



Coming Apart at the Seams

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As Bill Conway always says, "The biggest waste is found in the interfaces and interstices ", or said another way, the waste is found at the 'seams' of the value stream as it crosses different organizational boundaries.

Some time ago, I was conducting a training exercise in streamlining office work – a precursor to our new LEAN OFFICE WORKSHOP – and I had set up an order processing operation that had lots of obvious waste analogous to the sort commonly found in office processes. I had run the simulation a number of times, usually in one large room with different 'departments' in different areas of the room. Participants were always able to identify large amounts of waste, because it really is much easier to see waste in someone else's process than in one's own. The simulation helped participants to see the waste and then to draw analogies to opportunities they had overlooked in their own work. So light bulbs would go on and participants would generally be able to redesign the process to increase throughput up to ten-fold.

Then one day, the training facilities were different: no large room, just one mid-sized room and a number of breakout rooms. Fine, I thought – even more realistic. The Credit Checkers were in one room, the Order Processers in another, etc.

When we reconvened to debrief, this group seemed oddly comfortable with the whole process they had been executing. They identified little things they could improve within their small group, but they missed the elephant in the room – perhaps because it was in next room, or rather the hallway where no one owned it. The big waste was in the "interfaces and interstices." Even though I had described the process at the outset with a flow chart that illustrated the rework, without actually seeing the rework as it happened, it just didn't feel like rework. It felt like regular work. And paradoxically, the more time and effort it took people to undo and redo work that had been done previously, the more it felt to them like they were adding real value!

The way we establish and elaborate on work processes seems to inevitably lead to an accumulation of waste at the interfaces. Once the high level process is defined, the details are generally filled in by the different organizational groups, and those details tend to optimize the work within the silo rather than accelerating the flow of value. Then over time, the work within the operational groups that make up the segments of the value stream evolves further to become even less like a smooth stream of value. Before long, a substantial amount of waste is in place at every interface.

Making matters worse, the waste at the seams is the hardest to remove and usually remains in place for years. Most organizations have no mechanism to even identify let alone eliminate cross-organizational waste. In order to identify and eliminate that waste, we must quite literally see and understand the work flow before and after our own contributions. Yet the way we organize our work and our physical work space usually hinders that visibility, as I inadvertently discovered with my workshop simulation.



I began thinking about other examples of missing the cross-organizational waste. At a stock transfer agency, one group would open the stock transfer requests and set up batches, count out 10 transfer transactions and complete a 3-ply batch sheet with about fifteen fields. This would take about 10 minutes. Then the batches were distributed to data processors to key the data into the system, taking a minute and a half per transaction. The processors did not use the batch sheet. They would then give the work to QC to double check everything (about 30 seconds). QC did not use the batch sheet. Then they would send the batch to scanning and filing, where the person removed and discarded the batch ticket before scanning the individual transactions. Why did they spend about 33% of the total transaction handling time to create and use these 3-ply batch tickets – of which they had just reordered \$12k worth? No reason. Not for 5 years. Not since the scanning department changed their process to file and retrieve transactions by number rather than batch. The scanning department thought someone else needed the batch tickets. The data entry people thought someone else needed the batch tickets. The QA people thought someone else needed the batch tickets. No one needed the batch tickets.

In a manufacturing company I visited, a component would arrive in 10 pound bags and the first processing step was to take 5 of these bags and combine them in a mixer. This certainly appeared to be value-added, until you looked at the supplier and saw that their last step (which also looked very much like value-added to them) was to carefully measure out their product into 10 lb bags.

In another organization, loan originators spend 30-60 minutes scanning loan applications page by page to email them to the Loan Center. Then, a day or two later, the Loan Center spends 45 minutes opening and printing and collating the applications in paper form again. When they saw the whole process, it made more sense to have the loan originators prepare and FedEx the application so it arrived at the Loan Center the next day in exactly the form required for the next group – Underwriting – to add their value.

Aligning the flow of value. I think most of us under-invest in learning about our own value stream. We may focus on studying and improving our own work, but spend too little time talking to and watching the work as our suppliers and customers apply value or use the value we create. Understanding the whole value stream and collaborating cross-organizationally on improvement is key to unearthing the waste that is hidden within the interfaces and interstices of your own value stream.

Value stream mapping is a valuable tool that can unearth the waste. Value stream mapping is done by the people who really know the work and lays out the whole process as value is created for the customer. The map is augmented with facts and data about wait time, rework time, value time, and defect rates, etc., so you have the entire and true picture about the work. Once the facts are out, the group separates the waste from the nuggets of value. But often people make the mistake of mapping only the work as it flows through their own department or organization. Even if every segment maps its own portion of a value stream, the waste that accumulates at the interfaces may remain buried. To really uncover the waste, you must map the full value stream.



Observe the work. Value stream mapping may not be enough to really see the waste. Even more can be gained by going to watch the work of your suppliers and customers. By watching the work, I mean something very different than getting a tour. A tour is a fine introduction, but few can identify where the process poorly connects with the next segment simply through a tour. The master at process improvement, Taiichi Ohno, would draw a chalk circle to stand in and watch and learn. He believed it would typically require four hours for someone to really understand the work he or she was watching. To really learn about the work before and after your process, invest the time to internalize. Process what you see. Synthesize. Question. Listen. Understand. Improve.

Group Technology. Other organizations have found it useful to realign the organizations from operational or functional groupings into teams that can complete the value for the customer. This approach greatly increases the visibility into the whole stream of work activities. For example, an insurance claim processor accelerated throughput by teaming up the adjuster, claims processor, and the photographer instead of having the work travel between departments. The concept is called Group Technology in a manufacturing setting. When people executing the process are organized as a team, they are much better positioned to see and eliminate the waste that naturally accumulates at interfaces and handoffs.

When Taiichi Ohno was teaching the Toyota Production System, he would take his students to a problem area and draw a circle on the production floor where they could observe, think, and analyze, says Teruyuki Minoura, president and CEO, Toyota Motor Manufacturing North America Inc. "He wanted us to watch and ask 'why' over and over again. If we did that, he knew the better ideas would come. Mr. Ohno realized new thoughts and new technologies do not come out of the blue — they come from true understanding of the process."

Whatever method you use, make an effort in the coming year to learn much more about the work of your suppliers and of your customers. This insight may well lead you and your teams to identify breakthroughs that you never imagined were possible.

Cross organizational improvements can be incredibly powerful, BUT it is much more difficult than managing an intradepartmental improvement project. Numerous challenges, such as conflicting departmental objectives, communication and priority issues, even language and time zones can get in the way. Conway Management recently sponsored a forum on the challenges of cross-organizational improvement and how to manage them. The forum, Partners In Improvement, is comprised of leaders in improvement from a variety of industries across the globe. Their collected wisdom is available in a white paper on the topic. For an abbreviated version of the discussion of the barriers to cross-organizational improvement and how to overcome them, [click here](#). If you are interested in participating in future forum discussions, contact Mary Jane King at mj.king@conwaymgmt.com.