can upend industries or create completely new products or services.
<b>Fail Fast Principle</b>	Part of living successfully in the future is embracing a new relationship with one of our most valuable and underappreciated resources: our failures. Our most valuable life lessons never come from our successes, they come from our failures. The biggest problem with failure is not that it's failure, but that we tend to fail in slow motion, dragging it out for years or even decades, which weighs us down and prevents us from moving forward. Learning to fail fast allows one to recognize failure quickly and act on it immediately, so that failure shifts from being a liability to being an asset. In fact, it becomes an essential tool for success.
<b>Foresight</b>	Knowledge or insights gained by looking ahead at the trends that are shaping and/or influencing the future. Foresight means imagining or anticipating what might happen in the future. (See Hindsight)
<b>Future Mindset</b>	People who are looking forward to new advancements in technology and the tools they use personally and professionally. They are aware of proposed changes in devices, software, and apps, as well as innovative applications for new tools. They have a strong willingness to experiment with the latest devices and software upgrades. They are generally first to acquire new technology. They have a worldview described as "the best days are yet to come" and tend to be impatient, thinking that things are changing too slowly. (See Present Mindset and Past Mindset)
<b>Futureview® Principle</b>	The Futureview Principle states that how you view the future shapes your actions today, and your actions today will shape your future. Change your Futureview, and you will change your future. Your Futureview will determine the future you. Your future will be far less than it could be without elevating your Futureview based on the Hard Trends that are shaping it. It's clear that Blackberry had a different Futureview than Apple had. Blockbuster had a different Futureview than Netflix. These companies' Futureviews shaped their future. If one can elevate a Futureview, based on the Hard Trends and transformational changes that are shaping the future, it will elevate the future of the individual and the organization. (See Shared Futureview)

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<b>Globalization</b> (Hard Trend Pathway to Innovation)	Globalization is made possible by technology. From ancient sailing ships, undersea telephone lines, and airplanes, to today's streaming multimedia communications, new technology enables new levels of Globalization. There are also degrees and levels of globalization. An example of a lower level of Globalization is a manufacturer that sells its products in markets throughout the world. A higher level of Globalization is a manufacturer that customizes its products for the different markets around the world. Do your top executives often travel to other countries or are they from other countries? Both represent different levels of Globalization.
<b>Hard Assumption</b>	A Hard Assumption is when we have "good data" that supports the underlying assumption of the Soft Trend. Soft Trends that are based on Hard Assumptions are more likely to happen, and, if you have a strategy that depends on this Soft Trend happening, your risk level is lower. (See Soft Assumption)
<b>Hard Trend</b>	A Hard Trend is a trend that will happen and is based on measurable, tangible, and fully predictable facts, events, or objects. Hard Trends cannot be changed. The three major categories of Hard Trends are Demographics, Government Regulations, and Technology. (See Soft Trend)
<b>Hindsight</b>	Hindsight is the recognition of the realities or requirements of a situation, event, decision, etc., after it has occurred. Hindsight only brings lament: "Should have bought that winning stock ten years ago"; "Should have sold that house"; "Should have bought that land." You can't change the past, but you can learn from it. (See Foresight)
<b>Informing vs. Communicating</b>	The Information Age is all about informing. Informing is static, it's one-way, it's passive, and doesn't always cause action. The Communication Age is about communicating. Communicating is dynamic, it's two-way, it's engaging, and usually causes action. A primary tool of the Communication Age is Social Media.
<b>Internet of Things (IoT)</b>	By adding connected sensors to a machine or product that is connected to a network, the machine or product can perform predefined operations when needed, which makes it intelligent. Machines and sensors connected over the Internet are called the Internet of Things (IoT). (See Machine-to-Machine Communications)
<b>Interactivity</b> (Hard Trend Pathway to Innovation)	The increasing ability to interact with all of the different types of media we use has represented a gigantic leap that we're still just beginning to comprehend. As we continue the process of making all of our media dynamic and interactive, we're gaining the ability to interface with everything in new and powerful ways.
<b>Law of Bandwidth</b>	(See Burrus Law of Bandwidth)

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<b>Law of Digital Storage</b>	(See Burrus Law of Digital Storage)
<b>Law of Opposites</b>	(See Burrus Law of Opposites)
<b>Linear Change</b>	Unlike Cyclical Change, Linear Change is one-way, and does not repeat. Linear Change is usually depicted on a graph as a straight line going in one direction. The Three Digital Accelerators take this one-way direction of change and accelerates it at an exponential rate, morphing this one-way Linear Change into an Exponential Change curve that starts out slow and then sweeps up at an increasing rate. (See Cyclical Change and Exponential Change)
<b>Machine-to-Machine (M2M) Communications</b>	Machines connected to machines over a wired or wireless network allows connected machines to report conditions and carry out tasks based on predefined parameters without human intervention. By adding connected sensors and machines to a machine or product that is connected to a network, the machine or product can perform predefined operations when needed, which makes it intelligent. Machines and sensors connected over the Internet are called the Internet of Things (IoT).
<b>Mobility</b> (Hard Trend Pathway to Innovation)	Mobility is enabled by the hardware revolution with increasingly smart devices such as smartphones, wearables, and tablets, and the software revolution with mobile apps that connect to increasingly capable supercomputers in the cloud, allowing people to live, work, and play from any place, at any time. Mobility will transform every business process.
<b>Networking</b> (Hard Trend Pathway to Innovation)	We will continue to have an exponential growth of wired, fiber, and wireless networking that can increasingly connect people, places, and things. In addition, both tangible and virtual networking will exponentially grow. The more individuals we connect to the same network of ever-expanding bandwidth, the more diverse kinds of activities and services we can provide over that network, which increases the value as it brings down the cost.
<b>Opportunity Manager</b>	The majority of our time is spent putting out fires and reacting and responding to change, which is often referred to as crisis management. Opportunity managers do spend time reacting and responding, but they also understand that the future is where we will all spend the rest of our lives. They embrace the need to spend time thinking about the future and planning for it. Opportunity Management starts with the practice of carving out at least one hour per week to think about and plan for the future. An Opportunity Manager spends time looking at the Hard Trends that will shape the future and takes action on the related opportunities.

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<b>Past Mindset</b>	People who feel most comfortable with how things used to be, generally demonstrate resistance to change, and usually delay using the latest technology because they think the tools and processes they have been using are proven and working well. They have a worldview described as, “things happen too fast,” “the future doesn’t look so good,” or “the good old days are behind us.” (See Present Mindset and Future Mindset)
<b>Pre-Active</b>	Taking positive action before a future known event. (See Pro-active)
<b>Pre-Mortem</b>	The action of identifying and eliminating predictable obstacles and problems that will slow or block the success of a plan, product or service before beginning a project.
<b>Present Mindset</b>	People who are comfortably working with current technology, but generally wait until new methods or devices are proven or implemented by others before using them. They demonstrate a willingness to stay current, and devote time trying to keep up. They have a worldview described as, “if it’s not broken, don’t fix it.” (See Past Mindset and Future Mindset)
<b>Principle: If It Works, It’s Obsolete</b>	We are in a unique period of technology-driven exponential change and transformation. We are capable of doing things today that were impossible just a few years ago. The old saying was: “If it works, why fix it?” Today, “If it works, it’s obsolete.” From a strategic perspective, rapid obsolescence is not a problem if you focus on gaining advantage from the old and the new.
<b>Principle: Suspend Judgment To See Invisible Opportunities And Solutions</b>	Making fast judgment blinds us to the potential opportunity change and transformation offer. By suspending judgment, you will discover opportunities that are invisible to others who judge too quickly. When the first iPhone was released, Blackberry’s CEO made the statement, “Who would want to watch television on a phone?” That fast judgment cost the company billions.
<b>Proactive</b>	Being proactive means taking positive action now. The problem with this term is that you will have to wait and see if the actions you took were, in reality, positive. (See Pre-active)
<b>Processing Power</b>	Moore’s Law states that processing power, the speed at which a machine can perform an operation, doubles every 18 months as the price drops in half. For example, to go from a 5-megahertz chip to a 500-megahertz chip took 20 years. To double that took only eight months, and that happened years ago. The process of doubling creates both predictable and Exponential Change that starts out slowly and then rapidly builds. Moore’s Law is tied to the processing power of the chips in our devices. At this point in time, the processors in our devices are not as important as the ability to use our devices to tap into supercomputers in the cloud. This is where exponential change will continue. Each advance in computing power creates amazing disruption and opportunity. (See Burrus Law of Bandwidth and Burrus Law of Digital Storage)

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<b>Product Intelligence</b> (Hard Trend Pathway to Innovation)	The degree to which intelligence is added to any product. Machine-to-Machine (M2M) communications and the Internet of Things (IoT) will add networked sensors, communications and, ultimately, intelligence to infrastructures, vehicles, farms, and much more.
<b>Protect and Defend</b>	This is the default strategy businesses of all sizes take when confronting an external change or disruption. They spend time and money protecting their current cash cow and defending the way “we have always done it.” This often leads to failing slowly. (See Embrace and Extend)
<b>Redefining and Reinventing</b>	The strategy of seizing the opportunity to rewrite your own history—before it happens. Transformation is an accelerated, magnified force of change. Redefining and reinventing is a way of harnessing that wild force and applying it to a product, a service, an industry, or a career. Transformation is a Hard Trend, while reinvention is a Soft Trend. Transformation is going to happen, all around us and also to us, whether we want it to or not. Reinvention, on the other hand, will happen only if we make the decision to do it—and if we don’t do it, someone else will.
<b>Regulatory Hard Trends</b>	Hard Trends that are driven by regulations and laws such as cyber security and environmental protection. For example, technology will increasingly allow us to improve the energy efficiency of our products, which will save money and the environment. Regulatory agencies will need to update their requirements and create new legislation governing these new capabilities. (See Technology Hard Trends and Demographic Hard Trends)
<b>Science of Certainty</b>	A systematic body of knowledge defined by identifying the Hard Trends that will happen. Understanding the difference between Hard and Soft Trends allows us to separate future facts from hypothetical outcomes—future maybes. Personal or business strategy based on uncertainty has high risk. Strategy based on certainty has low risk. Uncertainty can open the door to a sale, but certainty is the ultimate closing tool because it provides the confidence to say yes. (See Hard Trends)
<b>Shared Futureview</b>	The Futureview principle can be applied to an organization in powerful ways. If employees have different Futureviews of the organization they work for, it will be more difficult to move forward faster in a productive way. In addition, there may be employees in an organization who create a lot of value and are planning to leave. What’s the difference between those who plan to stay and those who plan to leave? It’s their Futureview of staying with the company. The Futureview principle can apply to customers, suppliers, and vendors, as well. If they all have different Futureviews, it will be far more difficult to share the future together in a collaborative way. (See Futureview Principle)



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<b>Skip-It Principle</b>	The key to problem skipping is to understand that whatever challenge or problem you have, no matter how big it is, that's not it. The reason the problem or challenge is so big and seemingly unsolvable is that it's not defined correctly. By skipping the perceived problem, you can find the real problem and, better yet, the solution.
<b>Soft Assumption</b>	A Soft Assumption is not based on research or data. It's based on an opinion or gut level instinct. A Soft Trend based on a Soft Assumption is far less likely to happen, and, if you have a strategy that depends on this trend happening, your risk level is very high, and you can get into trouble very fast. (See Soft Trend and Hard Assumption)
<b>Soft Trend</b>	A Soft Trend is a trend that might happen and is based on an assumption that looks valid in the present, and it may be likely to happen, but it is not a future fact. Soft Trends can be changed. They are based on either a Hard Assumption, making the Soft Trend more likely to happen, or a Soft Assumption, making it far less likely to happen. (See Hard Assumption and Soft Assumption)
<b>Technology Hard Trends</b>	Hard Trends that are driven by technology. The increasing use of biometrics such as fingerprints and facial recognition for security, and the increasing use of cloud computing by organizations of all sizes are good examples of Technology Hard Trends. (See Regulatory Hard Trends and Demographic Hard Trends)
<b>Three Digital Accelerators</b>	The exponential growth in Processing Power, Digital Storage, and Bandwidth represent the three digital accelerators. Burrus Research has been tracking all three since 1983, and all have been advancing in a very predictable way over the past thirty years and have been used to create accurate time frames for technology-driven change and transformation. Every business process is directly influenced by all three of the accelerators. Hard Trends define "what" will happen, and the Three Digital Accelerators provide the "when." At this point, they are driving the transformation of every business process. (See Processing Power "Moore's Law," Burrus Law of Bandwidth, and Burrus Law of Digital Storage)
<b>Time Travel Audit</b>	A Time-Oriented Mindset Assessment, which can be used to determine whether an individual has a Past, Present or Future mindset. Knowing the orientation of an employee, customer or any individual helps leaders and teams understand how to increase communication, collaboration and results inside organizations. When you know the mindset orientation of the people you are interfacing with, you can mentally meet them in their time orientation and move them into a more beneficial time orientation without alienating them. (See Past Mindset and Present Mindset and Future Mindset)

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<b>Transformation</b>	Transformation means doing something utterly and radically different. Transformation is an accelerated, magnified force of change. In a sense, transformation is a Hard Trend. Technology-driven transformation is going to happen to us and all around us, whether we want it to or not. (See Change)
<b>Trust</b>	All good relationships are based on trust, and trust is earned through values such as delivering on promises, honesty, and integrity. Trust means having a firm belief in the integrity, ability, or character of a person or thing, as well as the confidence or reliance of a person or thing. Both large and small companies can inadvertently undermine trust, or worse yet, teach their customers not to trust them. The key to success now and in the future is to strategically consider the impact any change will have on trust before implementing the change. Elevate trust whenever possible.
<b>Uncertainty</b>	We live in an uncertain world. Strategy based on uncertainty has high risk. Uncertainty often opens the door to a sale, but if the potential customer is uncertain at the end of the sales process, it is highly likely the sale will be lost. (See Science of Certainty and Hard Trends)
<b>Virtualization</b> (Hard Trend Pathway to Innovation)	Virtualization allows us to create on-demand services. Software can be virtualized, so you don't have to own, host, or manage it. Payment is made for the number of users who use the software. This is known as Software-as-a-Service (SaaS). Salesforce.com was an early example. We can also virtualize services such as collaboration, as well as any IT infrastructure including servers, private clouds, and networks.