

# TWO GREAT WASTES IN ORGANIZATIONS

A Typology for Addressing the  
Concern for the Underutilization of Human Potential

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## ABSTRACT

The Toyota Production System is so successful that people look for ways to apply the lean production ideas and methods in organization settings. One of those ways is the force-fitting of Engineer Taiichi Ohno's *seven wastes* to organizations and projects. While organizations and projects manipulate materiel, they are better characterized by their actions of accomplishing something together – coordinating action, learning, and innovating. The seven wastes don't address those actions. Attempts to add to the seven wastes have to date broken the Ohno taxonomy. The authors propose a novel set of distinctions on the principal sources of waste in organizational settings.

## KEY WORDS

Leadership, project management, and lean construction.

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## TINKERING WITH A TAXONOMY

If you take a look at the *seven wastes*<sup>3</sup> [Ohno 1988] you'll notice they all have to do with non-value adding actions through a material value stream. There is quite the disagreement among those naming an 8th waste. More recently, additional forms of waste have been identified. Womack and Jones proposed the eighth to be, “the design of goods and services that don't meet the users' needs.” [Womack & Jones 1996] The authors elaborated on wastes in the revised edition of their book. They now speak of the wastes of the “underutilization of employees.” [Womack & Jones 2003] Womack and Jones have also been credited with “complexity” as an eighth waste. We have found other proposed eighth wastes.<sup>4</sup> And people are not done building out the Ohno taxonomy. In this IGLC conference, a new eighth waste is proposed by Lauri Koskela. He calls it *making do*. [Koskela 2004]

We've lost track of who first said “providing something the customer doesn't value” as an eighth waste. What we like about that waste is its fit with Ohno's typology. That definition allows people to keep their attention on the customer as they make changes to the material value stream. People have generally been dissatisfied with Ohno for not addressing the waste of human potential.

## WHAT IS WASTE?

The common sense understanding of waste is anything that is not value. More precisely, waste is the expenditure of effort or the using-up of resources without producing value. If we are to understand waste then we must understand value.

Value is an assessment made by an observer referencing a set of standards that the observer is better off after the expenditure of effort than he was before. Those standards are both articulated and unarticulated. What is value for one may be of no value to others. The first lean principle is *define value from the customers' perspective*. [Womack, Jones 1996] That can be interpreted as what results from the *value chain*. But there is another way to think of value. Value is the difference customers derive from the resulting experience of doing business with the organization. [Lanning 1998] Likewise, the experience can be one of waste.

Value accumulates and is stored as capital. There are four kinds of capital: financial, pragmatic (know how and know why), symbolic (a market's predisposition for entertaining ones offers), and social (a community's predisposition for entertaining ones initiatives).<sup>5</sup> The usual understanding of waste and value in the business setting has to do with changes in financial capital. The experience of value and waste in one of the four areas is often

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<sup>3</sup>Wastes of overproduction, of waiting, in transportation, of processing, of inventory, of movement, and of making defective product.

<sup>4</sup>Examples of eighth waste:

*Not using people's talents*, *New Shop Floor Management* by Kiyoshi Suzaki.

*Underutilized people's skills and capabilities*, *The New Manufacturing Challenge*, by Kiyoshi Suzaki.

*Information, figuring what to do or how to do it*, *The Kaizen Blitz*, by Anthony C. Laraja.

*Excess information*, Robert Hall quoted in *Let's Fix It!* by Richard Schonberger.

*Behavioral Waste*®, Bob Emiliani, Center for Lean Business Management®.

*Not taking advantage of people's thoughts (wasting good ideas)*, Donald Dinero, Round Pound Consulting.

<sup>5</sup>Unpublished papers and conversations with Fernando Flores

exchanged in the other. Firms with poor identity don't get to charge the same prices as those firms with high standing. Shigeo Shingo reported he would ask workers for their experience of waste inviting them to offer their opinions of what worked, didn't work, and might provide more value. [Shingo 1988]

The lean movement gave rise to the understanding that value is created in a *value stream*. By organizing just those actions that add value for the end customer we have a process that is without waste. People refer to value with an unexamined supposition of the presence of a value stream or process. But organizations and projects (temporary organizations) are not process. Organizations are social systems. As a temporary social system a project team uses many processes. Only after a project is complete can we know exactly what actions were taken. And many of the steps occur on an ad hoc basis invisible to all but the participants in the action. Further, there is another kind of process: "The process of making and keeping commitments." Flores called this the *business process*. [Spinosa, et al, 1997]

## CONCERN FOR THE LOSS OF HUMAN POTENTIAL

We propose the wastes of human potential are more significant and pervasive than described in any of the discussion of eight wastes offered to date. Writing in Today and Tomorrow, Henry Ford recognized the importance of bringing full human potential into action. He saw people as the source of inventiveness for the firm. He went so far as to propose what he called utilitarian education: [Ford 1926]

*(T)rue education will turn a man's mind toward work and not away from it and will enable him to think, and thus to earn a better living not only for himself but also for those about him.*

Stifling of inventiveness and wisdom (judgment) does more than just keep an organization from progressing. The waste of human potential leads to degrading performance – negative value -- the loss of capital.

Like all those proposing an eighth waste, we have our own theory of the source of the untapped inventiveness, talents, and wisdom of the people in our companies and on our teams. We have observed the greatest waste has to do with two underlying practices: *not listening* and *not speaking*. We call these the *two great wastes*<sup>TM</sup>.

## NOT LISTENING, THE FIRST GREAT WASTE

The effects of not listening can be disastrous. Here's one too familiar example of not listening:

*Not listening and asking questions had lead to the failure of the Mars Climatic Orbiter. A simple unanswered email about the correct measurement units and no follow-up resulted in a missed orbit.*<sup>6</sup>

NASA has a history of not listening that can be traced back to Dr. Werner von Braun. His traditional authoritarian style might have fit the early days of the space program where a

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<sup>6</sup>Ms. Carolyn Griner, retired Deputy Director of NASA Marshall Space Flight Center, *Gateway News*, American Institute of Aeronautics and Astronautics, St. Louis Section, April 2001.

few people at the top held the key knowledge. However the remnants of that style still appear in the highly educated workforce of today's NASA.

You can find examples of the central controlling style of managing and leading in many industries and facets of life. The limitations of this style are apparent; people have been experimenting with alternatives starting with the participatory management of the 1970s through the self-organizing styles of management in the 1990s. Still, where there is concentration of power you will find *not listening*.

*The people closest to the problem aren't given a chance to offer solutions because the boss is too arrogant to ask them, "If you were in charge, what's the first way you'd make this place work better for our customers?"*<sup>7</sup>

Another prevalent form of institutional not listening is associated with the process view of organizations. We've come to accept the process view as an enlightened perspective on managing. We acknowledge that great good has come from seeing production activities as value streams that can be standardized and continuously improved for the benefit of customers and the company. We have erred by adopting the process view to the human functions of organizations. The result is institutionalized not listening. We know that as bureaucracy.

We have all suffered with this bureaucracy. Here is the first author's most recent example. The cable company called to offer free expanded service for six months. I accepted. The individual said hold on the line while an independent person can verify that you understand the terms. I had to wait for the person to come on the line. I then proceeded to say, "I understand the upgrade is free for six months at which time I will be charged an additional \$10/month to continue with the service. Thank you." The woman said, "Don't hang up or you won't get the service." I asked, "What else do you need to know?" She proceeded to fumble her way through a script making mistakes and taking way too much of my time. Finally, she asked me for my last four digits of my social security number. "So that's all you needed from me, my social security number?" It would have gone much faster and satisfactorily for me if she just listened that I did understand and then answered my question. But she wasn't trusted to listen. She was not trusted that she could understand. She was only trusted to follow a stupid script that didn't even make sense to her!

## **NOT SPEAKING, THE SECOND GREAT WASTE**

The authors propose there are two prevalent explanations for why people don't speak up. People are afraid or they are resigned. Fear might be well-grounded. People have been punished for speaking something unpopular or they have seen others punished for speaking up. Or, the fear might be brought to the organizational setting. In a prior organizational setting someone was punished. Or maybe there was no punishment. There was only not listening to what was spoken or no action taken as the result of the issues raised. In any case, a choice is made by a potential speaker not to speak. Eventually, that choice is replaced by a resignation that speaking up doesn't make a difference. And speaking can only risk negative consequences.

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<sup>7</sup>Seth Godin, *If It's Broke, Fix It*, Fast Company, October 2003.

Children are culturally conditioned to not speak. Many of us heard lessons like the following from a parent or grandparent [Wieder 1993]:

*If you can't say good things of others, keep your mouth shut.*

*Silence is prudence.*

*Nobody ever repented holding his tongue.*

*Be silent or speak something worth listening.*

Often times people don't speak for fear of being judged for not speaking well, not looking good, being characterized a whiner...(add you own reason here). And people will characterize us that way. However, people who speak with good purpose -- with a care for the well-being of a greater purpose -- are rarely judged that way. Skillful speaking comes with frequency of speaking.

Resignation is equally problematic. In settings of not listening a person can get discouraged trying to make something happen. Not speaking begins to look like a reasonable, even prudent course of action. Resignation is too easy a choice to make in the face of overwhelming evidence of organizational not listening. Yet, it is still a choice to be resigned.

It the latest shuttle disaster, one engineer refused to choose resignation and not speaking. He pursued one avenue after another to have the Columbia wing examined after witnessing the falling insulation at lift-off. The chain of command declined every request he made to examine the wing. That did not deter him. In the end, they did not listen. The wing was not examined. Tragedy was not avoided.<sup>8</sup>

We also hear people offer other reasons for not speaking:

"I don't have enough information to speak."

"I'm not competent in this area."

"I'm too new on the job."

While we can understand the reasons and fear and resignation, we cannot excuse inaction for those reasons. The potential of the organization, project, and the individual performers are all diminished.

### **WHAT ABOUT A 3RD, 4TH, OR 5TH GREAT WASTE?**

We've explored for quite some time these two great wastes wondering is there a third or fourth waste or might there be some underlying one great waste that manifests the not listening and not speaking. We offer the following three situations to look at the first issue.

How about assigning people roles that they are not suited for? Is that a (great) waste? It certainly can produce waste. Waste is created when people are not competent to perform or they don't have the interest in doing a good job. A five-why analysis will lead you back to the performer knew s/he wasn't well-suited and didn't speak up or the manager wasn't listening.

What about not supporting people in their roles? Waste is created when a manager does not give attention to the people performing their work. Again, a five-why analysis would

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<sup>8</sup>By Gareth Cook and Anne Barnard, Globe Staff, 2/27/2003, *NASA E-mails Show Worry Over Wing*, Boston Globe

lead you back to a manager who is not listening to what staff is asking for or staff has given up asking.

Finally, how about the organization that has high turnover? Morale might be low; hours could be long; pay might be low; or management doesn't show employees respect. In our experience, all issues have to do with poor functioning of a dialog between management and staff.

David Schmaltz proposes that the inherited master-slave orientation to work keeps employees from speaking while justifying the all-knowing role of management. [Schmaltz 2004] Shoshana Zuboff makes a similar point writing in *Getting the Feudalism Out of Capitalism*.<sup>9</sup> She makes a rather compelling case that our model of organizing and managing the work of companies is for the most part obsolete. She goes on to say that managers and employees share the responsibility for the pattern continuing.

Robert Reich proposed we are stuck in our patterns of action due to the stories we tell.<sup>10</sup> Only through changing those stories do we have a possibility of a more empowering relationship with companies, careers, and politics. [Reich 1987]

Now what about the possibility of one underlying great waste? The one issue that keeps coming up in our client work is distrust. Patrick Lencioni calls the *absence of trust* the first source of dysfunction in teams. [Lencioni 2002] Operatively, trust in a social or business setting is a manifestation of engaging in conversation. Fernando Flores and Robert Solomon say that "trust is produced through the cultivation of commitment-making conversations." [Solomon & Flores 2001] They go on to say that trust is further enhanced by granting trust and being trust-worthy. Finally, repairing the situation of distrust takes talking about trust. As you can see all of this takes speaking and listening.

We wonder how dignity or the lack of granting legitimacy to oneself and others is a underlying source of waste. Seeing oneself as legitimate in a relationship is the precondition for speaking in that relationship. Granting others legitimacy is the precondition for listening. If one makes a characterization that the person speaking is a jerk or has no business speaking, then one is "justified" to not listen. Further, acknowledging the autonomy of others shapes listening. Flores called for a practice of managing that embraces the autonomy of each person. The current language of managing and leadership misses that autonomy. [Howell et al 2004]

The unique circumstances of AEC projects compound an already fragile circumstance. On AEC projects people come together as strangers. This can have both positive and negative consequence. With no experience with others the parties have no ongoing basis for characterization. There can be no, "There she goes again." in the setting where people are just getting to know each other. There is also no experience for interpreting what on the surface might be clumsy speaking or listening.

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<sup>9</sup>*Evolving*, Fast Company, May 2004.

<sup>10</sup>Reich says there are four distinctly American stories, versions of which are told throughout the western world, They are 1. The mob at the gates; 2. The Triumphant individual; 3. The benevolent community; and 4. The rot at the top. Together these stories tell of the experience of living. The re-telling of the stories shape what people see as possible for them and others.

## DISCUSSION

The key point and something new is the idea that practices lead to the larger waste of human potential. It seems that all of the “new eighth” wastes are attempts to say that the loss of human potential in one way or another is unaddressed. These do seem to be outside Ohno's taxonomy. “Human Potential” is so big and overly general that it doesn't give leverage. Shifting attention to practice is more powerful. Ohno's wastes divide some greater physical production management waste. We take the same line by subdividing human potential into two practices. Going to the action where that waste arises reminds us of the impact of the shift from focus on motivation as in current practice to the focus on the act of promising in language. [Howell et al. 2004]

One of the bigger wastes of not speaking and not listening is in the everyday conversations of coordination on projects. One client spoke with 25 people about the waste of not speaking and listening in conversations for action. He reported that taking the time to listen, asking questions to clarify conditions of satisfaction, and offering comments all resulted in the avoidance of materiel waste.<sup>11</sup>

The practice of speaking and listening seem to be habits. Of course people can speak and listen. It is not the competence that is in question. People lack the *habit* of speaking and listening. Like any habit it takes time and nurturing to bring it about.

## WHERE DO WE GO FROM HERE?

In our work with leaders, both on projects and more generally in organizations, we say, *listening is the master skill of the leader*. A corollary to that skill is creating the circumstances for others to speak. The functioning of organizations, teams, families, and relationships generally can all be traced to the quality of the listening and speaking among the parties. In all cases, some one must take an initial responsibility for the quality of conversations. Leaders have the responsibility to do that in organizations and on teams. And performers share that responsibility.

Perhaps Robert Reich offers the path forward. We need a story that is embraced and re-told that champions the success of teams who operate in a setting of respect and dignity speaking freely while engaging in deep listening.

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<sup>11</sup>See Appendix for the report on the conversation.

## **APPENDIX – REPORT ON TWO GREAT WASTES**

By Joe Ely, FBI Buildings, November 19, 2003

In my presentation, I pointed out that when we do not speak clearly at the first step and/or do not listen carefully at that point, we then easily move down the chain. If I do not state clearly “I want to have that report by 5pm today” I invite waste. If I dismiss the request “I want to have the prototype finished by Friday noon” as irrelevant, I invite waste.

On the positive side, I maintained that when we continue to have conversations clarifying the legitimate “wants”, we have far less waste and much more enjoyable work. The group was clearly engaged with the concept; good body language, lots of notes, intent looks. So, I walked through this and then asked the group to give me examples. I was amazed at both the breadth and depth of the answers. Here’s what I heard.

Ken, purchasing guy; “I had two conversations with two different project managers in the past four days about the same possible material shortage. In one case, he did not listen to me and went very quickly to the level of punishment. In the other case, he stated his ‘wants’ clearly, listened to my concerns and in about 15 minutes, worked out a very satisfactory solution.” So I asked Ken “Which conversation was more productive and enjoyable?” He laughed...the answer was obvious.

Bruce, one of our crew superintendents: “We see this sequence all the time with our customers. When we don’t really understand their ‘wants’, we get into a very negative cycle with them quickly. Their punishment of us always shows up in details, punch lists, delayed final payments. Pain and cash flow problems.”

Glen, a veteran crew guy and draftsman: “Another issue is to translate the customer’s ‘I want...’ into clear contract language that enables everyone else to know what the customer’s ‘want’ is.”

Lou Ann, a detailer on our Design/Build side: “I learned about this in 15 years of waiting tables. I always clarified the ‘want’ by repeating the question. ‘You’d like Ranch dressing?’ ‘No, I wanted French dressing.’ In a busy restaurant, ‘ranch’ and ‘french’ can sound a lot alike. By asking, I short circuit an entire wasted salad and annoyance for the customer. I did this very thing this morning with Scott our architect. He told me ‘shrink down those bathrooms.’ So I asked ‘so you want the rest rooms smaller?’ ‘No, I need that whole part of the building to be fewer square feet.’ ‘Oh, so I need to shrink the whole area.’ ‘Yes.’ So, you see, by asking for feedback, we stay at the ‘I want...’ area longer and avoid that downward cycle.”

This whole thing was quite fascinating. I’ve had a number of chances to reinforce this since then.

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