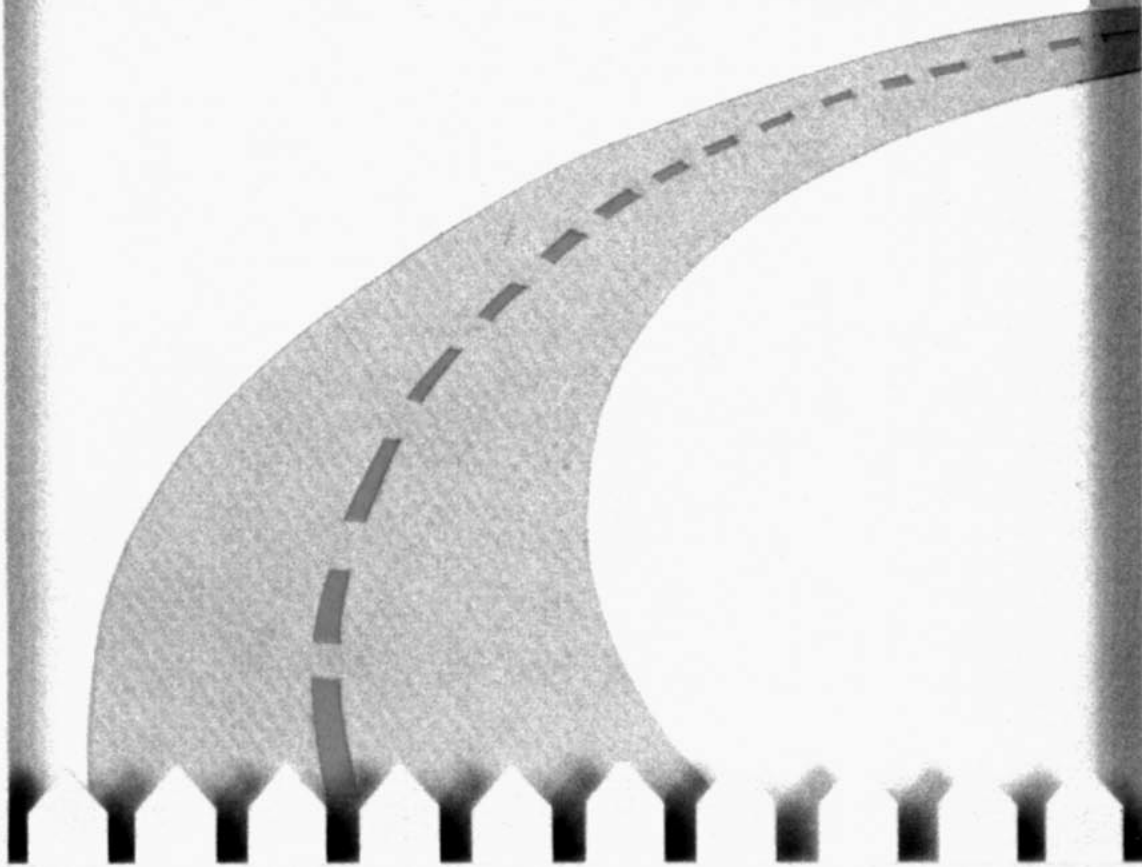


The Future



You can't get there from here...

Philip Kirby & David Hughes

Organization Thoughtware International Inc.

... as long as you're searching for new answers with old thinking

There are no answers.

Only questions. Only thoughts...

probing the unknown darkness,

feeling for the boundaries and

searching for the light of day.

Constantly trying to find a way to

control the chaos. But, perhaps there

is no control. No answer. Perhaps

uncertainty is the reality of our

twenty-first century organizations.

**Those who do not stop asking silly questions
become scientists.**

Leon Lederman, nuclear physicist

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Introduction

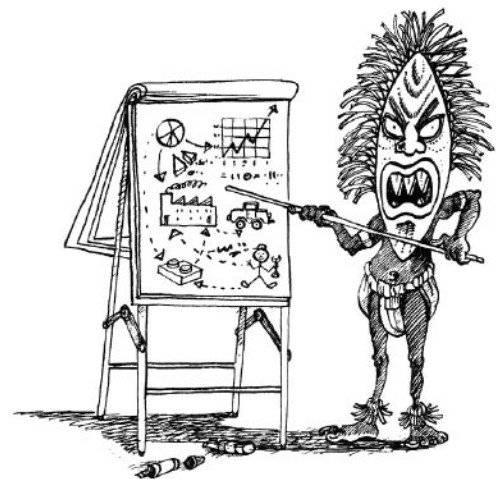
There is nothing man won't do to avoid the difficult task of thinking

Thomas Edison

In the field of organizational science we have discovered that when you stop searching for definitive answers, stop grasping for secure boundaries, stop looking for a fixed light, then and only then, are you at ease with the darkness, the uncertainty. Your eyes adjust, your groping ceases and you sense a comfort in the world of no answers—in the world of twenty-first century organizations. You begin to think more clearly. You begin to discover the importance of new thought. Not that you haven't thought about all this before—at great length, for many years—but it seems so much of the old thinking churns out the same answers. Definable. Tangible. Controllable. Orderly. Safe. Easy. And in hindsight, usually wrong, as we discover most of yesterday's solutions become today's problems. And the problems mount, the questions compound and the future continues to haunt us. Why? Why is it that every time we try a new management concept we end up with more plans, programs, maps, matrices, flipcharts and consultancy bafflebap, but fewer and fewer answers? Is it because our long-standing analytical techniques that dissect, diagnose and determine, no longer provide the right answers? Is there something drastically wrong with the tools we apply to our business? Is there something wrong with the questions and business propositions we try to respond to?

**Student: The questions on this test are the same as last year.
Einstein: That's okay. This year the answers are different.**

Are the questions or the answers wrong? Or both? For decades Whirlpool thought they were in the business of making washing machines. Wrong answer. Today, everyone at Whirlpool knows they're in the "garment preservation business." Starbucks aren't selling coffee, they're selling an experience, an event. Hufcor aren't in the business of making moveable partitions and doors, they're in the space configuration and design business. Mead Johnson doesn't provide baby formula for hospitals, they provide database management in support of fund raising capabilities. Everywhere, old answers are being turned on their head. Because the world has changed, irrevocably. The laws of business and economics



will never be the same. We've moved through the agriculture and industrial eras to the knowledge era; from economies based on the principle of scarcity to one based on abundance. So, how can we possibly think that the answers will be the same? And yet, we do.

Are we so desperate for answers that we'll continually generate and accept wrong answers? Are we so wrong in our incessant efforts to "get control" that we are out of control? Are we so dependent on what we created in the last century that we can't wean ourselves away from it? Are we so addicted to programmatic change that we can't think outside the program box? Are we so convinced that we know that we don't realize that we can't know what we don't know? Are we so driven to come up with answers for the short-term that we ignore the long-term questions? Guess what? There are no clear answers, and that's okay. Because it's more important that we focus on having the right question

It is far worse to have the right answer to the wrong question, than it is to have the wrong answer to the right question.

In this radically altered world, with its incessant demands on managing businesses, we have discovered an illuminating, pragmatic and very successful avenue to pursue; in fact, we've been building on it for years. It's a line of thinking, a new way of looking at what we do, and what we need to do, in this world of torrid growth and turbulence. We call it thoughtware.

Chapter 1

Thoughtware

We have been asked many times to explain what thoughtware is all about and the long answer was our first book, *Thoughtware. Change The Thinking And The Organization Will Change Itself* (hardcover, 270 pages, published August 1997). In it, we articulated the concept and principles of thoughtware and set out a model for installing new thoughtware in an organization. Subsequently, we wrote the first edition of this booklet as a brief introduction to the philosophy and principles. Now, we're adding new thoughtware that has evolved with the growth of more and more successful applications. Our intention is to share with you the reasons why we consider thoughtware to be the framework of every organization and the platform on which all performance is based. It is the soil from which future organizations will grow; fallow ground, an under-explored frontier where new organizational principles are open to discovery.

Thoughtware is the collective thinking of all the people in an organization and the foundation from which all behavior and action emerges. It manifests itself in the way people think and interact and creates a complex and intricate network of relationships which form, shape and drive the organization—up, down, sideways or backwards. In short, the organization operates and runs on its thoughtware.

In a world where competitive advantages are rapidly diminishing—size, technology, information, knowledge are all becoming commodities—it becomes imperative to discover new frontiers, new competitive opportunities. Already, in this the knowledge era, knowledge is becoming universally accessible, transferable and non-exclusive (e.g.,

government is declaring even the scientific discoveries of genetic coding must be non-exclusive. The only resource, the untapped reserve, that still holds potential is that which converts all these commodities into real value—the way we think. An organization's thoughtware.



Thoughtware is the invisible circuitry that holds the power to differentiate.

What tools does management try to use?

The role of management in business is to manage the demands on its capacity in order to create value and wealth. In the past, the focus has been more on wealth creation than value creation and, within traditional definitions, it has been an economic success. But as we rushed through the nineties our 20th century organization's and their fundamental methods, structure and systems were rudely exposed, peeled back to their raw bones. Management groups came to realize that extinction was a real possibility. The ensuing clamor turned into a stampede and the collective panic, with everyone heading to higher ground, appeared to be a new direction, but ended up coming full circle to nowhere. All of this driven by calamitous pronouncements—"buy technology, dump people;" "beware the Y2K bug;" "globalize or be globalized;" "merge or be purged;" "downsize, then upsize and right size;" all fueled by an ongoing cant from a barrage of consultants.

Events are happening so fast that nobody can truly understand what they mean.

Allan Greenspan

We believe that we need to see through the swirling storm and rethink what we're doing, why we're doing it and where we are really headed. Think about it. If we, as good business practitioners, are half as good as we think we are, then why are we continually faced with recurring fundamental problems that never get solved by the plethora of prescriptions and programs we have swallowed, digested, spit out and abandoned? Our organizations have built up an impenetrable immunity. Could it be that we need to rethink the thinking on which our businesses operate? Do we really have a capacity problem or is a matter of prioritization? If, as acknowledged, more than 90% of all activity in an organization is non-value adding - waste - then we certainly don't have a capacity problem. If we focus on creating wealth for shareholders—especially in an over-heated, insatiable marketplace—do we compromise the creation of value for the customer, which in fact, is the long-term determinant of corporate wealth and shareholder interests? In a world where everyone is connected should we be myopically building competitive advantage or moving to a more co-dependent advantage based on interconnected, unassailable, co-dependent relationships with customers, suppliers, employees and even competitors—like Dell, Wal-Mart, Cisco and Amazon.com have done? Do you know that only 2% of North American manufacturers consider their supply chain to be "world class." And yet, on average, 70% of value to your customer comes from your suppliers.

We need to think differently. When 90% of all activity in an organization is waste, why do we try to solve capacity problems with capacity tools—MRP, ERP and build to forecasts instead of actual demand and emphasize planning over productivity. Most scheduling technology and capacity models are analogous to shuffling deck chairs on the Titanic. Instead, we should be developing resource allocation models with filter systems and "red lights" that continuously prioritize demand. If e-commerce is delivering significantly greater value, at unheard of speed, and the value of these companies is in great ascendancy, why not consider the same premise for all corporations.

These organizations know and operate on four common denominators (which are cornerstones of Thoughtware): 1) customers will only pay and stay for value; 2) all information is to be shared; 3) knowledge is highly valued; and 4) the way their people think (their thoughtware) is a significant proprietary advantage. No one demonstrates this more than Microsoft. They value their thoughtware so highly that they've created thousands of millionaires in order to retain and build their thoughtware.

Our capabilities haven't changed

Another antiquated thought is our mesmerization with control (no wonder we call them controllers). Consider how we've built organization to serve this master, then mounted great hunts in search of root causes that prevent control. In times gone by, we've gotten by with it, but no more. In the 14th century, a monk, Luca Pacioli, created double-entry bookkeeping for the purpose of making people accountable. But over the years, the original objective of creating "accountability" became bastardized and known as "accounting." And as they say, "the rest is history"—over the centuries, accounting has been trying to control. But in the 21st century all that is destined to change because the freedom and speed inherent in the Internet is making control and historical evaluation (accounting) obsolete. Even though the demands on our organizations have been immutably changed, we have not been able to adequately change their capability. We still yearn for control, seek stability, forecast outcomes and look for cause and effect, when in fact, looking for cause, maintaining stability, achieving control and relying on forecasts are the very things that stop us from getting to the future. The new thoughtware says, forget five year plans, forget three year, one year plans. At best, have a two or three month plan—and be ready to change it in a click. In most markets, we have no idea who our competition will be, let alone know what they will do, so what's the point of well-thought out plan. Forget the planning, focus on operating according to the thinking of the day, of the moment. Eliminate static plans and build strength into your kinetic thoughtware

The only thing faster than the speed of change is the speed of thought.

Control systems can be stifling, stable organizations sluggish and businesses based on forecasting are easily blindsided. We must abandon these idols and follow the commandments of turbulence, speed and flexibility. In the deluge of 21st century technology and constant software up-dating it is essential, actually imperative that we keep pace with up-dated thoughtware. If not, we're simply creating our own destructive virus.

So, how do we get to the future from here? We can't. We have to start in a different place. We have to stop digging the same hole in the same place. That's where new thoughtware comes in, it creates new place—new context.

Chapter 2

So . . . is thoughtware different from other management concepts?

Thoughtware is not a new management concept or change technique like reengineering or activity based management or open book management or EVA or value exchange or leadership dogma. It's more fundamental than these. It's a genetic part of every organization.

Historically, we have viewed business organizations as multi-faceted, complex structures made up of many parts—parts which are to be efficiently managed to produce products and services. We have developed an endless list of mechanisms to manage the parts: departments, budgets, policies, procedures, job descriptions and plans, plans, plans, based on forecasts, forecasts, forecasts. We have for decades, actually centuries, managed and manipulated these components in a relentless pursuit of prosperity. What we have ignored are the relationships between the parts, those patterns of interaction that connect everything and are the crucial links creating, driving and running the organization. In fact, it is these relationships, not the parts, that are the biggest contributors to, or detractors from, value creation.

Individually or collectively, parts create nothing. It is the relationships between them that create and it is the relationships that need to be managed, not the parts.

Now, as our knowledge-based society, spurred on by rampant technology, wrenches at every precept we've ever had, we find our tried and true methods failing us and the tools and techniques of the nineties coming up short. Why?

New content needs new context

We believe the problem is not with the concepts or techniques we have used. Many of them are good, but they are merely content. The problem lies with the context in which such content is applied. We continue to apply new concepts to organizations which are grounded in old context because they have been built on, and still adhere to, thinking that is born out of the industrial era—and continues right into the new century. Thinking that continues to look for efficiency instead of flexibility; applies the laws of utilization instead of availability; still considers money the most important metric, instead of time; and operates from post-game evaluation, instead of real-time navigation.

We keep putting new content into old context knowing, before we even try, that change is going to

be difficult and the expected results will be limited. But, if organizational change is to work in the new era it must take into account the radically changed context that surrounds us. It is a chaotic, tempestuous, unpredictable context, where everything is connected and no one is in control. If we understand this context and can envision the necessary change within this context, then the content we install will work, stick and be sustainable.

To change the context we have to change the thinking—the thoughtware.

**Always, the universe in which one lives is thought to be
the universe.**

Edward Harrison

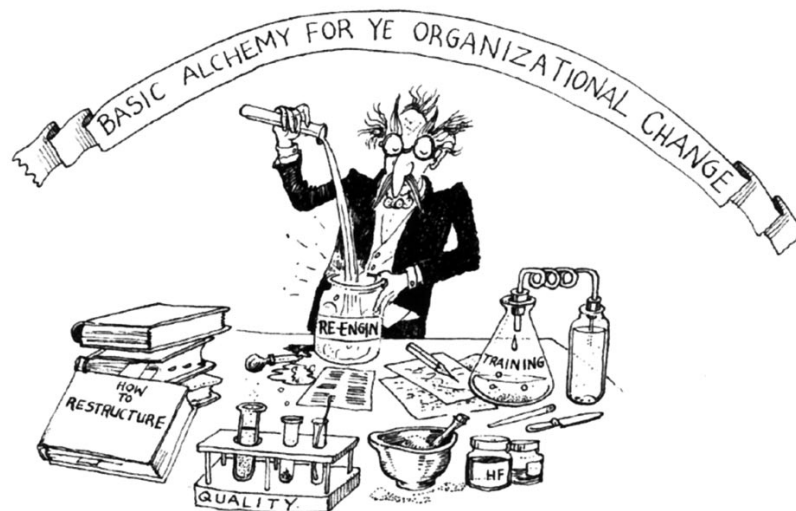
Chapter 3

What's wrong with the current thinking?

Nothing is wrong with current thinking if you have no concern for your organization's health. Today's organizational sickness cannot be cured by yesterday's or most of today's, remedies. The old thoughtware anchored deep inside our organizations is terminal. Old thoughtware will continually overpower new prescriptions for change because thoughtware is the foundation for all action, including no action. We have long known that to change behavior we must first change thinking. Beating alcoholism only starts when the biggest hurdle is cleared, when the power of thought changes from defending the status quo, "I don't have a problem," to seeing the reality, "I have a problem." The decline in smoking among adults was minimal when the pervading thought was "you could die from smoking;" it only dropped dramatically when the thinking changed to, "my over all health and feeling of well-being is important in my life." Then the behavior changed. Old thoughtware must be replaced with new thoughtware before a real shift in behavior takes place.

Thought is the ancestor of all action.

Don't think, it can't be done, just think, I don't know how, yet.



Current thinking is moving us deeper and deeper into an abyss because our organizations are not designed for what is, let alone what will be. They are not ready to cope with the future, not strong or healthy enough for the tsunami of change. Not yet. We have spent an inordinate amount of time managing (controlling) the present and past with little real investment in the future. A perfect example is the pandemic of downsizing, that catchy euphemism for "throw the crew overboard." A tactic that deals only with the past and present and is the antithesis of any concept of investment in the future. In fact, it has severely undermined the future because it ignores the most important

investment of all, people—now, many firms are scrambling to upsize. Long-term leadership, capable of foreseeing the realities of the 21st century, recognize the need for a new balance sheet, one that includes, measures and values both human capital and customer capital.

**If we do not acknowledge our old thoughtware,
we cannot move beyond it.**

In order to get to the future, we need to have our organizations ready for change and stop chasing magical cures and quick answers from an army of witch doctors who proffer their latest antidote. We must rid ourselves of thinking that just tinkers and tweaks what is and treats only the symptoms of the pervading disease. We have for years built our companies on the premise of "continuous improvement," and a wonderful concept it is, if your objective is to take baby steps in the sprint to the future. It makes no sense to improve, even by twenty percent, what we are doing when it will be out-dated, out-moded and irrelevant by tomorrow. What we need to do is think in terms of "discontinuous improvement;" that is improvement that starts in a new place, coming from a new direction. Discontinuous improvement changes process. It's like digging a new hole rather than digging the same, old hole deeper. History is replete with stories of how the fixation on continuous improvement impeded the opportunity for new thinking. The managers of the "Pony Express" vigorously and continuously worked at breeding faster and faster horses that continually gave them a competitive advantage—until the day the first telegraph moved across the country. Perhaps Fred Smith, CEO of FedEx, saw the same opportunity in the US Post Office's efforts at continuous improvement. The fundamental thoughtware behind discontinuous improvement helped Freedom Plastics, a manufacturer in the US Midwest, go from a "best" of four days from order entry to ship to a new benchmark of 92% turnaround in twenty-four hours. And now their asking, "Why only 92%?" And "Why not twelve hours?" Continuous improvement only has significant value after discontinuous improvement has dramatically altered the way success is achieved. It's like the "Fosbury flop." Dick Fosbury, the Olympic high jump champion changed the event forever when he "invented" the Fosbury flop by jumping over the bar backwards and going higher than anyone had ever gone before. Thereafter, everyone applied continuous improvement techniques to the new "flop" approach, but they would never have gotten there if not for Fosbury's discontinuous improvement.

If the first idea is not absurd it has no chance of success

Albert Einstein

Chapter 4

Yeah but . . . we've made so many changes already. Do we start again?

Absolutely not! Thoughtware is embodied in everything we've done, so it's not a case of trashing all that is good. It's a matter of exorcising old thoughtware and replacing it with new thoughtware.

"But," is a destructive word used to argue our limitations.

In the example of downsizing, new thoughtware sees the horizon beyond short-term cost cutting and deals with transition and continuity planning for the organization's most valued asset, human capital, which should be thought of as a capital investment on the balance sheet, not a line-expense on the P&L. The insightful monk, Luca Pacioli would understand this financial concept. As did AOL when it paid \$385 million for a company in order to acquire its knowledge and human capital value and then set it up as an investment in the future instead of an expense. Alas, the old thoughtware of Internal Revenue Services wouldn't allow it—or their thoughts couldn't cope with it.

The crucial issue of productivity is directly tied to the human capital in our organizations and that has never changed. What we see changing - too slowly - is the thinking on the inherent value of human capital. Downsizing didn't, or couldn't, see it because the thinking was short-term and shallow, seeing people only as a cost on the P&L, not as assets representing a heavy investment in knowledge, learning and loyalty.

Sustainable changes will come, in droves, if first the thinking changes. Silicon Valley is a living example of not only the speed of change but the value of human capital and its critical role in not only staying ahead of the growth curve, but pushing it further out—relentlessly. You can ask the question, "will a company like Microsoft be around in 2020 if it curtails its investment in human capital?" And why are Amazon.com and American On Lines' capitalization many times that of Barnes and Noble and AOL's acquired partner, Time Warner? Is it that they think about and see value in a very different light?

All that is needed for a new universe is a new mind.

William Carlos Williams

In hindsight, we have traveled the crooked road of change and embraced a myriad of management theories as though they were the road map to the promised land; only to find ourselves in much the same place as we started. And simply trying harder to solve another avalanche of problems that are frighteningly similar to those in our past—just bigger, more complex and rolling toward us at a crushing speed. Despite the round-about, we have learned a lot about ourselves and our

organizations and a glance in the rearview mirror reveals some well-learned lessons and a few enduring "truths"—working principles that have held true and can be applied in the exploration of new thoughtware.

Chapter 5

A few enduring truths

Like the pursuit of philosophy and science—the foundations of all advancement—we are continually discovering new theorems and since the first edition of this book we have discovered a few additional "truths" that we believe are worthy of consideration in the platform of new thoughtware. The original five have evolved some more and we've expanded and renamed them and added two new ones—value streaming and navigation.

- Process
- Value Streaming
- Customer Capital
- Human Capital
- Process Capital
- Information and Navigation

1. Process reengineering has defined a universal truth

Process thinking is the embryo of process reengineering and although reengineering has not delivered the goods in its quest to successfully redesign our business processes, it has given us a first-hand look at the primacy of "horizontalism" and the power of process over function. In fact, reengineering was but a "supernova" and a hyped attempt to salvage decades of misplaced theorems. A last hurrah.

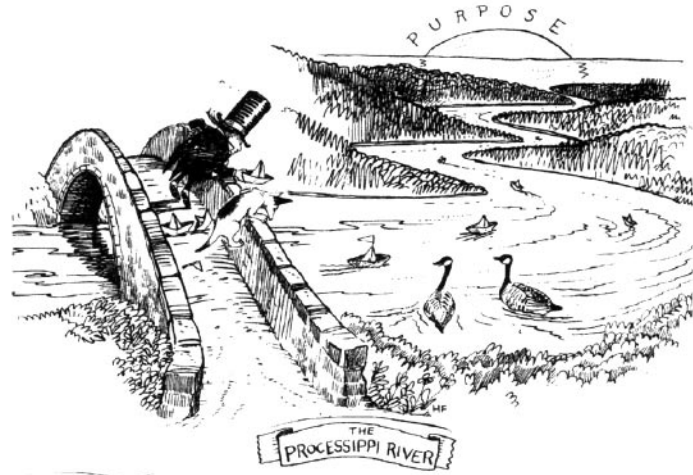
We know the organization is a conglomerate of natural processes that reach far beyond the borders of any department or the influence of any particular part. We now see the organization as a river, fluid and constantly flowing, as opposed to a series of land-locked lakes. And just as a river is tireless in its trek to the sea, so too is the new organization in pursuit of its goal. It never wavers from its mission, yet continually changes shape, size and flow to facilitate every situation. Volume fluctuates. Boundaries move. Everything is flexible. Nothing is rigid, nothing fixed. The core truth gleaned from reengineering is the power of process and the irrefutable fact that process moves horizontally, transcending boundaries and functions. This universal thought is a cornerstone in new thoughtware. And horizontal process is the means to the organization's ultimate end—value creation across the entire supply chain. For it is the creation of value that eventually achieves the organization's goal of wealth creation.

2. Value Streaming

One of the crippling pieces of old thoughtware buried in today's business structures and context is the thought that we do something because "it's necessary." How many times, when we question why something is being done do we get the standard response, "Because it's necessary?" Unfortunately, too many things are done because of this pervasive cop-out, this entrenched response, which is stated with absolute certainty. Problem is, "Is it necessary?" is the wrong thought, the wrong question. When considering any activity the right question is: "Is it adding value?" The *raison d'être* of every business is to create value and any activity, function or operation that is not adding value should be eliminated—even if it's thought to be necessary. New thoughtware focuses only on doing what is of value and streamlining the processes that deliver that value. We call it value streaming—designing processes that flow like rivers and continuously deliver maximum value downstream to the customer. Four basic questions need to be addressed: 1) What is the value we must create and deliver? 2) Where are the streams of value that deliver that value in all the processes? 3) How can we ensure the continuous flow of those value streams? 4) How can we ensure that the value streams can respond directly and continuously to ever-changing customer demand?

Many companies have thousands, even tens-of-thousands of products or services and yet, when they analyze their processes, they discover there might be only five or six key value streams (the human body - perhaps the most complex organization of systems ever created - has only seven major processes). Identifying and streamlining these begins with basic questions about every activity in order to determine what is adding value - as seen from the customer's perspective the only one that counts). For example, would the customer pay for this activity? If not, eliminate it. Does the activity change the fit, form or function of the product or service? If not, get rid of it. We must look to see and we must see to eliminate. We need to constantly scan every process, measuring the added value and eliminating the waste—like time, space, distance, staging, duplication and queuing.

It begins with a strategy built on value creation. This is not to the exclusion of such strategies as market share, price or geography, but it is a driver of these. Value creation extends beyond any one organization—70% of value comes from suppliers—but it is centered within your very own walls and building on this strategy starts inside, where there's a ton of non-value-adding activity waiting to be jettisoned.



The value equation is not new, it has been around forever. Simply stated—by the customer—it is, "I want what I want, when I want it, where I want it, at a price I want." The difference

between history and today is that the equation has been compressed by the time-collapse. Witness e-commerce. Customers are getting their value equation fulfilled in the blink of a mouse. And the future will be in nano-blinks. For example, broadband links can send ten encyclopedias around the world in one second and deliver two-hundred million e-mails in a second. And you thought you had a handle on speed? What's most important is getting a handle on value and streamlining its creation and delivery—now. Because in a world so fast you only have time to do what adds value, nothing else. And it can no longer be based on that 20th century adage, "but it's necessary." The only question that counts is, "Is it adding value?" If it isn't, get rid of it.

**The real art of discovery consists not of finding new lands,
but of seeing with new eyes.**

Marcel Proust

Finding value begins with envisioning the entire operation with no waste in it and then getting people to think, not about their function or what's necessary, but about eliminating waste and adding and delivering only value. When the people in the processes begin to identify the activities that only add value, they are able to strip away the waste, create tight, fast flowing processes that constantly pull value downstream to the customer.

3. Customer Capital

It has been said that the moment of truth in any company is when a customer is in touch—anytime, anywhere. Each contact is building customer capital. There are literally tens-of-thousands of such moments in every company, everyday, and they define a company's customer focus more than anything else. We have evolved from telegraph to telephone to fax to e-mail to e-commerce and are now operating in a market space, filled by the Internet, with more than fifty million people inter-acting everyday. Companies like American On Line and Amazon.com with twelve to twenty million customers and subscribers are building a mass of customer capital. AOL used that capital as leverage to buy Time Warner—Time Warner needed AOL's customer capital. Customer capital is inherent in every balance sheet, building market value over book value, one customer at a time. Anyone who's a "First Class" customer, a "Platinum Club" member or a "Gold Card" holder has experienced what it's like to be "customer capital." Service is over the top, nothing's too much trouble, the "thank you's" are endless and guess what? You come back again, and again and again. They've invested in you and they get their return on that investment. But what about the gizillions of "coach class," "unclub" and "green card" people? The ordinary, everyday average spenders? Slowly, the traditional 20th century corporations are beginning to figure out the importance of getting a return on this huge reserve of customer capital, but in the 21st century, slow, doesn't cut it. Because companies like AOL, Amazon.com, Yahoo and Oracle are building customer capital at e-speed.

We define customer capital as the value of the goods and services a customer purchases over the lifetime of dealing with a business, plus the value of all purchases made by any customer who is referred by or influenced by that customer. The more customers and the higher the utilization the greater the capital value of a company. Add a customer or get repeat business and the capital increases; lose a customer and the capital diminishes. A pizza customer's value is not a one-time

purchase of \$9.99; he or she represents a potential worth of \$5,000, \$10,000 or \$15,000 in customer capital.

10% customer retention can be worth 2% to the bottom line.

The Standard and Poors' average ratio of market to book value is 6 to 1. That 85% differential is the "bet" investors make that a company has, and can continue to build, customer capital. In the 21st century there is a new balance sheet, one that values the retention of customers and the creation of customer capital.

4. Human Capital

If ever there was an example of financial myopia, shortsighted thinking, it is in our historical assumption that labor is a commodity and people—seen through financial eyes as wages and salaries—are an expense line on the profit and loss statement. They are not. People are a resource and an investment that provides returns—human capital.

People, process and their interaction create an intricate set of relationships which are the organization. And the quality of those relationships dictates the value that can be delivered. We can no longer succeed by simply managing the people, moving the parts and controlling the processes. We must manage the relationships. And that means distinguishing between the "what" and the "how," and focusing on the "what." Most of management time is spent on "how to do," without ever getting the "what to do" right. Forget "how." Let the people focus on the "what"—they know it better than anyone—and allow them to design and run the processes with unfettered participation while ensuring that they are responsible for their actions and accountable for their performance. Once management allows the people to change their focus to the "what," they must never renege on it - for it is at the core of building true leadership.



Power in organizations is the capacity generated by relationships.

M. Wheatley

For years, senior management tried to "empower the people" as if a few of the right techniques would ordain the rights of passage to change, and all would be changed. But empowerment didn't take at the grassroots and eventually they realized that it could not be dictated from on high. Because empowerment is not given, it is created from within, by each individual and grows out of personal purpose. Until the people sense there's a real opportunity to realize their own purpose, they will not, cannot, be empowered. The organization must allow people to transform personal purpose into organizational purpose and from that release true empowerment.

You can't legislate participation. It makes no more sense than trying to automate rework.

Old thoughtware assumes someone can empower someone else. This might be so in old organizational structures where power is jealously held somewhere up the hierarchy, control is all top-down and someone thinks that someone with power can transfer it to someone else (or choose not to). Things have changed. In the information-free, knowledge-hungry 21st century, new structures are forming around information access and those who have access and a sense of purpose will quickly be empowered. However, no matter how strong the purpose, empowerment doesn't happen until people have the information, skills and authority on which to act. That's where new thoughtware comes in and focuses on allowment. With allowment, the thinking is not about giving up power but releasing all the information and allowing those people best suited to use it. And that's almost always the person closest to the point of the problem, not someone up stream, up the bureaucracy and up tight about control. Allowment requires the breaking down of old controls, creating new autonomies and providing wide-open access for people to embrace both their personal and organizational purpose.

Some of us (not enough) have accepted that training is an investment, not a line expense, but few think of learning as a capital asset. Exceptions to this old thoughtware are those companies who are now creating their own internal "universities" (employees can earn an accredited MBA degree) recognizing that personal education is an integral part of organizational growth. This is investment in human capital.



Unfortunately, most have given no thought as to how to get human capital—people—on the balance sheet. Some corporations are now issuing "supplementary balance sheets" covering "intangible assets" and the Securities and Exchange Commission in the United States has issued guidelines on how to measure such assets. But there's still a Grand Canyon to cross and a lot of new thoughtware needed before we can realize a full return on our human capital. The continuous development and investment in our human capital is imperative if the organization is to have any chance of long-term survival—and the 21st century has drastically truncated the long-term.

I'm afraid that any company created before 1995 will be extinct by 2010.

L. Riggio, CEO, Barnes and Noble

The captains of downsizing—the purge of the 1990s—which often used reengineering as their euphemism—didn't understand the inherent value of human capital. If they had there wouldn't be thousands of companies now scrambling to upsize and right size. Al "Chainsaw" Dunlap, the ex-CEO at Sunbeam, certainly didn't get it, even after being downsized himself.

5. Process Capital

If processes are fluid and relationships everything and information everywhere, where are our organizational structures? Nowhere. Or somewhere back in the 20th century. Most of them built and valued with old thoughtware, encumbered by bureaucracies, controls, rigid systems and a distorted valuation of assets. There's a kind of rigor mortis in our current capital thinking and it's in need of a heavy transfusion of new understanding about assets and value.

Tangible capital—hard assets—have been the foundation of business for centuries and the main means of driving growth, but in the last half century the import and impact of intangible assets—the non-traditional forms of capital—have been growing exponentially. In 1929 the ratio of tangible to intangible capital was 70% to 30%, today it is the reverse, 37% to 63%, respectively. And yet, accounting practices and the way we look at assets hasn't changed in decades, even centuries. There are numerous definitions for intangible assets, but a common grouping includes: 1) the value of innovation and R&D; 2) the value of the organization's "brand;" 3) the value of its monopolistic or franchise strengths; and 4) the value inherent in the unique ways an organization does business—we call this last one process capital.

Process capital encompasses systems, structures, space, logistics and the processes that connect it all. It's the link between the human capital and the customer capital. It's what's left behind when the people go home at night. It's like the glue, the ether, ingrained in the organization, that gives the organization the capability to allow the human capital to create and deliver value, thereby building customer capital.

With new thoughtware process capital will form around, follow and support the value streams.

Unfortunately, within most organizational structures most processes are ill defined and designed in theoretical quicksand. Twentieth century organizations mirror our thinking of the time: Big, efficient, automated, controlled, then fat and slow, then restructured, reengineered, flattened, downsized, merged and purged. They're still struggling, while forever trying to "continuously improve" the existing structure, thinking they can change it, fix it, tune it and tweak it. Because they believe what is can be fixed. Wrong thought. What is, may seem to be working, but it's self-destructing. The current thinking is a dark tunnel leading nowhere. Leave it. Forget it. Move beyond it and begin to think and see process and structure in a new light. Understand the value of intangible assets and realize that there is unlimited value buried in old processes—under utilized capital.

New discovery is nearly always the result of the thought that precedes it.

New thoughtware views structure not as cause, but as a result of process. It often leaves "the cause" where it is and thinks in terms of what is to be, moving forward to where you have to be; knowing full well that the structure will be formed in response to what has to be. Organizational structure is a provider, not a dictator. Its purpose is to provide the human capital with processes to create

and deliver value. With a minimum of control and maximum accountability. And the latter does not require the former.

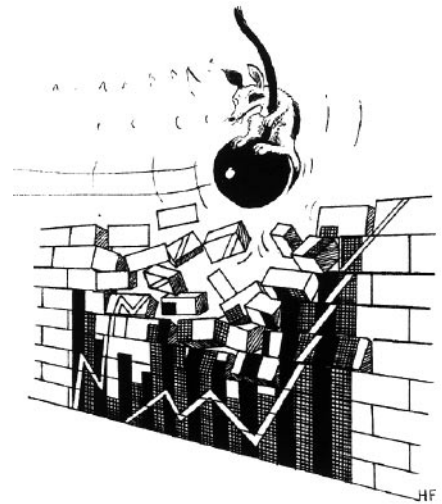
Organizational structure should always be the result Of processes and relationships, not the cause of them.

New thoughtware does not call for the annihilation of current structures, in fact, it has little concern for salvage. Currently, most "continuous improvement" of processes and structures is only treating the symptoms of the problem, what's needed is a healthy dose of "discontinuous improvement"—stop fixing what is, start fresh. Thinking that creates processes, systems and structure based on the need to provide information, skills and authority at every crucial point of decision and as far downstream as possible. The structure of the Internet and web design are dynamic examples of this. The value of process capital for an Internet company far exceeds that of a traditional corporate structure—it's one of the reasons why Microsoft or Cisco Systems capitalization is ten times the likes of Du Pont or Ford.

Everything must be pulled by process based on instantaneous response to customer demand; never pushed by the "system." We must change processes to form, fluctuate, flow and create true value streams. Change financial systems to measure what really matters, instead of evaluating what has already happened. Change compensation systems to pay people for generating value, not simply doing what's "necessary." Change information systems to give everybody information, so everybody knows everybody else's business. Change learning systems to be integrated streams in the processes that run broad enough and deep enough to sustain the organization far into the future.

Our current measurement systems ignore intangible assets, give us exacting information that is largely irrelevant to managing the organization, seldom linked to strategic direction and impedes rather than facilitates.

Process capital offers an immediate and massive opportunity to increase returns. It is a hidden asset waiting to be tapped. When an organization rethinks its definition of capital, understands the value of intangible assets, then, and only then, will it begin to significantly change its capacity to create greater value and deliver a greater return on investment.



6. Information and Navigation

You can't have too much information. Abundance is good. Total access. Free flow. Complexity. Multiple interpretations. Everybody knows. These are the watchwords of the new organization. No longer should we try to manage information, rather information should manage us. Don't

control it, respond to it and create action around it. We call it navigating—like sailors in a storm. In a turbulent and threatening sea, navigation is anticipatory and immediate, not evaluative and retrospective. There's little need to know from whence you have come; you need to know exactly where you are and where you must be—simultaneously. And you need the right measurements, accurate, up to the minute, universal-to-all and in front of you. You need a comprehensive "dashboard"—compass, wind-directional, knot meter, fuel gauge, GPS (global positioning satellite) weather reports, navigational charts. Everything that allows you to respond and change course, instantly, on a dime, on the crest of the next wave.

New thoughtware looks into the eye of the storm—traveling @e-speed—and assesses the instability, conflict, ambiguity, complexity and asks, why is it so? What is the new information, the new context? How can we use this information to create new form, new fit, new function, thereby creating new value? How can we change our processes to handle the ever-changing conditions? If knowledge is king, then information is the king's ransom—the abundant resource from which we can see context, build flexibility, chart direction and create value. The idea of "information pollution" is old thoughtware. New thoughtware looks for information abundance and sees human and process capital as the catalytic converters of information into knowledge and value.

**"To make money in the new era,
follow the flow of information."**

Kevin Kelly

But, under the rule of old thoughtware information can be a crippler. Accounting departments give us scorecards but what do they really tell us? IT departments, despite their technical wizardry, are burdened with old thoughtware and run by "gatekeepers" of information who oversee vast systems of data, none of which means much until it's combined with new thoughtware.

**Technology is a commodity which can be acquired by anyone
and new software without new thoughtware is a breeding
ground for bad viruses.**

Old, accounting thoughtware will never provide us with the information we need to get to the future because it's rooted in the past, forever looking back to try and see ahead. "Investing" thoughtware looks ahead and when applied to intangible assets—customer, human and process capital—it sees the potential for much greater returns.

The source of information must be rigorously evaluated, in real-time. In a world moving @e-speed, predicting can be a bad joke. It's a step-child of old evaluative thinking that considers historical data, calculates feasibility and predicts outcomes—and is wrong 90% of the time. It's like the story of the CEO riding in a hot air balloon, who finds that he's lost, so drifts down over a golf course and shouts to a golfer below:

"Hello . . . can you tell me where I am?"

The golfer shouts back. "Yes, you're in a hot air balloon, over the

fifth fairway, 105 yards short of the green."

The CEO, somewhat perplexed, replies. "You must be an accountant?"

The golfer responds. "That's right. How'd you know?"

The CEO smiles. "Because the information you gave me is right and precise, but totally useless to me."

The golfer laughs and shouts. "You must be a CEO?"

"That's right," comes the reply. "How did you guess?"

"Because you don't know where the hell you are, where you're going and you're blaming it on me."

Information is useless unless it helps us navigate, in real time.

Navigating in the 21st century means not relying on predictions and irrelevant, lag-time information, rather being prepared to change, in a nanosecond, by being fast, focused and flexible, which in turn, means being fully informed, knowledgeable, multi-skilled and interconnected. And non-dependent on predicting.

". . . there is a world for about five computers."

Thomas J. Watson, Chairman of IBM, 1943

". . . I don't see a market for the PC in the home."

Ken Olsen, Chairman DEC, 1969

". . . I think 640K ought to be enough for anybody."

Bill Gates, Microsoft, 1981

Most current measuring and reporting systems capture only 15% of the organization's cost drivers. Why? Because old financial and measuring techniques spew out bleached-white, out-dated data that contains no relevant performance measurement value. They only monitor and report (e.g., budgets, forecasts, cost centers, historical and departmental comparisons, etc.) in an attempt to provide predictability, control and cause and effect ratios. Such data has little to do with what is really happening in an organization—daily, in the moment, thinking and decision making. Navigating happens now, in real-time, not when the day-after or week-after data arrives.

While investment in information technology multiplied by 700% between 1962-1990 white-collar productivity flat-lined during the same period.

We must see technology and computers for what they are, enablers and connectors that can become valued assets in the hands and minds of the right people. It's analogous to the navigational charts and GPS (Global Positioning Satellite) when navigating in a storm; if the technology doesn't have the right thoughtware using it then disaster is but a wave or two away.

The organization is a place where information resides and thoughtware is the power that transforms it into navigational know-how, direction and real-time action.

New thoughtware reconfigures the context in which information works and allows people to have unlimited, access to information. This "open panorama" is sometimes referred to by the catchy title, Enterprise Resource Planning (ERP), but ERP is still anachronistic thinking because it tracks information and then produces forecasts when, in fact, things like demand are moving too fast to track and predict. "New and improved" MRP and ERP programs are nothing more than "new and improved" dart boards playing an ever-losing game of catch up. What's needed is for people to have a view of the entire process, not just a piece of it, and be able to continually respond and act—based on instant demand, not forecasts. Give information to everyone. Give it every possibility, every interpretation, every viewpoint; and in return the organization will give unlimited unimagined solutions.

To navigate the chaotic waters of the new century everyone must be looking forward and be operating with the same charts, the same metrics, the same information, the same thoughtware, at the same time. If not, the organization will be buffeted and blown by the winds of change and drift hither and thither.

People who look at the tsunami of information and think, "it can't be done," should get out of the way of those who are doing it.

Chapter 6

A few lies to go with the truths

If we are to emphasize the six "enduring truths" that we have discovered, then we must also highlight a few enduring lies that bind us, or more accurately, bind our organizations—up tight.

Lie #1: Division of labor is efficient

The on-going thought that efficiencies are gained by dividing labor up according to specialization is an old lie, a myth, unwilling to die a natural death. Splitting up the parts is old thoughtware. Knowledge, which transcends all parts, is the new thoughtware because it is the determinant of processes, relationships and the driver of all business. Division of labor is archaic. It puts people in boxes, describes "jobs" and stipulates what you are not to do. Knowledge defies boundaries and allows people to know what to do, now and next.

Perpetrated long enough, even a lie becomes an apparent truth.

The old thought, "It's not my job," must become, "I must do the most important job which is the one not being done yet." Multi-skilling replaces narrow specialization.

Lie #2: Departmentalization is the key

This is a continuing fallacy foisted on us by old thoughtware and misplaced objectives. It's a major barrier to change. It's mired in dealing with the parts, not the whole; when in fact, individuals, teams and continually changing business units run organizations, not departments. Departments are rigid, when what we need is flexibility and structures that facilitate process, form to meet needs and then dissolve when the need is met. New thoughtware is founded in value streams, not departments; in the motivation of people, not departments; in placing information, skills and authority with the people, not departments; and in measuring peoples' performance, not departments'. Departmentalization is irrelevant and cross-functional teams that report to department heads are not fully cross-functional. They're up against a glass ceiling.

Lie #3: Span of control

This is another lie that should die with the demise of bureaucracy. But it persists. Because bureaucracy, control and hierarchy are totally misunderstood. We've designed our organizational hierarchies to carry information and maintain control; we've built them, literally, to the point that there is a horrible misperception that somewhere up the hierarchy there is someone who knows better than the people actually doing the job. Yes, we need some type of hierarchy to manage our resources—it's a natural consequence of employment organizations—but do not confuse hierarchy with bureaucracy and layers and layers and layers. Such layers have buried the fundamental truth called accountability—the clear and direct connection between results and one person. Teams, committees, departments cannot be held accountable, nor should they be. Accountability always rests with an individual—the boss, the team leader, the manager, the manager's manager, the vice-president, the chief executive. And it should never be hidden between, behind or under the layers, even though it usually is. Amid the vast spans of control we have created there is a profusion of ducking, dogging, hiding and blaming. This lack of unequivocal accountability undermines individuality, productivity and innovation.

New thoughtware replaces the concept of span of control with accountability and time to action; whereby, time is the key resource to be maximized and accountability sits clearly in the open where it should be—for all to see. From this comes focus, speed, flexibility, clarity, performance and commensurate reward. As well, the removal of barriers and "white space" allows for information abundance and speed, which accelerates time to action. It culminates in more value creation and a greater competitive advantage.

Lie #4: Point of authority

There's nothing wrong with authority, as long as it's in the right place. Therein lies the rub. Authority has been someplace up the organization and any effort to get it down from such lofty heights is akin to declaring war. Old thoughtware won't relinquish it because it believes in the illusion that authority assigns control. Wrong thought.

As information moves into every corner of the organization authority must move with it. New thoughtware knows that authority, along with skills and information, must be at the point of decision, which should be at the point of occurrence. When it is, the organization responds to the needs, not the structure and there's no confusion over where the accountability lies. If it isn't where it should be, then all organizational change falls apart at the point of authority. And in the 21st century that point is farther downstream than it has ever been and e-commerce is driving it to the outer boundaries, face-to-face with the customer.



There are more myths and lies, but these will suffice for now. The point is made. These ingrained

myths are the ingredients of old thoughtware, the gravel pit from which we extract so many false assumptions and misperceptions. All of which must be dumped before we can achieve order of magnitude change.

Chapter 7

What if?

I was to learn later in life that we tend to meet any new situation by reorganizing; and a wonderful method it can be for creating an illusion of progress while producing confusion, inefficiency and demoralization.

Petronius Arbiter 66 A.D.

What if we re-think the context of our business without trashing all of the tools and techniques? What if we don't reorganize (again)—because that's only dealing with the past or present, not the future? What if we don't bring in another new technique—because it will only be constructed on old thoughtware? What if we don't fixate on current structure—because structural change follows thoughtware change? What if we stop with "continuous improvement" and think about "discontinuous improvement?"

Let's embrace the core, enduring truths as lessons learned, up-root the deep-seated lies and install new thoughtware.

Every thinker puts some portion of an apparently stable environment in peril.

John Dewey

New thoughtware does dictate a crusade of rip and wrench. Neither is it laissez-faire. Rather, it takes into full account what is, and marries it to what has to be and begins to generate a new and different context.

Don't change the organization. Change the thoughtware and the organization will change itself.

Chapter 8

EnACTment

Notice that we don't talk about "implementation." The reason is because implementation is not a systematic, mechanized vehicle designed to introduce programs and produce change. It is not a cause of change. No, it is a result. The change comes first. Actually, the thought comes first and as the thought is acted upon implementation occurs. We like to use the term "enactment" because it is not a separate function or an after-the-fact undertaking programmed to carry out programs. It is part and parcel of the thinking and we engage in it immediately, naturally. Implementation is not a special train to the future onto which we keep hooking boxcars of programs. Rather, we see it as a state of mind that constantly allows the enactment of new thought and is always changing the action of the organization—the flow, the flexibility, the shape, the speed, the response.

The whole of science is nothing more than a refinement of everyday thinking.

Albert Einstein

The seamless flow of thoughts and action (enactment) is the well-spring of innovation and speed, the essence of the new century's mandate. And the new mandate carries with it the imperative of growth. Not change for change sake, but growth rising out of new thinking and new direction.

Don't think change, think growth. Change does not always bring growth, but growth always brings change.

Chapter 9

Why not?

We have found new thoughtware to be indigenous to any organization and capable of being catalyzed at any level. It is not bound by existing learning or constrained by time. It grows naturally, just by being exposed. It takes what is and moves it to what can be, simply by seeing a new context.

New thoughtware allows people to create a platform on which the process of change grows and the rebuilding of the organization renews and compounds itself—as a natural corollary of the peoples' thinking and interaction.

It's no longer a question of "can't." With limitless information and the proliferation of knowledge we don't have to think, "I can't;" simply think, "I don't know how, yet."

It is by logic that we prove, but by intuition that we invent.

Henri Poincaré

Chapter 10

Think about it!

**You are today where your thoughts have brought you;
You will be tomorrow, where your thoughts will take you.**

James Allen

Thought is the ancestor of all action. People's thinking is the basis for everything they do and all behavior is rooted in thought. The sum of peoples' thinking and their collective interaction is the master-mind of the organization's performance and its ability to handle the future. We believe thoughtware is the crucible from which organizational growth flows and through the process of changing thoughtware we automatically engage new action that irrevocably changes the organization.

**The universe begins to look
more like a great thought
than a great machine.**

James Jean, astronomer, 1930

This process of exploring new thoughtware is, in-and-onto-itself, a fascinating dialogue that shatters entrenched beliefs, dissolves perennial problems and exposes new opportunities. It creates new enactment, not to mention a solid starting point from which to prepare for the uncertainty of the future. It is not an unequivocal answer, but it is a world of thought on 21st century organizations and how we might create a new framework, a new place from which we have a chance to get to the future. It's worth discovering. It's worth thinking about. And since thought is action it's not difficult to get started. There are a few principles of new thoughtware and any number of concrete, pragmatic methods for kick-starting the process. In fact, we've written another booklet called Getting



Started. If you'd like a copy just send us a fax or e-mail.

Thoughtware is a process that enables us to learn to see the reality. And only when we see reality can we begin to change it.

Are you interested in exploring some more? Sharing some thoughts? Trying your own thoughts on for size? Pursuing new questions? Looking through a different window? Opening new doors? We always look forward to exchanging thoughts—after all, we've been thinking about this for a longtime. If so, gives us a call, fire off an e-mail, visit our websites, buy our book, Thoughtware, or book us for a talk—we can fill a room with new thoughtware.

Let us leave you with a few catalysts or principles of new thoughtware:

- 1) Don't think, "can't." Think, "I just don't know how, yet."
- 2) Don't think continuous improvement, think discontinuous improvement.
- 3) Don't think of technology as a competitive advantage. It's a commodity that can be acquired by any one.
- 4) Don't think change, think growth. Change does not always bring growth, but growth always brings change.
- 5) Do differently, don't do more of the same.
- 6) Don't ask, "Is something necessary?" Ask, "Is it adding value?"
- 7) Don't think only of competitive advantage, think co-dependent advantage.
- 8) Think of time as the most important resource, not money.
- 9) Think and invest in customer capital, human capital and process capital.
- 10) Think navigation, not evaluation

About the Authors

Philip Kirby is a preeminent thinker in organizational design and socio-technical systems of organizational behavior. He is at the forefront of his profession, a leading authority in organizational design and a sought after international consultant and speaker. His study of social dimensions and their interconnectedness with the technical dimensions of organizational growth has led to the evolution and founding of the theory of thoughtware. He has developed and applied this vanguard of thinking since the 1980s and today counsels companies around the world on the understanding and installation of new thoughtware. Based on his discoveries, he even changed the name of his company to Organization Thoughtware International Inc. Philip has a B.A. degree from Concordia University, Montreal and a masters degree from York University, Toronto. He has, co-authored with David Hughes, *Thoughtware: Change the Thinking and the Organization Will Change Itself* (published August 1997) and *The Future. You Can't Get There From Here*.

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