INTERNATIONAL
COLLABORATIVE LEADERSHIP
INSTITUTE
PO Box 7786 Naples, Florida 34101
+1 (239) 537-6441
www.ICLInstitute.org

WHITE PAPER

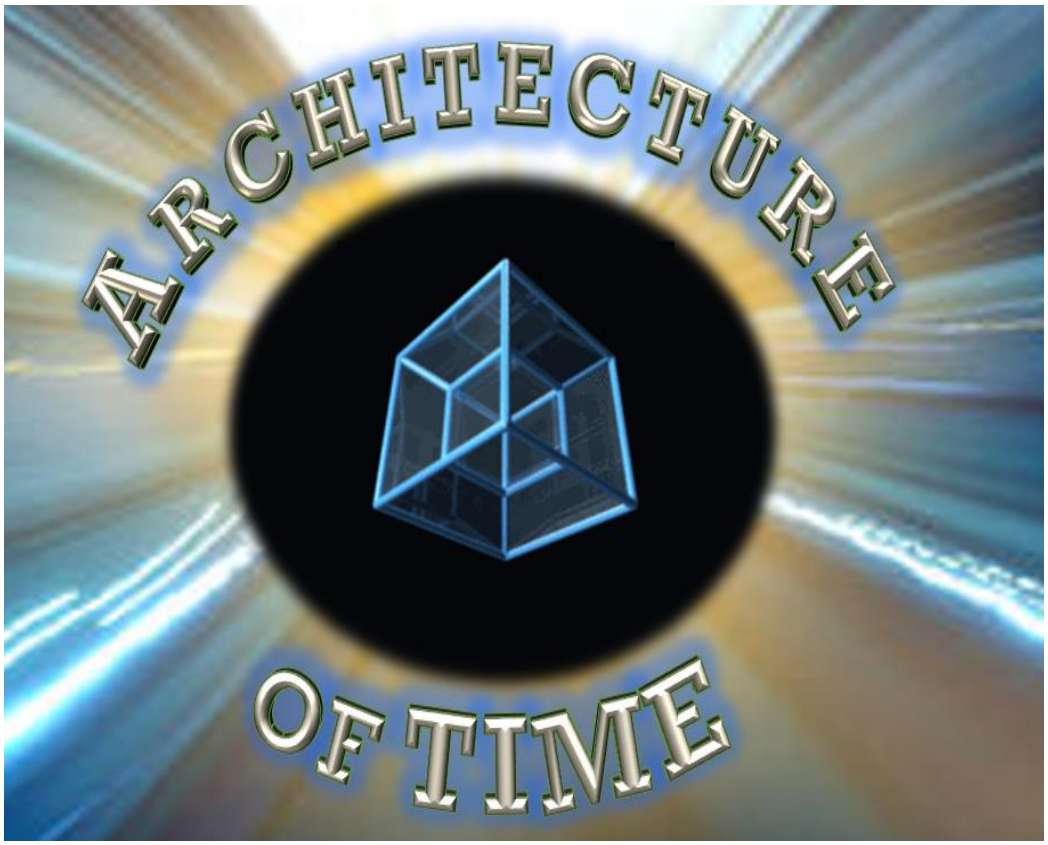
#19 Architecture of Time

How to Maximize Total Return on Time[1]

Exploiting the Great ~~Hole~~ WHOLE in Time

By Robert Porter Lynch (bio) , Barrett Hazeltine (Brown University), Mike Nevin (UK), Ron Steffel (US), Steve Rogers (US), Gary Loblick (Canada), George Jergeas (University of Calgary), Mark Jergeas (Canada), Paul Armington (US), Allison Byrne (US), Roberto Reyes (US), Curt Volkmann (US)

Version 2.0 DRAFT for Review and Comments Only



[1] In this paper, we will be focusing primarily on those aspects of Time that relate directly or indirectly to Value.

Contact Info: email: Robert@ICLInstitute.org phone: +1 (239) 537-6441

Time[2] is ever-present, ubiquitous, pervasive, permanent
yet fleeting, effervescent, and ephemeral;
a commodity to some and a treasure to others.

People want to save it, but there is no bank vault that can hold it.

Time, like love, is measurable,
but we can neither see it, nor weigh it, nor hold it.

We write histories upon it,
make investments based on it,
reflect backward on it,
attempt to be present in its evanescent moment,
try to predict it forward,
and accelerate our capacity to control it.

Yet few really grasp the very nature and essence of Time.

Over the centuries, three groups have addressed the perspective of time:
the philosophers and poets,
the scientists and mathematicians,
and, in business, practitioners, time managers and financiers.

This paper is not about philosophy nor physics,
but delves into the practitioner's realm,
going well beyond traditional time management,
into a "zone of time" that produces extraordinary results.

Because we focus on the "Architecture of Time,"
these extraordinary results are
Designable, Replicable, Leverageable, Multipliable, and Sustainable.

[2] Note: for the purposes of this discussion, we are going to set aside all esoteric approaches (i.e. Einstein's Theory of Relativity), geological time, interplanetary time, hallucinogenic time, or spiritual/philosophical perspectives, instead confining ourselves to dimensions of time which impact organizational decision-making and to which every leader and manager can relate.

Contents

***Tempus Fugit* – Time Flies *Carpe Diem* – Sieze the Day**

In this paper, we explore the unique "design" of time, the variety of forms it takes, the parameters and paradoxes that control its uniqueness, and the ways we can use it to derive the highest "Return on Time."

The great "~~Hole~~ Whole in Time" in the title is a play on words to address how we need to focus on both what's missing in our understanding of time, and simultaneously see time from a more "holistic" – systems – perspective.

Just to allay any practitioner concerns about this paper being an esoteric journey into Einstein's Theory of Relativity, no, we aren't going there at all.
(but we've sprinkled a few of his pithy quotes to provide some unique perspectives)

We are far more down-to-earth folks who have come to realize there is a great deal of unexplored reality about time that's either been lost, omitted, or not properly revealed; time – which is so central to our lives – needs to be brought center-stage.

It seems like time is akin to the Elephant in the Room no one wants to say is there, or the Emperor with no clothes.

This is one of the reasons we focus on "Architecture," because it makes the invisible visible, and, most important, make it accessible and useful to leaders and managers.

To master "Return on Time,"
one must first grasp the "Architecture of Time."

As with all architectures, the inner design beholds a series of Frameworks, Principles, Process Methodologies, and Interconnectivities to which best practices can be attached to different elements of the architecture to enable mastery of the system.

It is in the idea of "architecture" that a system's inner design is revealed, the functions are identified, the interrelationships aligned, and the invisible is made manageable.

Our practical understand of time has essentially been stuck for far too long, trapped by the esoteric nature of time as understood by the physicist, the ephemeral essence of time by the philosopher, and the mechanistic manipulation of time by the time manager.

What we know is that the first two have value in realm of abstractions and spirit, and the third has produced a multitude of disasters in the practical world where leaders must be decisive.

Most of us who contributed to this paper are "Pracademics" – highly practical folks who've been in the trenches managing real-world operations. Then later in our careers we decided to use our experience, wisdom, and knowledge to become thought leaders and teachers.

Central to our mission as "Pracademics" is the primal recognition that time is precious, and has been too bounded by our constrictive thinking about "time management." The reality is that "time management," while often helpful, can also fragment time into component parts, which can have a deleterious, spiraling impact on human interactions, as well as a multitude of functions in other parts of complex organizations and eco-systems.

A more expansive mode of thinking about time is essential in our fast-moving, rapidly-changing, highly complex interconnected world.

This paper aims at providing a breakthrough as time marches forward.

In understanding the Conceptual Structure of Time, we will first look at time as a Multi-Dimensional Paradox.

PART 1: THE PARADOX OF TIME

Time, like all phenomenon, earthly and heavenly, has an inherent and coherent design (architecture). Our quest is to perceive that architecture and put it to practical use, just as a masterful architect of a building learns to integrate truth, beauty, engineering, science, the components of construction, and the skills of the construction trades to produce a functional structure that humans can use.

Architecture is imbedded into virtually everything we do or experience in life, but all-too-often that architecture has never been formulated, solidified, and codified. Thus much of earthly phenomenon, particularly in the realm of human behavior and interaction is filled with mysterious paradoxes that beckon for deeper understanding.

Certainly two phenomenon that rise to the top in the list of human "mysteries" are ***trust***[3] and ***time***. It's not that we have no understanding, it's that we have a very incomplete understanding not just of each phenomenon, but also how the "intersect" – something that we will explore in greater detail later in this paper. It is in this conjunction that we will present a whole new set of breakthrough opportunities for the leader of any organization, large or small.

While time may sound like a simple concept, once you dig into it, there is a lot to comprehend and embrace to master it and make it work for you, a decision-maker.

Time is not as simple as it implies.
Understanding the "Architecture of Time" begins with comprehending the "Paradox of Time."

par·a·dox

Premises that, alone or independently, seem reasonable, true, explainable, or acceptable; yet, in juxtaposition, appear contradictory, misaligned, senseless, or unrelated; often running contrary to logic or one's expectation.

[3] In other White Papers we deal extensively with the Architecture of Trust (see Publications)

Time Exists in Many "Dimensions"

Before digging into the *Paradox of Time*, we'd like to start with a story as an analogy:

> Imagine being an 8 year old child, who has never listened to a radio station other than the local channels on the car radio.
>
> 
>
>
> For a birthday present you've just been given a multi-band short-wave radio. When you turn it on, you find your local radio stations. Then you turn a few switches and suddenly a new world opens up. You hear *Radio Moscow* spewing propaganda. Then the *BBC* playing a concert. Then another turn of the dial and you hear Latin music from South America. Exploring more, you find Amateur Radio operators helping earthquake survivors in the Philippines. Then China, India -- everyplace that broadcasts -- all available just with tuning the dials. It's a wonderful new experience that, as an 8 year old, is eye-opening.

The analogy of the radio is valuable to help explain the paradox of time.

> Not only are both radio waves and time invisible, they are both operating on multiple levels simultaneously.
>
> Receiving the signals depends upon how you "tune in" to determine what is true, real, and how to receive the information that is available and valuable, and filter out what's extraneous and just "noise."

You might be perplexed by this idea.

> How does time in my normal world exist at multiple levels simultaneously?

When thinking of time, there is not just one "dimension" that explains time, but actually many "frameworks of reference" which compose the "architecture of time." Each frame of reference provides its own perspective from which to view, assess, and make functional, rational, productive use of time.

We are proposing five fundamental frames of reference to define time's "dimensions:"[4] (remember, all of these actually exist *simultaneously*, and often *interactively*)

1. **LINEAR** Time
2. **CYCLICAL** Time
3. **RELATIVE** Time
4. **EXPERIENTIAL** Time
5. **SYNERGISTIC** Time

One of the goals of the Architecture of Time is to understand the laws, principles, governance and rules of engagement to better navigate the world in which we live.

Both Nonsense and Common Sense are products of the human mind. There is no reason why these should share the same ground.

What can be so vexing is that all five our dimensions can intersect, overlap, and intertwine, as the next pages will explain. However, knowing this is the first step in understanding Total Return on Time. (TROT)

[4] There are additional ways we could have viewed time, however, we are attempting to lay out an initial architecture that covers more than 90% of the types of time encountered by leaders and managers of businesses and organizations. If the reader has an additional approach, please suggest and amplify.

1) LINEAR Time

Linear time is the most common way of experiencing time – the "tick-tock" of the clock as the seconds, minutes, hours, and days march on. Clocks are the typical standard of measure for linear time.

Linear time can also be "manipulated:"

- ***"Hyper" Time***

  When something goes really fast, and we still measure by a clock, it's "hyper" time. For example, a race care is going "hyper fast" when it breaks a speed record. Computers can do stock trading in milliseconds, while there internal "clock speed" may be measured in nanoseconds. In business, generally *Fastime* will create competitive advantages. (more on this later)

- ***Slow Motion Time***

  If a movie camera runs at a diminished speed, the effect is slow motion. When someone lowers their pace from normal, such as driving at ½ the speed limit, it's "slow motion" time. In sports casting, this essential for fans to really grasp the superb qualities of an athlete.

- ***Reaction Time***

  How fast does a stimulus trigger a reaction response? Often there is a "window of opportunity" to respond or react that will set the parameters for successful passage through the window.

- ***Projected Time***

  Planning for an event in the future requires setting a "projected" time for things to occur. Projects require this to enable planning and delivery. Finance is dependent on repayment terms. We always want to know when a storm is projected to hit so we can take precautionary measures.

- ***Practice Time***

  For any complex event, it's prudent to spend time practicing the coordination of all the components to ensure they interconnect properly. In sports, teams can practice and identify breakdowns in communications; in the arts rehearsal time is essential to performance.

- ***Zoned Time***

  Across the globe, "time zones" are created to be sure everyone is oriented to the cycles of the day and night. We also create "speed zones" to time the velocity of automobiles on highways and residential neighborhoods. News broadcasts are "zoned" to provide peak experiences to viewers at appropriate times.

Linear Time is fundamentally governed by the Laws of (Newtonian) Physics.

Because it is inherently logical and governed by established "laws," we naturally try to interpret our world through this dimension. We like the logic of linear time because it supposedly allows us to analyze and quantify its impacts seemingly more perfectly.

The problem is that Linear Time competes with three other time frames of reference – each dances to a different tune. Linear Time is superficially simple, but lures us into its womb of complacency, until we get blind-sided by the effects of time's other more asynchronous perplexities.

2) Cyclical Time

The worldly overlay on linear time is nature of cyclical time – time that repeats again and again. The design of a clock measuring linear time is round so it can measure each 12 hour cycle of the day. Both linear and cyclical times are omnipresent, ubiquitous, and ever-present.

We schedule our meals, our sleep, our work, and our recreation around cyclical time.

- ***Recurrent Time***

  Whenever something happens on a rotational series -- such as the seasons of the year, or days of the week, or weeks of the month – it is recurrent, with a pattern that gives us an aura of predictability.

- ***Repetitive Time***

  As a corollary to recurrent time, if we are doing the same thing over and over again in boring, mindless work, it's repetitive and mechanistic (and will probably eventually be replaced by a machine).

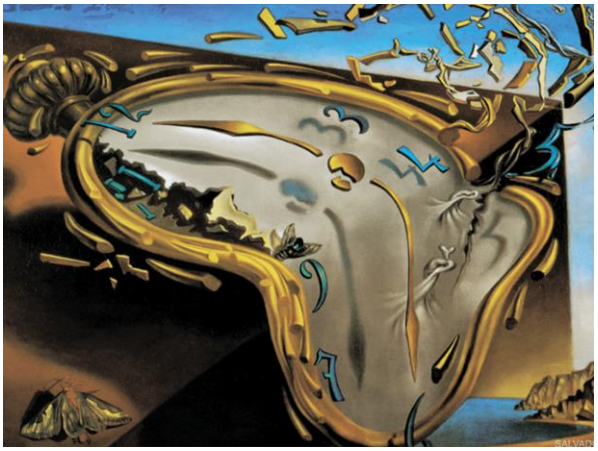
> ***Insanity is doing the same thing over and over again expecting a different result.***

- ***Spiral Time***

  In reality, while each of repetitive cycles may seem the same, they are seldom exactly the same. While bearing the same name, this Monday is not the same as next week's Monday, it's different and bears a different date stamp. However, in spiral time, there is usually some "center of gravity" that gives each iteration of the spiral a common purpose or pattern.

- ***Gyral Time***

  Unlike spiral time that has a "center of gravity," gyral time starts spinning out of control in an ever-widening "gyre" where things get worse and worse with every cycle.



  With no central organizing principles, to govern the system, the Law of Unintended Consequences flies headlong into an unraveling of set of increasingly degrading human conflicts endlessly overload what is now a junk pile.

  The Covid pandemic gives an example of some countries (like the U.S.) where each cycle of outbreak got worse and worse, eventually killing 600 million people, until use of masks, social distancing, cleanliness, and a vaccine could stop the spinning gyre.

The Paradox of Scientific Management of Time – Case Study

In the early 20th Century, led by Frederic Taylor, industrialists became fixated on the mechanics of human labor: how should workers doing repetitive tasks be most efficient with their time? Because most workers were paid by the hour, making the most productive use of labor's time was directly tied to profitability and competitive advantage.

In 1907 Henry Ford launched the Model T, designed to make car driving affordable for the multitudes. To keep costs low, Ford employed time-motion methodology. Low-skilled laborers could operate machines and man assembly lines, replacing skilled craftsmen who formerly made the parts by hand. Work flow was essential, arranged to complete one task just as the next task began. Each worker was trained to do just one of the 84 steps on the assembly line – as fast as possible. People were essentially "cogs" in a machine, and were treated like "replaceable parts."

In 1913, Ford created the most modern auto plant in the world with the first moving assembly line. Ford's production skyrocketed, and the lower costs meant he could lower the price and still make a good profit by selling more cars.

But workers were not happy, so the next year Ford gave labor a 25% boost in wages, providing an excellent wage in the day. Ford believed that well-paid workers would put up with boring, mechanistic work, be loyal to the company, and even buy his cars. Labor liked their pay but hated their work. Other industrialists branded Ford as "a traitor to his class."

While Taylor and Ford's manufacturing principles were adopted across the globe in a wide array of other industries, labor was repulsed. But many workers condemned his time-and-motion studies because his system sought to remove decision making from labor and hand it over to management. Taylor maintained the success of his system required that absolute authoritarian control reside in management. Each worker must receive "clear-cut, definite instructions as to just what s to do and how to do it."

Management argued that Taylor's stress on basic production procedures was necessary to control a labor force of unskilled immigrants with poor English aptitude. While there was some truth in this argument, paradoxically labor leaders condemned him as a monster who put mechanistic efficiency above the health and well- being of labor – something earlier industrialists valued. Said one labor leader: "No tyrant or slave driver in the ecstasy of his most delirious dream ever sought to place upon abject slaves a condition more repugnant." Labor problems would plague the auto industry in forthcoming years

The reaction was strong. By the late 1920s, studies of factory workers were conducted at Western Electric's Hawthorne plant in Illinois. The "Hawthorne Studies" demonstrated that regardless of the changes made in working conditions--increasing or reducing the number and length of breaks or tinkering with lighting--productivity increased. By paying attention to workers and treating their jobs as important, productivity rose. The results of these studies launched the field of human relations, then human resources in management boosting morale while bolstering productivity. Volumes of books on human behavior were written about or cited these studies.

But the Hawthorne Studies only addressed the visible tip of a greater underlying issue. At the surface the results indicate that people want attention paid to them. While true, at a much deeper level was the work force's need to have meaning and purpose in their lives, and even more important, the ability to use their creative energies to solve problems together, innovate, and add-value in their work – making work an experience that people looked forward to. One of the purposes of this White Paper is to dig deeper and reveal many underlying truths that every leaders can use.

Time Management

The idea of Time Management clearly goes back to the time of the ancients. The Babylonians began the division of a day into 12 hours, then into increments of 60[5]. The Egyptians designed the water clock, which was refined by the Greeks, who produced the first complex analog computers to predict the astronomical cycles.[6] Archimedes used time as an independent variable as did commercial enterprise.[7]

Until the advent of the Industrial Revolution, the agrarian, artisan, and fishing economies depended largely on the sun, tides, and seasonal cycles. Sundials typically bore the words in Latin: *Tempus Fugit – Time Flies.* In America, Benjamin Franklin's Poor Richard's Almanac was filled with time management advice such as "Time is money," and "Time is the stuff of which life is made." [8]

In the 20th century, in addition to Taylor's Scientific Time-Motion approach, post-World War II modern-day evolution of time management has focused on clock-based reminders and alerts, planning and preparation of work schedules and events, setting time-based goals, prioritizing tasks and events, and controlling tasks using schedulers based on importance and/or urgency of the task. These approaches concentrates on the efficient and proactive use of the various time management tools, primarily addressing skillsets needed seemingly to control the two "visible" dimensions of time: *linear* and *cyclical* time; the ability to use one's time effectively, efficiently, and productively, especially in traditional work environments. Typical Time Management Skills include:

- Prioritizing
- Delegation
- Decision-making
- Goal setting
- Multitasking
- Problem solving
- Strategic thinking
- Scheduling

We believe these are valuable, but by no means go far enough, as the following three "dimensions of time" will explain. Today's leader needs a real Quantum Shift in thinking and upgrade about time and a dramatically new architecture for action for leaders to be effective in today's fast moving world.

Because of the dynamics of *Fastime,* Time Management tends to overlook the systems interplays. When maximizing for one component of time, another component may respond adversely, such as happened with labor in Ford's plant. That's why it's important to emphasize Socio-Technical Systems Architecture.

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[5] The Sumerians and Babylonians used the sexagesimal (counting in 60s) system for mathematics and astronomy. While this may not seem logical in our decimal system of numbers, twelve is divisible by two, three, four, six and twelve - whereas 10 has only three divisers - whole numbers that divide it a whole number of times. Sixty has 12 divisers and because 60 = 5 x 12 it combines the advantages of both 10 and 12. In fact both 12 and 60 share the property that they have more divisers than any number smaller than themselves.

[6] See Antikythera mechanism - Wikipedia for an extraordinary journey into the Greek computer system

[7] Archimedes, *On spirals* describing geometry of time axis; prostitute Clepsydra timed her tricks by a water clock.

[8] Inspired by such leaders and enlightened thought, society then began to consider timeliness as a sign of maturity, and the wearing of a watch symbolized a child's entry into the time-conscious world of grownups. By the 1830s schools started to enforce punctuality, organizing school hours and lessons by the clock, punishing lateness, and awarding certificates for punctuality. The pre-19th century workmen balanced work and home-based duties by doing them intermittently, akin to the approach based on flex-time and telecommuting today. The spread of factories and standardized work hours led to work and home becoming two distinct entities. With lesser time available for home chores, the concept of managing time better received impetus. Catharine Beecher's "A Treatise on Domestic Economy," published in 1847, deals with household habits designed not to waste time and became a bestseller of the times. While the 19th-century workmen had rigid schedules, the 19th-century businessmen were flexible in managing their time. Their typical time scheduling involved three hours of business duties, with the rest of the day spent on government, church, and other social obligations. Source: Brighthub.com & Levinson, Martin H. Time-binding time: a history of time-measurement and time-management in America.

3) RELATIVE Time

Surprisingly, the powerful modalities of *relative time* seems to have been overlooked by modern time analysts. We all have experience with relative time:

- ***Dynamic Time***

  This describes a process, events, or system characterized by *constant change, activity, or progress,* particularly addressing the speed between different moving objects.

  Example: when passing a car on a two lane road, mentally calculating speed necessary to safely pass the car and avoid collision with an on-coming car in the passing lane.

  Similarly, every naval officer gets basic training in avoiding collision at sea between to moving ships on the open ocean. Whenever there is a condition of "constant bearing (as measured from the bow of the ship, such as 60 degrees off the starboard bow), and decreasing range (the distance is diminishing)" your vessel is on a collision course. Unless you have the right of way, you MUST take evasive action to avoid danger, protect the ship, and save lives.[9]

  In these instances, by varying direction and speed, distance and time of impact change.

  Every business must understand dynamic time, because competitive advantage is dynamically engaging in capitalism's incessant maelstrom of "creative destruction,"[10] the continuous and ever-challenging churning of new evolutions and innovations. To stay competitive, one must, at minimum, keep up with the "relative advantage."

  Of course, this creates the perennial paradox, similar to Henry Ford's paradox. All the creative destruction brings danger and pain, along with opportunity and advantage. Lost jobs and vanishing industries can ruin companies, communities, and people.

  On the other hand, as the Soviet Union eventually learned, overall, citizens benefit from new, higher paying jobs and better living standards.

  This is the Paradox of Progress – the pain to achieve the gain. And politicians fear and rail at sweeping away the order that brought them power.

There is nothing so powerful as an idea whose time has come.
One resists the invasion of armies, but one cannot resist the invasion of ideas.

Gustave Aimard & Victor Hugo

[9] Time and the development of a highly accurate chronometer was the centerpiece of solving one of the most important nautical navigation problems. See *Longitude: The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time*

[10] From Joseph Schumpeter, *Capitalism, Socialism, and Democracy* (1942): the process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism. (p. 83)

- ***Window of Time***

  In *relative time*, the idea of a "window in dynamic time" is central to competitive advantage.

  Timing can be everything in strategic and operational decision-making. Strategically, knowing when to enter and exit markets is important. So is knowing when to stay in a market by cannibalizing currently profitable products with new products that will soon dominate.

  For example, once mighty Kodak was exposed to the digital camera in the early 1990s. The technology was very rudimentary, resolution was poor. Kodak's chemical film process was superb and highly prized. Its biggest capital investment was in its chemical plants.

  Instead of investing in digital camera technology, which was possible with its long-term partner, Fuji, Kodak balked, missing the window of opportunity as other competitors jumped into the market space, leaving Kodak as a shell of itself. It missed the strategic window.

  Toyota captured the operational window and mastered the idea of "Just in Time Inventory" – not too early, and never late. It explained to suppliers that inventory that sat on the shelf waiting either to be shipped from the supplier end or used at Toyota was nothing more than waste – unused inventory. Thus getting things on-time made the best use of time, space, and money. Production lines flowed flawlessly, and cash previously tied up in unused inventory went to work.

  For a baseball hitter swinging at a 100 mph fastball, the window of time is nano-seconds.

When opportunity strikes: Carpe Diem – Seize the Day/Moment.

- ***Degradable Time***

  Another form of relative time is degradable or retrograde time. It entails calculating the time when something has reached it's "half-life, or no longer has value worth investing time and money, or should just be scrapped.

  Here are a few examples: Ice cream must be consumed very quickly on a hot summer day in the sun. We put expiration date on a consumable item. Tires must be scrapped when the tread is less than 1/8 inch. We scrap cars and houses when their resale value is lower than the cost of repairs. We throw out food when it rots, which we can delay be refrigeration.

  Our entire foundation of learning methodologies are based on this principle: If a person learns something and can take concrete action on that learning right away, three weeks later they will retain 80% of what they learned. If they cannot implement the learning right away, they will have lost 80% of what they learned.

  Corollary: ***Discounted Cash Flow*** – the time and amount it takes for a dollar's value today to be worth some percentage less tomorrow or next year, usually tied to interest rates and cost of money. In inflationary times or in situations of high interest rates, the Time-Value of Money becomes central to financial decision-making.

  Corollary: ***Procrastination Time*** – the failure to make a good (high reward and/or low risk decision) which then causes the failure to enter a "window of opportunity" when something has to happen or be prevented from happening. Often caused by bureaucracy, analysis paralysis, too much or too little useable information, or internal conflict.

  - Corollary: ***Trade-Off Value/Time***

Evaluation of the time and money it takes to accomplish either one task or another to produce a specific return. Example: Should I repair my current used car? What is its trade-in value? What will it cost to continue to repair going forward? Should replace it with a new car or a low-mileage used car? Should I pay extra for an extended warranty?

- ***Resurgent Time***

Sometimes time is resurgent, as in the case of many antiques. A fine example are classic cars from the 1960s. A Mustang V-8 GT convertible that cost $3,000 in 1968, in very good condition might be worth well over $50,000 today.

- ***Spatial Time***

This form of relative time describes the positioning two objects or events in time and/or space in relationship to each other, without necessarily attaching a numeric value.

Example: Lunch occurs between breakfast and dinner. Or, hummingbird's wings beat faster than other birds. Or ideas need a time of gestation before being born.

- ***Competitive Innovation Time***

This form of relative time uses the power of Design Cycle Time – the time to design, develop, commercialize, and market a new product – relative to the competition.

For example, Toyota gained significant competitive advantage by being able to develop a new car in half the time and half the cost as General Motors. To achieve, they mastered Synergistic Time (which we will discuss in detail later.

In the Pharmaceutical Industry, the ability to bring a new drug to market quickly has massive financial impacts. Typically the first to market in a drug category will attain 50% market share, second to market 25%, and the rest of the competitors divide what's left. This industry began to master Synergistic time (discussed later), and was largely responsible for the rapid development of Covid vaccines.

Business strategists unaware of competitive innovation cycle times will be beaten before they launch their products.

The evolution of the computer industry in the last forty years has been very dependent upon the development of increasingly complex software and hardware. Software that was too complex for desktop computer chips to crunch just didn't take root. Software evolution is highly dependent upon evolution of computer chip power evolution.

Intel in the 1980s and 90s understood this interrelationship very well, orchestrating a level of certainty for both software developers and computer manufacturers. The industry could reasonably predict the amount of time it would takes to develop and deploy a next-generational innovation that supersedes the existing model.

For example: the length of time to between computer chip designs to double computing power, common referred to as an industry or eco-system's "Clock Speed" was proclaimed to be every 18 months. It set a sort of relative timing/cadence for the industry.

Relative time may also include the time for a significant percentage of users to adopt the new innovation.

Example: Internet adoption among US adults increased from 52% to 90% between 2000 and 2019;,Cell phone usage in US households increased from 10% in 1994 to 96% in 2019; Electricity took 30 years to achieve 10% adoption, then skyrocketed after that.

Know "when to hold 'em and when to fold 'em," when to strike and to be patient, when to plant and to reap, when to invest and to sell, when to position for advantage and to act for advantage, when to enter and to exit markets.

- ***Deadline Time***

  End-Point time necessary for a series of time-bounded events to take place. Deadline time usually involves integrating relative, cyclical, and linear time.

  However, as every seasoned project manager will confirm about complex projects:

  'tis many a slip twixt the cup and the lip

  (The problem in making deadlines is usually sidetracked by the next dimension of time: *Experiential Time*.)

A good project manager uses time efficiently.
They will principally focus on linear & cyclical time.
Time-study efficiency experts are masters at linear & cyclical time management.

A good architect designs time to transform efficiency into synergistic results – using linear & cyclical time as a foundation, but then adding the other time dimensions and nuances to achieve results.

To illustrate how the logical linear approach to time will often fail, because it does not grasp the nature of the more ephemeral time, consider this story:

During his career, Broadway director Alan Schneider had to deal with some difficult stars.

A lead actress in one of his plays "started coming to rehearsals late--nothing said, no excuses," he wrote in his autobiography, *Entrances*.

Finally I blew my stack in front of the entire cast.

She was never late again. She also never did anything the way I wanted.

I had won my battle but lost the war.

Two years later, while having a bit of trouble with an unpunctual leading lady in another show, I asked the advice of actor/director George Abbott. 'What can I do short of bawling her out?'

'Simple,' Abbott said. 'Just start rehearsals with the understudy.'

Which is what I've done ever since. It always works.

In this example, clearly time is neither linear, nor cyclical nor relative. The leading ladies were operating in something far more ephemeral. Mr. Schneider got his desired result via a far more circuitous manner that would baffle most linear thinkers.

The Architecture of Time makes Time Management a subset of the larger picture of time, which accounts for the other three "invisible" dimensions of time: R*elative*, *Experiential,* and *Synergistic*.

An "Architecture of Time" enables managers to grasp more fully the multi-dimensional spectrum of action-time options in complex environments where human interplay creates non-linear behavior.

The Painful Paradox of Einstein's Dilemma

– Objective versus Subjective Time, in his Theory of Relativity, maintained

the experience of the "now" means something special for man, something essentially different from the past and the future. But this important difference does not and cannot occur within physics

--Einstein to Rudolf Carnap,

Unfortunately this has led to a distinction labeled "objective time" and "subjective time." It This distinction seemingly segregates time into two dimensions – objective and subjective, and leaves humans with a paradox that essentially creates no value for the practical engineer, the organizational leader, the tech manager, the practitioner, or the sports star..

Paradoxes have value when we can create deeper distinctions and then use those distinctions to shift into higher order thinking, actions, and paradigms; that's our objective. .

For example, the chemist may say that H_2O water takes three forms depending upon temperature: *ice*, *water*, and *steam*.

To a skier trying to adjust her skiing style in the snow, the chemist is adding no value.

Now let's add some distinctions to ice from a skier's perspective: Ice, in crystals, is snow. There are numerous types of snow: powder, packed powder, boiler plate, corn snow, as so forth. Each requires a different technique for skiing, and each has an impact on timing, speed and control. Knowing the distinctions enables a skier to "tune into the mountain" and create an exhilarating, synergistic experience traversing a slope. Conversely, not knowing the differences and distinctions can turn into a horrible disaster.

Time: the most undefinable yet paradoxical of things …
the past is gone, the future is not come,
and the present becomes the past, even while we attempt to define it,
and, like the flash of the lightning, at once exists and expires.

Time: the cradle of hope, but the grave of ambition,
is the stern corrector of fools, but the salutary counsellor of the wise,
bringing all they dread to the one, and all they desire to the other.....

Colton (1780-1832)

Make use of Time, let not advantage slip;

Beauty within itself should not be wasted:

Fair flowers that are not gathered in their prime

Rot and consume themselves in little time

Shakespeare 1564-1616

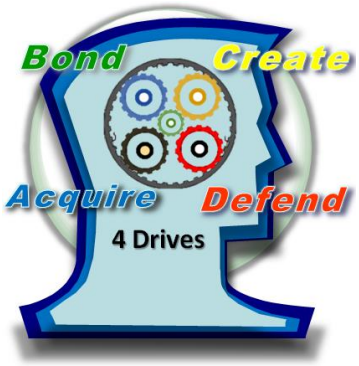
4) EXPERIENTIAL Time

This dimension of time addresses how one or more humans experience the *psychology* of the *passage of time*. It explains the gaping hole in our intuitive sense of time that the other three dimensions overlook.

This arena of Experiential Time is the playground of the intuitive mind, and the battlefield of the traditional logical mind. (we ask the rational reader to bear with us in this discussion, it will all end up very logical in the end.)

> As a college sophomore being introduced to Einstein's Theory of Relativity, my professor started by getting our attention with a story.
>
> Einstein was asked if he could explain the theory of relativity in simple terms the layman could understand. Reportedly he gleefully responded:
>
> *If you sat on red-hot stove, a second would seem like a minute.*
>
> *But if you had Marilyn Monroe in your arms, a minute would seem like a second.*
>
> I learned quickly that anytime you want to get a young man's attention, just say the words "Marilyn Monroe."

Experiential Time vexes many because it is woven, interlaced, and driven by human desires and our core emotions. These include our drives[11] to *Acquire*, such as to achieve and work, to *Bond*, such as to love, build friendships, and even hate, to *Create*, including to innovate, play, solve problems, and even destroy, and to *Defend*, including structuring, fearing, and protecting.



Each of these drivers and their associated emotions color our experience of time. Yet, in the greater sense, they also form the artist's palette from which we can design and create our unique future experience with time.

In the artist's palette are always five basic colors: the primary colors (red, yellow, blue), plus black and white, with which virtually any color can be created. When designing an experience, think of how black darkens everything and white brightens. So too with distrust and trust – each will cast its influence on the design, either shadow or sunlight.

While our memory of experience is only a reflection on the river of time past (and seldom an exploration of the dynamism that was going on below the surface), the *architecture of time* lets us design the future in its multifold splendor, should that be the path we choose.

It is the failure to understand the meaning and consequences of Experiential Time that has derailed countless projects, driven engineers to the edge of insanity, and led to the downfall of innumerable businesses.

It is our intension here to enable a deeper understanding of Experiential Time for the purpose of setting the foundation for the fifth dimension of time: Synergistic Time (the following section) , where enormous value can be conceived and reaped.

Much of Experiential Time is determined by what people believe, want, need, and value.

For example, I like to watch a great football game on Sunday afternoon with my buddies.

[11] See our work on the Architecture of Trust, including: Trusted to Innovate Breakthrough in Brain Science to Accelerate Collaborative Innovation by Paul R. Lawrence, Robert Porter Lynch, & Paul Zak (downloadable PDF)

While it actually lasts three hours, the time flies by. My girlfriend would rather watch ballroom dancing, and thinks time spent watching football is senseless and wasteful; to her the time spent on the weekend watching sports is foolish and unproductive.

To me my *Total Return on Time* with my friends is very large; to her it is negative.

To the hard-nosed, analytical thinker, Experiential Time looks soft, mushy, and the least discernable of the time dimensions.

For this reason, many simply discount it as irrelevant, immaterial, or incompetent (sounds like Perry Mason trying to object to evidence in court).

That's a very big mistake, because by-passing this fouth dimension is just like a three-wheeled motorcycle trying to race against four-wheeled sports car on a curvy race track.

Experiential Time is difficult for the logical mind to fathom, largely because it is not easily translated a simplistic a+b=c formula.

Its origins are in emotional experience. The sources of understanding are largely not scientific but lay in common sense and wisdom, curriculum not ordinarily taught in schools.

In a sense, experiential time is like relative time in that the metrics are largely relative and thus seemingly imprecise when viewed by the scientist.

Additionally, the perspective of the observer will significantly impact the metrics and the analysis.

There are many diagnostic metrics available. It's just a matter of choosing the right measure, as the system of measurement will determine the diagnosis and potential outcomes.

For example, in the adverse advent of

- ***Relationship (Human Interaction) Time***

This is largely determined by the interpersonal "chemistry" between people, and how they treat each other.

In adversarial relationships, time will crawl at an infernally slow pace, as each person or parties warily position themselves to either attack or defend. Fear, greed, anger, revenge, and distrust are at play, either overtly or in hidden agendas. The fact that this game is fundamentally a win-lose, with the loser taking a big hit, means the stakes are high, and emotions charged.

In transactional relationships, experiential time is bounded by the nature of the transaction itself: the transaction with the grocery store clerk may be inherently fast (because it's designed that way), while the transaction with a used car salesman may be arduous, and even exasperating.

Experiential Time is governed by principally by human understanding and cultural learning – what I *believe* is what I will *perceive*, which is determines what I *conceive*, that frames what I will *achieve*, which produces results I will *receive*.

The ability to understand how another person or group frames these five perspectives will give deep insight into their mind and heart.

If you believe the transaction is going to be a win-lose game, you play with caution – caveat emptor – buyer beware.

Conversely, in collaborative relationships time may jump and skip in an almost childlike manner. The relationship in this arrangement is more than likely beyond just being congenial; the expectation is that everyone will walk away winning, and ready for another round of engagement.

The quality of inter-personal & inter-organizational (groups, teams, alliances, cross-functional interaction, etc.) time is largely determined by the Level of Trust between the entities.

We will examine the "intersection between time & trust" in greater detail in the next section.

- ***Normative (Cultural) Time***

> *"How one orients himself to the moment depends the failure or fruitfulness of it."* - - Henry Miller

Each culture (national, regional, social, organizational, industrial) has a set of norms or values it places on time, and thus the Total Return on Time. Cultural time often weaves

Lose an hour in the morning, chase it all day long – Yiddish proverb

For example, doing business with the Swiss, the norm for attending a meeting is very linear: between "2 minutes early and 30 seconds late." Anything that deviates from this norm is frowned upon. However, in Spain, business may not start until late in the morning, no matter what time it is scheduled.

For Americans in business, time is mostly linear because time is considered a scarce resource not to be wasted. People who disrespect time are frowned upon.

> Time management is valued; tasks are scheduled.

Most focus on the future, neglect the joy of the moment, and, for better and for worse, largely tend to forget or overlook what occurred in the past.

However, for some cultures, time is more cyclical. For agricultural communities, time is measured by the seasons, which determine planting and harvest tasks. Many businessess are seasonal, hitting peaks in Christmas or the summer vacation period, which drives their decision-making.

In other cultures, time is more relative. People value maintaining harmony and see time in long, sometimes infinite, horizons. Phases are more important than schedules (see Aspirational Time below). People prioritize getting things done right the first time over meeting a time schedule with shoddy work.

Experiential Time will ultimately drive the question:

"How should I best engage with people and organizations whose culture is different from mine?"

This is important because not only does understanding the Architecture of Time help prevent futile conflicts and wasted time, it aids closer collaboration and enables synchronization of efforts to meet deadlines and ensure alignment of perspectives.

When contradictions exist, and they will, your range of options to optimize decisions is expanded.

Moreover, mastering Experiential Time opens up a powerful set of parameters to engage in **Collaborative Innovation, the Essential Foundation of Scientific Discovery** (pdf by Robert Porter Lynch).

In some Asian cultures, the quality of human interactions, especially building trust, is a highly treasured use of time (see Quality Time below). Family and friends are essential ingredients to the living of life, thus more emphasis is placed on the present, and the foundational elements of the past are cherished.

In some Middle-Eastern cultures, human effort is not considered a means to change outcomes without the divine intervention(i.e. Insha'allah – Arabic: God willing). Thus time is somewhat irrelevant and even irreverant.

In some African cultures, power and money are the most important factors, so any time spent on building trust will be considered wasted.

In Relative Time cultures, decisions tend to be made with reflection on the past, present, and future, not hastily, and thus look like procrastination and lack of commitment to those who choose linear punctuality. For the culture, forging trusting relationships is preeminent in transactions, because past experience teaches that deals evolve into partnerships when there is fidelity.

Total Return on Time thus varies according to culture. This can become problematic when two cultures interact or join an alliance, unless they ostensibly come into a mutual accord about how to view time.

For example, when the pharmaceutical industry (which historically was driven by long time cycles inherent in the large chemical companies) formed alliances with counter-parts in the bio-tech industry (which was driven by innovation, speed, and venture capitalists seeking faster returns on investment), their respective cycle times (clock speeds) did not synchronize. Ultimately, these corporate unions had to adopt the faster cycle times of the Bio-Tech industry, or lose competitive advantage.

- ***Expectational Time***

Human interaction is filled with expectations about time. We expect a newscast to start on time and set our watches by it. We expect a plane to arrive and take off on time. If you are going to pick up a friend at the airport, and the plane's departure takeoff is delayed, you expect the friend to call in advance and give an updated "ETA" (Expected Time of Arrival).

Think of unarticulated expectations in a relationship as "Time Bombs" waiting to explode as soon as the unarticulated expectations fail to materialize.

When someone violates a parameter of Expectational Time, trust is broken, and synchronicity is unattainable.

- ***Aspirational Time***

While goals are designed to be concrete, measurable, and time specific, aspirations are more general and directional.

For example: If I "aspire to be a doctor," then there will be a series of events that must occur to get through medical school, residency, become licensed, and begin practicing medicine. The aspiration for the future is more lofty and *phase-specific* than *time-specific*. Each of these events can eventually be translated into specific time-bounded events.

Though time makes animals and vegetables bloom and fade with amazing punctuality, it has no such simple effect upon the mind of man.

The mind of man, works with equal strangeness upon the body of time.

An hour, once it lodges in the queer element of the human spirit, may be stretched to fifty or a hundred times its clock length; on the other hand, an hour may be accurately represented on the timepiece of the mind by one second.

-- Virginia Woolf

- ***Quality Time***

  This aspect of time is highly personal, and is customized individually, which makes it hard to generalize. For one person it means "Family & Friends Time," for another it's "Reflective Time," and others it's "Decompression Time," and so forth.

  Designing Quality Time requires leaders and managers to embrace "flexible time."

  - ***Flexible Time***

    This is a "hybrid" version of Linear and Cyclical time that not only blends both characteristics, but often takes on other qualities, such as multi-tasking, integrating mission and relationships.

    Sometimes it lives in the moment while planning for the future, and speeds up or slows down according to the requirement of the circumstances.

- ***Value Added Time***

When I was beginning my career in strategic alliances in the 1980s, I studied how the Japanese gained such rapid competitive advantage compared to U.S. competitors. One Japanese executive told me that his company valued his time, because time was an opportunity to add value to something.

For example, when he read a memo or email, he was expected to add value to the contents, not just acknowledge its existence.

In this same vein, Toyota was extremely disciplined about how they valued time, separating it into:

- Value Added Time – time that was spent on doing something a customer would pay for or value,
- Non-Value Added Time – time spent on something a customer did not find of value whatsoever.

Toyota was disciplined about how they or their suppliers in the value chain either added value, or failed to add value. Their architecture was called "lean management." Process engineers studied the Toyota system, wrote books, and tried to duplicate the results. In nearly 90% of the cases the process of weeding out non-value added work failed to achieve the projected results.[12] Why?

The process engineers did not see the "invisible" part of Toyota's Lean Architecture, even though they were given free access to the whole process. The process engineers were taught, erroneously, that things like collaboration and trust were too soft to replicate or to be considered important. They still carried the beliefs and perceptions and conceptions of Taylor's "Scientific Management." If something didn't have a process, they were taught, then it wasn't valued, documented, or certified as vital to success. This was a major error.

When our team in Canada implemented lean processes, our success rate was extremely high. Why? Because we instituted what we called "Collaborative Lean," where trust was a

[12] According to the Lean Management Institute.

foundation stone of the process of ferreting out non-value added work. (In the next section, we will dig deeper into this factor in the Union from Hell case study.)

The proliferation of non-value added work is closely related to level of distrust in an organization, and the impact can be cumulative, each year more non-value added work is added to an already overwhelming pile of rubble.

For example, in one healthcare system (name confidential), over 90% (yes you read that right!) of the time spent by the "system" contributed absolutely NO value to a patient's health. Less than 10% of the time was "value added," the rest was considered "non-value-added" (NVA).

While some of this NVA was required by law and regulations, the bulk of it was simply *wasted*. All too much of "bureaucratic time" adds little or no value to the "customer." is It is no wonder that healthcare costs continue to escalate as NVA spirals out of control.

Over the years the accumulation of these breakdown responses create highly inefficient procedures which show up as NVA "time wasters." NVA accumulates over time, like arterial sclerosis, bathtub scum, road grit, or dirty engine oil, just from using it, and becomes increasingly difficult to clean out because there is not enough trust to confront the underlying causes of problems. Every time there is a breakdown, someone who got burned invokes their "get things under control" prerogative to put in place another step, another approval, another check-point, another rule or policy, another legal clause, another inspection, or some form of CYA (cover your ass) procedure. Many processes were put in place as stop-gap measures, and then sustained themselves as feudal war-lord protect their sanctums.

EINSTEIN'S 1st LAW

Today's Problems Cannot Solved with the Same Level of Thinking that Originally Created the Problem.

Corollary:

"Problems" occur at the Same Level of Thinking
"Opportunities" emerge at a Higher Order of Thinking

These have to be scoured out of the system, but in the scouring, the vested interests and accumulated rationale for their existence will rise up to defend its territorial boundaries. This alone will take precious time to overcome.[13] one must nd any new procedures must ensure that the cause of the breakdown will not reoccur.

Because most process engineers trained in time management and lean management avoid or deny the importance of trust,[14] their books and training programs don't even address the issue. Thus, when their Lean programs were put in place, the collaborative foundation that Toyota meticulously built prior to launching the lean process was missing in action.[15] Hence the high levels of failure.

[13] See our work on Organizational Transformation

[14] I have personally discussed this matter with several process engineers. Most don't value trust, don't recognize its impact, and some even deny its existence at all. One notable exception to this is Gary Loblick, one of the esteemed contributors to this article, who has had extraordinary results with Collaborative Lean implementation. (see our other work on the Architecture of Trust)

[15] The name "Lean" actually poorly describes the process. While the word "lean" refers to the removal of the "fat" (represented by Non-Value-Added work), when properly implemented, a Lean Program first removes NVA, then shifts into a Collaborative Innovation Program (see our other work the Architecture of Collaborative Innovation).

- ***Value Destructive Time***

One of the misnomers about NVA is that it implies that it is inherently s benign – just a "time waster," in a sense like "parasites."

The reality is that a very significant chunk of NVA is actually VD (Value Destructive). It sucks out not just time, but corrodes and erodes, sucking the energy out of human endeavor, and rotting the soul of an organization.

For example, Value Destructive Time is nearly always present where there are high levels of distrust: People using their time to protect, argue, fight, withhold, veto, undermine, and subvert. This is not simply "Wasted Time" (like "Idle Time"), rather it is really "Trash Time," in other words, more appropriately: "Destructive Time" filled with Value Destructors (VD). People consistently complain that distrust is a massive drain on not just their time, but also on their human energy, leaving them conflictive, confused or depressed.

Value Destroyers are truly sinister practices and methods that were sown as a result of anger, animosity, scorn, or arrogance. VD essentially destroys a system by creating distrust, manipulation, and damaging behavior. VD will ruin any operations, whether it be supply, marketing, operations, or customer relations. It must be ferreted out, because it tends to feed upon itself in a widening tailspin ending in a destructive crash.

When Destructive Time swirls like a maelstrom, *Strategic Direction loses its focus as people engage in* "Destructive Direction(s)" lose-lose, and functional units working in opposition. The organization as a whole becomes more and more reactive and even retroaction. Distrust will tend to force both strategic and operational thinking to the left in *Figure 1: Strategic Thinking in the Context of Time.* Communications in the realm of distrust will manifest some level destructive interaction -- faulty, misunderstood, even malicious, communications – as the blame game cycles out of control.

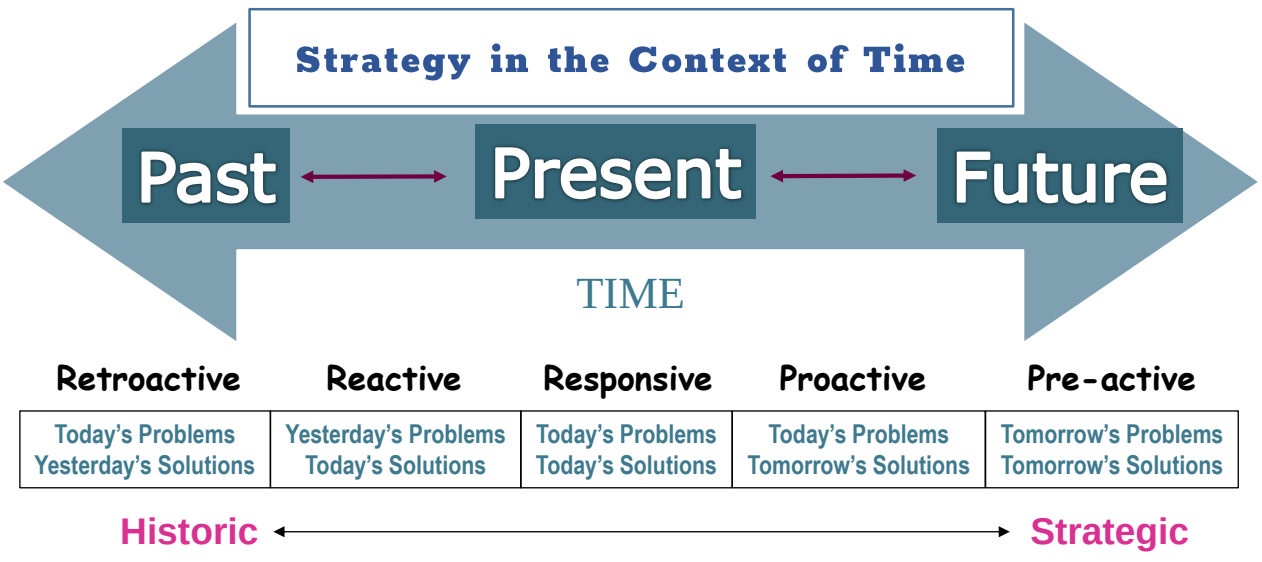


Figure 1: Strategic Thinking in the Context of Time

In contradistinction, the presence of trust which can lead to Creative Time: people engaged in learning, productivity, problem solving or creativity. When real trust prevails, "Aligned Direction" is the norm as people relate in looking to the future with in win-win potential and

a willingness to engage in collaborative innovation. Where real trust prevails, "Innovative Energy" flourishes as their environment becomes harmonious, enthusiastic, or synergistic. Communications are Interactive/Real Time, with the intent of asking insightful questions, delivering of information based on both knowledge and wisdom, while listening with compassion and understanding.

In any complex organizational system, it is more than likely that *Experiential Time* (because of the nature of people), has more variables, unknowns, ambiguities, contradictions, and riddles than the other time dimensions.

Without trust, it is extremely difficult to align all the complex interrelationships that prevail in *Experiential Time.*

Trust is a foundational cornerstone of all Collaborative Enterprise.

Collaborative Systems tend to be far more flexible than their more rigid counterparts, and far more likely to nurture synergistic interactions among its constituent parts.

Essentially the process of aligning and integrating the four-dimensional time matrix is like solving an algebraic quadratic equation where "X" is the unknown factor. Trust is like "X," once it becomes "known" (and positive, not negative!) the quadratic formulation is readily computable.

However, unlike in mathematics where 1+1=2, because humans are biological (not mathematical or mechanical entities), the force of synergy will change the calculation to 1+1>2 or more. This is possible when the forces of *alignment, balance, & integration* are brought to bear.

This will lead into the fifth dimension of time: *Synergistic Time*

One of the biggest differences between the engineer/technician and the great leader is how they master and embrace Experiential Time in its variety of forms.

5) THE FIFTH DIMENSION -- SYNERGISTIC Time

This is the most valuable of all time dimensions, and qualifies as the Fifth Dimension of Time.

syn·er·gy

Aligned or Joined (From Greek: syn or sym) Energy (Greek: energos) that unifies two or more forces, components, capabilities or methodologies, enabling a process or system to do something it cannot do alone or independently, or produces a result greater than the sum of the parts or component.

Synergy is a fundamental factor in bio-economics and biological evolution.

Collaborative systems tend to spawn synergy, while adversarial systems tend to destroy synergy.

sym·bi·osis

The phenomenon where two living entities or organizations are reliant upon one another or interdependent, but not necessarily synergistic.

syn·chron·ize

To intentionally cause to occur or operate at the same time or rate, to be concurrent, happen at the same time, adjust to occur simultaneously, balance to function in coordination or combination.

Synergistic Time is the intersection between *Time* and *Trust,* the "secret sauce" that explains the emergence of advanced evolutions in civilizations, organizations, and the rapid development of innovations.

It was used by America's Founding Fathers in the development of a Constitutional democracy, by Thomas Edison in the invention of the electric light, the phonograph, and movies, and by bio-pharma companies in the rapid development of Covid vaccines.

Synergistic Time was first mastered by the Greeks (see **How the Greeks Created the World's First Age of Innovation** by Robert Porter Lynch & Ninon Prozonic), joining science, engineering, and philosophy, but the Romans failed at understanding it, nevertheless incapable of using it.

World War II is the first war in history where the outcome of the war was determined by technologies that had not been fully developed or deployed at the beginning of the war. The Allies were able to harness Synergistic Time, but the Axis Powers fortunately could not grasp it. (see **WWII's Other Secret Weapon** by Robert Porter Lynch)

Synergistic Time is accessed by mastering the *alignment*, *balance*, and *integration* of the four time dimensions: *Linear*, *Cyclical*, *Relative*, & *Experiential*. It can be engaged either naturally (via intuition) or by design (via mastery of the Architectures of Trust & Time). It is least likely to manifest in *adversarial* systems, seldom in *transactional* environments, and most likely in *collaborative* cultures. (the operative variable that distinguishes these three cultures is the quality, presence, and commitment to *trust* – *(*see **Leadership and the Structure of Trust®** by Paul R. Lawrence & Robert Porter Lynch)

The evolution of complex, advanced human societies can be attributed, *in part*, to the mastery of Synergistic Time, as the cognitive development of humans became based on the "accumulated know-how" of a group's culture – specifically when the culture was primarily collaborative. This is why the Dark Ages were so bleak – the culture was principally adversarial composed of fighting war lords reigning over petty fiefdoms.

Synergistic Time goes hand-in-hand with the creation of value in collaborative systems, because the differential energies of unique thinking (by individuals, disparate groups, or diverse cultures) can be harnessed to produce a continual stream of innovation. (see **The Case for the Collaborative Imperative** by Robert Porter Lynch)

Synergistic Time can manifest in Sports:

20 year old Rookie fans 20, Ties Record
May 7, 1998 *Chicago's Kerry Wood was just playing catch. That's how it seemed, anyway.*

In just the fifth start of his major league career, his pitches were all but untouchable, dipping through the strike zone at unreachable angles or roaring past the bats of the Houston Astros at speeds up to 100 mph.

"I couldn't imagine ever doing this, to tell you the truth," Wood said after tying the major league record with 20 strikeouts yesterday, pitching a one-hitter to lead the Chicago Cubs over the Astros 2-0.

"I wasn't really worried about strikeouts....it was just one of those days where everything you throw is crossing the plate. It just felt like playing catch."

Wood said he didn't have good stuff warming up. Further, he was working with catcher Sandy Martinez for the first time, adding to the difficulty of the accomplishment.

"We were on the same page. Every sign he put down I already had the grip in my glove," Wood said. "It felt like we could have gone out there with no signals."

Bio-economist Peter Corning describes the power of collaboration accelerating the ability of *"larger cooperating groups to exploit many new opportunities for social synergy, including sharing costs and risks, pooling information, jointly solving problems, developing new technologies and new combinations of labor and, not least, benefitting from synergies of scale against competitors, predators, and prey. Likewise, mutual aid, or "succorant behaviors," can increase the odds of surviving an injury or illness, while the policing of bullies and 'free riders' serves to reduce internal conflicts."*[16]

Timing and Trust are the first organizing principles of Teamwork creating the fertile soil for Synergistic Time to flourish.

[16] Corning, Peter; Synergistic Selection, How Cooperation has Shaped the Evolution and Rise of Humankind, World Scientific, 2018, p 157

In the experience of Synergistic Time, the old adage "time flies when you're having fun" prevails.

Sports teams experience it frequently when they are working together in high-performance mode, known as the "zone."

Wayne Gretzky (see sidebar), hockey's star who distinguished himself as the all-time leaders in *both* goals & assists (no other player has ever done this in any sport), described the experience this way:

> *"A good hockey player plays where the puck is. Great hockey players play where the puck is going to be. I skate to where the puck is going to be, not to where it has been."*

One of the most extraordinary sports upsets was when the 1980 U.S. Olympic Hockey Team made up of collegiate All-Stars dramatically upset the almighty Russian team composed of Herculean professionals. Herb Brooks, the coach of the team described the architecture and preparation he used to enter the Synergistic Zone:

> *"You win with people, not with talent… the quality of the people is very important in building your team. I always look for people with a solid value system. Then I recruited kids from a cross-section of different personalities, talents, and styles of play."*

> *"At elite levels of competition, coaches and managers are always looking for people with character, or what they call the 'intangibles." What consititutes good character? I would say self-managers who are motivated by challenges, are mentally tough and have good attitudes. All are important and complex, especially motivation and attitude. Those type of individuals, who are highly motivated and have a positive attitude, see possibilities in tough situations, rather than obstacles."*

> *"Leadership is all about change and all about the process of transforming organizations so that creativity and innovation are encouraged and can thrive. Good management is not enough by itself. There is a distinction. Managing is taking care of what has already been created. Leadership is, on the other hand, moving forward to create something new. Not all managers are leaders. Leaders tell us not what is, but what can be....having the ability to communicate ... your beliefs is the key to bein a successful coach. You have to give your players something to believe in, then they will have something to belong to. Once they have something to belong to, ten they have something to follow."*

The Greatest Hockey Player

When Wayne Gretzky retired in 1999 he held or shared 61 National Hockey League (NHL) records. But his greatest tribute was having scored both more goals (894) AND more assists (1,963) than any other player. No one in any sport has ever led in both categories. He also was NHL scoring champion ten times and most valuable player nine times.

Gretzky knew where the puck and the players would be far before they arrived there – he saw the emerging play in advance of all other players.

One play serves as an example: 1984 game between the Edmonton Oilers and the Minnesota North Stars. In the flash of a mere five seconds Gretzky, raced down the ice as two large defensemen converged on him, anticipating his signature slap shot on goal. Instead, Gretzky abruptly fires the puck backward, without looking, to a teammate racing up the opposite wing. The pass is timed so perfectly that the receiver doesn't even break stride, and, untouched, pumps the puck into the net.

One reporter described the experience opposing teams had trying to stop him: *Opponents struggling to anticipate Gretzky's next move often became disoriented, like hunters who think they're tracking a leopard, only to hear a twig crack directly behind them. The experience was so unnerving that players who had to face Gretzky repeatedly exhibited a kind of automatic dread. One goalie said woefully: "I'd see him come down the ice and immediately start thinking, 'What don't I see that Wayne's seeing right now?'*

In Super Bowl 51 (2017) between the Atlanta *Falcons* and New England *Patriots,* after almost forty minutes of play, the *Patriots* were being slaughtered. The momentum was all on the side of Atlanta; everything was going like clockwork for them. Down 28-3 with only 22 minutes left in the game, and worse than 99-1 odds against winning, New England, led by quarterback Tom Brady, suddenly went into the Synergistic Time Zone with his team, scoring 31 unanswered points on five of their final six offensive drives, first tying the game in the waning seconds and ultimately winning in overtime for the largest comeback in Super Bowl history, and what many consider the greatest comeback in sports history. Atlanta did not collapse in the final 22 minutes, they still played at their same elite level, but New England shifted into overdrive, into that transcendent space know in sports as " the Zone."

Brady's skills as an athlete are very well honed, but his teammates and coaches emphasize that it is his *leadership skills*, particularly his ability to build trust and get fellow teammates to believe in their team's ability to win, that are the qualities that makes him so extraordinary.

Figure 2: Modes of Synergistic Time

Timing is a pivotal element in building a great team. Brady apparently has three modes that constitute Synergistic Time – *Slow Time*, *Fast Time*, and *Transcendent Time*. (see Figure 2)

Slow Time is the mode the team uses in practice, plays being rehearsed in slow motion, the examination of film on the that went well or poorly, and who the team will be opposing in the forthcoming game.

Fast Time is the mode used normally during the game. Because of pressure from opposing players, Brady has only 2.3 seconds to receive the hike, assess the position of all the players and where they are expected to be moments later, and read the attacking defense to avoid being hit while launching the ball to the place a receiver is expected to be. Brady's angular motion of throwing the ball is considered as one of the fastest in the league, traveling 20% faster than most of his competition.

Transcendent Time is when something clicks, and the team goes into that special "Zone." This occurs primarily (but not solely) when the team is in the playoffs or behind in a game. Brady holds both records – the most playoff games won and played (equal to three full extra seasons of play), and the most fourth quarter comebacks wins. Brady duplicated this special mode of Synergistic Time with his new club, the Tampa Bay Buccaneers, at the ripe age of 43, when his new team, underdogs to win any playoff games, knocked off the three best competitors led by MVP (Most Valuable Player) quarterbacks to win the Super Bowl in 2021.

Because sports teams are so well documented and supported by metrics, the analysis of the intersection of Time and Trust in the dynamic formation of winning teams is made much easier.

The Nature of Humans

The debate as to whether humans are competitive or collaborative is completely misframed as a question. The reality is that humans are *dualistic.* We are competitive and we are collaborative. It is designed into the structure of the human brain. This is why team sports are so popular among sports fans all over the world. People love to watch a team demonstrate its collaborative nature internally, and its competitive nature externally against its rivals. (see **The Darwin Hoax** by Robert Porter Lynch and Paul R. Lawrence)

Synergy frequently emerges in the arts (dancing, jazz combos, duets, etc.) and many artists will embark on a solo journey into Synergistic Time.

Business teams, when "in tune and synchronized" can also enter this zone.

Teamwork at Disney

Togetherness for me means teamwork. In my business …many minds and hands must collaborate… The work seeks to comprehend the spiritual and material needs and yearnings of gregarious humanity.

It makes us reflect on how completely dependent we are upon one another in our social and commercial life. The more diversified our labors and interest have become in the modern world, the more surely we need to integrate our efforts to justify our individual selves and our civilization. -- Walt Disney (P 90)

We also see it frequently in Emergency Rescue Teams when people's lives are dependent on Synergistic Timing.

TRUST and the Power of "Chemistry"

When people interact positively with each other, they often say they have the right "chemistry."

This analogue is actually quite insightful and we will build on it to understand how to solve the "Maximum Total Return for Time Invested" problem.

First, think of two "chemical ingredients" that need to be mixed together in the right formulation:

1. PARADOXES OF TIME: How do we shift the *paradoxes of time* to capture the energy of Synergistic Time? and
2. PARAMETERS OF VALUE: How do we address the *parameters of value*, particularly innovation and speed?

Second, what is needed to make these two "ingredients" interact to achieve its inherent maximum capability? A ***Catalyst***.

In chemistry, a catalyst is a substance that can be added to a reaction to increase the reaction rate without getting consumed in the process.

Catalysts typically speed up a reaction by reducing the activation energy or changing the reaction mechanism.

Thus, In between the Paradox of Time and the Parameters of Value, we need to insert the "CHEMISTRY CATALYST" – TRUST -- that produces to most productive outcome.

To continue the chemical analogue beyond being a catalyst:

TRUST has multiple capabilities – it is a stimulant for action, an ignition for innovation, a grease to reduce friction, and a glue to bond diverse people together.

In the next two sections we will explore how the Paradoxes of Time interact positively with the Parameters of Value when in the presence of the Catalyst of Trust.

PART 2: TRUST -- THE CATALYST FOR VALUE CREATION

What Consistently Creates Success?

Ask any sports coach if s/he would prefer players that engaged as a team, or an assortment of superstars. The smart coaches will always choose the team players, because it is the trust they have in each other that really wins games, especially when the pressure is on or a comeback demanded.

Here's a powerful lesson: For decades the United States had dominated Olympic basketball, always winning the gold medals. In 2004 the stage was set in Athens. Everyone assumed the overwhelming U.S. supremacy would continue after fielding a squad stacked with high-scoring superstars from the glorious National Basketball League.

Everyone was shocked when the superstars were crushed in the first game, losing to Puerto Rico by nearly twenty points, the most lopsided defeat in the history of U.S. Olympic basketball. This Dream Team of Superstars then lost to Lithuania and Argentina, soon becoming known as the Nightmare Team. Sports Illustrated said "covering Team Bad Vibe in Athens was about as pleasurable as getting a root canal." Their timing was atrocious, they couldn't pass the ball or be in position at the right time and place.

In all of decades of Olympic history, the American teams had lost only two games; the Nightmare Team lost three, and didn't even make the final playoffs. The humiliation was due to individual competence being defeated by competitors who stressed teamwork passion, coordination, and commitment to what was best for the team. Self-interest defeated teamwork and trust. Nothing was in alignment.

This Olympic example superbly demonstrates the lack of *synergy and synchronicity* that's necessary to generate great teamwork. Synergy enables a team to produce more than the sum of the individuals. Synchronicity is precision timing and anticipatory coordination that enables great teams to work in unison, both physically and mentally.

In the following 2008 Olympics, a new coach was appointed, Duke University's Mike Krzyzewski, who is a brilliant strategist, but more importantly a coach who looks for players with character and who play for the good of the team. Players that could trust each other to work as a unit, not as individual superstars, each looking for the spotlight. The team sparkled and went on to win the Gold Medal, undefeated, outscoring their opponents by an average of 28 points. Coach Krzyzewski said after winning the Gold Medal: "We played with great character."

Symptoms of Team Distrust

Surprisingly, many organizations suffer from poor trust and teamwork but have tolerated it so long it feels normal because it's become an old habit, an accepted practice that goes with their organizational territory. Here are the symptoms typically indicating poor trust and poor teamwork:

- Schedule is always behind
- People don't make or keep commitments
- Responsibility is not clear or overlapping conflicts
- Arguments and frustrations abound
- Meetings are unproductive
- People are caught in power struggles
- Priorities are confused or conflicted
- Some people just don't perform
- Crises arise that should have been foreseen
- Communications are erratic at best
- Distrust is prevalent
- Lots of complaining and blaming
- It's always someone else's fault
- You expect the "excuse du jour"

If many of these symptoms are showing up in your organization, then probably other more severe teamwork problems are evident that can be traced back to poor trust.

Krzyzewski is the winningest coach in college basketball history. A former army officer who was trained at West Point, he integrated the classical principles of honor, integrity, trust, loyalty, and duty into his coaching. Trust is a centerpiece of a winning strategy:

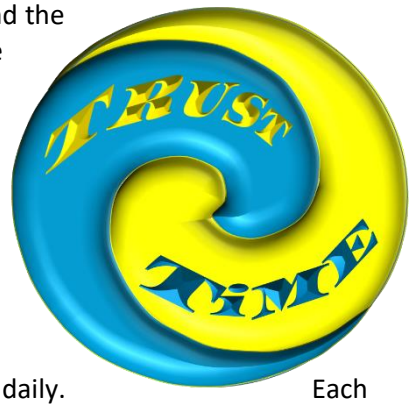
> *"In leadership, there are no words more important than trust. In any organization, trust must be developed among every member of the team if success is going to be achieved."*
>
> *"Too many rules get in the way of leadership. They just put you in a box . . . . People set rules to keep from making decisions. The truth is that many people set rules to keep from making decisions. Not me. I don't want to be a manager or a dictator. I want to be a leader—and leadership is ongoing, adjustable, flexible, and dynamic. As such, leaders have to maintain a certain amount of discretion."*
>
> *"There are five fundamental qualities that make every team great: communication, trust, collective responsibility, caring and pride…. Any one individually is important. But all of them together are unbeatable."*[17]
>
> *I'm looking for the kids who are good who want to play collectively. That's the beauty of our sport, our game. The pass is still the best play, because our game is a game of connecting. If you lose the connection, you lose the spirit and then you lose your game."* [18]
>
> *"Throughout the season, I look into my players' eyes to gauge feelings, confidence levels, and to establish instant trust…Teams that trust one another and communicate are luckier...*
>
> *"We're able to be successful only because we trust each one another. We work hard to focus on the truth, look one another in the eye, and then take action for the good of the team. And once the confrontation is done, it's done. The bond is not jeopardized, because ours is a relationship based on trust."* [19]
>
> *'The quality that we need to teach the most is trust, to be honest with one another. I have a rule on my team: when we talk to one another, we look each other right in the eye, because I think it's tough to lie to somebody. You give respect to somebody.*
>
> *"The main thing that you do with crisis management is trust one another….You have to have that trust develop before the crisis. If you haven't had it up to that time, and you have a crisis, then maybe you can use that crisis to develop it, but you're probably going to lose during that time. Maybe you can use that to mold your group together, as long as -- when those things happen -- you have a thing called collective responsibility. Everybody wants to take responsibility when you win, but when you fail, all these f*ingers are pointing. *"*[20]

No serious leader committed to building high performance teams should overlook the critical interface between Time and Trust.

Please see :
Synergy and Synchronicity

[17] Official Website of Coach Krzyzewski: CoachK.com
[18] Coach K practices what he preaches by Mike Prisuta, Pittsburgh TRIBUNE-REVIEW July 17, 2004
[19] Krzyzewski, Michael, Leadership with a Heart From chapter 5 on Trust, Business Plus, 2000
[20] Interview by Academy of Achievement, May 22, 1997 Baltimore, Maryland

Union from Hell



To better understand how the Paradoxes of Time intersect with Trust and the Parameters of Value, – this remarkable case story will colorfully illustrate the intersection and importance of *Time* and *Trust*, as well as Value Destroyers and Value Creators.

After twenty frustrating years, in 1982, General Motors threw in the towel on its plant in Fremont, California. A new sense of reality hit senior executives after GM, Ford, Chrysler lost $5.5 billion to overseas competitors in 1980-81. The Japanese, led by Toyota and Honda, were making better cars at lower prices. GM was convinced that the plant, looming like a "big battleship" of three million square feet, had become simply a battleground for labor and management to tussle and squabble daily. Each focused on dominating and attacking the other. (Their drives to *Acquire* and *Defend* were in overdrive.)

GM blamed the union for all the problems, after all it was the union that was instigating all the turmoil, and protecting the jobs of "hippies, drug-addicts, and scoundrels." The absenteeism was so high (often over 30%) that frequently the production line couldn't even be started. It was, by far, the worst of GM's plants in terms of quality and productivity: double-digit defects in every car, and far higher than average hours to assemble any vehicle. Even worse, many cars were sabotaged as workers put ball bearings in frames and coke bottles in doors, knowing it would drive customers and dealers crazy. Distrust ran so high that the labor contract was wielded as a weapon crammed with over 400 pages of legal doublespeak as each side tried futilely to protect their interests. There was a backlog of over 5000 grievances. Thousands of Fremont workers received pink slips as GM tried to cut its losses.

Toyota approached GM in 1984 with an offer to establish a Joint Venture in the United States to reopen and manage the Freemont plant. Toyota offered to up-grade the manufacturing line, and take back most of Fremont former employees along with their labor union, but only a handful of the GM management. GM saw the alliance as an opportunity to learn the Toyota Lean Management System and accepted the offer.

A Remarkable Transformation


Management Toyoda-style
NUMMI's president seeks 'mutual trust'

Toyota rehired 85% of the Fremont hourly union workforce, empowering workers to use their creative talents to improve daily plant operations. Security was assured with a no layoff policy along with a fifteen page labor contract. Instead of hundreds of job classifications designed to protect jobs, the new contract called for only four. Toyota spent $3 million train 450 new group and team leaders in Toyota's production system, which was based on continuous improvements and trust in the workforce. Team members were trained in joint problem solving and quality practices to become experts in their respective operations.

Collaborative innovation was the focal point, as employees roles expanded to enable their participation in work-related decisions. Ideas for improvement were quickly implemented by team members, with successful solutions becoming standardized. Cooperation and creativity replaced coercion and conflict.

By the time the facility was fully operational, quality defects and dropped to only one per vehicle, which were assembled in just half the time, and absenteeism plummeted to only 3%.

By engaging teams in problem solving, Toyota pushed the drives to *Bond* and *Create* to the forefront. Workforce satisfaction soared. Collaborative innovation took off like a rocket with over 90% of employees engaged in the improvement program.

After two years in operation, the once antagonistic NUMMI workers had built more than 200,000 cars and were winning national recognition. The United States Department of Labor highlighted NUMMI as a model of positive labor management relations. Newsweek magazine spotlighted it as "a model of industrial tranquility." Fortune pronounced it "the most important labor relations experiment in the US today." Industry Week ranked the plant among America's 12 best manufacturing plants.

Why could the same people, the same union, and the same equipment produce such a radically different result in under two years?

The answer lies in the intersection between Time and Trust – What we call Synergistic Time.

By focusing on the drives to *Bond* and *Create* to build trust, both Toyota and the labor union became more secure and each profited enormously, financially and in terms of personal well-being.

However, even though the GM managers trained at NUMMI learned Toyota's Management System, GM was still unable to implement it successfully in the rest of their U.S. operations. Why? Because the "invisible" part of the Toyota system was about trust and collaboration, which GM management was unable to replicate because its management culture was unsupportive.[21]

The NUMMI[22] example shows how great teamwork is based on all human energy from the four drives flowing in a single, unified, aligned, and integrated direction. This is the leader's most important task --- building trust, generating innovation, and achieving high performance. It is the intersection of Trust and Time where the fifth dimension of time emerges.

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[21] When GM declared bankruptcy in 2009, it forced the end of the Joint Venture. The plant was temporarily closed, and Toyota, in conjunction with Tesla Motors, a manufacturer of new generation electric cars, now occupy the facility.

[22] Epilogue: After the 2008 financial crash, GM was forced into bankruptcy, and decided to close their side of the Joint Venture. Today the plant is the location of Tesla Motors.

Driving Forces in Scientific Discovery today *Covid Vaccine Development*

The lightning speed of development of the Covid Vaccine by both the Pfizer/ BioNTech and Moderna teams was not a fluke. For years they had been sharing research information .

Historically vaccine development has been on a decades long timeline. The development of Covid vaccines in less than a year builds on a foundation of timing and trust that was laid years ago. The collaborative mindsets, skillsets, processes and toolsets had been tested and used effectively. Large Pharmaceutical companies had come to value of collaboration. Even competitors became "coopetitors." Companies like Sanofi and Novartis are making vaccines for their competitors to ensure fast supply.

Technology has not become the great simplifier of our lives, as once predicted. Instead technology has *enabled* and *accelerated complexity* and *change*. Within our fast-moving, rapidly changing world, innovation has shifted its venue from the individual to the group; most all innovation today is done collaboratively, either in teams, networks, or alliances. This is true not only for scientists, but also those who must commercialize innovations, and those who must address the ethical complications of decisions.

To grapple with this complexity, multi-disciplinary teams are essential, because, in most cases, it is impossible for one person to grapple with all the intricate information required to create breakthroughs. And most breakthroughs are not happening within a field or specialty, but between fields. These multi-disciplinary breakthroughs are not just complex, they are also very expensive. Thus it becomes imperative for companies, universities, and laboratories to work a seamless, synchronistic, and synergistic manner.

The Lander Laboratory at MIT is a perfect example, as Dr. Robert Langer, one of the founders of Moderna describes how his teams are composed:

"My lab has people with 10-12 different disciplines in it – molecular biologists, cell biologists, clinicians, pharmacists, chemical engineers, electrical engineers, materials scientists, physicists, and others. Many of our ideas, such as tissue engineering – require these different disciplines to move from concept to clinical practice. It makes it possible to do nearly anything 'discipline wise' in the lab." [23]

Our work is at the interface of biotechnology and materials science. A major focus is the study and development of polymers to deliver drugs, particularly genetically engineered proteins, DNA and RNA, continuously at controlled rates for prolonged periods of time.

Psychologist Mihaly Csikszentmihalyi, in his book *"Flow,"* describes "optimal experience", which conforms to the principles of Synergistic Time as people typically experience "deep enjoyment, creativity, and a total involvement with life."

The intersection of Time and Trust is seldom sweetness and harmony – it usually involves a confrontation with harsh realities, disparate points of view, and critical analysis. However, the high performance team makes a powerful commitment to turning breakdowns into breakthroughs, elevating the game beyond just winning. Confronting reality is a challenge that Coach Krzysewski never avoids:

> *Truth is the basis of all that we do. There is nothing more important than the truth because there's nothing more powerful than the truth. Consequently, on our team, we always tell one another the truth. We must be honest with one another. Confrontation simply means meeting the truth head-on. There is no other way."*

[23] Gelb, Michael J & Caldicott, Sarah Miller, *Innovate Like Edison, The Five-Step System for Breakthrough Business Success,* Plume, 2007, p 153

Trust Propelled New Product Development – Case Example

When *Pultronics*[24] in Edmonton faced with having to fast-track the development of a new product in a turnaround situation where there was no money[25] available for investment in the future. Using the dynamics of face to face trust building, problem solving, and innovation (ZOOM time would not have worked nearly as effectively) a series of collaborations were established internally (between and within functions) and externally (with suppliers and customers). The disciplines of Theory of Constraints, combined with Strategic Alliance Best Practices were used to focus on ensuring new products were developed rapidly.

The collaborative involvement of numerous customers (Voice of the Customer) in the new product design virtually assured customers when the product was ready. Similarly, the engagement of suppliers (large & small, such as PPG), along with our own internal team (engineering, manufacturing, QC and shipping) sped the development of new product in just 90 days. We ended up delivering the new product 4X-6X faster than any of our competitors could do it. Had we had the money, we would have done everything in-house, with far worse results it would have taken much longer.

In the Theory of Constraints framework, time and money were big constraints, so the "work around" actually enabled time to be "compressed." The lack of cash forced the company to use external resources, which were essentially "free" and built a market knowing exactly what the specs were, the demand, and the price points.

The emphasis on teamwork increased not only produced fast results, but also improved morale, which helped pull the company out of the doldrums.

This case illustrates the importance of understanding Design & Delivery Cycle Time as an important element of the Architecture of Time.

For example, Intel gained great competitive advantage in the 1980s & 90s when it consistently doubled the capacity of a computer chip every 18 months.

Toyota outperformed GM by cutting the design/delivery cycle time and cost in half.

In the 1990s Chrysler, facing bankruptcy, cut the design/delivery cycle time and cost in half using its strained supply base, and put $7B in cash in its coffers.

The Toyota and Chrysler examples were all based on trusted relationships as a foundation.[26]

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[24] Case provided by Gary Loblick who orchestrated the Pultronics turnaround.

[25] Note: this case study parallels the situation with Tom Stallkamp at Chrysler in 1993 in the development of the Chrysler LHS and Sebring in rapid time with heavy early supplier engagement

[26] There are many examples where trust building did not take enormous amounts of time. The idea that trust takes time is a pseudo-myth, for some people and circumstances, trust is very rapid. For example, if you were having a heart attack and called 911, would you wait until you checked the EMT's credentials. We have numerous documented case examples where total culture change can turn totally destructive cultures into positive ones in 12-18 months, *with the right collaborative leadership*.

Fast Tracking Construction

The construction industry, particularly when handling complex projects, is notorious for massive delays, cost over-runs, and major disputes. The examples of these failures are everywhere. Studies have been done all over the world, including within our own team, and the results consistently point to the importance of collaboration and trust consistently rise to the top of the list in curbing these failures (see Figure 3: Fast Tracking Construction)

The "trust health check" is essential in keeping projects running effectively. But most project managers are not paying attention to the trust level.

So true, but can we introduce the "Architecture of Trust" as a precursor to the "health check" to ensure the practitioners in the field understand how they can mold the design of the project's culture so that trust works to produce enormous value (on-time/budget delivery or new innovations, etc.)

Should we insist Project Managers' Performance Evaluations take trust levels into account? And Program Leaders insist on receiving a quarterly or semi-annual Trust Report from Project Managers?

However, the established process of competitive bidding and adversarial legal relationships set the stage for an "I don't trust you" environment beginning in Negotiations and commencing on Day One of construction.

Fast-Tracking Construction – Recommendations from page 22
Fast-Track Manual (eci-online.org)

The culture of the client's and contractors' parent organisations, together with the personal / leadership characteristics of the project manager, will greatly influence the culture that is established within the project team. Desirable project team characteristics include:

• Honesty • Openness • Trust
• Anticipation and avoidance of issues rather than waiting for them to turn into problems that have to be solved
• Mutual Support – willing to take time out to resolve Human Relations / Personnel and other issues, coaching, mentoring, development of members within the team
• No blame culture – essential for decisiveness when information limited
• Access to all parties, no communications barriers
• Lean organisation, which aids communication and speeds decision taking
• Full time members, avoiding whenever possible part-time members with other responsibilities and priorities
• Permanency of membership for duration of the project
• Authorised, empowered and enabled members of the team
• Approved risk taking so that people will make bolder decisions
• Decision making delegated to lowest competent level
• Decision making on the spot, without reference to higher authority
• Discipline to work to fit for purpose rather than customising and fine tuning
• Flexibility to use / bend company systems to the benefit of the project
• Tolerant of staff who think differently / creatively and challenge convention / the obvious

Leadership is essential. When the leader says we must trust, the project teams get great results.

But if a new leader comes along and sends the signal that trust is no longer valued, the team reverts to a lower level and performance tumults.

This discussion about the long-standing existence of "fast-time" best practices raises many vexing questions and problems.

Best practices are neither phantoms nor illusions, but are building blocks of realities, with the capacity to invoke a new evolutionary, or even revolutionary transformation of human and organizational potential.

Why are such practices with stellar credentials rejected or cast aside?

History tells us it seldom is a matter of whether people "need" something, but whether they "want" it enough to search, and see value when they find it.

The quest for speed, along with its causative linkage to collaboration and trust, has been well documented for several decades.

Why, then, has collaboration/trust not become universally engrained in our culture?

> *This is a "central question" to our development both in the larger sense as a culture, and for entities that compete for their survival.*

Key Factors for Success

In study after study and survey after survey, Trust comes up #1 as the most important factor in successful Strategic Alliances and Value Chain Collaborations. The question is what influences what? We know that other factors, such as good communications, effective governance, executive sponsorship, common vision, and engagement of key stakeholders are also key factors for success.

> The question is: Which factors are driving which?
>
> The answer to this question/riddle is often resolved by determining what happens if you take away one of them – and the answer is that you can take away all but one – trust.

So trust must be the essential ingredient. Of course, the other factors contribute enormously to both building trust and sustaining trust, making them core contributing factors.

Think of trust as a "central organizing principle." If we organize around trust, the other factors will come into better alignment more quickly. Of course this begs for an "Architecture of Trust" (note: this has already been developed, tested, and presented and is a Centrepiece of the Collaborative Excellence Architecture.)

Collaboration can generate Time Compression if the leader is capable of developing trust quickly.

Most leaders don't want to take the time to build the foundations of trust, and are often not attuned to how to build trust, either quickly or slowly.

Predictability

It was extremely valuable for our team at P&G [27]to be able to predict what the other company would do in a given set of circumstances. This was obviously dependent upon their leadership, culture, strategic objectives, and operational goals. Over time, we could predict behavior, provided we understood their needs and priorities. Sometimes we needed a surrogate to help fix the trust problems.

In new technology development, there were numerous times when the technology didn't work, but the relationship did, and we were likely to take another bite at a new apple with them to find another innovation that would work.

When we had trust, we could discuss risks, downsides, alternatives and options a lot better – they wouldn't read our motives incorrectly.

Predictability helped the *duration* of a relationship – we knew how to survive, even get value from a bad relationship.

[27] Example provided by Steve Rogers

This again compels us to focus on the "Architecture of Trust" where people can make very reasonable assessment about predictable outcomes. At least 80% of human behavior is predictable if the leader understands the parameters, variables, and leverage points.

> [Note: In a future edition, we should create a "tool" that enables managers to better understand how to predict outcomes.]

Trust was the key ingredient for success in alliances. With trust, there was more "buy-in" and people in the network are more apt to be less defensive, especially where feudal protections have been the norm. Trust is a Key Performance Indicator (KPI). The consequences of breaking trust can be enormous. Once trust is activated, it's far easier to have people become creative together – "people support what they help create."

Be sure to put the structures in place up-front to reap the rewards on the time invested.

Due Diligence

> ***A stitch in time, saves nine***
>
> perhaps Einstein would have been a bit confused by this notion of time

A key category of time – **"Preemptive Time"** should become a pivotal part our thinking about time. Preemptive time is the time at the front end to prevent problems gobbling up enormous amounts of time in the future. It enables "Prediction" – forecasting what will probably happen if we don't change course.

Unexpected Behavior and the Law of Unintended Consequences can dramatically interfere with both personal and corporate relationships. Being able to reasonably predict behavior of the other party is a massive time "saver," preventing miscalculations, unfulfilled expectations, and massive non-value added work (duplication, rework, restructuring, disputes, lawsuits, and legal fees).

At P&G we learned the value of taking time to do a systematic assessment of a supplier or alliance partner. This included understanding if the company brought what we needed, and it went beyond to understand the company's culture, leadership, priorities, processes, and "What's In It For Them?" -- (WIIFT) – "Due Diligence Time," or ("**Prudential Assessment Time**"[28]) While this took a larger portion of time in the negotiations, it payed off handsomely in the long run.

For companies seeking to "Go To Market" (G2M) fast, they tend of overlook this important facet of Negotiations Time, preferring to jump into operation, committing the sin failing to "look before you leap."

[28] In the Law of the Sea, the *General Prudential Rule* tells a mariner to avoid a collision with another ship, regardless of the prevailing "rules of the road." This relates to another similar concept of *Fiduciary* (from Latin: fiduciarius: to entrust, have confidence in, rely upon) *Responsibility* – the Captain is *entrusted* with the lives of those on board his ship as well as preserving the financial investment of the ship's owners.

The standard methods of doing Due Diligence originated with lawyers and accountants, and now risk managers. None of these are equipped to address the issues of Fastime and Prediction of Human Behavior. (Note: in the Appendix, see Draft of a "Holistic Due Diligence Assessment.")

With the proper due diligence, we were able to understand and predict the other company's behavior, understand why there were delays, and design our approach accordingly.

Trust, Time, & Negotiations

Trust takes time and investment. In the Far East, leaders take the time to ensure trust is in place. Only when the parties come into alignment does negotiations end.

The realities from a Westerner's perspective is that negotiations are inherently *transactional,* not expecting a *collaborative* relationship in the end. Thus the outcomes are misaligned. One of the key reasons for this is Western negotiations strategies and tactics are inherently *adversarial* or *transactional.* Thus the outcomes are unlikely to be *collaborative.*

Probably the most compelling reason for NOT seeking collaborative engagement is because the lawyers impose combative rules of engagement from their legal training, and the finance people have never been exposed to collaborative economics. Thus the closest advisors to the senior leadership address the opportunity as a threat.

To compound the problem, risk managers come predominantly from the legal, finance, and insurance industries – none of which have any real experience or inherent grasp of collaborative systems (either theory or practice -it wasn't taught in school, so how could it have value?)

Trust Creates Value by Reduces Risks

The world of risk management is flooded with professionals from the fields of law, finance, safety and insurance. They have built an edifice of thinking about risks that involves a mountain of rules, regulations, and restrictions presumably to prevent risks, particularly to their client.

All too often, in the name of reducing risks, the shedding of risks to another party causes a counter-balancing reaction, just compounding the complexity of contracts and burdensome procedures.

As trust erodes, the ability for individuals to take early corrective action when early warning signs arise diminishes. Personal responsibility and professional prudence is replaced the blame game, which often ends in law suits, or the threat of such action. Projects fall behind schedule and cost overruns spin out of control.[29] All in the name of lowering risk, the chance of failure increased.

In reality, taking the time to build a trust-based culture and use effective collaborative practices[30] would have eliminated the large proportion of problems before they occurred.

In the most simplistic sense, the best way to lower the chance of failure is to increase the chances of success. This is the realm of simple common sense. Collaborative Systems are, by far, the best route to travel. And if the potential for collaboration is low because trust is unwise, consider walking the other way.

[29] See Future Path of Mega Projects by Professor George Jergeas & Robert Porter Lynch and Notes on the Law of Compounding Risk Understanding how to handle complex interfaces

[30] See Alliance Best Practices Workbook— by Robert Porter Lynch. A complete guide used by Strategic Alliance Professional around the world, tested and implemented in a wide variety of industries

One cannot overstate the Importance of Sustaining Trust to enable Fast Time: speed of interaction, speed of problem solving, speed of recovery from adversity, speed of innovation, speed of decision-making.

Managing Complex & Risky Contracts

To achieve better speed of contracting, without losing sight of the need to protect against contractual problems, an "agreement of principles" should be established up front. These address situations such as:

- What would happen if ……?
- How would we tackle this problem ……. if it arose?
- How should we disengage honorably…..?
- If the contract ceases to be a win-win, what should each party do to ensure there are no losers?

Addressing these issues up front will prevent many legal battles that could have been avoided. This is especially important in long-term contracts and long-term projects where changes will occur far down the road that might not be anticipated at the outset.

Many entrepreneurs will get caught in a "protectionist trap" with lawyers who (with good intentions but horrid results) draft contracts that are inherently adversarial in nature with multiple clauses that drive a wedge between the parties with fear of litigation, penalties, and whatever clauses might evoke the penalties of the heavy hand of a judge.

Canadians have been far more adroit at finding better ways to craft agreements with the aim of "collaborative contracting." What's more, most lawyers will never disclose to their clients that very best tools and strategies they have for *avoiding* litigation. (see **The 12 Principles of Equity** — What you should write into every agreement and contract). These are designed to keep people out of court and keep them honest during the fulfillment of contracts, thus accelerating time to get a contract written and performed upon.

Culture Impacts Trust & Cycle Time

In Japan, the strength of the trust in the relationship will have a direct impact on the amount of information shared between the parties. Motorola's relationship with its Japanese counterpart enabled us to discover problems in the specs and technologies that ultimately produced the very best results. Executive Sponsorship was absolutely essential – our Japanese partners looked for it.

Keeping the relationship prospering required not a phone call but a face-to-face meeting every two weeks. With this, the occasional breakdown could become a breakthrough, especially with diverse groups of engineers who were keeping their eye on how the senior executive was indicating their approval for collaboration.

The Biggest Obstacles to Collaboration – Beliefs & Mindsets

With all that we know about how to create Fastime success, what is holding things back?

Basically it's because people don't believe in it; they lack the mindsets and commitments, so even if they were taught the skillsets and toolsets, nothing would stick.

The fault lies directly in our schools of Business, Government, and Health, and Engineering – the locus points where leaders and managers learn their professions.

Trust is Devalued in Professional Education

A major flaw in the training of both business managers and technical engineers is the avoidance of the central issue of trust in the development and delivery of projects.

> ***Try not to become a person of success, but rather become a person of value.***
>
> *EINSTEIN*

For example, major projects can run 50-100% over time & budget; this can amount to $5B-$15B in a large-scale MegaProject. Even when given expert advice that the culture of their project is going to result in future calamities, highly trained project managers turn their backs and blunder forward. The Jergeas team stated:

> *Knowledge of the core human issues that are going to derail a project has little impact on taking preemptive action to avoid misfortunes. We will we come back a year later, and find the project is off the rails, loaded with disputes, claims against different parties, and law suits We get deeply involved when things are in the failure mode; by then it's often too late. It seems to take a crisis to get anyone to listen.*

These observations challenge us to rethink what's missing in the equation. Professionals are not heeding wise advice. Why?

Engineering programs don't teach trust, nor the importance of human relationships in getting engineering projects done efficiently. Engineers, financiers and lawyers disregard trust because it appears "soft" -- meaning neither precise nor measurable -- and thus neither meaningful nor important. So the conclusion drawn by professionals is that it's not important. They are all encouraged to manage certainty, cost structures, but not people and communications. They want precision, numbers, things they can calculate. People are "fuzzy" – it's all about "best guess." Even systems engineering emphasizes the technical side of systems, but not the social side of systems thinking.

> ***Most managers and engineers see trust as soft, mushy, imprecise, and thus of little value. The purpose of "architecture" is to shift a" fuzzy" set of "soft" issues into a "firm system" of "predictable, logical, and manageable design and delivery factors."***

The "Architecture of Trust" [31] is important, because architecture imputes a structure and design to something, making it *firm* and *pliable*, like clay in the hands of a sculptor. The leader must act like an architect (from the Greek meaning "Master Builder") who understands and has mastered:

1. the *design* (the WHY & WHAT): the purpose, the systems, the structures, the functions, the integrations, the synergies, the economies, the technologies, the reliability, the social dynamics of usage, etc. (think of socio-technical-economic systems)
2. the *fabrication* (the HOW): the components, the construction, the assembly, the nuts & bolts, the serviceability, the potential breakdowns, the cost/value issues, the ability to upgrade over time, etc. (this is the realm of the mechanic, the technician, the repairman, the project manager)

[31] These are just a few of the articles that compose our "Architecture of Trust" -- Trust- The Economic Game Changer by Robert Porter Lynch (Chapter from TRUST, Inc); Trusted to Innovate Breakthrough in Brain Science to Accelerate Collaborative Innovation by Paul R. Lawrence, Robert Porter Lynch, & Paul Zak; Leadership and the Structure of Trust® by Paul R. Lawrence & Robert Porter Lynch (feature article in the 2011 May-June edition of European Business Review)

Why professionals turn their backs on the issue of trust seems to fall into five basic areas:

1. **We aren't teaching/learning collaboration/trust**
   This is certainly true and disturbing. Collaboration is not part of professional school curricula. If students don't learn these frameworks and professors don't value them, then each generation leaves their educational phase of their lives with a massive vacancy of missing wisdom. Certainly the social angst and polarization in today's world demonstrates the grotesqueness of this vacuum.
2. **We aren't valuing/rewarding collaboration/trust**
   Certainly this must be the case. If collaborative excellence were valued, those who demonstrated it would be receiving prizes and recognition. Trust, like love, is invisible. To make the invisible manifest, we need instruments, just as a radio receiver transforms radio waves into sound. Architecture is an instrument, like a radio. And the converse may be true – we prize greed, avarice, unbridled power, and beckon our youth to become lawyers where they can fight, argue, and divide communities. Certainly few economists have acknowledged the behavioral motives that control our prosperity just as predominantly as the laws of supply, demand, and price.
3. **We aren't believing or acknowledging collaboration/trust**
   There is a compelling argument to be made that people must simply not believe that they should be, need to be, or could successfully engage in collaborative interaction. Perhaps there are other more compelling perspectives – like it's better to bite than be bitten, etc. The fear that they might "lose" or be "taken advantage of" must overpower any potential gains from working interactively. Perhaps they've been "burned" too many times, or have "failed" too many times. There is a term for this: "collective psychosis.
4. **We are mystified by collaboration/trust**
   This is essentially the argument that because it's fuzzy & soft, it can't be analyzed, measured, predicted, nor managed. Of course this is pure foolishness, but begs the argument made above that "architecture" is needed to manifest the invisible to give it operational credence.
5. **We feel better without collaboration/trust**
   perversely, there seems to be a sadistic truth to this "feel good about fighting" attitude. It is amplified by our culture's dark streak, our polarization, and delusional embrace of mistruths. While the reality is that people don't really feel "better" being adversarial, they do feel more potent as their egos pump the iron rule that might makes right. Fighting gives people a sense of personal potency, even though it doesn't produce great results.

Regardless of the reasons why trust is avoided,
it's negligence and misfeasance to knowingly fail
to properly promulgate and use a critical and pivotal capability
in the course of professional development

To this point, to address the issue of Maximizing Total Return on Time, we have examined:

1. The Paradoxes of Time,
2. Trust as the Catalyst to trigger Synergistic Effects
   Next we will look at the third major factor:
3. The Parameters of Value

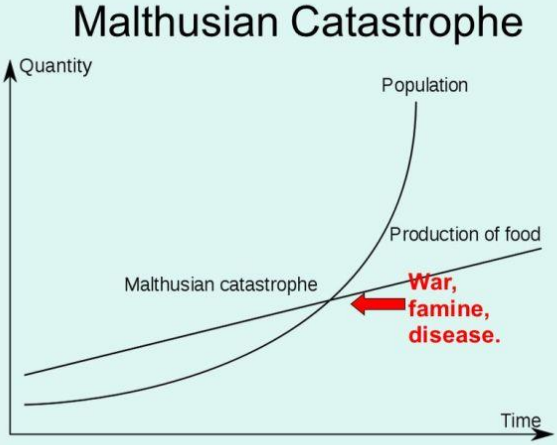
PART 3: THE PARAMETERS OF VALUE

Time is intimately connected to Speed, Innovation, and Value

To understand how to Maximize Return on Time, it is not only necessary to grasp how time is structured in five dimensions and thus functions as a paradox (as outlined in the previous pages), but additionally to see how the forces and factors of speed and innovation impact value. In high school algebra, we learned how to solve simultaneous equations. Calculating the *Return on Time* means understanding how time is interacting with speed and innovation.

The Malthusian Miscalculation

In the early 1800's, British mathematician Thomas Malthus sounded the alarm that, given the rate of growth of the world's population (which at that point in time was just under 1 billion people – it's now over 7 billion[32]) a catastrophe was imminent. He predicted that in a very short period of time the population of the world would outstrip the agrarian economy's capability to produce enough food to support human life. He concluded that the human population increases geometrically, while food production increases arithmetically

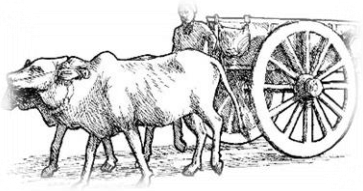


As a result of these stresses, the world would enter a catastrophic period of war, famine, and disease.

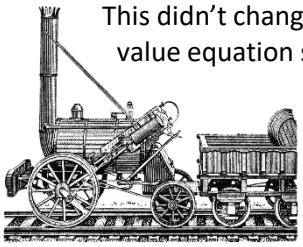
While his prediction caused massive consternation among politicians, academicians, and policy makers, fortunately his prediction did not manifest. Why?

Because Malthus failed to factor the speed of innovation into his fanciful equations. He did not foresee the tremendous industrial revolution that was changing the productivity of the land with new equipment for planting and harvesting. New innovations in farming methods made the land more productive as well.

Value and the Race for Speed & Productivity



The wheel was invented about five thousand years ago. It changed the productivity of the use of an ox by a factor of 10, enabling one ox to pull a wagon loaded with food or feed.



This didn't change until the early 1800s, when, with the invention of the steam engine, the value equation shifted dramatically. In 1829, freight was hauled by horse drawn wagons. Tthe cost of operating a horse drawn freight wagon was about $33/day.

However, in 1830, coupling a steam engine onto a wagon traversing on rails cut the cost of pulling the same amount of freight by more than 50%, to only $16/day. Remarkably, within the next three years, railroad technology advanced to accelerate speed by a factor of 3X, from 8 km/h to 24 km/hr.

[32] See World Population, Education & Trusted Leadership — by Robert Porter Lynch

From the perspective of "Relative Competitive Advantage," railroads had a major benefit in terms of "cost per mile," with further advances continuing for decades. The railroads quickly demonstrated their superiority over most other modes of transportation, especially water routes, displaying four major advantages: reliability of schedule, lower risk for shippers, speed of delivery, and cost of movement. Canals and rivers were prone to freezing in the winter, while railroads ran year-round despite adverse weather. Railroads were safer: train crashes, while dramatic, were less likely than a boat sinking, especially in storms. The railroads proved more cost-effective by allowing shippers to hold a far smaller inventory of goods, while at the same time avoiding insurance costs from the risk of losing goods in a warehouse fire or during transit.

The last two hundred years of human history should appropriately be termed the Age of Innovation. While the Industrial Age may have thought to be started in the late 1700s with steam power in factories, today's Information Age is just the second wave of the Age of Innovation's electrical and electronic revolution, which began in Samuel Morse's first successful telegraph line between Washington and Baltimore in 1844, which he franchised across the nation. This was followed by Alexander Graham Bell's telephone in 1876, followed by numerous inventions by Edison, which triggered radio, television, and then computers.

Understanding the nature of Innovation and Speed is fundamental to understanding value and Return on Time.

Time & Value are Dynamic -- Always Moving

Neither Time nor Value are static – they are always moving, but not always in unison. Understanding Total Return On Time (TROT) requires a deeper comprehension of shifting value over time.

Innovation Evolution

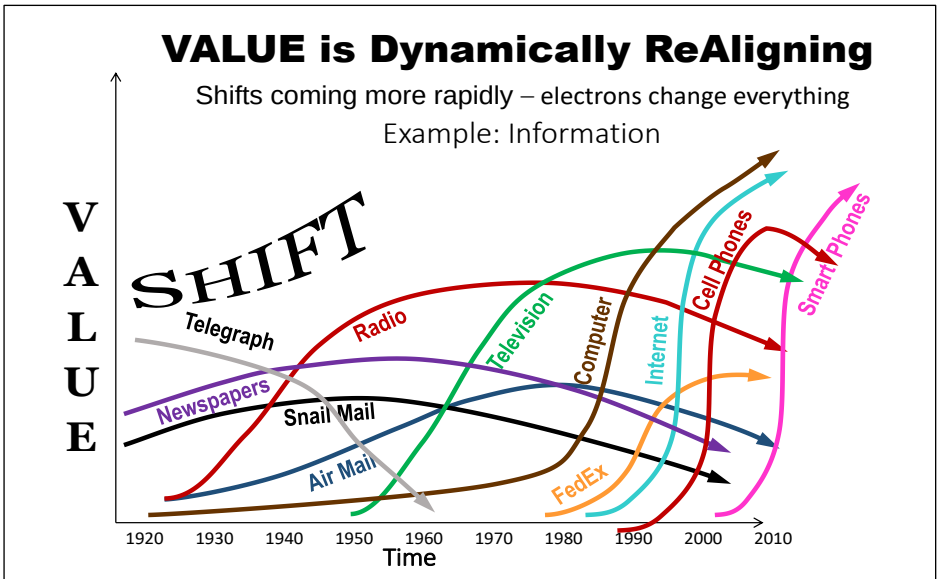


Figure 4: Value Evolution – Information Transfer - Changes in Speed of Innovation & Value

In Figure 4: Value Evolution – Information Transfer - Changes in Speed of Innovation & Value we can see how value evolves in accordance to Relative Time. Understanding these patterns is central to capturing the highest Return on Time. Entering too early is risky and requires capital to sustain a business until the curve rises. Exiting too late can be equally disastrous as a business tries to eke out profits from a dying product.

Innovation Cycles

Inside each of the value evolutionary waves, there are also "Innovation Cycles," and the speed factor is constantly compressing these cycles (see Figure 5)

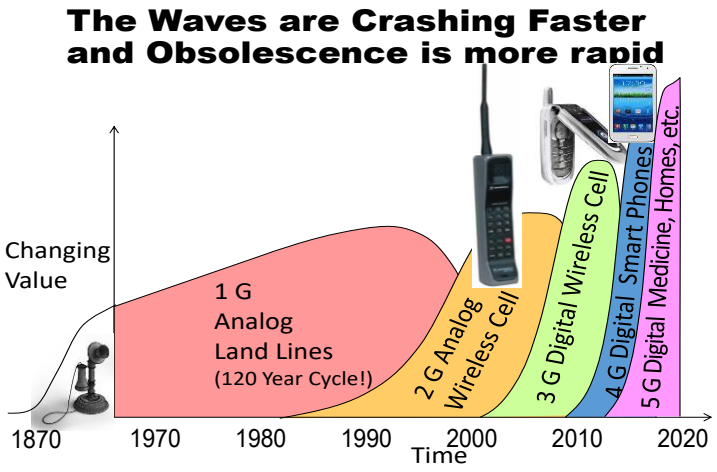


Figure 5: Value Evolution in Home & Business Communications

If we don't see innovation in Relative Time and Motion, we are sure to miss the next "wave" by a long shot. This is what happened to Nokia, Motorola, and Blackberry – all market leaders – when Apple introduced its iPhone in 2007.

Value Iceberg

When searching for value, look deeper -- beyond the Cost of Everything perspective (see Figure 6)

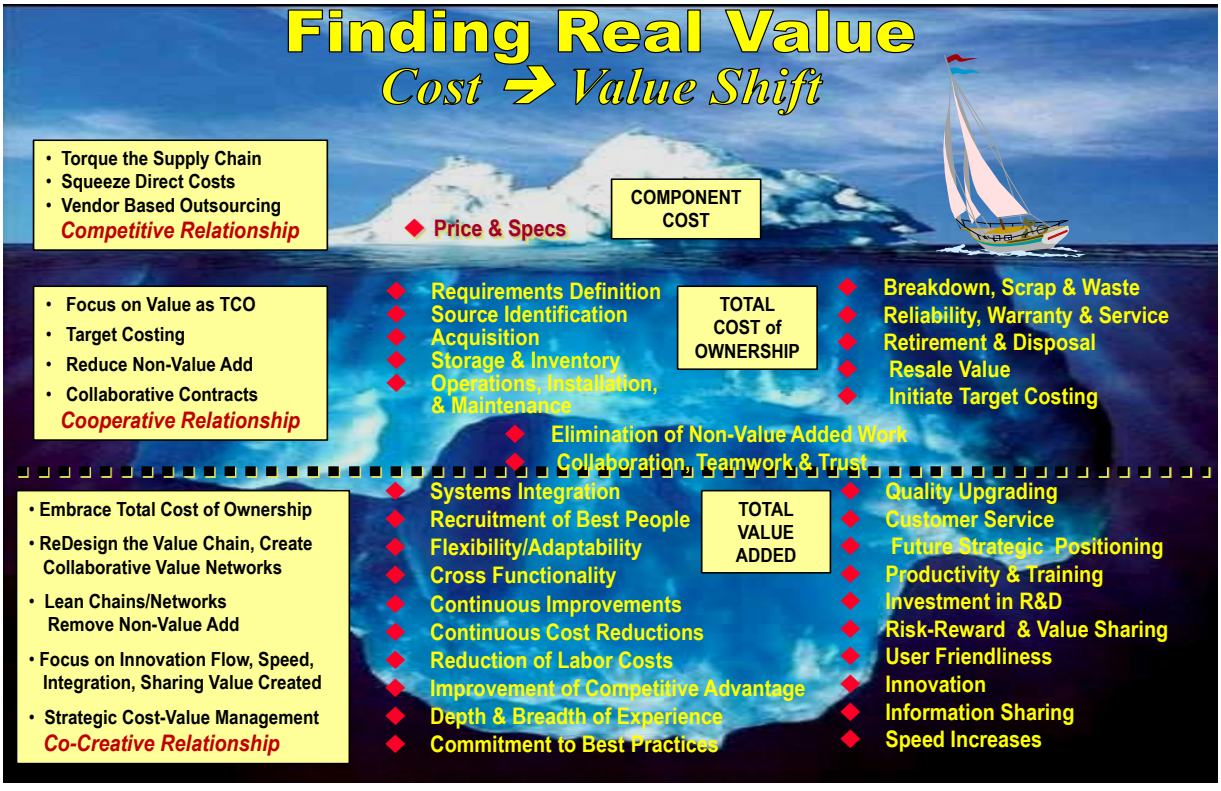


Figure 6: Value Iceberg

Looking below the surface will take more time, but will reveal far more Value in the form of innovation, and speed, that can be translated into competitive advantage, profits, productivity, and performance.

Toyota learned this lesson, riding the streamliner of Synergistic Time, removing enormous amounts of Non-Value Added work from both internal operations and the entire value chain, filling the vacuum with potent collaborations that could be harnessed in terms of speedier development cycle times and process innovations – resulting in massive competitive advantage.

Distinguish between Value Exchange and Value Creation

The standard, traditional thinking about value is driven by notions about buy low, sell high, drive price up with increased demand, and so forth. This is the concept of Value Exchange.

Value Exchange has been with us for thousands of years. When the Phoenicians began trading in the Mediterranean Sea, they engaged in value exchange – by bartering, perhaps a bronze Greek statue for Oriental silks or spices. Eventually money became the accepted intermediary of exchange to enable people to buy things in a common denomination of currency. In Figure 7: Different Ways Value is "Exchanged" are outlined five variants of value exchange.

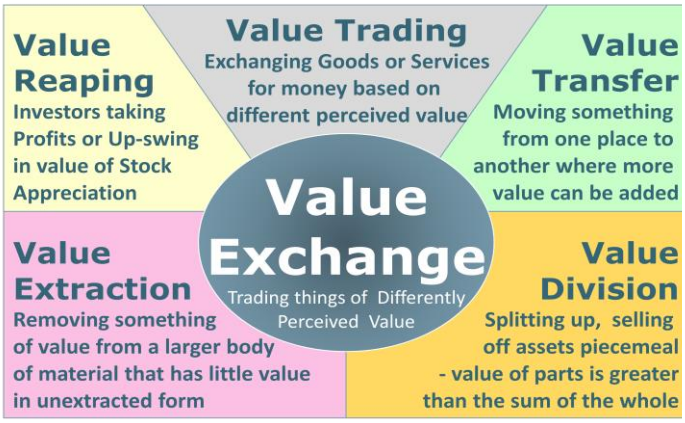


Figure 7: Different Ways Value is "Exchanged"

Value Exchange has deep historic roots in trading and commerce, we've all heard stories of Marco Polo, the merchants of Venice, and East India trade routes of the British Empire. Value Exchange is based on the simple premise: two parties engaging in a transaction have differing value gauges to determine whether it is in their best interests to engage in a "deal."

Today Value Exchange is primarily based on *monetary* value, and our entire accounting systems are based on this thinking, enabling us figure the *cost* of things, and thus is inherently *tactical* in nature because it measures the efficiency of daily operations. This approach fundamentally addresses the cost of components (and purposely avoids looking a "systems cost interactions"). Thus the *Value Exchange* mentality will translate everything into *cost-cutting – lowest price.*

Inherently it limits the range of options – all you can do is get a better "Exchange Rate," focusing on component cost not Total Cost of Ownership (or Total Life Cycle Costs, or Total Environmental Costs), thus every business entity in the value chain tries to maximize value for itself, resulting in a "squeeze the vendor" mentality that cascades from supplier to supplier, weakening every member of the chain resulting in a "last man standing," dog-eat-dog, survival of the fittest, adversarial culture that causes every player to fend for themselves, never maximizing the competitive advantage of the whole.

On the other hand, the Value Creation approach (see Figure 8) addresses value from a far more holistic perspective, and more fully embraces the issues of Time and Trust. The

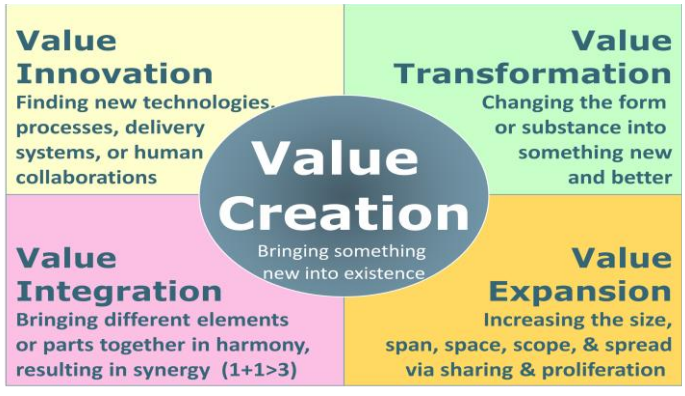


Figure 8: Four Pathways of Value Creation

"hole in value creation" is the lack of trust in any group that is creating or delivering value.

PART 4: MAXIMIZING TOTAL RETURN ON TIME (TROT)

Guiding Principles in a Fastime World

As Clock-Speed & Complexity Increases,
Paradigms & Structures Change

New Organizational Leadership & Management Requirements:
Need for Trust, Collaboration, Innovation & Inter-Connectivity

Core Principle #1: Total Return on Time is Multi-Dimensional

Because Time is Multi-Dimensional, to be valuable, Return on Time must be Multi-Dimensional, thus we must examine its *TOTAL* impact – Total Return on Time (TROT).

Corollary: TROT inherently causes triggers a Systems Analysis of the Drivers of Time, Wasters of Time (i.e. Non-Value Added Work), Deceivers of Time (i.e. Hidden Costs), Secondary Time Impacts (i.e. Total Cost of Ownership, Total Life Cycle Costs), and Deferrers of Time (i.e. Deferred Maintenance

Core Principle #2: Synchronization & Alignment Creates Synergy

Total Return on Time is Optimized and Maximized when the different Time Dimensions are synchronized and aligned to create a *synergistic effect/impact*.

Analogy: Just like the production of what becomes a multi-Oscar winning movie – great script, great producer & director, great actors, great cinematographer, great musician (and great "chemistry" between them all) (see Stephen Spielberg & John Williams Relationship) that also comes in on-time and on-budget! (See Megaprojects Case Study and Synergy and Synchronicity below)

Core Principle #3: Holistic Impacts Require Collaboration & Management of Complexity

Multi-Dimensional impacts are, by their nature, likely to be *interactive* and thus *complex*.

Corollary: Increases in speed compresses time but accelerates complexity.

Corollary: To obtain synergistic effects in complex systems, as a general rule: synergy is destroyed in *adversarial* systems, is marginalized in *transactional* systems, and can thrive in *collaborative* systems. (see Collaborative Systems Excellence for Engineers by Robert Porter Lynch)

Core Principle #4: Total Return on Time Requires Holistic Metrics

To incorporate the *Total (multi-dimensional)* elements of Time, and obtain *Synergistic Impact* of multi-dimensional time, it is essential to have *metrics methodology* that is *holistic,* inherently framed by the maxims of *Balance*, *Alignment* & *Integration.*

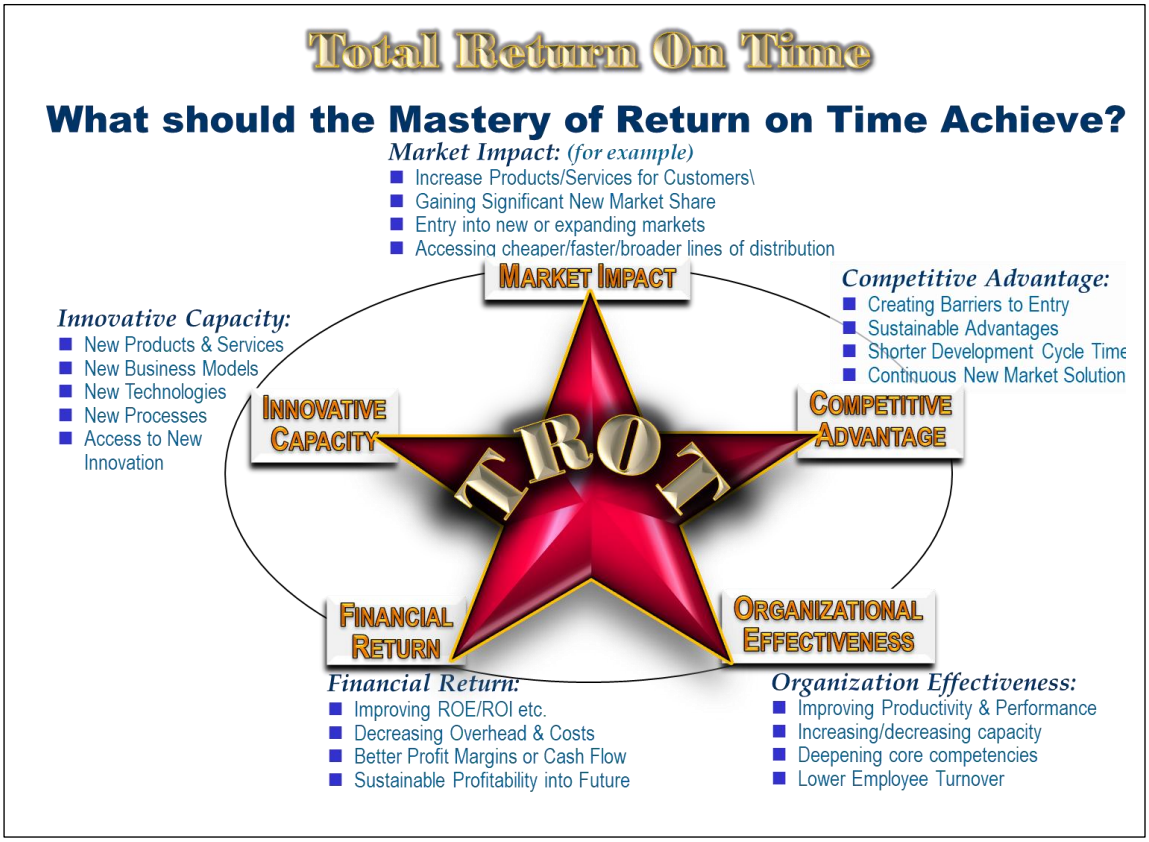
Corollary: Measures, Rewards, and Objectives must align to ensure Total Return on Time has intended impacts. When misaligned, non-value added work will increase.

(see next section for more detail on Holistic Metrics)

PART 5: METRICS OF RETURN ON TIME

Because Time is "multi-dimensional" so too should be the Metris of Return on Time.

Each of the elements of Time as unique characteristics, which need to be tailored and customized (bespoke) for each organization's unique organizational circumstances. Here is a generic template to start the thinking and tailoring:



Other factors might be added, such as Environmental Impacts, Social Return on Human Capital, Total Life Cycle Costs, etc. The discipline of measuring each of these elements of return is essential. Here are some of the questions to ask:

Details of Measuring Return

Ask these questions with a rigorous discipline to ensure the details of core results are manifested in the Total Return on Time.

(Note: We have substantially more material on this holistic methodology, which has not been presented here simply for the sake of brevity.)

PART 6: DECISION MAKING & RISK TAKING IN FAST TIME

Relative Time in an industry or ecosystem, known as "Clock-Speed" has a massive impact on how decisions are made in that environment. If a leader is trapped outside the boundaries of Synergistic Time, every attempt to catch up with the speed of the eco-system will be a continual struggle.

The last fifty years saw a clear line of demarcation between a "slow time" era and a "fast time" era, as represented in

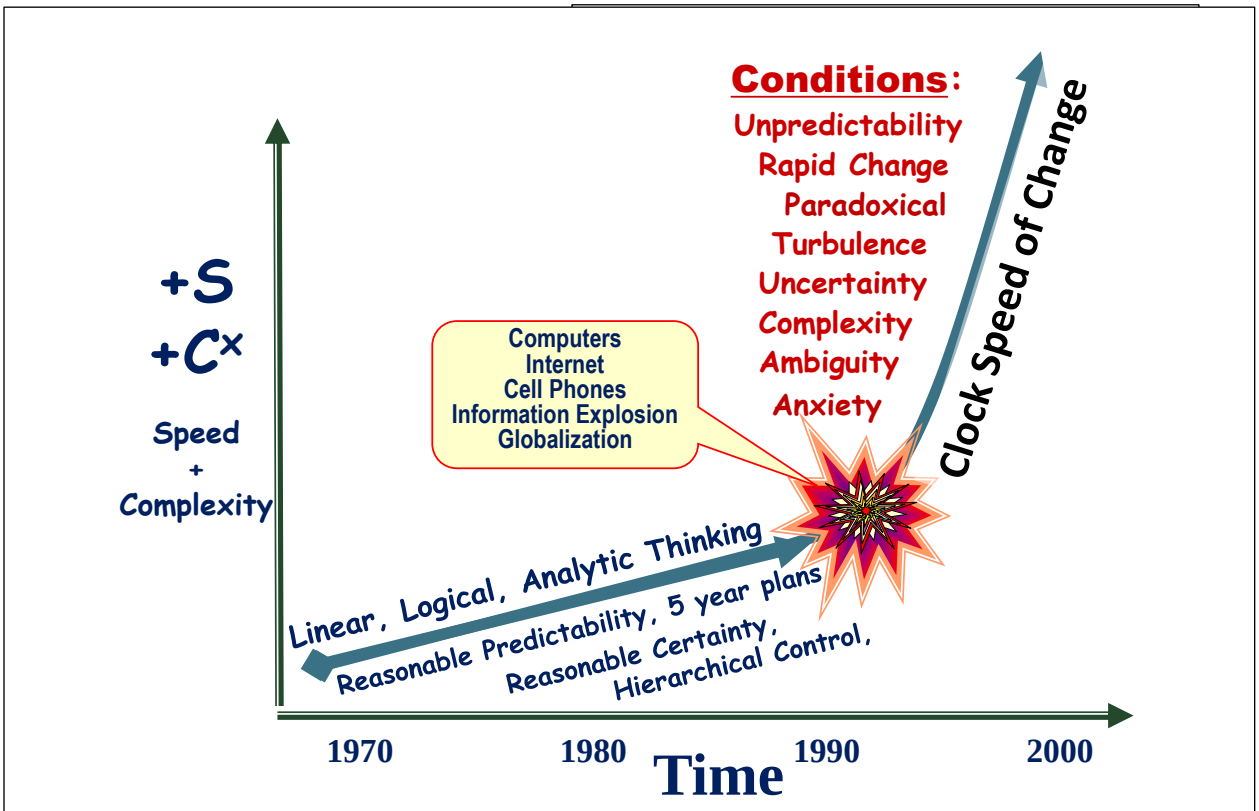


Figure 9: Shift from Slow Time to Fast Time since 1970

Source: Workshops attended by over 10,000 people conducted by Robert Porter Lynch.

Attendees were asked, in teams, to chart the pace of speed & complexity over the since 1970. More than 90% of the teams drew charts on this trajectory. Teams composed solely of younger people projected only the right side of the curve. The point of inflection varied from industry to industry, with high tech industries experiencing the shift in the mid-1980s, and lower tech in the early-mid 1990s.

The implications of the time-complexity shift are enormous, impacting the organizational decision-making, leadership, and strategic direction.

Next, take the first "pre-internet" segment of the curve in Figure 9 as a "baseline" for understanding decision-making when clock speed functioned in "slow time." In this time period, validity of information continued to increase as we learned more, increased our depth of analysis, assessed risks, and determined the cost-benefit of a particular decision. In this situation, the "time is on our side," taking time to be prudent produces the most value with the least risk.

Decision-making and risk-taking look dramatically different on the Fastime side of the curve (see Figure 11).

Today, in the Fastime world, new rules of engagement prevail -- with speed comes more complexity, including greater, unpredictability, rapid change, increased paradoxical conditions, turbulence, uncertainty, ambiguity, and anxiety.

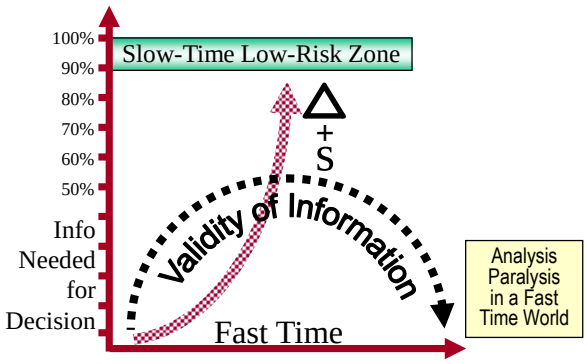


Figure 11: In Fastime, Information often loses validity as time passes

Because things are changing so quickly, what was true and valid at the beginning of an assessment will often follow a rising then falling (degrading) curve (Figure 11). This makes it more difficult to analyze a situation and can trigger an endless engagement in analysis paralysis that becomes increasingly more difficult, until making the decision makes no sense whatsoever.

The shift from "slow time" to "fastime" creates dramatic changes in the frames of reference for leaders. Things are changing so rapidly that if one waits to have all the information needed to make the decision, the situation will already have change. The Fastime decision zone requires a team of trusted partners that can adapt to situations that are inherently unstable.

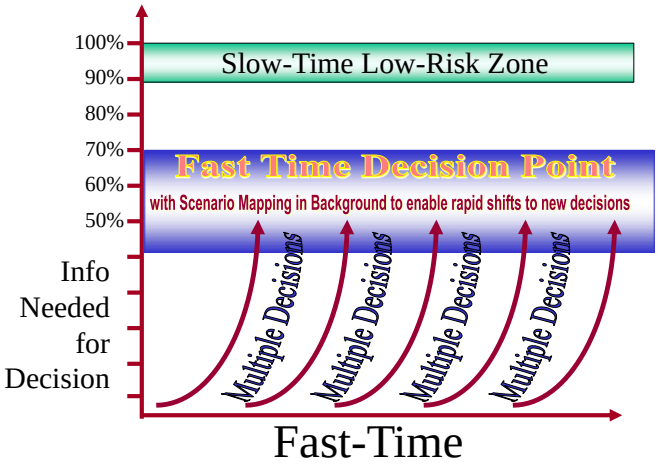


Figure 12: Importance of making Multiple, Parallel Decisions

These conditions, in turn, require faster adaptation, including greater collaboration, higher trust, simultaneous initiatives, cross-functionality, greater/tighter connectivity through networks, alliances & teams, continuous innovation, fastime adaptation, breakthrough & non-linear thinking, shifts from hierarchical to networked organizational structures, and more entrepreneurial spirit.

These factors have a major impact on Total Return on Time, because leaders and managers are faced with understanding the key drivers, influencers, and factors for success, in addition to the results that must be produced.

For example, this can happen in any cyclical market situation. Let's take a retailer's choice of products to offer for the Christmas season. Given production lead times and delivery schedules, most Christmas orders will be placed months in advance to ensure they are on the shelves no later than Thanksgiving. Customer buying trends are never fully predictable – resulting in too much ambiguity and uncertainty for the rigid analytic mind. That's why financiers and accountants are never given the job of making seasonal buying decisions. If the decisions are made too late, stock shelves and sales would be totally out of phase with customer buying patterns.

Best Practice

- **To Reduce Risk -- Must use:**
  - ✓ **Systems Analysis**
  - ✓ **Install Collaborative Systems Architecture throughout**
  - ✓ **Multiple & Parallel Options**
  - ✓ **Design-Build Methods**
- **Install Fast Time Processes & Key Factors for Success**
  - ✓ **Install Rapid Decision Making Procedure**
  - ✓ **Cost of "Saving a Day"**
  - ✓ **Stabilize Specs with Fast Adjustment**
  - ✓ **Co-location of Development Team Members**
  - ✓ **Cross Functional Core Teams**
  - ✓ **Managing Controls without Delays**
  - ✓ **Functional versus Process Management**
  - ✓ **"Pull-In" Scheduling**
  - ✓ **No-Trade-Off Paradigms**

Advice from Colin Powell

- **"Don't take action if you have only enough information to give you less than a 40%chance of being right.**
- **Once the information [needed] is in the 40% to 70% range, go with your gut."**
- **"Don't wait until you have enough facts to be 100 percent sure, because by then it is almost always too late.**
- **Today, excessive delays in the name of information-gathering breeds "analysis paralysis."**
- **Procrastination in the name of reducing risk actually increases risk."**
- **"Don't take action if you have only enough information to give you less than a 40%chance of being right.**
- **Once the information [needed] is in the 40% to 70% range, go with your gut."**

How Companies Tackle the Value Added Problem

Helpful Ideas:

Make Innovation and Speed very high priorities

- Focus on the Customer – their needs, what makes them competitive, use Voice of the Customer techniques, work in your customer's facilities, have their headaches, talk to your ten largest customers/users
- Determine what will be the competitive advantage formula for the future, and what steps must take us there
- Bring in experts from other industries to see how they have tackled similar problems
- Use Benchmarking from other industries
- Get out of "products in boxes" and into "totally integrated solutions and systems"

Shifting Paradigms

When great intentions yield mediocre results,

When the tried-and-true ceases to work,

When every attempt to fix things

is met with frustration and failure....

Then look to the design…

It's likely the architecture has reached its limits,

And the paradigm is ready to shift.

Opportunity is present,

Creative vision is called for,

And bold action in new dimensions

is the nature of things.....

RPL

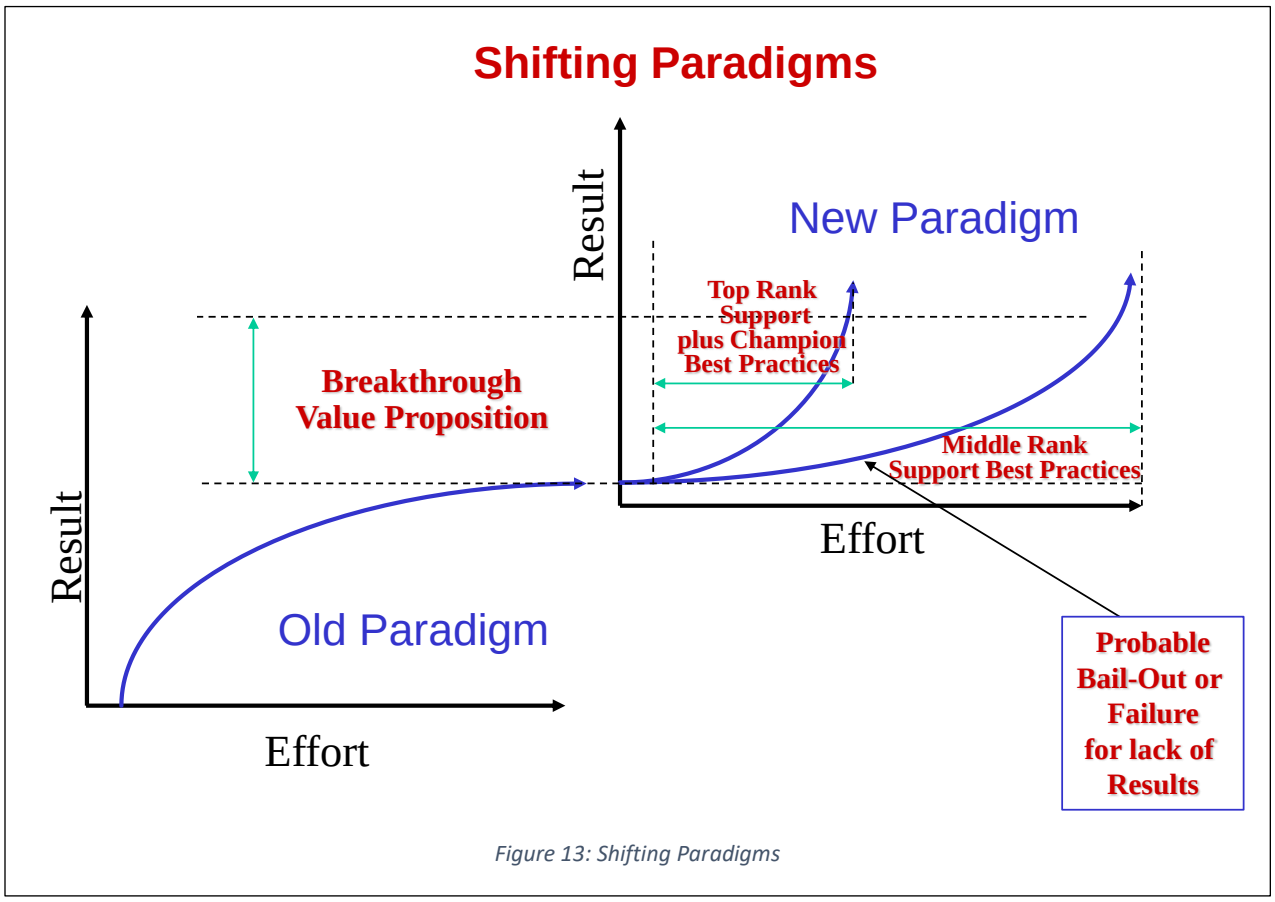


Figure 13: Shifting Paradigms

Figure 13 outlines a pathway for developing pathways for thinking through the new paradigm scenarios for gaining both Strategic Competitive Advantage and Total Return On Time Invested.

Strategic Design -- Mapping Scenarios of Multiple Futures

GENERATE SCENARIOS:

As a result of:
- ✓ Changing Driving Forces…...
- ✓ Value Evolution…...

What will be the 2-4 most likely scenarios in the future?
Name each scenario with distinguishing features
What are the Key Factors that will generate a scenario?
What Key Trends will force a scenario to emerge?
What Critical Issues will prevail in each
People, Products, Processes
Customers, Competitors, Competition
Measurements, Technology

EXPAND SCENARIOS:

Where are we now?
What are we moving towards?
Where will we need to go?
What control points will influence the results?
What are the Implications on our company?
What Leading Indicators/Signposts will tell us the scenario is emerging?
What is the worst impact on our company?
How should we respond proactively?

Speed, Time and Complexity will be Driving Forces Determining Leadership and Management Functions as well as Organization Design

PART 7: ORGANIZING IN FASTIME

Certainty-Ambiguity Continuum

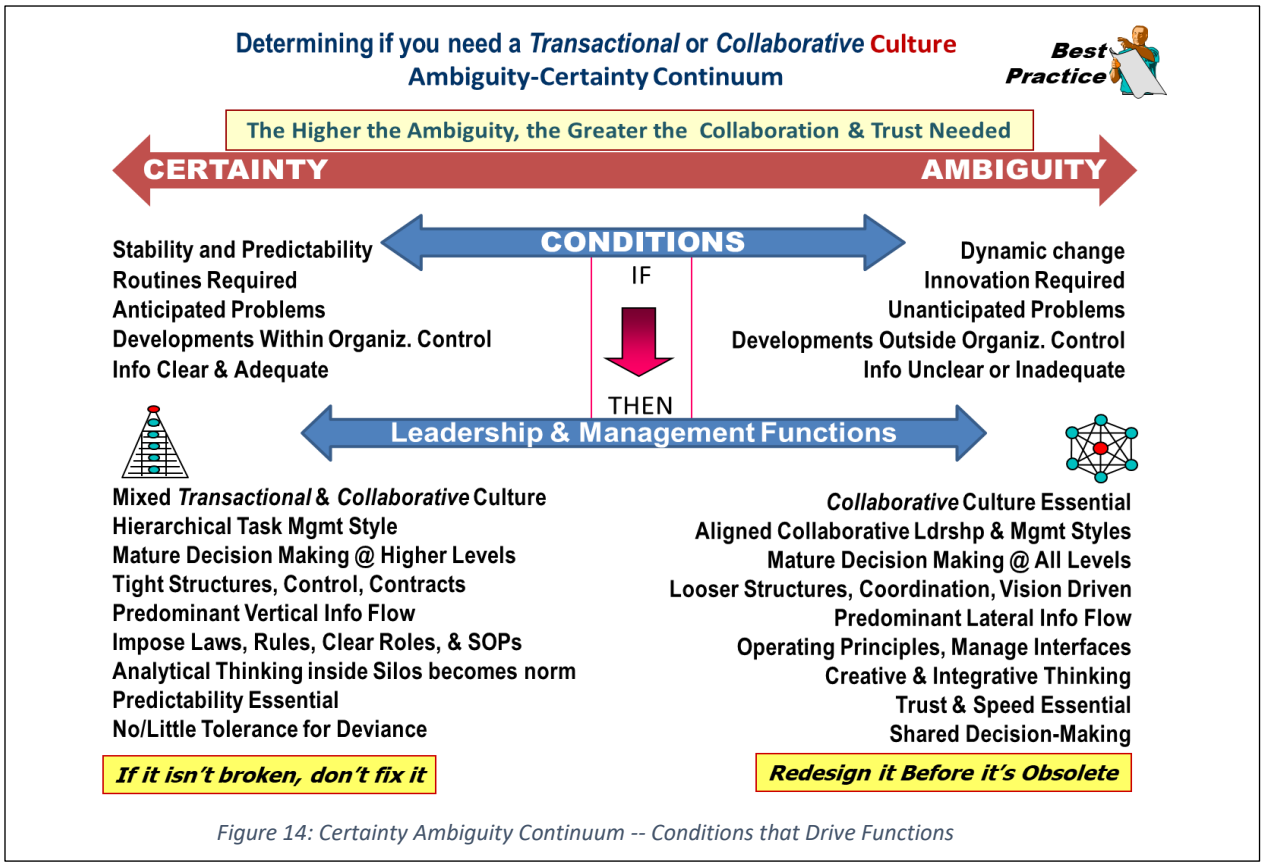


Figure 14: Certainty Ambiguity Continuum -- Conditions that Drive Functions

Situation is Repetitive Covered by Rules	Situation is Complicated, Multiple Forces	Situation is Complex, Interconnected	Situation is Chaotic, Paradoxical,
Issues Known and Stable Future is Relatively Predictable	Issues Can be Known Future is Probable	Multiple Unknowns Future is Vague	Multiple Unknowns & Changing, Future is Unknown
Impose Laws, Rules & SOPs	Impose Guidelines/Forecasts	Impose Best Process/Practice	Impose Principles
Proven Operating Procedures Stability is Desired/Possible	Use Judgment & Experience Decision Making Criteria	Use Intuitive Thinking Trust is Essential	Use Creativity & Intuitive Thinking, Prolific Innovation
Decide by Reason/Rationality	Analysis of Components	Examine Scenario Options	Create/Influence Scenarios
Everyone Follow the Book/Contract	Use Intelligence & Knowledge	Rely on Wisdom & Principles	Wisdom & Creativity
Focus on the Right Answer, Optimize Efficiency	Focus on Key Priorities Gain Proficiency	Focus on Systems Interaction Manage Interfaces	Focus on Opportunities & Questions, Aim for Zone
Reward Right Behavior	Use Teamwork & Alignment	Flexibility & Coordination Frameworks	Rapid Response Teams & Multiple Rapid Experiments
No Tolerance of Differences	Tolerance of Differences	Support & Value Differences	Nurture Differences
Position in Existing Markets	Multiple Market Forces	Changing Market Conditions	Incubate Emerging Markets
Transactional Culture Sufficient	Mixed Transactional & Collaborative Culture	High Trust Collaborative Essential for Innovation, Speed, Synergy & Integration across Boundaries	

If it Ain't Broke, Don't Fix It! Portions Adapted from David Snowden, IBM Centre for Organizational Complexity *If it Ain't Broke, Break It!*

Figure 15: Certainty-Ambiguity Continuum in Organizational Design

Assessing Impact of Trust on Stress

Figure 16 depicts what happens when change impacts people and organizations.

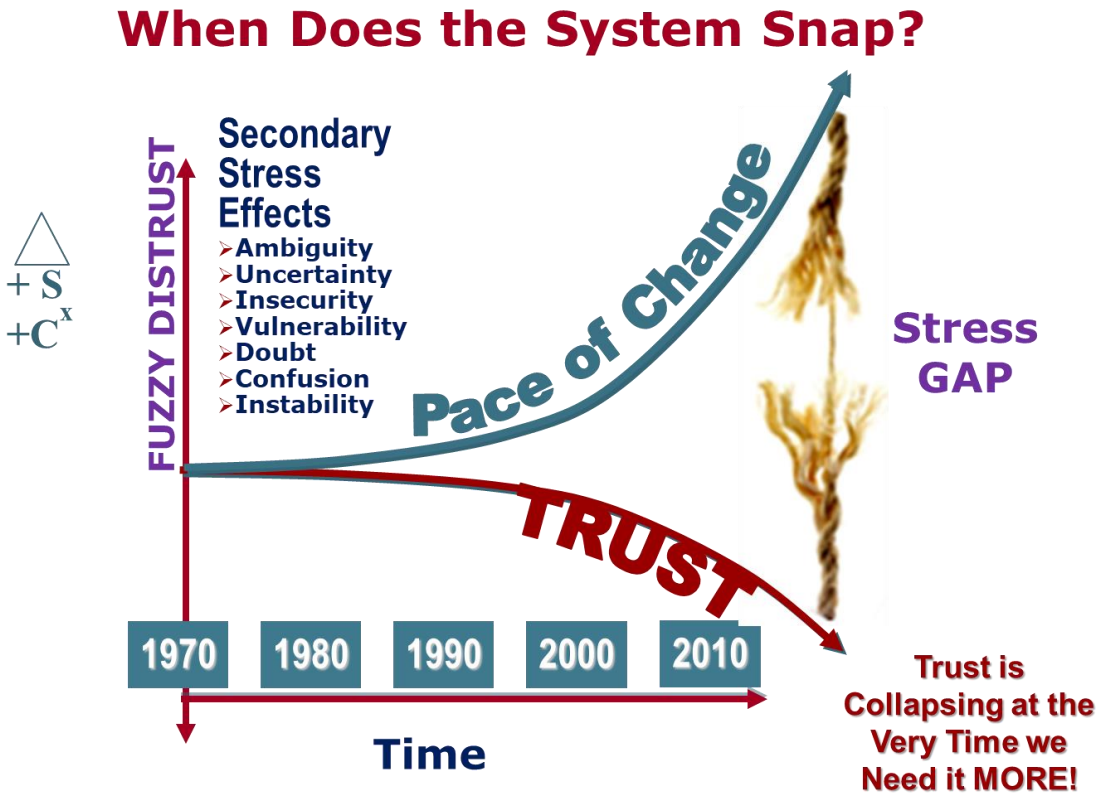


Figure 16: Why Collaboration is Essential When Change Accelerates

A phenomenon called "fuzzy distrust" arises as our pattern recognition systems become confused and overloaded with too much information, ambiguity, uncertainty, and instability. Poor responses to these conditions can trigger fear, distrust, discord, and divisiveness. As the pace of change continues to accelerate, the "stress gap" can hit the breaking point – employees disengage, partners protect themselves, and the blame game becomes the norm.

Laying down more rules and regulations, in an attempt to gain control, will only exacerbate the situation. Slowing things down may not be possible as the competition ups the ante. Collaborative Innovation will provide the best pathway to the future.

Collaboration can generate Time Compression
if the leader is capable of developing trust quickly.

Most leaders don't want to take the time to build the foundations of trust,
and are often not attuned to how to build trust, either quickly or slowly.

SUMMARY & CONCLUSIONS

Time has been so vexing because it is multi-dimensional, and all too often we try to interpret tine through one, or maybe two dimensions (usually *Linear* and/or *Cyclical*) and leave out the *Relative* and *Experiential* dimensions, and thus never get to see the fifth, *Synergistic*, dimension.

Great Leaders make the effort to master the first four dimensions of time, so that they may access (but probably never master) the fifth, *Synergistic* dimension.

The faster things speed up, the more they become complex. Time compression also puts pressure on the many interfaces of interrelationships. If trust and collaboration is not present, there is a much higher likelihood of critical breakdowns at these high-stress interfaces. And, when they hit the breakdown point, if trust and collaboration is not present, there is no way to use collaborative innovation to convert breakdowns into breakthroughs.

The Value of Architecture

Throughout this White Paper we have put an emphasis on both architecture and stories.
For the sake of driving the point home, here's why:

Stories are Memorable
because they Convey Action

Architectures are Meaningful
because they Crystalize Learning

Each apart, without the other, is like the sound of one hand clapping.
Together they capture our attention and imagination.

This principle is not just the foundation of our Transformative Action-Learning Engagement, but is one of the reasons why: "Stories are memorable; Architecture is meaningful"
A Story tells the "Action side" of the equation; Architecture tells the "Learning side."

Architecture is essential because makes the invisible visible, and is replicable, scalable, teachable, leverageable, multipliable, and sustainable.

Key theme of Total Return on Time

Total Return on Time begs the question: "How do we get the greatest value for the time invested?"

The answer requires a grasp on maximizing output of what can be likened to a "chemical reaction" between two "complex ingredients:"

1. PARADOXES OF TIME: How do we shift the *paradoxes of time* to capture the energy of Synergistic Time? and
2. PARAMETERS OF VALUE: How do we address the *parameters of value*, particularly innovation and speed?

In between these the Paradoxes and Parameters lies the "CHEMISTRY CATALYST" that produces to most productive collaborative interaction: TRUST.

To capture the value of time, leaders must create a collaborative systems where trust is the central organizing principle.

Synergistic Time

The primary advantage of a collaborative, high trust organization is the access it provides to *Synergistic Time*, where *speed*, *innovation*, and *value creation* can be readily accessed, aligned, balanced, integrated, and used to full advantage.

Multiple System Impacts

In the practical world, the four factors of *Time*, *Speed*, *Value*, and *Trust* are intimately interconnected and often very interdependent. Changing one variable will affect the others. Innovation is one of the key triggers for change in one or more of the four factors.

This affects organizational strategy, structure, culture, operations, and metrics. These are not just impacts on one company, but on entire value chains and eco-systems.

Having a diagnostics process in place to assess the changing impacts is more important today in the *Fastime* era than in the slower-moving era of the past.

Leadership is Essential

Unlike the past, when "managing time" was probably sufficient to address efficient use of time, in the *Fastime* era, with all the systems-wide impacts of speed and time, it is a strategic issue that requires strong collaborative leadership to navigate multiple complexities and connectivities.

Central Organizing Principles

Time and Trust are wed in *Fastime*, and must be considered Central Organizing Principles

Metrics of Total Return on Time

The multi-dimensional elements of time and the multiple systems impacts of Fastime requires a holistic, aligned and balanced scorecard. Often this "Return on Time" can only be fully calculated after the return is attained. Total Return on Time can be measured in strategic, operational (functional), financial, velocity, frequency, and innovational metrics.

Foundation Time

The overall conclusion from the discussion is, to optimize Total Return on Time, there must be a Prudent Investment of Time on the front-end of any initiative or negotiation or relationship, whether interpersonal or organizational.

Think of this a "Foundation Time" – laying the cornerstones and groundwork for designing and building the future, regardless of whether the future dawns bright or dark, stable or chaotic, predicted or bizarre. It includes selecting and training the right collaborative people.

While the *Return on Time* may not be accurately calculable at the outset, it is less risky to invest sufficient time wisely in the beginning, rather than cast the dice errantly, leaving fate to bitter chance.

Wrapping up ***in the Big Picture***

Time is not a commodity, it's a very precious resource.
Once gone, it can never be retrieved;
once lost never found;
once wasted never replenished.

Yet when we have lost everything, the future still remains intact.

For such a treasure that commands great hold over our lives,
we give time so little reverence, callously leaving so much to chance.

RPL

A great architect melds engineering with functionality, truth with beauty, while ideally elevating the dignity of the human spirit

RPL

Einstein observed:

"A Theory is all the more impressive the greater the simplicity of its premises, the more different are the kinds of things it relates, and the more extended its range of applicability."

This is the principle reason why we have emphasized a relatively universal "Systems Design Architecture" that can be applied to a vast array of circumstances.

As we begin to move to deeper awareness, has this discussion given us any insights into one of the most vexing dilemmas of the last 100 years?

Turning and turning in the widening gyre
The falcon cannot hear the falconer;
Things fall apart; the centre cannot hold;
Mere anarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The ceremony of innocence is drowned;
The best lack all conviction, while the worst
Are full of passionate intensity.
Surely some revelation is at hand.

WILLIAM BUTLER YEATS - 1920

For more ideas, please see:

- **Organizational Transformation** — by Robert Porter Lynch
- **If You Want to Change Things** — Robert Porter Lynch — a retrospective
- **Overcoming Resistance to Change** — Robert Porter Lynch — be sure to read this before, during, and after you try to change any organization
- **Law of Compounding Risks** Understanding how to handle complex interfaces

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About Us

The Institute works with senior executives in organizations that are committed to achieving extraordinary results through breakthroughs generated from a foundation of collaborative excellence.

We are dedicated to the adoption of the strategies, skills and philosophies of collaborative architectures enabling teams to think, create and work together, producing results far beyond what would otherwise be possible. Our collaborative excellence architecture underpins thousands of the world's most successful alliances across the globe. We provide each of our clients a unique set of:

Best Practice *Architectures*, and Collaborative *Strategies*,

Integrated High Performance *Systems*, Flexible and Adaptable *Structures*, and

Timely Win-Win *Solutions*

Our Transformative Action-Learning Engagement workshop framework:

- Creates strategic & operational alignment,
- Is action oriented,
- Uses best practices to ensure long term success,
- Ensures high performance,
- Minimizes future breakdowns, and
- Creates pathway & guidance for legal contracts

We concentrate on the Key Factors for Success, which seasoned managers affirm as the essential ingredients to effective alliance and collaborative innovation implementation:

- Properly trained innovation champions, and project managers,
- Powerful strategic imperative to guide the effort,
- Clear operational performance processes with breakthrough measurements,
- Effective innovation management process designed for the alliance, and
- Proper leadership support

Unlike consultants, we are "Architects and Capability Builders" who deliver a tested and effective *strategic system* and *process methodology* that harnesses the innovative power of differentials in thinking across internal and external boundaries.

APPENDIX ONE:
SYNERGY AND SYNCHRONICITY

The Collaborative Quest

One of the deepest desires of any normal human being is to be harmonized, synchronized and unified with others, as brother, sister, husband, wife, father, mother, neighbor, or friend. It is this common unity that underpins marriage, family, teamwork, community, alliances, nations, and the world of humankind. Yet it remains our most thwarted and elusive goal.

The "Quest for Synergy" is, at the same time, mankind's highest aspiration, loftiest ideal, and most soulful yearning. "Synergy" is the elusive but alluring song of all teams and alliances. Its archetypal attraction is bound in its possibility of creating something more the sum of its parts. Synergy captivates all, escapes most, briefly visits some, and for the blessed few, bestows enormous wealth and success.

What then is the magic of synergy? Or is magic at all? The quest of every team or leader is to find this Holy Ggrail -- the formula or architecture that will manifest this gallant goddess with singular regularity; to unveil synergy's secrets like Edison's applications of the power of electricity or the Wright brothers manifesting man's ability to fly.

The Illusion -- What's Missing?

Not understanding the essential nature of synergy results in comments like these:

> "We know how to create alliances, but don't know how to manage them!" reflected one American top executive, who lamented the lack of success in achieving his alliance's primary goals.
>
> "Government needs cooperation and coordination if we are to be efficient. However, we never seem to get alignment between the Federal, Provincial, and Municipal governments. Sometimes we get in bitter entanglements. It doesn't look very good when the press gets hold of it," was the complaint of a deputy minister in a Canadian province.
>
> "Our internal teamwork is terrible. We can't get any cross-functional group to work. People seem to build internal walls between our departments," groused a senior executive who watched his company polarize in the face of increasing competition and customer demands.
>
> "It looked great on paper, but it was a terrible fit in reality. Our cultures clashed on every issue from decision making processes to rewarding our sales force;" stated a dejected Collaborative Relationship manager in the pharmaceutical industry.
>
> "During negotiations, the deal makers poisoned the well, and we haven't yet recovered. We had to undo all the damage caused by the adversary legal jargon;" was the battle-weary response of the president of a multi-billion dollar international joint venture.
>
> "Alliances are an unnatural act for us. They are extremely difficult to manage; we'd prefer to do acquisitions; that way we can control them, " complained a senior vice president of a large German chemical manufacturer. Later, he noted that 30% of his revenues and nearly 50% of his division's profits came from

alliances, but " we spend only 5% of our management time on them." For some inexplicable reason he failed to allocate management resources to the highest profit generator in his business.

"Our acquisitions are largely a failure. We've bought very successful companies, but soon afterward the best of all the newly acquired people drift off into other jobs. Then the real problems begin…customers are lost, profits decline, innovation wanes…." was the sad comment of a chief financial officer.

"We seem to reorganize over and over again, hoping we can attain better teamwork, coordination, and launch new initiatives better. Unfortunately no amount of reorganization seems to make a difference," a dejected government leader lamented.

In today's interrelated world, organizational relationships have become complex and often confusing. Fundamentally, executives, managers, and civil servants who've been managing in traditional hierarchical command and control companies are befuddled when given an assignment that requires them to develop relationships outside their span of control.

The synergy they seek from the relationship remains elusive; cultural differences become insurmountable obstacles; project management turns into problem management; and the bureaucracies of the two parent organizations can become a quagmire of politics.

Secrets of Synergy

Not every complex organizational relationship experiences these impasses.

"I am amazed how well our two companies are working together. We are actually ahead of schedule, and have had relatively few difficulties;" was the delighted comment from the Collaborative Relationship manager of a strategic sourcing venture consisting of a European food service company and a Canadian partner.

"After only 6 weeks of working together, it's hard to tell the difference between the employees of their company and ours;" explained the director of an international mining company, commenting on his joint venture with an electronics firm.

"I've forged alliances internally with our different departments and locations, with our work force, with our suppliers, and with our best customers. It's enabled us to put new programs into place rapidly. Our sales and profits have increased over 150%," was the proud statement of a Canadian manufacturer.

These collaborative managers achieved success because they insisted that their joint teams spend ample time understanding the unique aspects of strategic relationships, building cross-cultural teamwork, and establishing processes and skills to access and embrace the unique value of their joint vision and their partner's unique strength.

Experience has proven that there are invaluable beliefs and skills which are often overlooked that enable collaborative managers to produce high performance results: skills at managing differences, breakthroughs, speed, and transformation.

The Value of Differences

The fundamental reason why teams or Collaborative Relationships are formed is to access a capability within other people, groups, or organizations, thus finding the magical synergy, the 1+1=3. However, this means capturing the value of differences.

Lying within these inherent differences is the promise of the new team to create bold new futures, or conversely, to implode upon itself as differences turn destructive. Unfortunately, for all-too-many organizations, differences become corrosive, actions become angry, self-protection arises from distrust, and polarization rigidifies points of view. Some people turn to lawyers to generate reams of legal documents to create surrogate contractual trust. Others stand their ground more firmly, often with dire consequences – liberals versus conservatives, Protestants versus Catholics, Muslims versus Jews, capitalism versus communism, blacks versus whites – and the list goes on. Seemingly, the difficulty in managing differences is a relationship problem has gone on since the beginning of recorded time. The Bible is filled with these conflicts, Chinese history records similar conflicts, and even the wisdom of Socrates and Plato did not diminish the carnage.

Traditional approaches to managing cultural differences have focused on becoming sensitive to differences, cross-cultural training, understanding linguistic nuances, and acculturation. While these methods have their worth, a number of very essential approaches are often overlooked that distinguish successful organizational relationships (each element will be explored in detail in the following pages):

- Power of Shared Vision
- Synergy of Compatible Differences
- Trust Building
- Commitment to Mutual Benefit & Camaraderie
- Sharing Expands Possibilities
- Conflict Transcendence
- Turning Breakdowns into Breakthroughs
- Transformational Flexibility

The Power of Shared Vision

The universal vitality of focusing on a powerful common vision, backed up by a dynamic and inspiring value proposition that speaks to the customer shows no cultural boundaries. For example, take this typical vision for a government:

> "We will be the leaders in (energy management, or education, or transportation, or public service, etc.)."

It presents a "vision vacuum" by saying nothing, containing no commitments, and inspiring neither the organization's stakeholders nor its customers nor its suppliers. Devoid of a powerful vision, everything defaults to politics, manifesting as cultural differences, which then divide the stakeholders against themselves.

> As the old adage from Alice in Wonderland states: *"If you don't know where you are going, any road will get you there."* And that road will be fraught with in-fighting, subversion, despair, and confusion, all of which will ultimately lead to the ruin of the alliance.

Contrast the weakness of a faulty vision with the motivational force of a more commanding perspective:

> "Our team will create 10 new innovations each year that will reduce the costs to our customers by 25%, while accelerating their throughput by 50%."

By having a powerful central vision and value proposition such as this, partners focus differences on how to achieve the joint goal, rather than arguing amongst themselves as to whose way is the "right way." A shared vision helps ensure synchronicity. Powerful visions are all founded on belief in the ability to discover the unknown, accomplish the seemingly impossible, and overcome the apparently unattainable.

Therefore, strong leadership must be present to build such a vision and to unify and align the team's differences for a common purpose.

Synergy of Compatible Differences

Synergy does not just occur as a natural byproduct of a relationship nor from a tough legal agreement, nor by dint of a dream.

Rather, it must be designed with architectural aplomb. But more, synergy must be activated by a powerful set of actions founded upon the understanding of how differentials produce the 1+1=3 effect.

> "If two people in the same room think alike, one is unnecessary;"
> commented the philosopher Ernest Holmes.

The eminent psychologist, Carl Gustav Jung foresaw the potential of relationships when he said: "The greater the contrast, the greater the potential. Great energy only comes from a correspondingly great tension between opposites." Joel Barker, in his groundbreaking work on paradigms, recognized that new paradigms originate from outsiders who think differently, not from insiders who see their world from an old and tired perspective. Each of these men understood the profound impact differences can have on the co-creation of bold new futures.

Invariably, however, ethnocentric or business culture attempts to enforce its mighty and frequently destructive hand. Some team members may begin by making judgments regarding the other side's culture, branding it as strange, wrong, inefficient, bad, or unproductive. As soon as this begins, fear, uncertainty, doubt, and distrust begin to fester, and then the alliance begins to unravel. This calls for strong action.

Adept relationship managers, leveraging the vision for the alliance, will call for creating a "synergy of compatible differences" in which differences are respected as source of innovation, cherished for their ability to break paradigms, and expected to produce creative solutions. The manager's ability to create this new "super-ordinate" culture within the organization enables the relationship to produce at higher performance levels than either individual member can achieve alone.

Because complex organizational relationships cannot be commanded, the mechanisms for leadership and control are dramatically different compared with most conventional hierarchies. Great relationship managers tend to be "integrators," possessing outstanding skills in bridging differences through their ability to translate across cultural boundaries. The greater the differential between cultures, the greater the need for highly skilled integrators.

Often the effective integrator will develop principles and values for the alliance that forge unity of vision and purpose. Integrators empower those around them by recognizing that "people support what they help create." Thus, they use techniques to unify Collaborative Relationship members, rather than divide them, to bring out the best in others.

Trust Building

Ask any Collaborative Relationship manager about the value of trust in a relationship, and they will wax eloquently about its impact on success. Without trust, strategic relationships fail, period. Trust is the foundation of all cooperative enterprise.

Trust is the hallmark of the personal relationships between the people who constitute the team. Without this trust, no legal agreement, no strategy, no structure, and no process can achieve its

objectives. These personal trusting relationships distinguish great team leaders from their transactional cousins who forsakenly bring the *Fool's Golden Rule* into relationships:

"He who has the Gold: Rules."

The best strategic collaborative relationships tend to use three "metallic" rules:

Golden Rule: *"Do unto others as you would have them do unto you."*

Silver Rule: *"At least do for yourself what you would do for others."*

Iron Rule: "*Don't do for others what they can do for themselves*."

Trust is the glue that binds personal relationships and the grease that prevents frictional differences from becoming fractious.

Trust and Integrity are the threads of the complex relational fabric. Integrity is more than just being honest or trustworthy. Integrity means being true to oneself, to one's deepest values; and the benefits are ultimately both a divine blessing and a liberating freedom.

> "Integrity resides in the ability to constitute yourself as your word. As such it is a home, an anchor, a self-generated and continuing commitment to honor your word -- despite contrary thoughts and feelings if need be. It is a consistency of being, speaking and acting that shapes who you are -- to yourself and to others."
> -- Anonymous

Integrity becomes a divine gift by enabling us to touch the deepest yearnings of others around us, thus creating a new set of possibilities filled with hope and inspiration. Integrity is thus expansive, allowing us to become more than ourselves, to create with others, to empower others. Integrity includes setting expectations and consistently meeting them. Integrity marvelously liberates us to live our relationships forward into the future, enabling us to experience the present moment cleanly and without fear that our past will undermine us, corrode our vision, and erode our energy.

The lack of integrity inevitably forces one to look back over one's shoulder, haunted by a past filled with historic baggage which will harbor tomorrow's illness, or threaten to destroy one's false illusions that were invented to disguise the sordid realities of a disingenuous life.

In a fast moving world, trust and integrity thus spawn a massive competitive advantage, because together they enable the teams to make rapid decisions without the need for a legal contract every time someone tries to make a decision. What's more, trust and integrity enhance creativity, build teamwork, reduce unnecessary transactional costs (such as memos to protect oneself), and make the relationship more fun, thereby building human energy.

Trust has been elusive; ultimately, no amount of pages in a legal contract can substitute for or replace weak trust. It's the single most important thing that separates Collaborative Relationships that thrive from those that fizzle. Trust enables everything to move faster, more effortlessly, and with less conflict. Mistrust causes everything to be more complicated, slower, and far more fragmented. In spite of its importance, trust is too often taken for granted.

The Collaborative Relationship professional that can build a strong relationship of trust creates enormous economic value. Our economic studies have shown consistently that trust can double the rate of innovation, accelerate speed of implementation by two or three times, and cut non-value-added work in half, or more. The economics of trust are compelling, especially considering

that it costs little or nothing to create trust, while it is excruciatingly expensive to co-exist without it.

Why is trust so seductively elusive? Because there has been no clear "architecture" or "system" for trust, it has fallen into a vague and ambiguous area where the mind-set for trust is fuzzy; the skill-set is deficient; and the tool-set inadequate. Collaborative Relationship professionals need not be trapped this way.

> Because trust has been an interdisciplinary target caught between academia's cracks, zigzagging the boundaries of leadership, political science, sociology, anthropology, psychology, organizational behavior, and neuroscience, no concrete "trust architecture" has emerged. We aim to change that.
>
> This has left us lost in a multitude of platitudes, slogans, and aphorisms, such as "trust but be sure to bring your lawyer," "trust but verify," "trust must be earned," "be skeptical before you trust," "be sure to have an exit strategy," and so on. Unfortunately none of these approaches really produce any trust.

Because fear is the principle cause of distrust, leaders should be very hesitant to use fear as a means of motivation – its short term gains may be very limiting in the long run. While fear causes people to withdraw, withhold, undermine, and generate suspicion, trust does just the opposite, being both the grease making things work fluidly, and glue that binds.

Embedding a system of trust into your Collaborative Relationship yields enormous rewards for all stakeholders. Trust unleashes latent human energy and enables it to be aligned on a common purpose. Many leadership situations require influencing without authority, which can only happen when those we wish to influence trust and value us. Trust produces highly effective people, high performance teams, useful ideas and innovations, and people who want to come to work because it is an energizing, co-creative experience. Leaders who want to support collaboration, be considered trustworthy, and trigger innovation should keep the "FARTHEST" principles in mind:

- ***Fairness*** *in all your dealings to be sure everyone gets a fair shake. Successful innovation leaders are perceived as being even handed, good listeners, and balanced in their approach.*
- ***Accountable*** *for your actions. When you make a mistake, admit it and move on. Accountability is the external manifestation of internal Integrity. Leaders without integrity are quickly dismissed as hypocrites.*
- ***Respect*** *for others, especially those with differences in skillsets and points of view is critical. Without respect for others, trust cannot be built. Giving respect is the first step in gaining trust – then moving forward to synergize differences in thinking.*
- ***Truth*** *is an absolutely essential component of building the type of trust that triggers innovation. Remember, your emotions or perceptions are seldom real truths. Stick to the facts – things that are measurable or concrete. And remember, a critical comment has about five times the impact as a positive comment. So balance your truths carefully.*
- ***Honorable purpose*** *must be the foundation of all your actions. If people perceive your purpose for innovating as strictly for selfish purposes, without a component impacting the 'greater good,' you will not be perceived as trustworthy.*

- ***Ethics & excellence*** *in standards. Innovation is propelled by the idea of always getting better, improving continually, reaching for the highest level of performance. If anyone sloughs off, they must realign to the highest measures, otherwise others will be resentful or fall off in their performance.*
- ***Safety & security*** *are essential to all human beings. This includes ensuring that there is "No such thing as Failure, Only Learning." Be careful not to punish what might look like a failed attempt at creative solutions; encourage learning from failure. And always avoid the Blame Game. Fear does not produce innovation. You will know when people feel safe – they will be laughing. Creativity is not all grinding labor; it's having fun and laughing a lot, spontaneously creating in the moment – that's magical. Research shows that laughter releases endorphins that trigger creativity.*
- ***Transparency & openness*** *enable everyone to see intentions, share data, and exchange ideas in a culture that supports challenging of ideas and develops new insights.*

As a leader, you will be in situations where you must influence others over whom you have absolutely no authority. At this critical juncture, the NUMBER ONE thing that will come to play is the issue of TRUST. No successful influence will happen without TRUST playing the pivotal role. And that means how they decide to support you, to align with you, to provide financial resources to you, and to help you be successful. Remember how important it will be that people trust not just your dream, and not just word, and not just your actions, but also the honorable purpose for which you stand and your ability to build a team you and they can trust. This team will grow and multiply into a world you can trust, while excluding those who don't meet the standards of trustworthiness.

SYNCHRONIZATION EXAMPLE

Baseball's Famed Double Play

Infielders executing a "double play" is a perfect example of synergy and synchronization. All players have the same shared vision and guiding principles, innate trust in their teammates, commitment to precision of execution, and very clear roles and responsibilities.

Timing is essential. A split second spent to "think about the play" is enough to ensure failure.

Without deep trust in the other player's competence, understanding of the big picture, and cherishing of the different skills, the double play cannot be executed.

Every sport – hockey, basketball, football, soccer – has its parallel example.

Synchronization

Anyone who has traveled to Switzerland will notice immediately that Swiss churches are different from other churches in other lands. What's different? A clock is imbedded in every steeple. Why? To keep the culture synchronized. The importance of synchronicity is that it enables coordination, encourages cooperation, and stimulates co-creation.

According to historical lesson, Switzerland should never exist; a country made up of German, French, and Italian cultures would ordinarily tear itself up. While not the sole reason, synchronicity contributes enormously to synergy.

Commitment , Mutual Benefit, & Camaraderie

Building trust in a relationship comes not from golf games and dining together. It's built in the heart, and on the field of deeds; it's held in the commitment to transform values and beliefs into concrete actions, it's founded on the commitments to the integrity of one's word.

Trust and Integrity are but hollow concepts until vigorous commitments are put into place. For it is with commitment we transform promise into reality by words that reflect intentions, and actions which speak louder than words. Commitment is making the time when there is none; the daily triumph of vision over skepticism, of conviction over fear, of cohesiveness in the face of adversity.

Commitment is the willingness to take risks, even when past experience calls for caution. Commitment is crossing the chasm of fear and danger to meet the needs and hopes of your partner. Commitment is the willingness to look from the past into future possibilities; the willingness to move enough to release anger and hurt to enable our rising to a higher level, seeking to turn breakdowns into breakthroughs Commitment is the power to transform the reality of relationships. Commitment is the willingness to take the leap of faith when there is little justifying evidence, because one believes in the other's values and integrity.

Relationship leaders always remark that they are accused of being traitors to own organizations when they stand tall and strong for their alliance partners. Brian Ferrar, alliance champion at HP-Compaq recognizes how this bonding impacts the relationship between champions:

> "An alliance manager and his counterpart at the partner company are often closer than each may be to many of their co-workers because of the trust it takes to form the alliance."

However, this bonding across organizational boundaries can be quite disconcerting to many insiders who see this as a serious breach of loyalty. It is from this loyalty, commitment, and integrity that relationship managers build a camaraderie that lasts for years.

Win-Win is the oft-trumpeted rallying call for teams and alliances. But win-win can mean very different things to different people. Consider the striking difference between these statements in this spectrum , all of which represent win-win:

Mediocre

I will fight to win, and you must fight to win, and somewhere in the middle we will strike a balance

I must protect my interests, and, inasmuch as they are protected, you can take what is left or what is in your interests

We must both be willing to strike compromises and make concessions if we are to achieve win-win

I will let you win because I know win-win is good for Collaborative Relationships

I am committed to you winning as long as you are committed to me winning

We both have a common goal, so we should work together to achieve the goal together

I will defend your interests from an attack or an infringement from people on my own team because you are my partner and my ally and because we have established firm Rules of Engagement which I will not let my own side violate – I am committed to retaining our trust.

We augment each other's strengths and weaknesses, therefore together we are greater than we are apart

Our Vision is the same, Our Values are Compatible, We Know and Value the Metrics of your "win," Let's Create a Breakthrough Together

Excellent

We will create a whole new world together with an inspired vision of the future that expands our potential, and enables the Customer win too.

Inherently the idea of Win-Win is really *transactional.* In the spectrum example above we have really shown the gradations from a shift from transactional to *collaborative*. For synergy to manifest itself, the strategic relationship must be championed by people willing to make strong commitments to a powerful win-win.

Sharing Expands Possibilities

For a moment, consider the interconnection between synergy and sharing. Synergy's goal is to attain the 1+1=3 proposition. The only way to attain such gain is through co-creative sharing. Collaborative Relationships are built on the fundamental premise that sharing of risks and resources will expand the possibilities and rewards available to all.

Sadly, in a world where certain resources may have been scarce, hording is a common practice, based on the belief that hording will control resources, thereby maximizing returns.

One must distinguish between *expendable* resources that disappear upon sale or consumption (such as oil, food, minerals, etc) and *expandable* resources that multiply the more they are used (such as creativity, cooperation, and teamwork). Expendable resources are depleted and decrease upon usage. Expandable resources regenerate and increase when used.

For example, software is an *expandable* resource. Using it daily does not diminish its size or impact. To the contrary, using software creates more value every time it is used -- therefore it *expands*. It is best used when shared, transferred and transmitted. Using this resource brings it to life. Capturing the learning and sharing the knowledge generated by software only makes it more valuable, reaching more people, and generating more future possibilities.

Unlike *expendables*, which adhere to the universal price laws of supply and demand, *expandables* are not limited by supply, and demand does not increase their price, but does increase their value.

We must be able to distinguish between *expendables* and *expandables* when negotiating any strategic relationship. To treat each with the same principles limits possibilities of expanding the realm of the partnership. This type of thinking is often reflected in contracts for intellectual property, where negotiators tussle for months and even years over ownership rights. Their hording mentality blocks them from realizing that, if sharing of intellectual property rights occurred, both sides would create more new ideas and command a better mutual competitive advantage.

The economic Laws of *Expendables* run counter to the Laws of *Expandables*, but both are true and both mutually exist in our world. The problem is that miserly minds can't acknowledge the latter.

Accessing the expansive possibility of sharing begins with the mutual belief that "the more you give, the more you're going to get." When both partners hold this belief, it manifests. The general rule for the Law *of Expandables* is:

Sharing Expands, Hording Contracts

Roy Rogers, commenting on his long marriage to Dale Evans, remarked that a great marriage is not a 50-50 arrangement. Both partners have to give at least 100%. Rogers said both Dale and he were always willing to go beyond: giving 120%. The Law of *Expandables* creates its own "regenerative energy," this is what we call "synergy."

Ask yourself the question: "What kind of relationship will emerge if sharing is not a fundamental value?" If the answer is filled with fear, distrust, or uncommitted action, the relationship will bear shrunken and shriveled fruit.

Conflict Transcendence

Whenever disagreement arises (and it will, for wherever there is change, there will be disagreement and conflict), great Collaborative Relationship practitioners are careful to focus on ideas and issues, steering clear of ego entrapment games, such as "who's right or wrong," or "what's good or bad" that will rapidly descend into the pits of defensive self-righteousness and intractable conflict.

Conflict is the inevitable by-product of all change, and any proposition of new ideas will generate some amount of conflict. The objective is to prevent the conflict from degenerating into blind fear and inflexible rigidity. Without conflict there will probably be no buy-in. Just be careful not to take conflict personally as an attack -- conflict is just a tool to get people talking and debating an issue from one side or another. It promotes the kind of understanding necessary to be successful in the creativity business.

Most organizational relationships exist in a world of constant flux, and therefore need frequent and continual adjustment. If those responsible for the Collaborative Relationship use win-lose negotiating techniques, always angling for self-interested advantage, then each side will lose synergy potential. But worse, this approach will then generate conflict, which will soon become unmanageable as trust and commitment rapidly evaporate in an enflamed atmosphere of fear and protection.

Turning Breakdowns into Breakthroughs

The Co-Creative Spirit has an internal compass that points to synergy in lieu of conflict. This does not mean disagreements and breakdowns do not occur. But rather that these circumstances are opportunities for improvement, situations for turning breakdowns into breakthrough, conditions for shifting to higher orders of thinking.

> Disagreement does not naturally gravitate to conflict, but becomes a transcendent experience to turn the passion of argument into the passion of creation.

Instead of taking "positions" on issues – a certain sign that conflict is brewing – the effective leader seeks to find mutual interest, joint advantage, shared vision, common values, and combined strength to stake out a new future and a shift in thinking.

This leader will not be a great compromiser between the diverse elements, however, unless every other avenue has been explored. A compromise is usually seen as a poor second choice, the forsaking of a dream. Forging a new unity from seemingly diverse values and thinking will be the relationship champion's first choice. This unity becomes a new order of interaction, better than the original, thereby creating a *super-ordinate* culture for the Collaborative Relationship.

> Overly legalistic, win-lose, or adversarial negotiating styles will be highly detrimental to the overall health of the alliance in an environment of frequent repositioning.

Transformational Flexibility

In a fast moving, rapidly changing world, many strategic driving forces will be in flux -- technology is changing; customer tastes are changing; power positions are changing; priorities are changing. The underlying forces that may have been the fundamental reason the strategic relationship was formed may be in a constant state of flux, serving as a major destabilizing factor, like a rogue wave trying to capsize a boat. Thus, strategic relationships are in constant need of transformation. Bull-headed

managers are quickly trapped in untenable positions by dramatic shifts in strategic driving forces. In an effort to maintain trust by establishing predictability, efforts to justify their position by self-effacing comments like: “at least you know where I stand, therefore you can trust me,” are met with increasingly incredulous stares. As the Bible says, when the blind lead the blind, both end up in a ditch.

Here it’s important to make a critical distinction about trust, ethics, and values in any strategic relationship. These are among the only things that must remain stable over the course of a strategic relationship – like an anchor to windward, providing a firm grounding for the relationship.

On the other hand, direction may change strategic winds change, more adversarial conditions emerge, or more information is known.

> For example, in the very important relationship between a doctor and their patient, the doctor’s ethics have been proscribed two thousand years ago with the Hippocratic Oath, but the doctors treatment program must change as new lab reports provide different insights, tissue generation or degeneration occurs, etc.

Relationship managers must be monitoring the shifts in the strategic environment regularly, and repositioning the alliance membership to align with these shifts.

Because complex organizational relationships must transform themselves frequently or lose their mission and purpose, leaders must establish a culture of visioning, breakthroughs, and co-creation as a foundation for their renegotiations. As one telecommunications executive said of his alliance in Poland,

> “No one knows what the future will look like.
> But if we don’t talk about it, we will end up someplace else.”

Flexibility is essential to making relationships work over the long haul, because benefits to each party are seldom equal at any one point in time. Each partner can expect to see benefits unequal for short periods of time, but without flexibility to re-write an agreement, failure is lurking.

What is missing from most teams, alliances, and partnerships is a clear definition of the spirit that bonds people and organizations together, and gives them the flexibility to make adjustments as the world around them changes. This flexibility and agility can never be codified in a legal contract.

> In fact, successful Collaborative Relationship managers proclaim that if they have to look at the legal contract, the alliance has failed. Strategic relationships exist not the contract but in the soul and spirit of those who create and manage it. Successful synergistic relationships are best codified by a co-created set of mutually beneficial operating principles or rules engagement than by a legalistic, trust destroying contract.

Synergistic Leadership

Synergistic Leadership is not focused strictly on the Leader -- it's about getting teams to align and create together, getting differences to become additive, to join collaboratively in an organizational "symphony" integrating harmony, melody, rhythm, beat, counter-point -- each individual's special personal nature -- their "instruments" that can make real music, not just a lot of noise.

It's about Inspiration, Vision of a Noble Cause, Innovation, and building a System of Trust that unleashes and focuses human energy.

The Revelation about Synergy is that it is, in the final analysis, about "Aligned Energy."

The only way to align energy to build a powerful Architecture of Trust. To learn more, see Trusted to Lead for the breakthrough that will change your life -- and enable you to build a world you can trust

Synergy is "Aligned Energy."

When a leader understands how to align differentiated skills, thinking, and the driving forces of human behavior, then the potential of achieving a "Symphony of Synergies" comes within reach

Mastery as Organization & Relationship Architects

Very seldom does synergy happen by accident. It manifests because people believe it is possible; and then design a methodology to make it a self-fulfilling prophesy. To those who build strategic relationships, our work is not just a business profession, but a mission with its roots solidly set in the "architecture of cooperation."

Our mission is to transcend divergent points of view, thus co-generating bold new futures where differences become the ever-renewable source of creative energy, the essence of innovation, the dynamism of new possibilities. Ours is a noble endeavor -- designing the synergy of compatible differences. Daily we must use honor and integrity to build the trust that is essential to all our relationships.

> Held within the seed of the architecture of collaboration is the power to let us bring a new insight, a new pathway, a new hope, a new spirit, and a new power to our world.

Power of Organizational Design Architecture

Of all the architectures (e.g. buildings, etc.), organizational design architecture is the one that most significantly influences the behavior of people, and thus their prosperity, happiness, and health, their fate and fulfillment of human potential, and, in the great aggregate, the course of communities, even nations.

> For example, the demise of cities, the decline of neighborhoods, and the desperation of civilizations is not a perchance happening or stroke of bad luck, but the culmination of many organizational leaders making small, but additive, and thus fateful decisions, usually worshipping at the altar of ration self-interest

rather that opting for that which would strengthen the greater good to achieve a transcendent vision.

Compare two cities over the course of the last fifty years: Detroit and Warsaw. The former was a thriving metropolis and the latter a blown out ruin from WWII. Today, a mere 2½ generations later, their status is completely reversed.

Detroit's decline and destruction is not a stroke of bad luck or natural disaster; it results from selfish, distorted leadership based on faulty values, criminal behavior, and barbarian treatment of the human spirit.

Warsaw, by stark comparison, was 90% destroyed by Nazi and Soviet bombardment; it's been totally rebuilt and is now a vibrant city in the European Union.

Impact of Leadership & Culture

What exactly has the greatest influence of the fate of people? 75% of human behavior is guided by the *culture* in which people exist (the other 25% is guided by personality). What determines culture? How leaders and their organizations design themselves, what they value and punish, what they train and how they select their people.

We are all-too-often shocked and numbed when we experience the contradictions in humanity – from goodness to evil, from love to hate, from giving to greed, from divine to destruction. Only when we understand the dynamics of how organizations are designed to bring forth the highest or worst in people, can we systematically bring forth best in the human spirit.

While organizational design architecture may rightfully claim the pinnacle of design systems because of its impact on human behavior, tragically it is also a field that is largely disjointed, fragmented, lacking holistic principles, and fractured by specialists in the fiefdom-like sanctity of universities, unintegrated but safe. These university fiefdoms are called "departments" (more like compartments) of psychology, business management, education, political science, sociology, international relations, and economics.

We are all-too-often shocked and numbed when we experience the seeming contradictions in the architecture of humanity that can, in the same person, produce glory, goodness, and wholeness while simultaneously denigrating, destroying, and dividing. Only when we understand the dynamics of the differential human energies (drives) -- the tension between ego and soul -- and the design principles for aligning them synergistically[33] can we empower the best in people.

Great Architecture -- whether it's in the design of a flower, a house, a boat, or a plane -- is:

- the expression of inner universal design[34] in material form;
- the union of the aesthetic and the simplistic;
- the dancing energy of the feminine and the masculine;
- the interplay between the light and the dark;
- the special place where beauty & harmony joins power & force;
- the alignment of melody & symmetry with tension & compression;
- the synergy of holistic design and core elements;
- the marriage of form & function with science & engineering;
- the flow of perfect proportion into utility & longevity;

---

[33] "Synergy" means to join or align (Greek: syn) energies

[34] Those who knew of the inner design were some of the great thinkers and designers, such as Beethoven, Edison, Einstein, and Robert Frost, as well as the Greek architects, Frank Lloyd Wright, among others

- the interweaving of delicacy & grace with sturdiness & stability.

Each day, when we create a strategic relationship and use collaborative innovation, we are contributing to the creation of that higher order of experience and action that makes our workplace a better place to live. Daily we are honing the skills and transmitting the abilities and multiplying the possibilities to spawn a better world around us.

As we expand our capabilities in teams and alliances, we can use these proficiencies in a multitude of applications -- better government, better teams, better families, and better communities.

In the large span of things, step by step, relationship by relationship,
we will have created a better world for all of us.

Hyrum: New shoes? How much did you pay for 'em?

Cyrus: Dunno. Ain't finshed wearing 'em yet.

Plan Thrice -- Measure Twice -- Cut Once

My Grandfather was a very down-to-earth practical handyman, always building, repairing, and investing in things, from televisions and radios to refrigerators and roofs to stocks and bonds. He understood the systems implications of architecture and gave an old-timer's lesson about time and design:

Plan Thrice -- Before starting a job:

Ffirst think it through from Conception to Implementation.
Next, plan how to ensure Functionality, Simplicity and how everything works together (Integration).

Then, before taking anything apart, label things, know how to put it back together, and make sure it won't breakdown again – buy good parts.

Measure Twice – Don't cut or drill or slice or chisel until you have a plan with detailed measurements. He always had a tape measure in his pocket, and a set of precision calipers nearby.

First, measure Backwards (from back to front), write down the measurement, then Forwards (from front to back); again write it down.

Make sure the measurements match.

This is the handyman's version of the management principle:
"If you can't measure it, you can't manage it."

Cut Once - then you are ready to cut – you'll *Get it Right the First Time*

My grandfather professed he *wasn't rich enough to buy cheap stuff*.

APPENDIX TWO: EXPANDED DUE DILIGENCE

Performing Multi-Dimensional Holistic Due Diligence
TRADITIONAL CHECKLIST: CRITICAL ***"HARD ISSUES"***
Financial, Tax & Legal Issues
Financial Assets

- Cash
- Receivables
- Sold Inventory
- Royalties
- License Fees

Hard Assets

- Machinery
- Equipment
- Plant
- Land
- Buildings
- Raw Materials
- Unsold Inventory

> I can make up lost ground, but not lost time.
> Napoleon

- **Valuation**
- **Court Filings**
- **Board of Directors**
- **Environmental & Facilities**
- **Agreement Review**
- **Technology & Info Systems**

ADVANCED CHECKLIST: CRITICAL ***"SOFT ISSUES"***

- Relations with Suppliers & Customers
- Industry Reputation
- Quality of Top Managers
- Longevity of Management
- Critical Strategic Decisions
- Response to Adversity
- Core Organizational Values & Policies
- Code of Conduct
- Internal Teamwork
- Win/Win Culture
- Strategic Alliance Track Record
- Cultural Audit
- Joint Innovation

Soft Assets

- Customer Base
- Technology
- Sales Force
- Distribution System
- Intellectual Property
- Brand
- Good Will
- Trademarks
- Licenses,
- Processes

- Data Bases

Vital Assets (People)

- R&D&C Capabilities
- Experience, Results
- Speed, Productivity
- Attitude & Confidence
- Creativity & Innovation
- Leadership Skills
- Future Core Competencies
- Teamwork, Trust, & Cross-Functionality Capability
- Vision , Courage, Persistence
- Know How, Skill Sets
- Skeletons & Rat Holes
- Adaptability to Change and Ambiguity
- Communications

Virtual Assets (External Relationships)

- Customer Relationships
- Supplier Relationships
- Strategic Alliances
- Innovation Networks
- Regulatory Relationships
- Political Relationships
- University Relationships
- Commitments
- Focus Groups
- Ideation

> Lost, yesterday, somewhere between sunrise and sunset,
> two golden hours, each set with sixty diamond minutes.
> No reward is offered, for they are gone forever!
> -- Lydia Sigourney (1791-1865

APPENDIX THREE: THOUGHTS TO PONDER ABOUT TIME & TRUST

THE EXHORTATION OF THE DAWN

Look to this day!
For it is life, the very life of life.
In its brief course lie all the verities
and realities of your existence:
The bliss of growth,
The glory of action,
The splendor of beauty.
For yesterday is but a dream,
And tomorrow is only a vision;
But today, well lived, makes
every yesterday a dream of happiness
and every tomorrow a vision of hope.
Look well, therefore, to this day.
--Attributed to Kalidasa, 4th Century Asian Poet

DESIGN Robert Frost - 1874-1963

I found a dimpled spider, fat and white,
On a white heal-all,* holding up a moth
Like a white piece of rigid satin cloth--
Assorted characters of death and blight
Mixed ready to begin the morning right,
Like the ingredients of a witches' broth--
A snow-drop spider, a flower like a froth,
And dead wings carried like a paper kite.

What had that flower to do with being white,
The wayside blue and innocent heal-all?
What brought the kindred spider to that height,
Then steered the white moth thither in the night?
What but design of darkness to appall?--
If design govern in a thing so small.

*a “heal-all” is a type of flower, normally blue in colour

PARADOX IN SEARCH OF TRUTH

All nature is art, unknown to thee;
All chance, direction which thou canst not see;
All discord, harmony not yet explained;
All confusion, logic still chained;
All passion proud, in erring reason's spite,
One truth is clear: Whatever is, is right.
-- Adapted from Alexander Pope

SUN TZU & THE ART OF STRATEGY

Sun Tzu wrote the earliest definitive manual on the Art of Strategy (often cited as the Art of War).

His observations about time are significant, as they address all five dimensions of time:

1. Linear Time
2. Cyclical Time
3. Relative Time
4. Experiential Time
5. Synergistic Time

Here's how he expressed the strategic ideas about time & timing.

- Heaven is signified by Yin and Yang, manifested as summer and winter and the changing of the four seasons.
- The flying eagle is able to destroy its prey due to its precise coordination of distance and time.
- The skillful warrior, during the battle, avoids the enemy's high-spirited moments and attacks when the enemy is anxious.
- The good warrior's staging of an attack is like the bending of the crossbow full of momentum and potential.

  When he releases the trigger, the arrow flies with a precise calculation combining distance, timing, and target.

  Not too early, not too late.
- A skillful warrior marches his/her troops into battle by stirring up an overwhelming force of momentum.

Sun Tzu understood the linkage between timing and planning, observing there were three options and each had consequences:

- Meticulous planning. Before engaging in battle, you have already won the war.
- Careless planning. Before engaging in battle, you may have already lost the war.
- No planning. Your defeat is certain.

(Sun Tzu's Art of War)

Sun Tzu's mentor, Lao Tzu was astute when it came to Trust and Time:

Empowerment and Trust

(from Lao Tzu -- excerpts from Verse #17)

The greatest leaders empower others, acting subtly.
Thus people do not know the real source of their power….

If the leader's trustworthiness is lacking,
His people will become untrustworthy.

If he has no faith in his people,
His people become unfaithful to him….

When he has accomplished his task, the people say:

"Amazing: We did it, all by ourselves!"

Act without Contrivance

(Lao Tzu -- excerpted from Verse #3)

If you overly esteem talented individuals,
People will become overly competitive.
If you overvalue possessions,
People will begin to steal.

The Master leads by emptying people's minds
of valueless desires,
And weakening their self-serving ambitions,
While strengthening their commitment
to work together;

Preferring simplicity and freedom from desires,
Avoiding the pitfalls of erroneous knowledge
and wrong action.

Not by doing it himself,
But by delegating and empowering others
to act wisely,
By letting the people have no cunning
and no greed,
So that those who dare to scheme will not dare
to meddle.

Act without contrivance,
And nothing will be beyond control.

Competitive Strategy

(Lao Tzu -- excerpts from Verse #69)

Be flexible in moving ahead without advancing;
Not charging in frontal attacks;
Pushing back without using force;
Decimating the enemy without engaging him.

It is worth more to yield to gain better position than to triumph and lose all.
In this manner one may deploy troops without marshalling them;
Bring weapons to bear without exposing them;
And exhaust the opponents strength without fighting them;
Defend without hatred.

Prepare for action where there is no conflict;
Advance against the enemy where the enemy is not.
Look a man straight in the face and make no move;
Open your hand and show no bared blades.

There is no greater disaster than to underestimate one's enemy.
As long as there is a foe, value him, respect him, measure him,
be humble toward him;

A leader becomes blinded when he severs connection
to the Three Treasured Principles:
– Compassion, Fairness, and Humility.

Arrogant haughtiness thus renders him unable to see the skills
and cunning of his opponent,
Endangering the very existence of what might remain of the three treasures,
As he now must do battle with two enemies, one within and one outside.

When evenly matched forces oppose each other,
The side that holds the three treasures shall win.

The Masterful Teacher

(Lao Tzu -- from Verse #23)

The caring traveler leaves nothing to despoil the land.
The wise speaker does not find fault and endless blame.
The accurate accountant leaves no working to be completed;
The perfect container needs no lock to remain closed;
The elegant knot leaves no end to become entangled.

Thus the Master is willing to elevate everyone,
And doesn't know the meaning of rejecting anyone.
She is there to help all of creation, so that no one is forsaken.
She doesn't abandon even the smallest creature,
Nor overlook the slightest detail, Nor reject paradox and contradiction.
She is always there to see to things exactly so that nothing is lost.
This is called the insight of following and embracing Nature's inner light.

For the wise, who understand the good, must guide the weak;
Never turning away those who seek.
The wise use the bad as raw material for learning;
And so the imperfect is the tool of the perfect man.

Those who neither value the sage, Nor care for her lesson are greatly deluded,
though they may think of themselves as learned.
If the sage does not honor and respect those who wish to learn,
Confusion will result; You will become deluded no matter how smart you are.
This is the essence of wonder and the secret of prime importance.

Confucius (~ 500 BC) was also quite clear about the role of trust. Confucianism, emphasized personal and governmental morality, correctness of social relationships, justice and sincerity.

Trusted Leadership

People never recognize a leader who has no trust.

Win-Win Agreements

Unless you make a contract based on mutual trust and social justice,
it will never be carried out smoothly.

Priorities of Governance

When asked what his politics were, Confucius replied:

It is to provide people food, protect people with armaments,
and gain trust from people.

When asked further "Which should we abandon first if our country is forced to abandon food, weapons, or trust?" Confucius stated:

Abandon weapons first, then food. But never abandon trust.
Trust is more important than life.
More people can be born, but trust is never regained.

****

Greatness is not Inside; it flows from Beyond

I believe that the first test of a great man is his humility.

I don't mean by humility, doubt of one's power.

But really great men have a curious feeling that the greatness is not of them, but through them.

And they see something divine in every other man and are endlessly, foolishly, incredibly merciful.

— John Ruskin

Oh, do not pray for easy lives.
Pray to be stronger in spirit!
Do not pray for tasks equal to your powers.
Pray for powers equal to your tasks!
Then the doing of your work shall be no miracle.
But you shall be a miracle, for every day you shall wonder at yourself,
at the richness of life which has come in you by the grace of God.

—Phillips Brooks – a favorite Quote of Thomas Alva Edison

Synergistic Time

Arnold Palmer was considered the greatest golfer of his era in the 1950s & 60s. Timing, synchronization, and coordination are essential to a golfer. Here's how he described the experience when he went into the "zone."

You're involved in the action and vaguely aware of it,
but your focus is not on the commotion
but on the opportunity ahead.

I'd liken it to a sense of reverie
-- not a dreamlike state
but the somehow insulated state that a great musician achieves in a great performance.

He's aware of where he is and what he's doing,
but his mind is on the playing of his instrument with an internal sense of rightness.

It is not merely mechanical, it is not only spiritual;
it is something of both, on a different plane and a more remote one.

Arnold Palmer (one of the world's greatest golfers)

Analysis Paralysis

"Knoblockitis"

New York Yankees second baseman Chuck Knoblauch was a Rookie of the Year, won several World Series rings and went to four all-star games. He earned a Golden Glove and Silver Slugger Award – clearly one of the best to play the game.

Then something happened: Knoblauch couldn't do the most simple thing his position demanded: throwing the ball to first base, a routine and relatively simple task for any second baseman that any Little Leaguer can accomplish.

It wasn't a physical impairment; it was all mental.

In 1999 he had a total of 26 errors. There was no real explanation for Knoblauch's loss of throwing ability. After changing positions a few times, Knoblauch eventually retired from baseball in 2003 after only 12 seasons as a professional ball player.

Sorry, my dear!
But where are the clowns?
Send in the clowns
Don't bother, they're here

Isn't it rich? Isn't it queer?
Losing my timing this late in my career
But where are the clowns?
There ought to be clowns
Well, maybe next year
-from "send in the clowns"
by Stephen Sondheim

****

And lastly for a little fun about Synergistic Time that explains Knoblockitis:

CENTIPEDE

The centipede was happy quite

Until a toad in fun

Said "Pray, which leg goes after which?"

That worked her mind to such a pitch,

She lay (paralyzed) distracted in a ditch,

Considering how to run.

--Mrs. Edward Craster, 1871

DANCER

The Ballerina frolicked in her dance,

Flowing merrily and perfectly bright,

Until a friend in a trance
asked:

"Just WHAT swings your legs so light?"

Her brain then begin to race,

Paralyzed, she fell flat on her face,

Analyzing just how to prance.

-- RPL, 2006