

Chapter 9: Continuous Improvement

If I'd asked my customers what they wanted, they'd have said a faster horse

-Henry Ford

This chapter is written as if you were in an endless muddle's middle; as such it is in dire need of some improvement, continuous or otherwise. No matter which way you go, you're always bound to find yourself muddling about. I think that the only way to get something out of this is to jump up wherever you are and survey your predicament.

There are two secrets to Continuous Improvement: the simpler one is that it is a marathon and not a sprint. The other is, "Always ask yet another time." When the two secrets converge, you're in the free space just above the muddle.

Over and above the cynicism of the previous chapter, and grant me the reality that it conveys, this chapter is a direct contradiction to it. Continuous Improvement is the elephant that hides in plain sight. I'm sure that anyone looking at the innards of the latest incarnation of your favorite continuous improvement methodology would quickly identify some or all of the things that make up that particular variant. "Get on board now and get on the journey to success and ticker tape parades," – you might see the same old elephant from the last time around.

Continuous Improvement has at its core, only this:

1. Plan
2. Do
3. Check
4. Act

There, I've said it all. There's nothing complicated about it but perhaps the minds enthralled with latest technobabble are simply unable to get beyond its simplicity. Or is it merely that following this cycle does not precipitate the ethereal quality of job well done against all the odds? Perhaps, this unflattering set of steps is for the gamma male or female while their betters are out there saving the firm, the world or whatever.

Returning to Continuous Improvement for the moment, I left out something of significance in the above list. So here it is again,

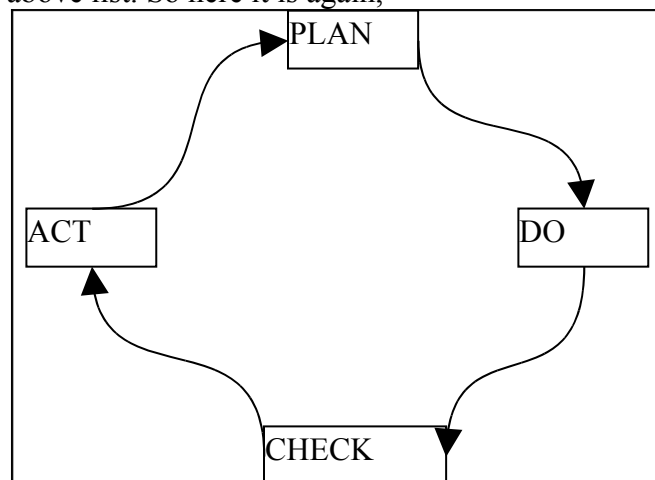


Figure 1. Deming-Shewhart Wheel for Continuous Process Improvement.

As you may have very well figured out, I left out the repetitive nature of this cycle of improving processes. What the PDCA cycle represents is a four step excursion into never-stopping land. While there is much to be said about starting at the PLAN step, you are certainly free to start at the CHECK step as in checking the state of affairs right now.

How is it then that with every passing CEO or COO, one finds yet another elephant in the room, hiding in plain sight – so many elephants that one can only conclude that we're blind or stupid or both? If you cared to look close enough, one would find that it was the same elephant that had only turned about, presumably out of utter boredom.

So why is the elephant bored? Better yet, why is it still there?

I wonder if it is not the homage we pay to those few amongst us who have actually dared to ride the elephant? Now, riding an elephant is no easy task and surely everyone should know that. But since someone has already played the practical joke of smuggling an elephant into the room, we might have a go at riding that elephant somehow, for some reason and sometimes even with the blessings of the upper management.

Now, some suggest this novel notion that having upper management drive continuous improvement is the secret to it all - the mahout's only trick. To which I can only respond, they don't know much about the life of the mahout.

You might hear the refrain, accidentally spilt as it were, even while gingerly side-stepping the elephant in the room – “In order for Continuous Improvement to take root within the four walls, the effort needs to wrap its roots firmly around the internal vines of the firm, the grapevine included.” Nothing could be closer to being furthest from the truth. I cannot explain this except by way of reiterating that the previous assertion is on the face of itself completely true but its untruth lies in the fact that it is in the active form. What I'm trying to say is that were a successful continuous improvement effort to take root at a firm, it should not be surprising to find that it has become one among the chief flint stones that are struck to keep the fire going, er..., firm rising to every challenge. Furthermore, it would be easily evident that it has indeed taken hold within a large body of the firm's internal vines. But this is not the same as seizing many of the internal vines of the firm as a prerequisite to getting started with continuous improvement.

For the purposes of alliteration (and my betters would pronounce - obfuscation), the internal vines of the firm will be henceforth called grape-veins. And so it is that both grape-veins and grapevines are to be summoned for this hand wringing task of implementing continuous improvement. And so begins the tearing up of very many things, the upsetting of many apple carts that carried nothing of the sort, the firing of the left out and the moaning of the left behind. If any good were to come out of this, one ought to be forgiven for thinking that it might just have been pure frickin' magic. Duplicate this gambit? Only if you were out of your mind. Silver bullets?

Yet, something stands out in the attempt to get at both the grape-vein and grapevine in order to turn a firm towards continuous improvement. There are numerous examples of this sort – Toyota in its immediate post WWII days, Pella Corp in the early 90's and so on. Poised at precipices, changes are easier to push through – it is possible to clutch both

grape-vein and grapevine at the same time and then put them on the path to continuous improvement. In other words, dire straits allow us to refocus and recalibrate the point of it all – we're forced to confront salient truths and more importantly feel our way through them. Does this mean that one has to wait until the straits are indeed dire before embarking on any sort of sustainable continuous improvement program? Surely not! Before we get to the spirit of continuous improvement, let's get back over the fence to the "yellowsome" grass where most of us do live and work.

Some would naturally point to the extraordinary discipline or regimented cultural factors that contribute to the success of continuous improvement; factors which could not possibly take root, let alone flourish in our own climes. The wonderful thing about exceptions is that they limit the power of generalizations. So what do they make of the few companies amongst themselves that are making steady strides in reworking their organizations through continuous improvement? Freaks of nature, I suppose. The truth is that these exceptions are probably better explained as freaks of habit.

That brings me to my next point – habit. We're creatures of habits whether we realize it or not, better for the realization than not. In my opinion, the collective expression of habits within a firm creates and recreates its culture continually; the habits of the powerful derive conformance, the habits of the majority deliver performance.

While there is nothing permanent or fixed about a firm's culture, like all cultural artifacts, it is more susceptible to ruin than rejuvenation, easily destroyed from a singular vantage but haphazardly and continuously created by the plurality. We all desire singular vantages in order to drive continuous improvement but I believe over and above that desire, the larger question is about the plurality whose habits impact performance and create (and continually recreate) the culture of the firm.

Another thread, all too common, that I've often noticed in addressing the plurality, in getting them to play along, is its literality – communication.

While the grapevine may be the communicative bypass within the firm, the unsaid words that actions communicate ought are as powerful if not more so. As the old adage goes, "Actions speak louder than words." In my varied experience, while the grapevine sends out signals, actions that follow them either confirm the chatter decisively or trigger interpretations of the action itself. Research conducted about the grapevine and its efficacy indicates "that in normal business situations between 75 percent and 95 percent of the grapevine information is correct."¹ Sometimes, you'd wish that your demand forecast were that good. In the age of Twitter™, you can be sure that the grapevine has been upgraded with a turbocharger.

So then imagine the situation where one tries to introduce the habit of continuous improvement within an organization that has a grapevine reinforced by actions that belies the official line, the plural culture creators and re-creators determined to send the elephant straight to the middle of the room turning the poor animal white.

So in order to overcome this apparent gap between the firm's mouth and head, firms often take the unprecedented step of communicating better. Were the animating feature of this better communication to address the gap itself, we might have found ourselves

¹ As cited by Jitendra Mishra in Excerpts from Managing the grapevine, from Keith Davis, "Grapevine Communication Among Lower and Middle Managers," *Personnel Journal*, April, 1969, p. 272. Also *The Care and Cultivation of the Corporate Grapevine*, *Management Review* 62, October, 1973

nudged towards begrudging approval, even willing to stake our future upon it. But no, in a majority of cases, we don't have to even remotely consider that for it is the same old wine in new wineskins. The entirely predictable reaction here is to play along half-heartedly while working on some silver bullet technology or process that has always guaranteed good visibility, especially if it adds some tangible value to the firm's bottom line.

Continuous improvement is meant to be a habit; zealots would go further and suggest that it is meant to be an addiction – something akin to a second nature that manages to come first. Speaking out of both sides of one's mouth, vacillating at important junctures, slipping back to the old ways for one more quick silver bullet send an unmistakable signal that the individual or the firm is not serious about continuous improvement, at least not when it really mattered.

How far have I meandered from the essential simplicity of PDCA? Quite far, wouldn't you say? I started with the essential simplicity of the activity of continuous improvement and I landed in the quicksand of why it keeps failing. So let's separate some of the obvious:

The aim of Continuous Improvement: The central aim of continuous improvement can be stated as: **If not eliminating, reducing waste**. This central aim is bounded by context. What context? There are two aspects of context:

Waste

Elimination, reduction and the like evoke destruction as their archetype and as far as aims go, this is quite different from the "Be positive" or "Empower employees" sort of aims that one can easily find littered by the many corporate boardrooms and war rooms of the world. As you may very well imagine, one easily finds the activities of some other person, group, division or some other grouping quite wasteful. So, it is only natural to ask: What is waste?

"Waste is anything that the customer would balk at paying for."

And,

What are the common kinds of waste? From the manufacturing perspective, there are seven forms of waste²:

1. Overproduction
2. Transportation
3. Unnecessary Inventory
4. Inappropriate Processing
5. Waiting
6. Excess Motion
7. Defects

An eighth waste is often added to this list which is the underutilization or ineffective application of human creativity. This understanding of waste gives us one part of the context. But perhaps, you're not a manufacturing concern at all – what then?

Now, we avail for ourselves a ready made formula for your specific and convoluted concern, er, firm.

Step 1. Develop detailed flow charts of every process under your nose. For once in your life, be thorough. Spare no expense, leave no one untouched... you get the picture.

² The Seven types of waste as defined by Taiichi Ohno in "The Toyota Production System: Aiming to Manage Free from Economies of Scale"

Step 2. Lay out flow charts on a big table. You should be able to see every process clearly. Get a bigger table if you must and bigger eyes if you can. Bigger is always better.

Step 3. Lay your hand on the flow charts in an attempt to cover all processes with your hand. Use your right hand if you're left handed. If you're right handed, well, I suppose you could use your right hand even then.

Step 4. Ask a disinterested party to drop a log on your hand.

Step 5. Get help or get serious.

Or you could skip to Step 5 right away.

Your particular concern, as complex and convoluted as it may be, is within your sphere of observation and control. You know very well that there is waste being created left, right and center. If you looked behind, you'd see the waste created by yours truly.

As stated above, Waste is:

“Waste is anything that the customer would balk at paying for.”

If you picked out one of your products from the beginning to the point at which it is bought by a customer whether it begins and/or ends overseas or stateside, whether your product is a toaster or a mortgage application, whether it needs ten or a thousand individuals to see it through from end to end, and laid out each and every step as well as the time taken at and before each step all for the village idiot, what would he say? Or what would she say?

“Now, why would you do all that for a toaster?” or better still, “I get all this for \$12.99 – now, that's quite a show.”

While this might appeal as a theater of the absurd, it is in the least absurd if you could provide good reasons for why a customer ought to be paying for each of the steps. But if you can't, then you would have supplied only silent subtraction to your profit margins, every second of silence nicks off another cent or so.

Or take an ordinary day in the life of a cog in the system:

Sitting right in your office amidst print outs of excel sheets with all sorts of mind numbing calculations, you ask yourself, what does “Transportation waste” have to do with me? And you'd be quite right – absolutely nothing. A forklift may transport work in process halfway across a manufacturing floor to get to the next machining step – this is transportation waste. Well scratch that and let's get right to scanning those mind numbing calculations again. After a while you realize that this makes no sense. Alright, zip it up, attach to an email and send it to the analyst in Minneapolis. One hour passes and no response. Call her up – Voicemail. Hmmm!! Another email stressing the urgency of the calculations. Another hour and then a one liner response: Will get to it in the afternoon. Pffft!!

Meanwhile, you have shifted to some other report or presentation that is due by the end of the week about logistics options. In the afternoon, the analyst returns the spreadsheet with explanations on what the calculations are and “Oh! by the way, I discovered a trifling error in another part of the spreadsheet while I was checking” which gives you some pause because you thought you understood that part very well. Another round of emails follow which leads to a teleconference and by the next afternoon, you're ready to take another crack at the spreadsheet with new eyes, new math and most importantly new understanding. “Where is the waste?” you ask yourself at the end of the day, “Continuous

Improvement is a whole load of #*\$&”. Fine by me if you think there is no transportation waste but the very idea that there is a dearth of waste should give you pause as what I’ve described above is but an average work day.

Value

The other aspect of the context is about value. The creation and transformation of value within the firm is the true activity of the firm. But what is value? Well, I’m sorry to say, value doesn’t exist in and of itself. Not as some known quantity in any sense.

Instead, consider the proposition that value as such is either interpreted or realized inter-subjectively. By this I mean that interpretation of value is what you’re getting at when you ask customers for their own understanding of the value of the product or service. Value is a lot like meaning minus a handy lexicon. Realization of value is a sort of in-hindsight recognition of what is intangible, what cannot be verbally expressed though one may also grasp at this in leaps of understanding. Much of the above verbiage can be boiled down to two questions – the former can be expressed as “What does the customer want?” and the latter can be expressed as “What could the customer want?” You may run that through multiple focus groups, therapies or what have you and you’ll come up with something that is described below.

Consider then the resultant of the proposition of value:

1. In some cases the customer knows what he wants and thus can express value as it means to him in some form or the other
2. In other cases the customer may not know what he wants but he would want it if he were shown something along the lines that of what he would have known that he wanted all along if he only knew it.

The first resultant is a matter of process, of cultivating and ingraining a sort of curiosity about what the customers’ understanding of value. The second resultant can only be realized with practice, through grasping and iterating continuously – a continual experiment with the customer. Some might call that fun with the customer – costly fun; costly to get right and even costlier to get wrong.

In conclusion, a clear understanding of value and waste provides an accurate context within which continuous improvement can take root. You could, for instance, bring these two contexts together in what is sometimes referred to as a Value stream but for now forget that such a term exists. When you’ve sufficiently gone down the path of uncovering waste and discerning value, you begin to share with your fellow travelers good ideas about how to put them together. You may even find some best practices about how to go about it. Then, build from there both in terms of finding new waypoints as well as adapting the successes of others to your peculiar situation.

The What of Continuous Improvement: There is no dearth of tools that aid the practice of continuous improvement. One could take up reams of space differentiating and elaborating the various methods and techniques. I would suggest *The Memory Jogger II* by Michael Brassard as a good reference for a set of valuable tools which are well explained³. Yet, if you have acquired a hoe for digging up the ground, it cannot be of much use without some purpose. So this question is twofold:

³ [The Memory Jogger II](#) by Michael Brassard

1. What to use?
2. What to use it for?

What to use it for?

The second question must be answered first because it really is a topsy-turvy, left-right and all about kind of world. Or, I have made it so. The answer follows from the aim of continuous improvement – find, understand and remove waste iteratively but relentlessly. Ah, that is well and good. But the funny thing is that it is quite the description of activity much like huffing and puffing. Well, all this huffing and puffing is really towards uncovering value along the lines described in the previous section – value which in some cases can be ascertained by involving the customer intimately and in other cases needs to be uncovered iteratively and through experimentation.

Now, some of the firms and individuals who have blazed a path before us hint (Not really, cause they're practically screaming it aloud) that if value is a customer's secret that ought to be unearthed and answered, then one possible way of providing a worthy answer is to examine every activity that goes into creating this value and chip away at everything that holds back or detracts from this value creation. Some firms have adopted an explicit connection in order to realize this intangible connection between the customer and the process in terms of value. They create this explicit connection in terms of identified and grouped activities, coordinated and cross trained workers, integrated quality and highly repeatable processes while continually finding ways to improve all of these aspects. Now to claim that this is the only way or the right way to go about aligning a customer's appreciation of value and a firm's creation and delivery of that said value would be shortsighted. Perhaps, there are some surprising benefits of a truly chaotic working environment over and beyond the elevated blood pressure. Whatever your cup of tea, continuous improvement tools are very good at eliciting participation, measuring and providing insight into the current state, identifying causes and problem areas etc. But let us be clear about what these tools are for – uncovering value and eliminating, if not reducing waste.

What to use?

The array of tools available for continuous improvement is like the spread at a buffet – come hungry and leave hungrier – at least that should be the point of this buffet. As you can tell, it's a different sort of buffet. So let me just lay out the table from starters to main course to the all important hangover.

For starters, you could try *Cause and Effect* or *Pareto Diagrams* or *Fishbone Diagrams*. Then, you could work your way to *Value Stream* (there's that sneaky word again) or *Kanban* or *Pull based systems* in small increments. And for the hangover, you could choose from *Variation Reduction techniques* or *Design of Experiments*.

A good reference for lean tools within the context of an enterprise would be *The Lean Extended Enterprise* by Terrence Burton and Steven Boeder.⁴ I like this reference because it involves the use of this spread of tools across the enterprise (and extended enterprise) and tries to give a system wide picture of how these tools ought to be used.

⁴ [The Lean Extended Enterprise](#), Chapter 2: Methodologies, Tools and Enabling Practices by Terrence T. Burton and Steven M. Boeder.

There is another way to look at the total picture of continuous improvement as well. This goes back to the 20 Keys to Workplace Improvement⁵ as published by Iwao Kobayashi which is reproduced as an excerpt at Wiley.com.

But there is a tool that stands behind all other tools that one can acquire and purposing this tool is just as important. That tool is one's head and in any given room, process or culture, there are many of them on different frequencies for different reasons at any given time. No diagram, no calculation or spreadsheet, no index cards or memo quite comes close to the disconnected, distributed collection of heads that are faced with a problem and are directed to take a structured problem solving approach. The tool that stands before all the tools is the one that needs sharpening. At your own leisure you may acquaint yourself with the articulated aspects of the Affinity diagram and discover the unarticulated warnings of using it in practice quietly. But who sharpens the tool that will need to use the continuous improvement tools? Training? You invite a consultant or a master black belt or someone like that? Well, the only answer that I could possibly give you is based on a question that has already been answered for you. "What's your budget like?" And you already know the answer to this.

In other words, the essential simplicity of the matter at hand is unquestionable. It's the subtlety that requires illumination, it's the planting of courage to clamber on the elephant that requires digging and it's the space to experiment and iterate that needs defending. There is much that a trainer or master can impart (and thus the question of the budget) but you just need curious minds to share this journey of discovery with more questions than answers, with more honesty than a cover for ignorance and with more courage than the current culture would happen to allow (perhaps only because it didn't know any better if such a thing is really known).

The How of Continuous Improvement:

The master: Just knows.

The student: Just No's.

We're not in kindergarten where in the teacher knows and the child knows no better and perhaps cares even less. We're all grown up now and the line between those who know, those who don't know, those who know that they don't know and those who don't know that they don't know is far subtler and can be ascertained only through interactions at hand and a good dose of skepticism.

What the master knows (at least as far as continuous improvement is concerned) is not the esoteric but the situation between the simple concept and the disharmonious canter of those who need to train themselves in these techniques.

Beyond the training in these tools, those tasked with continuous improvement have the delicate task of inserting themselves into processes owned by others (or themselves) and finding ways to iteratively reduce and eliminate waste.

The Where of Continuous Improvement:

Often, it is surmised that the biggest bang for the buck is the right way to get started. As beauty is in the eyes of the beholder, so is the biggest bang for the buck, the right bang

⁵ [20 Keys to Workplace Improvement](#) by Iwao Kobayashi excerpted in Chapter 1: Continuous Improvement.

for the penny or the quick bang on credit. Is it the buck that keeps on rolling in or is the buck that is seen once and seen no more? Is it a bang and then silence? Or should one set off a thousand bangs all at once and hope for the best? Does it matter which way is chosen at all? In my opinion, it doesn't matter as much whether you produce a quick win or a spectacular improvement but it does matter whether those that planned, did, checked and acted on the solution are able to continue that process going forward. The big problem with low hanging fruit is that they were low hanging to begin with. Successes will be soon forgotten but the question really is whether it is because of further successes or because the process petered out. What is absolutely necessary are successors to the first teams, successors who will follow in their footsteps, learn and use the same tools and methods and continue this process. A 5% improvement in whatever critical metric that figured a sustainable continuous improvement journey is in my opinion more important in the long run than a 50% improvement in some other critical metric that did not accomplish this same result. Or simply put, we're not after a mind blowing improvement that happens one time but rather after the additive addition to incremental improvement on an ongoing basis; the process is to be continuous and delivering improvements iteratively. There is also much prudence in this approach as proceeding iteratively reduces the risks on adjoining and interacting processes as well.

The Why of Continuous Improvement: Save the best for last. This question is probably the most important question to answer, to answer first and foremost. The reason I love an upside down world is that as you try to navigate it, you simply have to revisit the frame of reference again and again to reorient yourself. Every time you revisit the frame of reference is one more opportunity to assess important aspects of the content.

This is the one question to which the input from your favorite continuous improvement consultant or PR firm is best set aside unless of course they have something that taps a deep vein of truth about your particular situation and/or about your firm. My personal favorite has always been humble pie straight from the rarefied suites; I can dream, can't I?

Short of that, just a simple, "We fucked up. I take full responsibility for that. Let's turn this thing around. Here's why..." would do just as well. But please put that in English. You can say it any way you like it, sugar coat it if you cannot deal with the appalling place where you find yourself but it should translate as above; its basic structure should contain – recognition of the issue, acknowledgement of responsibility, exhortation to improve and purposing with the all important – "Why?".

The "Why" answers that one can come up with is reducible or transformable to this quantity: Time. See everybody gets about twenty four hours a day – the paraplegic and the athlete, the bus driver and the astronaut, the teacher and the soldier... the manager and the worker.

So quit wasting my time alright.

That's it. This is one of the most fundamental aspects of human relationships – If you valued another, respected another, cared for another, then wasting their time is the one thing you cannot do because it betrays everything you profess. For any business, wasting a customer's time, the one thing he cannot really afford to lose is simply one of the worst things that you can do for him, to him. Give him a defective product and entangle him in

the outsourced web of the help desk or the netherworld of customer service is just another way of compounding one's error in producing a defective product by actually making it a time wasting effort on the customer's part. So again, in distillate, quit wasting my precious time. That's why you need continuous improvement. And if managers cannot or do not understand this, then the correct way to begin continuous improvement might be to take continuous improvement to them.

At this point, I hope I have explained to some extent the sort of thinking that underlies continuous improvement but I must confess that this is my understanding of it. If you're serious about continuous improvement, not as an event, but as an approach then this is but a starting point. You would be very well advised to leave behind the continuous improvement consultants and professors and make a beeline to the masters and practitioners.

So what have we so far?

So far, I advertised the simplicity of the PDCA cycle which is Plan – Do – Check – Act cycle which as you might have gathered from the subsequent muddling must sound like truth in advertising. Is it? Let's be honest with ourselves – if you've been acting on this cycle and you've gone nowhere, is it false advertisement? Or perhaps, there is some other issue that is getting in the way?

Next, I meandered into why continuous improvement efforts keep jumping tracks. Upper management expectations? Grapevine tricks and grape-vein treats? Next, I wallowed in the cultural whirlpool of the firm and how we all desire vantage points to drive continuous improvement home like a battering ram? Then, I tried to put all this meandering together in a hypothetical to see what would come out of that. Would that look like a majority of the failures with continuous improvement that we observe?

Quite fed up with this line which got me nowhere, I said to myself, what if I separate the obvious stuff – the frames of reference, the aims, tools and purposes from the other nebulous stuff? And if you're sure that your obvious stuff is accounted for, largely, to some degree, to some respectable degree, then you can do something about the nebulous stuff. Perhaps, we get fabulous at the end of this iteration.

And so here we are, the obvious stuff is out of the way and now we get to deal with the nebulous stuff.

In the great scheme of things, you could have one of two histories – one in which you're only beginning the process of continuous improvement and one in which you've done something and you've gotten to that place called nowhere that calls itself somewhere. If you have some other history and you're reading this section, please take a few precious minutes and send me a note about how your experience has been getting past this point in your journey.

For the others, now is the critical time to lose faith. Or regain it. In what, you may ask? In a guiding philosophy of work, be it manufacturing work, or supply chain work or something else. Such philosophies or fragments thereof can be found coursing through corner offices and cubicles, shop floors and break rooms but their finest hours are reserved for meeting rooms. Wherever you may find them, this much is true that these philosophies, coherent or otherwise, mostly hidden, understood and misunderstood create

a boundary for continuous improvement efforts. Furthermore, you could find yourself past that boundary even before you've taken your first step.

For example, you could, hypothetically be, probably are, almost likely and surely are part of a firm that is constantly adopting first and adapting later to the latest techno wizardry. Under such a spell, continuous improvement is likely to be a very difficult endeavor as we're all awaiting another techno-sophistication that is about to radically changes the way things are done. Rather than adapting technology to the process, the process is altered by and for the technology or the next version thereof; people play catch up.

This story has an underlying philosophy or some fragments of it: Escape from the current ditch by some technological leap; those who can make the leap make it and those who cannot wither away. But things are not that straightforward with us humans; we just go about creating some work, more work just to keep on working. If the idea here is to reduce waste, we're far from it. Instead, waste is created and sustained in many forms very neatly hidden from oversight.

The introduction of the latest technology is usually premised on ROI (Return on Investment), I would offer that COW (Creation Of Waste) should also figure into it – something that clearly subtracts from the expected ROI but remains hidden. Waste in this context is like hidden drag that rises with every ramp up to deployment and then finally acquires a life of its own. But going back to COW, how does one suggest a qualitative subtraction from a quantitative determination? This is the ground where science and art meet, meet indeterminacy – so often one goes to rules of thumb except that this is also where one discovers that those neat calculations that suggest a quantitative basis are only the quantification of qualitative expectations of the success of a project. While a calculation of COW is probably impossible, a necessary and qualitative heuristic of the following form ought to be kept in mind: Whether it is the technology that extends the reach of the people or whether it would be the people itself mired by the technology should be determined.

So what is the reigning philosophy in your meeting rooms, the unsaid powerful thing that interrogates your work and binds you? Is this reigning philosophy or if you're in the average workplace (and who isn't?) reigning mishmash of philosophies worth believing in? Is it worth your incalculably precious time to adhere to a guiding light that is perhaps atop a bucking bronco of immediate change or six feet under the quicksand but still emitting an eerie glow from under?

Continuous Improvement is a philosophy as well – it is a lesser philosophy. It is a lesser philosophy because it is subordinate to another one, that which is greater. And as such imprints of a greater philosophy will be found in a lesser one because the latter derives key elements of itself from the former. So then, what is the chance that adopting continuous improvement in an environment ruled by a philosophy antithetical to it would ever succeed?

So rather than ask whether you've had histories leading up to this point and everyone does have one, the more appropriate and searching question is what philosophies have you leading up to this point?

To go from a greater philosophy to a lesser one is an easier task than going from a lesser to a greater one. What tools have you to accomplish this piece of reverse philosophizing? Today, we have the benefit of learning from the examples of those firms who have

succeeded at continuous improvement and, the assumption and method of natural science.

The examples of those firms that have succeeded at continuous improvement are splattered everywhere and so are accounts of their journeys; The Toyota Way⁶ comes to mind as an exploration into Toyota's journey. A good exploration of the philosophical as well as foundational underpinnings of Toyota's journey is available in that account and you would be very well advised to acquire it. Since we're attempting to get at the philosophical attitude of such firms, I would draw a distinction between the plethora of books that cover the tools and methods of continuous improvement and the framework that stands behind these tools. We're not talking about acquiring tools and methods as much as inquiring into the purpose of the pulse in the hand that holds these tools. The two pillars of the Toyota Way⁷:

1. Respect for People
 - a. Respect
 - b. Teamwork
2. Continuous Improvement
 - a. Challenge
 - b. Improvement
 - c. Genchi Gembutsu (Go to the source)

But the house that Toyota has built began with breathing life into the activities that take place under these pillars. Any firm can verbalize, articulate or make into policy these two philosophies; many adorn the walls of their board rooms and war rooms with precisely these kinds of sayings. These demonstrations are like eulogies and epitaphs – pious mutterings for the dead.

How do you breathe life into mere words? How do such words acquire a creative life and power of their own such that in time it is obvious to an outside observer that these words have life – they're everywhere in essence but are not in any one person?

Words come to life through action, through doing and being seen doing. There is nothing magical about this because it is the life of the process and its character that one is describing with words. This is a way of saying that words have changed from being a prescription for things to becoming a description of things. When one hangs those words on a wall, they are but a prescription. When actions can be described using those words, they have become a description.

It is for the doing that one requires the tools and doing within the boundaries specified by these two philosophies the greater of which is "Respect for people" and the lesser of which is "Continuous Improvement".

Before you scroll up and review the section on Continuous Improvement tools, a general guide to the task of continuous improvement ought to be made clear. As a general guide, the remarkably successful study of natural science offers some pointers.

The central assumption of natural science is the presence of underlying and discernible principles. The method of natural science in uncovering these principles is to hypothesize, test and interpret in a community in two main modes: disproving the efficacy of the hypothesis in interpreting the observation or affirming the non-

⁶ [The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer](#) by Jeffrey K. Liker.

⁷ The two pillars of the Toyota Way as recounted by Bob Emiliani in the Toyota Half-Way online at <http://www.superfactory.com/articles/featured/2009/0906-emiliani-toyota-half-way.html>

falsification of an existing hypothesis with yet another experiment. As an overarching framework for continuous improvement, you would be hard pressed to find a better model.

What you might find stunning about those who succeed at continuous improvement is the steady acquisition by everyone of a reliable faith in the observational and correcting power of the plurality multiplied iteratively and relentlessly. What you should find equally worthy is the cultivation by the management of an environment where such an enterprise can succeed.

And so we come back to the great white elephant in the room. What to do now? To ride the elephant, you have to first find the elephant, get on the good side of the mahout (better yet, allow the mahout to guide and direct you), approach gently but surely, speak to him and ask him if he'd take you on, see if he bends down and lets you clamber on, situate yourself just behind his head with legs tucked behind his ears. And for God's sake, listen to the mahout – his elephant but your life. Or you could call in a pachydermologist or better yet, a hunter, and talk about riding an elephant. The latter is very thrilling, I am told.

I'll end this chapter on this note: Now hurry up and slow down, stop creating waste and quit wasting the customer's time.