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I would like to thank Reni, Matt, Benjamin, Matthias, Chris, Allan, Karl and Rob, on their excellent presentations this afternoon and their successes implementing Lean ideas in their workplace or with their clients. I would also like to thank the President of the United States – for reasons that may become self-evident as the evening progresses.

[Pause]

A few years ago, no one would have imagined what our speakers this afternoon have accomplished was even possible. Through most of this decade many of the ideas they've implemented were unfashionable, considered too manufacturing-centric or simply unheard of in knowledge work professions. Throughout these years, I've maintained a faith in these ideas and I knew that patience would reward us and that when success arrived it would spread rapidly.

I'd like to thank each and every one of you for coming out tonight and attending the conference for the next two days. The event is sold out. There is something happening when in these tough economic times, when

budgets are tight, each and every one of you has chosen to come and show your support for our growing community. We have speakers from the United Kingdom, Europe, Japan and the United States giving of their time because they believe that something is happening in the technology and product development industries. There is something happening when people from different parts of the globe, different walks of life, different professions and different industries come together. Today, here tonight, we are forming a community. A community that believes that knowledge work can be done differently.

There is something happening when professionals many of whom have never participated in process or

methodology turn out in large numbers because they already believe or at least they support the hope that things can be better. Each of you can be part of a new majority in the future of technology and product development. You can lead our industry out of its shame, out of the darkness. You can come together as a community and tackle the issues that hold us back – 18th and 20th Century management ideas like: command and control; economy of scale; cost accounting; the strive for local efficiencies; and maximum utilization. As a community you can lead the move to a new paradigm, in the belief that there is no problem we cannot solve.

We have formed the Lean Software & Systems Consortium as an umbrella organization and a locus for the ideas and practices that can end the outrage that is an industry that asks its professionals to work harder rather than smarter; that consistently stresses individuals and adversely affects their physical and mental health, and their social and family lives; an industry that produces consistently poor quality; that delivers poorly designed products that frustrate and disappoint its customers; where lead times are many times longer than they might be; governance and decision making are subjective, political and inconsistent; where projects consistently fail to deliver the returns to investors that

were promised; and where a professional code of ethics, behavior and practice is neither demanded nor has one gained traction or acceptance.

Are we outraged that work-life balance is considered the pursuit of the soft, lazy and uncommitted? Are we outraged that buggy code is the norm? Are we outraged that overtime working is expected? Are we outraged that workplace stress places our colleagues on anti-depressants and sends them home on sick leave for mental health days, paying out of pocket for massage, psychotherapy and beta blockers? Are we outraged that a generation of children go with little parental support, interest or attention because their parents are always

“on” - always at work, always online, whether at the swimming pool, at the play park, at the zoo, at the theatre, at the school play, at the parents evening, at the football game?

Are we outraged that our friends, neighbors and families consistently find technology products hard to use and disappointing? Are we outraged that our fellow technologists make our lives harder and more stressful with bad design and poor quality?

Are we outraged that our retirement savings are invested in companies that waste our money time and again on technology projects that fail to deliver acceptable returns, and run late and miss market opportunities?

And are we outraged that anyone can work in our profession without any qualification or indicator of professional competence?

As a community we have the opportunity to come together and end these outrages in the first half of this century. [Pause]

Let us dream for a moment… what would it mean to work in a Lean workplace? [Pause]

Actually, we need look no further than our television sets. For the writers in Hollywood already know what a Lean workplace looks like and they offer it up to us as a fantasy, as light relief from which we can de-stress from the misery of daily lives. I am talking of course of

CSI:Miami and the Miami-Dade crime lab run by the World's best manager, Horatio Caine! [Pause]

Why do we love CSI:Miami so much? Is it the beautiful weather, or the dramatic backdrops? Is it the perfect teeth, the plastic surgery and the spray on clothing? Or is it that it offers us a glimpse of how a knowledge worker workplace is supposed to be?

At the start of each episode after the crime is committed, Horatio's investigators are on the scene immediately. Evidence is collected and they take it straight back to the lab and start processing it. It seems they have no backlog. They are always sitting around waiting for work, like fire fighters in the station waiting for that 999 call.

When the call comes, they jump into the Hummer and speed off to the scene of the crime.

Later, back in the lab they fire up the analysis equipment and get processing the evidence. Some such as trace evidence, must to be sent to specialist scientists. It seems those folks also have no backlog as often the results are returned within a few short hours.

The CSI's of the Miami-Dade crime lab it seems have lots of slack time. They have the best equipment. They are empowered to make decisions without management intervention or control. They are trusted to get on with their jobs. They are respected as professionals. They are multi-talented, multi-skilled generalists. They carry

weapons into the field .They are there at the arrest of the suspect. They interrogate suspects. They collect evidence. They process evidence. They link clues and they work hand-in-glove with detectives to solve the crime.

While being multi-skilled and empowered with a wide remit of responsibilities, they each also have unique specialist skill. Caley Duquene for example is a ballistics specialist and processes and simulates ballistics evidence. Amazingly she is always available just when she's needed for these tasks.

Horatio knows that cycle time to collect and process evidence and to use it to piece together a picture of what

actually happened and to identify the perpetrator is vital to making a successful arrest and prosecution. And so it is in the Lean workplace at Miami-Dade crime lab. Serious crimes are solved in hours or days and arrests are made and perpetrators prosecuted.

Horatio's highly empowered workforce are trusted and respected as professional people but if one of them digresses he is swift and fair with his sanctions. He addresses the individual and leaves the others free to continue their duties. Only the digresser loses privilege or position. Everyone else remains empowered.

If only it were always this way. I'd like to compare this vision of a Lean fantasy workplace with some real crime lab performance.

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ProPublica May 2009

The Illinois hearing comes amid continued complaints from crime victims that the federal government hasn't done enough to reduce a national backlog of at least 350,000 untested DNA samples [3] from murder and rape cases. While untested samples sit on the shelf, violent criminals are free to strike again.

Today, the Illinois lab's DNA backlog stands at 1,227 cases, according to a spokesman for the lab, not far from where it was in 2004, when citizen anger over the issue arose.

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ProPublica July 2009

the lab already has one of the largest backlogs of untested DNA evidence in any state lab. It hasn't tested more than 150 DNA samples from crime scenes and 60,000 from people arrested or convicted of crimes.

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ProPublica Mar 2009

The Los Angeles Sheriff's Department has 4,700 untested rape kits, which potentially contain DNA evidence taken from sexual assault victims. The police department's backlog, which was the subject of a ProPublica and Los

Angeles Times investigation [2] in November, is currently more than 4,000 cases. LAPD officers never sent many of the kits to the department's lab, which is underfunded and understaffed, Human Rights Watch found.

"Failing to test rape kits denies justice to women who've suffered sexual violence," said Sarah Tofte, the Human Rights Watch researcher who authored the report.

LAPD officials say they hope to eliminate the backlog within four years. They began chipping away at it in January after hiring more lab technicians and outsourcing scores of rape kits to private labs for testing.

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Minneapolis StarTribune Feb 2007

Suzanne Weiland was brutally murdered last summer but still has not been laid to rest. Her grieving family blames the delay on the large backlog of DNA tests at the Wisconsin Crime Lab. The trial for the man accused of killing 39-year-old Suzanne Weiland was set for May, but the crime lab log jam could delay that for months

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Now consider this story about a lab improving its productivity…

Beauchamp Law Office April 2009

“[Today], Scottsdale police crime-lab examiners must pack everything up and re-sterilize the lab so they can work on new evidence when a more urgent case comes in. That is about to change.

This summer, they expect to move into a new, state-of-the-art city crime lab that will have about 18,000 square feet, almost three times as big as the current Via Linda facility.

"Now there will be no time delay in what we do," said Steve Garrett, manager of Scottsdale's Forensic Services Division.

The lab was designed to meet the current and future needs of Scottsdale's crime examiners, Garrett said. The first floor will have areas to process latent fingerprints, analyze controlled substances and conduct toxicology studies. The second floor will house areas for processing firearms and analyzing DNA and trace substances. Having space dedicated to specific functions will enable the lab to speed up work on the various requests it receives, Garrett said.

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So apparently, the Scottsdale crime lab will solve all of its problems by eliminating the transaction costs of switching over from one lab setup to another…

[Pause]

Hollywood needs to create a Lean workplace in order to maintain a short timeline and hold our interest so that we can follow the story. The right bad guy gets caught and prosecuted. Mistakes are almost never made. The work is enacted with impeccable quality. Work-in-progress is always minimized as cycle times are short and it seems that Miami's criminals commit serious crimes at a steady pace. The crime lab is never swamped with a sudden rush, like an accident & emergency department

after a protest march or city marathon. By creating an image of perfection, we are offered an escape, a chance to dream about what a good job and a good boss and a good well equipped office would look like [pause] and don't forget, also that chance to own a designer label wardrobe on a civil-servant's salary!

[Pause]

So, where would you start? What actions can you take to move your organization to Lean? We heard today several people mention that…

Value trumps Flow, and

Flow trumps Waste Elimination

But these things are all related. We can eliminate waste to improve flow and increased flow will improve value delivery.

Why is it, a large tin of beans only costs 2p more than a small tin? Why is it, an album with 10 songs on CD is only 3 times more expensive than a single? Why is it, that flying across the Atlantic is only twice as expensive as flying to a local destination within Europe? The answer in every case is economy of scale.

When we buy that small tin of beans, it is not only the beans we are paying for. The tin had to be manufactured. The beans had to be canned into it. That tin had to be packed and shipped on various trucks across a whole distribution system before it appeared on the shelf for us to purchase. All of those costs, the costs of manufacture and delivery are almost identical for a small tin as they

are for a large tin. Hence, the marginal cost of the large tin is almost the same as the smaller one. By buying the larger one, we enjoy an economy of scale. The cost per bean is reduced. The transaction costs are amortized over a larger quantity of beans.

Why does the music industry sell music in albums? Why batch it up? For the millennial generation, the iPod generation, it must seem so strange! The album emerged in the days of vinyl 33 1/3rd RPM discs. When music was physically distributed as atoms rather than virtually downloaded as 1 and 0s, it made sense to batch it up and amortize the packaging, distribution and marketing costs across many songs. How often did you buy an album

because you liked the single only to be disappointed by a collection of much poorer fare? The music industry's business model forced artists into over producing songs to fill up the batch required to market an album. No additional value was received. All that extra effort was wasted.

When we devise means to reduce the transaction costs of doing business, we create opportunities. Often the incumbent will be slow to recognize the benefit of change. They will leave the market to an insurgent with a leaner business model to steal their business.

So it was in the distribution of music. 10 years ago, Apple was a computer company that was beginning a small

resurgence with its colorful iMac product. Today it is the 3rd largest distributor of music Worldwide. It delivers individual songs electronically. No need for a batch as the overhead is insignificant. The online music business eliminated most of the transaction costs of delivering music. Now the customer can pull the value they want. Only the songs they like. No need for a batch with questionable overall quality just to get one song that rocks their world.

When we fly across the ocean, the aircraft is a larger twin isle craft, such as a Boeing 747, 777, or Airbus A330, 340 or 380. When we take such a flight, we are flying with anything from 250 to 500 of our fellow citizens. On the

other hand when we make a domestic flight or short hop within Europe, the craft is smaller. It has a single isle and seating for around 130 people. Our flight across the Atlantic may be offered only once per day. It's a big batch of people being transferred infrequently. In comparison, our local flight on a smaller craft is offered several times daily. On some routes the service is hourly. These are smaller batches being transferred frequently.

The short haul service is offering us flexibility in exchange for a higher cost per mile traveled. The long haul service offers us an economy of scale to achieve a lower cost per mile traveled but for that we trade convenience. The short haul flight involved all the same steps at the airport

as the long haul flight. We checked in and our passport was scanned. We passed through security and our check-in bags were also scanned and searched. We used space and time at the gate or lounge. We needed facilities to eat and drink, and shops and entertainment to amuse us. Regardless of the length of our flight these costs have to be absorbed.

The value we receive – the journey we want to make – is surrounded by transaction costs – check-in, security, immigration, baggage handling, duty free. [Pause]

Transaction costs like these are a core waste in the value-added work we do, and reducing them makes us more efficient, effective, reduces costs, and cycle time.

[Pause]

Several of the speakers and some of the guests at this conference are staying at the Hilton hotel near London Bridge Station. This morning we hoped to save money coming over here to the RSA by sharing a cab. The night before we'd arranged to meet in the lobby at a certain time this morning. Making that arrangement was a coordination activity. When the time came, some of us were there but not all. Where was the other one? Questions were asked. Phone calls made. And a search ensued. All of this was coordination activity. Eventually we all got together and enjoyed a comfortable journey

by cab over here at a low cost per person. Coordinating a group lengthened the total time to make the journey.

What was the alternative? We could each have made our own way over: by cab; by tube; on foot? Leaving each of us to make our own decisions and find our way to the RSA alone involves less, indeed almost no, coordination. We would be empowered to organize our own transport to the venue. For each of us individually our cycle time to arrive at the RSA might be less. However, we would have paid more. We trade cost per person, against batch size. A batch size of 1 is more expensive per person, than a batch size of 5. However, we trade coordination activity in the opposite direction. One person needs no

coordination but a group of 5 does. Coordination activities are wasteful. As batch size increases coordination costs rise and that rise is non-linear. Imagine we were trying to coordinate a whole coach load of people? In knowledge work problems large batches become uneconomical because of the rapid expansion of coordination costs.

The antidote to coordination overhead is self-organization. Command and control style management is out, and empowerment is in. The trick is to introduce self-organization without loss of control, continuing to manage overall project, program and portfolio risk appropriately.

One final story about coordination costs. [Pause] While I worked at Sprint, a new CIO was appointed. The IT department wasn't particularly mature and he wasn't receiving the kind of information that he wanted. So he asked someone from his staff to send out a simple email in his name. It asked that everyone reply with their job title. Out of 3500 people, 1900 replied "Project Manager." [Pause] From this simple piece of information we can deduce that Sprint PCS IT in 2001 had a coordination cost problem most likely due to a large batch size problem.

[Pause]

In the early part of this decade, I was frustrated trying to lead change at Sprint and later at Motorola. While trying to introduce the Agile method, Feature Driven Development, I was meeting with a lot of resistance. Despite the documented successes, some team members didn't seem to care and didn't want to change. I concluded that wholesale change to a prescriptive method, created and designed for one context, one risk profile, and one situation, was always doomed to failure in other situations. So I looked for an alternative approach - an approach that would encourage evolutionary change rather than revolution to a whole new process.

In early 2005, Don Reinertsen made a visit to see me at Microsoft. He was impressed with the Lean ideas I'd been using at Motorola and the cumulative flow diagrams, the bottleneck visualization and the statistical process control. He observed that I had all the elements in place to create a true kanban pull system for software development. As it happened shortly before that I'd been approached by a manager in Microsoft's IT department. He wanted me to help him improve the performance of his offshore team in Hydrabad, India. We designed a few small changes that his management chain and colleagues assured him would "never work." The main change was to limit work-in-progress and the size of queues and to

pull new work only when there was a slot free within the queue limit. We tracked the work, limits and progress electronically. Over a 15 month period we enacted only 4 process improvements, none of which involved changing the development or testing approach and without any resistance from the team doing the work. During this time, throughput improved by 230% and cycle time shrunk from 5 months to 2 weeks. It turned out there was a lot of waste in the process that was easily eliminated without changing the core engineering practices. What manager wouldn't be delighted with a 3 times productivity improvement and a 10 fold drop in cycle time achieved without resistance? This was the first

true kanban system for software engineering. A WIP limited pull system that enabled significant optimization of an existing process.

[Pause]

Yesterday, when I checked in to my hotel, I was welcomed back by the staff on reception. I'm a regular guest so I get quite a bit of sucking up. They had prepared for me a nice room on one of the executive floors. I completed the registration forms and they gave me a key. I headed upstairs but I couldn't enter my room. I tried again and again but the key wasn't working. So I headed to the executive concierge on the 9th floor where I was greeted with "Welcome back, Mr. Anderson.

Where have you been for all this time?” I explained the key problem. She made some investigation of the health of the key card and discarded it. Then, on accessing the computer, she explained that I had been assigned the wrong room and it was just as well my key had not opened the door. Apparently, they had changed the room I was to be given but the message clearly hadn’t arrived at the front desk. A coordination problem. So I had to fill out the registration forms all over again and the concierge made me a new key. This rework due to a failure in the system is known as Failure Load in Lean. Had it happened at a peak time on a week day it would have inconvenienced many guests.

In 2007, Yahoo! started to use visualization and value-stream mapping to help teams that were struggling with adoption of Scrum. This was the first step towards limiting work-in-progress and introduction of a kanban pull system. Aaron Sanders, an Agile coach working in their Silicon Valley headquarters, reported that one team he was working with was getting a lot of work done, but 90% of that work was fixing bugs. Before they started visualizing their work and assigning different colored tickets to different types of work, everything was being treated equally from a value perspective. However, applying a little Lean thinking quickly showed that rework was sucking away 90% of capacity to deliver new

functionality. Failure load due to defects, poor release quality and poor design, is probably the biggest single factor in software engineering performance and productivity.

[Pause]

When we analyzed the workflow for the team at Microsoft's IT department, they had a significant transaction cost in planning caused by excessive analysis and estimation in order to produce supposedly highly accurate estimates. Estimation was costing them 33%-40% of the total available capacity. When we examined how estimates were used, we discovered that only 52% were actually used. The other 48% of items estimated

were never developed and released to production. Of those, about half, almost 22% of the total, were closed marked “overtaken by events.” The application had been decommissioned before the work queuing for development had been started.

This concept, that work-in-progress is depreciating, is counter-intuitive in software engineering. We are used to treating requirements, analysis, designs, architectures, test plans, test scripts, and source code, as assets. The truth is that it would be better to think of them as liabilities. If we thought of them as liabilities then we would strive to have less of them and to get them off our hands as quickly as possible. We would seek to shorten

cycle time and deploy working code quickly while the value is more certain and the customer still needs the solution.

I call this concept Inventory Waste. Waste due to the depreciating value of work-in-progress.

[Pause]

For every value-added activity you undertake there will be transaction costs, coordination costs, capacity sucked away by failure load, and value left on the table due to inventory depreciation. If you can reduce the transaction costs, you can make small batches efficient. Smaller batches greatly reduce coordination costs. Smaller batches also correlate with higher quality and

consequently reduce failure load. Smaller batches are also directly related to shorter cycle times which leads to higher value delivered with more certainty and a significantly less inventory depreciation.

To Lean out your business, your organization and your process, you must reduce transaction cost overhead, and use small batches to reduce or limit work-in-progress. Everything else will emerge from those foundations.

[Long Pause]

All of the speakers at this conference share a dream. It's a dream of a Lean workplace where transaction costs are minimized, batch sizes are small and single-units of work flow to the customer in record time; the dream of an empowered, self-organizing, trusting, respectful workplace, where coordination costs are minimized and small batches and single units of valuable functionality are delivered to customers frequently with predictability; the dream of organizations that deliver high quality and delight customers with designs that empower rather than frustrate and as a result failure load is removed, productivity is improved and more value is delivered; the dream of a workplace where cycle times are so short that

ideas are turned into valuable functionality when they are needed and never obviated, or the value diminished by the passing of time or the unfolding of events.

All our speakers are experienced professionals and bring you their experience from a number of different industries and walks of life. They offer you their service. This conference is about you: about starting a community, a movement for change. Rob Hathaway and Karl Scotland together with Indigo Blue and support from Alan Shalloway and Net Objectives and the volunteers helping out this afternoon and over the next two days, have brought us together to learn and take strength from each other and those who we will meet who rally to our

ideas. Online communities such as the Lean-Agile group and the Kanbandev group have 1300 and 900 members respectively. Twitter traffic for the key word “kanban” runs at around 6 per hour. 90% of those messages are from software developers adapting kanban to their knowledge work challenges.

I know the road ahead will be long but do not doubt that we represent a call for change. It’s a call that will be heard and as more people see the successes we are reporting, more will believe and more will come. Next year I expect this conference to be twice as big as it is this year and to be sold out far in advance [pause] so remember to register early at leanssc.org [wink].

[Pause]

For 10 years now I've been listening to cynics and dissenters and those who would tell me that "software development is different." "David, that might work in manufacturing but it can never work for us." I heard this in 2002 about cumulative flow diagrams and the Theory of Constraints. And yet only a few short years later, the word "bottleneck" was in the common parlance of the agile software community and today, CFDs are available in almost all the agile project management tools and their usage is, according to one member of the kanbandev group, considered "obvious." I was told back then and again I have heard it recently that Statistical

Process Control charts cannot possibly be useful in software development applications. And yet I showed evidence in 2004 from my work with Motorola that they could and today you saw Benjamin Mitchell show you that he is getting value from them at BNP Parisbas, here in London. Out there, you will hear many cynics with an opinion. And those voices will continue become louder and more dissonant. There is now a small movement of people who are “Against Kanban.” And others of stature in our community who have stated publicly that “limiting WIP is for kindergarteners”, “kanban shows no respect for people”, “and kanban merely optimizes a process that needs to change.” We’ve been asked by another, a

winner of the Gordon Pask Award in the Agile Alliance, to pause for a reality check and be sure we are not repeating a mistake made by another group in the community, who assumed their simple project management method that worked well in a limited context was in fact a general purpose change management tool that could be used everywhere. We've been warned against offering people false hope that 3 or 4 times performance improvements are possible without significant resistance to change, or any specific job titles, roles, responsibilities or ways of working changing. But in the unlikely story that is Kanban in software development, there has never been anything false about

hope. From the very beginning, we have done this in the field with real projects, real teams, real people and real working software and we've reported those results openly, transparently and with integrity. Every time we are faced down with dissenting opinion, "David! That will never work in software development." Or "David, Little's Law can't possible apply to software development because it is much more variable in nature than manufacturing" or "As an industry, we are not ready for Kanban" or "You shouldn't try to optimize a process that needs to change" The leaders in this community, those you saw speak this afternoon, those who organized this event for you this weekend, those who came to Miami in

May, those who have written articles for web sites like InfoQ, StickyMinds, Gamasutra, Developer.com, Software Development Magazine, and those who provided papers for the Proceeedings of Lean & Kanban 2009 and again for this conference, have responded with real stories, facts, details, objectivity, professionalism. They exude a spirit that sums up the ethos of this community – a spirit that has made them proud to stand up and say, “Yes We Kanban!”

The dissenters claimed that “Kanban isn’t Agile.” It doesn’t use time-boxed iterations or ‘Sprints.’ But the value and principles that ground the Agile movement state we should deliver “working software frequently,

from a couple of weeks to a couple of months, with a preference to the shorter timescale." No mention of timeboxes. So… Yes We Kanban!

It started with software maintenance. Developers fixing production bugs and making small enhancements where existing Agile methods with 1 to 4 week iterations weren't a good fit. Then it spread to games production where there are many specialists creating graphics, sound, animation and data for levels and landscapes. Existing Agile methods that rely of a generalist workforce weren't a good fit. And it spread to media companies with tight deadlines and releases that happen more frequently than once a week or once a month. And

further to investment banks where every enhancement to a commodities trading application allows them to offer more products to the market and make more money faster. A new generation of software developers are saying “Yes we can” to limiting work-in-progress. Yes, we can, to managing queues. Yes we can to decoupling input cadence, cycle time and release cadence and ending the tyranny of the fixed timebox iteration. Yes we can to visualization. Yes we can to quantitative management with statistical process control. Yes we can to objective decision making. Yes we can to data driven continuous improvement. Yes we can to improving and optimizing existing processes. Yes we can to embracing

those who had not adopted Agile methods. Yes we can make this industry professional and yes we can deliver on our promises, and expectations. Yes we can give the workers back their family and social time. Yes, we can reduce workplace stress. Yes, we can improve the quality of managers and their decision making. Yes we can empower people and leave them free to self-organize within the bounds of risk aligned policies. Yes we can work smarter rather than harder. Yes we can dream of that ideal workplace. We can do all this because we can make it acceptable to say, “Yes, we kanban!”

And so tomorrow and Tuesday, as we move into the main conference, and we hear from leaders in this

movement from 3 continents and from 5 different industries and professions, we will learn how Lean and its ideas are changing health care, construction, civil service, product development and software development. You will hear stories that I believe will resonate with you and you will recognize your own workplace in them and opportunities for how you can use these ideas to change your situation, you team, your project, and your organization. This is a new beginning for the software and systems development industry. With the formation of the Lean Software & Systems Consortium to put some rigor behind training and accreditation, we have a professional industry body that by 2011 will be actively

leading the education of our workforce in this new paradigm of Lean. With the formation of the Limited WIP Society, here in London those who believe in a very simple idea – an idea that limiting your work-in-progress and only starting new work when you finish something is a good idea – are coming together to discuss how to start on their Lean journey. It's an idea that is so simple and yet so powerful. The policy of limiting WIP creates a positive tension in the workplace that has been seen to change cultures and revolutionize performance. It's such a simple yet powerful idea that individuals are adopting it to manage their personal lives and this new flavor, Personal Kanban, is spreading and catching on. A school

teacher in Pennsylvania is working with her class to create personal kanban boards for each student and she's sharing it with us on Twitter and elaborating about it on her blog. I don't know if this will lead to anything but it's fascinating to watch.

When we chose to limit WIP and pull new work only when ready and to release that to production as soon as possible, for software maintenance in the IT department at Microsoft in 2004, we started something. Now it has spread across the globe to every continent except Antarctica. People are visualizing their work, mapping their value stream, limiting their WIP, pulling, visualizing improvement opportunities, implementing them and

working smarter and smarter. And in doing so they have joined this growing movement. They are proud to be part of this change that is happening in our profession. And they are proud to stand up and say, “Yes We Kanban.”