

**November 14, 2008**  
**9:00 AM ET**

Chet Marchwinski: Hello, everyone. Welcome to Part 2 of The Lean Enterprise Institute's Webinar, Managing to Learn. In this session we'll hear from Lean leaders in service and industry about how they use the A3 Management Process at work. I'm Chet Marchwinski, LEI Communications Director. I'd like to welcome everyone to today's webinar. Over 12,000 of you from all over the world are registered to attend. So good afternoon, good morning, or good evening, depending on your time zone. We're joined today by guest John Shook, author of the new book, *Managing to Learn*, and a senior advisor here at LEI. By Lynn Kelley, Vice President, Textron, Six Sigma, Eric Ethington, Lean Implementation Manager, Textron Six Sigma, and Jack Billi, M.D., Professor of Internal Medicine and Medical Education and Associate Vice President for Medical Affairs at the University of Michigan.

Here are a few tips to make sure you get the most out of today's training and can participate in the Q&A. Use the volume controls on your computer to adjust the sound. Use the button beneath the slides on your display console to enlarge slides. To ask a question, click the "ask a question" button on the left side of the screen, type your question in the popup box, and hit submit. We'll save time at the end of the presentations to answer your questions but you can submit questions at any time during the webinar.

Later in the webinar, a survey form will pop up on your screen so please take a moment to give us your feedback so we can keep improving these webinars. If you want to learn more about our new *Managing To Learn* book or in case you missed Part 1 of this webinar, go to [Lean.org](http://Lean.org) for these and many other resources about Lean management. That's it for the housekeeping. Now it's my pleasure to introduce John Shook who will be your host for the next segment.

As you can see on your screen, John helped Toyota transfer its management system to the US and around the world. His first day on the job at Toyota City there was a blank A3 on his desk and that marked the

start of his schooling in the A3 process. John is co-author with Mike Rother of the popular book, *Learning to See*, that introduced value stream mapping. In his new book, *Managing To Learn*, John is introducing the larger Lean community to the A3 management process. And now I'll turn the virtual microphone over to John Shook.

John Shook:

Thank you, Chet. And thank you, everyone, for taking the time to join us here to explore the A3 process again. Last month Jim Womack joined me to explore the A3 as a management process and we discussed my observation that really management is about essentially two things I think. The first is simply to get each person to take initiative to solve problems and to improve his or her work. And secondly, to insure that the work people are doing, the problems they are solving and how they are solving them, insures satisfaction for the customer and prosperity for the Company.

This slide that you see here is a slide that I love and we used to use for training when I was with Toyota in Japan back 25 years ago. To me this illustrates a simple way of saying essentially the same thing. That we need, as managers, to get the work done. And whatever that is, most work involves somehow designing and building and shipping or selling things. And we need to do that while developing people at the very same time. And in fact, at the end of the day, we want to make the attainment of those two goals to be one and the same thing.

Now the connection between that, those simple principles and the A3, is that if you wish to manage in a way that helps you attain those aims, the A3 process can help you do that. Today I am very happy to be joined by some great people who have been exploring the A3 as a management process at large, complex organizations, Textron Corporation and the University of Michigan Healthy System, both of which are, if I may say, very complex organizations. But to begin, Textron is a multi industry corporation with business units as varied as producing airplanes on the one hand and financing golf resorts on the other. Lynn Kelley is Vice President of Textron Six Sigma. As you can see here from her bio, is a very remarkable woman with a rich, diverse background. She has a PhD and has done work as varied as teaching, as working in industry, as in healthcare. Eric Ethington is Textron Lean Implementation Manager and I've had the pleasure of working with Eric on this process about learning about the A3 for quite a few years now. Eric and Lynn unfortunately couldn't be with us live today, so we prerecorded the following session

with them.

I'm excited this morning to be joined by two people from Textron Corporation who have had a lot of experience with the A3 process and they'll discuss their experience with us. We'll begin with Lynn Kelley and then we'll be joined by Eric Ethington. And Lynn, hello?

Lynn Kelley: Hi, John.

John Shook: Let's just begin by asking a simple, straightforward question. You've been using the A3 now for a while, not too long, but could you tell us how the use of the A3, if it has, how it's changed your leadership style?

Lynn Kelley: Well it really, it actually has and it's been an interesting journey. I feel like I've -- I'm kind of just at the very beginning of this new type of leadership style and it's sometimes been a real struggle for me. And in a few minutes I would like to share with you one of those struggles that I've had. But I think the key part is, you know in your book you said, "leaders facilitate learning". And I think for me it is so different than what I normally think of as leadership. I think I kind of thought of leadership as leadership leaders lead, they manage, they direct. And then it's that whole idea of facilitating learning.

So I think what I started to do initially is just started asking questions. And around the A3, but also just in general. It has created more of an opportunity for me to ask questions. And some of the struggle has been, for me personally, I really like leaders that are very direct. I like to report to somebody who is no ambiguity, they tell me what they're thinking, it's very direct.

So the questioning has been a challenge for me because I know and I can see the results are better when I question, but I think because my personal relationship style is I just like to know, just tell me what you think kind of deal, that I find that when I'm asking questions, I'm thinking, well, they probably just want to know what I think. Or I'm thinking, I want to just tell them what I think. You know what I'm saying?

John Shook: I do. And you know, we want to not only hear how things go well, but the struggles. It's great to hear that because I'm sure there are a lot of people out there that have experienced the same type, the same kind of thing many, many times. I don't know that questioning means we have to

present an ambiguous front, but it becomes kind of subtle, doesn't it?

Lynn Kelley:

It is much more subtle. And I think where I had a personal learning in this, and this is the example I wanted to share with you, is that I was reviewing an A3 with one of my direct reports, and it was one of these we needed to really move forward on something by the end of the day. So part of my mind was, okay, time pressure. And we were going through the A3 and we only could do it by phone because we had limited opportunity and we had one hour set to review it. And I was being very directive. And it really-- at the end of the conversation we were still stuck because it was like, and here I think the personal aha is, I thought I was being directive in terms of saying what I think, but instead of asking questions, I was offering opinions. And it felt like we had two conversations going. And at the end of the conversation we were still not on the same page.

So I said, "okay, let's find another hour at the end of a day, let's reschedule this". And then I hung up the phone and I thought, I so blew that. So what I did is I pulled up his A3, I opened an Outlook message to him, and I said, "okay, these are all my questions around this". And I listed all of these questions. And he e-mailed me back in like 10 minutes and said, "oh my gosh, we are so on a different page. Now I see where your head was at. I need to share with you where my head is at". And it was interesting. Here my preference for direct communication, still I wasn't at the most efficient communication by being direct. So it wasn't until I started questioning. So I think it's just a personal growth opportunity.

John Shook:

Right. And with any conversation, whether we use the A3 or not, or questioning or not, I think none of this makes differences of opinion go away. But the more we can make those clear and visible, just like something visible on the plant floor, then that can help us move forward. And it's great that actually you mentioned that you're trying to embrace this, facilitating learning sort of a style, not just around the A3, but in general. And I think that is the point.

Lynn Kelley:

Yes. No, I do think it has to translate, for me personally, it has to translate in the way that I talk to my direct reports. So now one other thing on that is, so now what I do is if I know I'm going to have a meeting with somebody, I just have to sit for a minute before-- usually I do a lot of phone calls because I'm pretty-- everybody is remote. And I have to say, "okay, remind yourself to ask questions". And just that -- I think to

change your habit, life long habits, you have to stop, take a deep breath, and remind yourself, okay, I'm changing and this is what I'm going to do. But the more I do that, the more I see that it's becoming a part of the way I lead.

John Shook: Just like anything else, it's kind of a matter of practice and trying to be a little more questioning and less directive. It doesn't mean you're going into guess what I'm thinking kind of a style. You're just trying to really understand each other's thinking. And then in your case as the leader, helping facilitate or mentor the other person to go further along.

So in addition to those kind of personal learnings that have happened so far, I think you're using or in one way or another the A3 process is part of your efforts to lead improvement or even transformation at Textron. I know that's your role in the organization. Can you talk about that a little bit?

Lynn Kelley: Sure. There's -- let me maybe start with just giving you an example of the very first time I really used it organizationally. And what happened is, just a little background, we manage our company through councils so that every function has its own council. So HR has a council, engineering has a council. And my organization, Textron Six Sigma, has its own council. And we were at loggerheads with another council over an initiative. And this-- history, history, history. I mean it's been going back for several years and there was a lot of bad blood and there was some perception that we had trampled all over their turf at some point and now they were trampling over our turf. But the point is that they were changing something that we had been doing the same way forever which would impact us and would impact us dramatically.

We went kind of the whole gamut. First we, as a council, we were angry, well we'll show them. And then okay, now wait, let's think about it, what can we do? And then we were like, well, let's talk to them and we tried to talk and it didn't, it wasn't moving forward. And so somebody said, "okay, we're learning about this A3, let's use A3". So I sat down with a couple of their leaders with an A3 and it was blank. And I said, "we're just learning this, let's think about maybe applying it to this since we're both on different sides of the field on this". And I said, "okay, what is it that we're trying to solve"? And immediately the one person said, "well this is the problem". So I wrote that down. Then another person said, "that's not the problem, this is the problem". So I wrote that down. And so all of a

sudden you start to see where we started initially with the disconnect. And in my mind, of course, I had a whole other problem. So I said, "well this is the problem I think that we have".

So we worked through it and when we did, it was a fairly quick activity. We did it in a couple of hours just in terms of since they already had their solution. We worked through it mentally with just, as you say, writing it down, and then putting in their solution and then tying it back and saying, okay now, will this solution solve any of these three problems? And it turned out that it didn't. But it was so great because it wasn't me appearing to be obstinate and saying, "oh, we reject your solution". It was self discovery and it was just really an aha moment for I think for all of us. So that was one time that I would say was at the very beginning of our journey.

And then more recently, actually more recently after that, shortly after that, I was talking to our leaders of Lean. I know you know Ron Fardell. And we were talking about the problem that we have that our senseis go out to the various business units and they really are there because initially they're asked to be there. But then there's a lack of responsiveness or a lack of buy in. And sometimes they're wasting the time of our senseis. So my first reaction was, well, we need a contract. Okay, so senseis go out, they have a contract and then the business unit signs off and says yes, and we say, okay, you get the sensei for this amount of time and if we don't see results and you don't see results, we pull the resource. And Ron, you know, in his great way, came back to me and said, "well what about an A3"? And I'm like, "all right, let's try this". So that's been now in effect for I'd say over a year. And what has been great is now when Ron and I sit down and we review the activity of all the senseis that report to him, we're actually looking at A3s. And when the sensei goes out and starts a new activity at a business unit, they're doing an A3. And it's just been a really much-- if you think about the difference between a contract and an A3, it's been so much more effective than a contract would be. So it's been-- those are just a couple of examples organizationally that I think early in our journey really helped us move forward.

John Shook:

I think those are great examples, even classic. I mean the first one showed something I see a lot which is people just don't often agree on what the problem is and they don't actually realize that they don't agree on what the problem is. And so that makes it hard to agree on what course of action to take. And the other example, too, of how with the deeper discussions that

you can have around the A3, that leads to a deeper kind of agreement which is really what a contract is.

Lynn Kelley: Exactly.

John Shook: Yes, those are, I think, really classic and great examples. If you introduce it that way to the organization, so how have Mr. Fardell and the rest of the organization-- I know Eric is part of that, how are they taking to it now? You've been along your Lean/Six Sigma journey now for quite awhile I know and you've kind of added the A3 to it a little bit more recently. So how has your organization taken to it and why do you think that is?

Lynn Kelley: It's been astounding. Because what's happened is, we have never officially rolled it out as an organizational tool. So what we did is, I've been using it with the senseis when they go out. We have been allowing the business units to use it if they want to. We've asked you to come in and train our master black belts and you trained our vice presidents of Six Sigma. But we haven't officially folded it into green belt training, black belt training, we haven't made it official. And the reason we haven't made it official is that we think it has the danger of becoming just a tool in the toolkit. And so we've kind of said let's play with this awhile. And what has been astounding is, the demand for A3. And that's why-- in a minute I would like to turn it over to Eric in just a second because he's the one that's been feet on the ground out there really deploying the A3 methodology and sharing it with people.

But every time he goes to a business unit they want more. And it's not just the Lean/Six Sigma folks that want it, it's all over the organization. So it's been-- it's one of the few things that I've seen -- new initiatives are so hard because it's like corporate is pushing something else. And this is a complete pull. This is one of those things that we're not officially pushing. And we can't keep up with demand. So it's really astounding.

John Shook: Wow, that is astounding. That's great. That is cool. And maybe there's something there. So instead of a push, Textron like pretty much every larger organization, has been through a lot of initiatives over the years and in this case you're not having to push it, there's actually a lot of pull out there it sounds like.

Lynn Kelley: Yes, there really is.

- John Shook: So maybe this is a good time to bring Eric into the discussion. Eric?
- Eric Ethington: Good morning.
- John Shook: Good morning. Thanks for joining us. And why don't you tell us a little bit to get started about what your experience with the A3 has been?
- Eric Ethington: Okay. Well just to start off, actually I was first introduced to this probably, if I recall, it was probably back in the fall of 2001. And although in retrospect I didn't totally understand them, that didn't stop me from trying to use them and start creating my own and also having the folks at that point in time who worked for me start to create them. And since then, used them in I'll say a variety of situations from what you might call the traditional problem solving to much broader applications whether it's -- I've worked with the Six Sigma Council on developing career paths for specific functions. As Lynn mentioned, setting engagement strategies with leadership, managing value stream transformations. There's just endless-- in fact in one training session one time-- because in the training session we'll have people write up A3s, somebody was doing one as a personal reflection on their career path itself as a reflection of where they'd been and all the different options and evaluating what they wanted to do when they grew up.
- John Shook: Yes, you can-- any time you want to clarify your own thinking, you can kind of pull out a sheet of paper and go through it with this structured thought process and it can sometimes help.
- Eric Ethington: Yes. So I find it to be just very, very versatile in just that. When you're not that clear in your thinking, you can just sit back, grab a pencil and paper and start to clarify it.
- John Shook: So you have had quite a bit of experience with this now, since 2001, and also I should take this moment to thank you for letting us use one of your A3s in the book, *Managing To Learn*. It's in the back folder there, and thanks a lot for that. And you've done a number of A3s over the years. Could you kind of walk us through one of your A3s and tell the story of how you developed it? What effect did it have as you put it together, afterwards on the work itself, and your relationship with the other people?
- Eric Ethington: Sure. In fact, I thought since Lynn mentioned the idea of when we engage with leaders or leadership at a new facility, that that might be an

appropriate style, and so what I have here is, it's a value stream improvement for one of our plants. And the one thing I'd like to remind the audience is they're seeing the final product. So it didn't look like this all the time. It also went through iterations and what you're seeing at this point would be what I call a summary of some of the analysis and recommendations that were looked at and so on.

John Shook: Okay, it went through a lot of stages and iterations. This is my first time to see this one, by the way.

Eric Ethington: Yes, so you're seeing a final product. But I'm not going to read every word on here but obviously there's a situation that the leadership had already made a decision they wanted to focus continuous improvement activities into some key plants. Like any business, we have limited resources, so there's some key plants we want to focus on. And this plant number 40 was one of them. The problem statement within plant 40 was to improve their on time delivery and first time quality and key value streams which are to be determined. And that was a key aspect of this because we didn't know where at this point in time. Also, while building continuous improvement capabilities at all levels in the organization. In other words, they didn't just want me to come in and make the changes for them. The idea was to make them capable of making ongoing improvements to, and use these value stream improvements as that leverage point. And so as you walk through the analysis and recommendations that came out of it, we used a simple little matrix here to look at different value streams that we could potentially focus our resources and what were some key criteria that were important to this business?

One was business impact within the value stream and then also business impact across value streams where that different-- if what I learned in this value stream might be transferable to others. Getting a quick beachhead, a good demonstration of the concepts, that was important. And then also, something I picked up from my sensei, is understanding which one is the most difficult. And his whole point that he used to teach me is, if you can do it in the most difficult one, there's no excuses anywhere else. And so we threw that one in, too.

And we went through the analysis and what really kind of came out is, if we just went with the numeric high value, it would have put us in one value stream, but we would have been lacking a quick beachhead. So

working with the leadership, and this is where this is important as an alignment tool, we made the decision to have a two pronged approach. To lead with the quick beachhead but then very quickly on the heels of that, as that started to develop, then launch that value stream number ten which actually has the biggest impact in their business.

And I think that was very key upfront. Because you could have gone and done the numeric analysis and either gone with the value stream number ten, but it might have been months before other departments had something they could come take a look at and learn from. Or you could have gone with value stream number one which did allow the quick beachhead. But what you really needed was all the leadership to commit that, yes, we want to do both of these, and we're going to allow the resources to wrap themselves around these.

So then what this did is, again, capability building is a portion of it, so we identified who the key different folks were going to be that we were going to be building capability-wise. And it wouldn't just be these folks, but they were going to be what I call my key contacts. Every time I was going to be linked up with these folks and then their teams. From there we developed high level timing that we could measure our progress on and also then down into a team strategy of the dynamics of me working with the MBBs and the Lean support leads, how often I would be there, how we would start with small teams and expand. And then finally, very much I call it like a high level status, you could see value stream one status and value stream two status. And that is literally a high level summary of yet another A3 behind each of those boxes. So it's also another example that this A3 then, to really manage the specific problems that were discovered when we got into value stream one and the second value stream, when we really started digging into that, we came to the realization that, hey, we really do need an A3. And the people, the frontline folks assigned to this particular value stream, would go ahead and begin developing their own A3. And then we could roll the results right up into this.

John Shook:

Okay. So this is a pretty complex A3, or more correctly, a pretty complex problem, a situation that you tackled here. And it's worth noting that as we've started, you've got quite a number of years of experience using this. And as you mentioned in the beginning, you started out using it as a very simple kind of narrow problem solving tool. And you probably feel more comfortable using this for something this complex with this many people involved after some years of experience.

Eric Ethington: Oh, yes. Yes. In fact, when I first started using these, it really was around what I call more traditional problem solving. Maybe this feature or function on a product wasn't quite what we wanted or there was some very specific metric that we could say, hey, we're not quite hitting that. And that was the first exposure and use with A3s. But then again, as you got more and more experience and also as you get into different situations in your organization, you run into problems that have a whole lot more variables in them and so the A3s, that's one thing I do like about the process is it's very scalable.

John Shook: Right. And that kind of maybe can lead me into sort of a last question I'd like to ask you to address. Because this one brings together a lot of people and you've also, it's going to be spawning additional A3s. So this becomes really something to take -- this one A3, you mentioned this one was a summary, a result of other A3s. And now this one is going to spawn some more as additional work takes place.

So you're, Eric, you're in a little bit of a pretty unique position of having been on the front lines of helping introduce the A3 process in two large organizations. With that experience, kind of moving up now to 40,000 feet, what can you say about the experience you've had or advice to others? Or can you summarize what you've learned from using this process at two very large, complex organizations?

Eric Ethington: There's a few things I guess I'd like to leave everybody with. The first thing is, do not underestimate the alignment and mentoring aspects of the A3 process. I have gone into organizations and they look at it and it instantly gets compared to a problem solving form. People get hung up on the format. And to me, that's secondary, the format. As long as you have that nice connected logical story, the format isn't the thing to get hung up on. But the alignment aspects and the mentoring are incredibly powerful. You start-- in fact, John, you'll sometimes do this in your workshops, ask people to brainstorm why projects fail. And it really does tie back to that alignment or getting agreement. And that is very, very important.

And then the mentoring side, and one thing I'd also like to elaborate on mentoring is that mentoring is, the concept of mentoring, is really independent of position. And the reason I say that is some people will look at this and go, "oh, if there's a mentoring aspect, you get into this chicken or the egg situation, the well, since my boss doesn't know about

this, I can't start this process". And I say, :no, that's wrong. You can mentor up, you can mentor down". So it's very important to just go ahead and try it. You can mentor your subordinates, create that constructive dialogue. You don't have to get into telling people, "oh, that's wrong, or why did you do that?" You can have very, very good, constructive dialogue, asking good questions and so on.

And again, if you're worried about the mentoring up to your boss, I would almost guarantee that if you walk, somebody walked into their boss on a problem they're working on with an A3, that that person would definitely engage. Why wouldn't you? I mean, here's a clear, concise story. In fact, it might be one of the fist times they actually saw an actual nice clear, concise story instead of 40 pages of PowerPoint and 17 Excel attachments.

So those are two things, and then I guess my final thought, too, is that even outside of using the A3, I have found that it really, it changes you. It changes the way you think, the way you engage with others, how you lead. While you use the A3, it eventually starts changing even how you have just general interactions with folks because it does make you I think adjust so that you really do focus on, when you're engaging with folks, how to engage with them in a nice proactive, mentoring type situation or method. And how you lead and direct using questions versus telling people everything they should be doing and so on.

So those are some key things to me is the alignment, mentoring, and then how the two of those ultimately change you and how you lead as a person.

John Shook:

Well I think that's a great summary and three excellent things to leave people with. And again, you're speaking there from experience. This isn't theoretical. It's always easy to say that you can mentor up and it's easy to point to the fact that the organization needs to be aligned in some way, but in this case there's a process, tool and process, to help achieve that. And at the end of the day, my experience echoes yours, that it really can be something that can affect you're thinking, the way you interact with other people aside from the A3 piece of paper and format itself.

So I guess with that, I'd like to thank Eric and Lynn both for taking your time and sharing your experience at Textron and your personal experience and I think you won't be able to join us for the Q&A today, but we can shoot a few questions over to Eric and Lynn later for anyone who has questions for them. And Lynn, Eric, thank you very much for joining us.

Lynn Kelley: Thank you, John.

Eric Ethington: Thank you.

John Shook: So that was a look at Textron Corporation at two levels. The higher level of how they're using it from the broader managerial standpoint, then also kind of more the front lines as Eric is actually putting together a lot of A3s and working with people to understand the process. And we walked through one A3 in some detail. And I'm back live here now in Ann Arbor, Michigan, at the University of Michigan Medical Center where I'm in the office of Dr. Jack Billi. And Jack is one of the most energetic and passionate leaders you will ever meet in any industry. You see his brief bio up here. He actually has many more titles I think even than that and also just broad experience in many ways. But one thing, and one process that Jack has become energetic and passionate about is this A3. As he started using that as part of the Lean initiative at the, in the University of Michigan Health System. And Jack, could you share your experience and walk us through some examples?

Jack Billi: Well thanks very much, John. It's really a pleasure to be here. And I'm glad that the folks from Textron had an opportunity to walk us through one A3 in detail and discuss their uses and some lessons. I'll try to describe some of this very diverse and evolving use that's occurred at the University of Michigan Health System and I'll take us through a few examples. The first one that we have shown is an A3, I don't expect folks to be able to read it, but just to be able to see a general overview. This was a very complicated problem, and so it started as a problem solving A3, then evolved into a proposal and a status report A3 as the project itself evolved.

Patients on inpatient wards were not receiving discharge appointments in time so they would be discharged from the hospital and wouldn't know when their follow up was. It resulted in them coming back to the emergency room, being readmitted, and lots of other problems. From the gemba observation in the middle left, we were able to identify the extremely dysfunctional current state of the way these appointments were made. Lots of parallel processing and the process never went well. Very poor first time quality.

After reflecting on that, the group who owned this problem, the nurses and

doctors on that floor, decided to run a pilot program. They ran it for a part of the ward and the pilot is described in the upper right. As a result of this pilot, they were able to increase the number of patients who showed up for follow up appointments dramatically. But more importantly, they decreased the number that came back to the emergency room within 72 hours. They decreased that number by 80% and they decreased readmissions by about 30% as well. So real important outcomes.

So this A3 presented the work of this pilot to date and it provided the basis for an extensive discussion among the senior leadership team. As a result of this A3, people understood what had been tried and what the results were. Now some wanted to just implement this whole pilot around the organization immediately. Others weren't so sure. But by using the A3 to discuss the real facts, we were able to arrive at a conclusion as to who owned the dissemination and we asked those people to come back with an A3. They presented a proposal to expand this pilot to five other medicine services that had a very similar need. And as a result of that, it transitioned from a status report A3 back into a proposal A3 for some lateral spread of a successful pilot.

So if we look at the very diverse experience that we've had, I'd say we have A3 fever in our organization, John, in that we really hadn't anticipated the rapid spread that would occur. But folks are picking this up on their own and using it to communicate their ideas. We've used it, for example, for a major clinical expansion in a neighboring geographic area to present the pros and cons as well as looking at what the use of resources would be for that expansion versus other major needs the institution will have for those resources over the next ten years.

We used it for reviewing capital projects, and I'll talk about that more in a minute. But in addition, whenever folks are requesting some Lean facilitation, we ask them to present their request in the form of an A3 so that the group that prioritizes our resources has a good idea as to what the problem is they're trying to solve and can more easily see if resources are lined up behind these.

We were requested to produce a large claims data warehouse for Michigan Physician organizations and we used an A3 to analyze this work to make sure that we had agreement among those sponsoring it and those who would be customers as to exactly what we would accomplish.

We also used the A3 format to propose to the health system leadership that they would use A3s to track progress on their top objectives. They agreed to this, and now we've started to see the individual leaders who take responsibility for one of these objectives come back with a status report A3. In addition to this, we've had this, as I say, grow up organically. One of the projects that we did for, we worked on for several years that was really having great difficulty trying to make sure our faculty members were, the on boarding process for them which is very complicated, was running right. And that project was having a lot of trouble and recently an administrative intern decided to create an A3 about the current state, brought it back to the group, and I just heard earlier this week that the group said we finally understand where we're going wrong. We agree to the plan that's described on here with some minor tweaks, and we're committed to go forward with this.

In addition, the Dean of the Medical School recently asked all of his administrative heads if they could free up 25% of resources for to be able to accomplish things in their academic missions that they weren't doing now. And they agreed that we would use the A3 thinking as a way to do this. So we've mentored about 30 of the school's leaders and I have clinic hours, if you will, A3 clinic hours, where people bring their A3s to me, they get some feedback on it informally, and I then give them some advice. And we're aiming towards a dry run of all these on November 21st.

And then the last anecdote, just last night I was coming out of a meeting at about 8:30 and the chief physician assistant at the University of Michigan stopped me in the parking lot and said he had an idea for creating a physician assistant school at the University of Michigan Health System. And he said, "you know, I've created an A3 about this, I need to tune it up. But I would like to come by your office and show it to you and get your ideas on it".

So just incredibly diverse and organic growth of this art form. The one that I mentioned in particular, this using for the capital projects, we previously reviewed capital requests and the requests would come in in quite diverse formats. There was a standard form, but there was quite a bit of diversity in the backup material and level of detail. Usually we'd sit through 10, 15, 20, 25 PowerPoint slides. And so two years ago, we decided we would use the A3 format for these capital requests. We did some training. It was definitely just in time. And often the folks that were

presenting these A3s, they were the first ones they had ever created or presented. The actual requester of the money presented the A3 to the group that reviewed these. The presentations and discussions went at a takt time of 20 minutes a piece, and folks were able to really understand what problem these folks were trying to solve. Instead of in the past we would hear about the capital and all the great things it would do, but we didn't really understand explicitly what the problem was.

Frankly sometimes the people presenting the request didn't necessarily understand the problem. So it really helped the people reviewing it quickly get to where is the case strong and where is it weak? Do they really understand the root causes? Do they understand the current state? Had they been to see? Had they really thought through other alternatives? Do they have all the ducks lined up that they're need to so that if they get the capital, they'll actually be able to solve the problem?

So it's definitely been a learning experience for us. We've really got lots of lessons. These are scars and stories from the gemba. We've had some occasions when folks will start producing A3s and think that the form is actually the result. Whereas the conversation and the consensus it builds is really the result. The mentoring that goes on formally and informally around these forms, is really the desired result. So we try to encourage people to use it to smoke out disagreement, to try and reach consensus as they're tilling the soil from all those whose opinion they need in order to craft a good solution.

Some of our A3s have not had enough gemba. We sometimes debate them in a conference room and folks are saying, well I think the problem is such and such. And so one of the things that we're trying to do is to in these conversations to redirect people back to go and see, ask why, respect people, so they can see what's actually happening.

Many of the A3s like the one that I showed you a little before has too many words, not enough graphs and charts. We always think more is more and we need to learn that less is more. And I think we'll get better with this over time. We're gradually improving. Sometimes when folks present an A3, or describe their problem, they've prepared a really good distillation, very logical. But then they go off paper and just start freewheeling about the problem. So we try to encourage people if it's that important to say, get it on the A3 so that we're all able to see it and critique it.

We've also had the waste of over processing. Some people have spent more time preparing the A3 and getting it to fit within the borders than they've actually spent on the thinking and looking. So we try to encourage people not to be so compelled about the format. And to do it in pencil and paper and we'll just copy it on the machine here. And we also have some individuals for whom the A3 was required, and just as John taught me, never tell anyone exactly what to do or you may remove the responsibility for the outcome. So definitely our richest ones have been the ones where the people have pulled the format themselves rather than being forced to do it.

So we've found it's an incredible tool to cascade responsibility and to smoke out disagreement. With this tool, anyone can take responsibility for a problem and start to build consensus, start to generate the authority they need in order to solve the problem. So we found it really incredibly valuable. Thanks, John, I'll turn it back over to you.

John Shook:

Well, thank you, Jack. And before you leave, the University of Michigan Health System is a very complex organization, 17,000, 18,000 people, it's part of a university which is being overseen by a state and a lot of very smart people. You have doctors and nurses, administrators, and a lot of experience with PDCA, PDSA, going back many years ago. You've had a quality initiative going back many years ago as well. But even with all that that's gone one, everything you've indicated is that this A3 process has changed the tenor of the conversations that are had. They're more focused and more focused on enabling people to truly gather together to put their attention towards solving real problems. Is that how you see it?

Jack Billi:

Yes, I think so. I think that the best of our leaders have always had a pretty good skill to understand the problem. But without a standardized format that fostered the good conversation, it was too easy to kind of miss a key area. So I feel that using the A3 format has helped us to structure the conversations. It's actually dramatically improved the mentoring. So instead of a leader to whom an idea is being presented or someone who's making a report at a meeting, sort of going on and on talking about things, they move in an orderly fashion. And everybody is ready for the next section. Their brains are prepared for it and they start to see the connections. And when the connections aren't there, it's pretty obvious, and someone can call that out, not in a judgmental way, but to try and elucidate it. And on the plans, we always try and have a very specific plan

who will do what when. And on those plans, if someone's name is on it and they're not in agreement, this is a great time for them to speak up about it rather than us thinking it will get done and finding out two or three months later that it's not being done.

So I think it's really helped structure the leadership conversations much more productively. So there's a lot less time wasted on just the circumstantial details. And people really get right to the heart of the matter.

John Shook: Thanks a lot, Jack. I think that really resonates with what we tried to emphasize in our webinar last month which is to emphasize the use of the A3 as a management or even a transformational process. It will only serve you in that capacity though if you decide to manage accordingly to actually decide that you want to manage differently. Otherwise, the A3 can easily become just a simple fill in the box exercise. And with that, I'd like to turn things back over to Chet and we'll deal with some of the questions that have come in. Chet?

Chet Marchwinski: Okay, thanks a lot, John and Dr. Billi. By the way, if viewers want to learn more about A3 thinking, please visit [Lean.org](http://Lean.org) and just click on the Managing to Learn picture you'll see. It will take you to a Q&A with John Shook, related articles, downloadable chapters from *Managing To Learn*, and related webinars including the first Managing To Learn webinar with Jim Womack. And by the way, there's been a lot of questions coming in about people looking for blank A3 forms. Again, if you go to [Lean.org](http://Lean.org), go to the library tab and then go to getting the right things done. In this section of that book, there are downloadable blank forms that you can use.

And by the way, I just wanted to mention that John Shook has entered the blogosphere recently with his new Lean Management Blog hosted weekly. You can access the latest column there and also an archive at [Lean.org/shook](http://Lean.org/shook). And now let's go to your questions.

There was a couple like this. John, you might want to take this first from Ken in Minneapolis. Can you comment on the difference or similarities between A3 for problem solving, A3 for strategy development, A3 for executing projects, a tactical A3? Specifically is it the template and the content that changes or are they the same? And what is the critical element of each of these?

John Shook: Well, that's a pretty elaborate question. I think it's an important one to point out. We talked a little more last time, last month, about the different types of A3s. And what we saw today, we were kind of focusing more on the higher level managerial and strategic. But it's important to recognize that we often categorize A3s into three or four different types. And the first most basic type, and this is what you would first learn at Toyota, is simply a problem solving A3. And this is where someone who's maybe a little-- as you enter the company, the first thing that happens as you said in my introduction, Chet, is I arrived at my desk, there's a blank sheet of paper. And that's an A3. And I was mentored to the process of working through a problem to identify the root cause, propose some counter measures, and then put that in place. So the problem solving A3 is the most basic type.

From there we also have proposal A3s and that's what the focus of the major example in the book, *Managing To Learn*, is. But also, A3s are used for overall corporate strategy, essentially look as part of the Hoshin Kanri process. And they're also used for any kind of status review or any kind of discussion. Whenever we would-- whether Toyota or other companies have seen the use of this process, when someone wants to start a dialogue about something specific, just as Dr. Billi's example of someone came up to him the other night and offered to bring his A3 by so they could discuss it. It enables much more focused and rich discussions, being able to do it that way. But there are those different types and one concern about a short amount of time as we have this one hour or even the previous webinar, is we can only show a few examples and go through -- take a quick slice at what it is.

We go through a little bit more in the book, but there's a rich world out there of different uses of the A3. It can be so very flexible and can be used in many situations.

Chet Marchwinski: Okay. Dr. Billi, a question for you. Please discuss the catch-ball process versus individuals doing their own A3.

Jack Billi: Well we-- the way A3s have evolved at the University of Michigan Health System, we don't have a specific process that must be followed. So in the middle of a meeting where things are not going well, sometimes we'll -- I'll go up to the board and actually start sketching out an A3 about the problem we're trying to talk about so that people can see where the gap is. Then we'll find we really don't understand the root causes. So sometimes

it's done as a group activity. In one program where we're trying to develop a program called the advanced medical home, we work for a couple meetings trying to grasp the situation and then as a group exercise we actually did an A3 on the board together. And that was then taken by the project manager and tuned up and then shopped around.

So with regard to catch-ball, we use the [Nemo Washier] Till the Soil model using the A3 as the currency. So when an individual has responsibility for a problem there, the owner of that A3, they bring it to folks. Not just those they report to, but the people they work with, the people who are in the gemba, peers whose cooperation they'll need in order to solve the problem. And that process of bringing, instead of just going and saying here's the problem I'm trying to solve and here's what I think is going on, that allows the person who's input their seeking, to be very specific about where they think that something might be missed. As I say, it smokes out disagreement. And where there's ambiguity, it quickly arises where one person says I thought you meant this and the other one said, no, I meant that. And so we take the pen out right then and there, change the A3 in real time so that it shows respect for the input you've received. And as a result the A3 gets better.

Through this catch-ball process, I've had A3s that are on complex institutional issues that I've brought around to 10 or 11 people and then started back again with them, because the idea gets better and better and richer and richer. And I think it's very consistent with make decisions slowly through consensus in order to speed implementation.

Chet Marchwinski: Okay, and Dr. Billi, this question is also for you. Do you get any pushback from folks who did not want to fill out the A3 and how did you deal with that? And John, you might want to comment also on how to deal with resistance.

Jack Billi: Yes. So by and large so far an A3 has been something that far more people have wanted to use because they want to make a compelling case than the reverse situation where we're forcing people to do it. With the capital process I described, we did have some people-- we actually surveyed the people who created the A3s, the process owners and the people who had to review the projects to make decisions. And the response was, yes it was difficult. You have to remember, this is often the first A3 these people have ever done. But they described, yes, it was difficult. And my understanding and my problem actually changed as a

result of my going through the A3 creation and the discussion and dialogue. And when we surveyed the folks who were reviewing the projects, they were overwhelmingly in favor of this. Having sat through this process in past years and not even understanding the problem that people were asking for capital to solve, this really allowed that group to focus on the problem, to think about alternatives, and to understand if there's a lack of connection between the root causes and the solution that's being suggested. So we certainly had a little more resistance when people "were forced to use it". And our goal is to try to show people how powerful this is to make your case. It's all about telling your story. We don't actually have standardized box titles. We follow John's model as described in *Managing to Learn*, where it's up to the individual or the group that owns the problem to tell the story they believe in a way they believe is most compelling. So we don't force them into a format. We encourage them to tell the story the way they think best. And if they've shopped it around and built consensus among many people, then they end up with a rich form.

Chet Marchwinski: John, any thoughts on overcoming resistance or building consensus?

John Shook: Well, as you know, Chet, and as we talked last month, I mean I'm kind of amazed that I'm talking about this 25 years after I first met the process in Japan. It was so simple then when we used the term A3. We literally meant go get a sheet of paper and on one sheet of paper be able to tell the story of what you're working on. The problem you're trying to solve and what you propose to do about it.

What I've found though is the tool is incredibly rich and flexible and can be used in many environments. And the pushback that I've seen against it has been just amazingly small, very little. Because as Jack was just explaining, it can be such an empowering tool if that's how we decide to use it. The problem becomes I think when we try to use it as essentially a meaningless check the box exercise. People smell that immediately, that this is something that's not going to go anywhere. If they realize it's actually going to help them, then they will embrace it. And the thing is, this making a story, a six panel story board, or putting this one page memo, isn't new. So it's not-- this is one of those Lean tools that's truly deceptively simple. The A3 itself is simple, but if we actually embrace what's behind it, then I've found the resistance to be almost nonexistent.

Chet Marchwinski: Okay, let me stay with you and that point for a second, because here's a

question that might even develop that some more. The person is asking, why does A3 promote asking questions? To me the A3 is a structured way of telling a story based on a vision and a direction of where to go. The method of asking questions sounds to me like the concept of coaching which I think is a competency in itself, not directly related to A3.

Jack Billi: This is Jack Billi. I think that Lynn actually got to that in her discussion of Textron, how she wanted to be a leader who didn't just tell people what to do, but rather a leader who would probe with questions so that she would develop the thinking and problem solving capabilities of the people who reported to her.

What we find is that using the A3 is a format that encourages the leader to ask questions. It's so much easier to mentor people to probe their thinking to see where you may be able to provide them, ask them a question, provide them some suggestions. And it's so much easier to do that when you're actually looking at their thinking laid out on paper as opposed to trying to guess what they're thinking is in their heads.

So I find it, when people bring it to me, I find it much easier to actually probe them. Of course I still need to say, to go through the exercise myself of saying, "oh, I think there's a flaw there". Not just telling them what to do, but rather to say, what question can I ask that can encourage them to think through what I see as potential weakness in this area.

Chet Marchwinski: Okay, good. We're almost out of time, so this will have to be the last question. And there are a few questions from people about metrics. Where do you bring in metrics on an A3 to know if you're being successful?

John Shook: You bring in the metrics on the A3 the same way you would any business case in any business story. You would lay them out upfront in the current state and you would dive into them deeper as you set the goals. And then you would lay out in your plan exactly how you're going to close the gap.

And we talked about the different kinds of A3s and that becomes much more explicit and clear when it's a simple problem solving A3. And sometimes gets a little more indirect as it gets farther out in terms of a proposal A3. And also, there's always a status review that we go through. Once we put an approved project and it's in place with the proposal A3, then we're going to have status review A3s that will focus very much on the metrics.

But the previous question, just to go back to it for a moment, that in fact it was a great question about how the A3 itself relates to questions. And that's exactly what inspired us to write the book the way we did. As an A3 itself, yes, you can just learn to write one, you can learn to write one in a day. But the reason we're referring to it as the A3 Management Process, not just the A3 piece of paper, but as a management process, is that it can make it easier for us to ask those questions and to mentor people. So I think the question was going down the right path to think about that. And in fact, that's exactly why we approach it as we do.

Chet Marchwinski: Okay, thank you, John. Unfortunately we're out of time so I'm going to have to wrap it up now. Thanks very much John, and thanks to Dr. Jack Billi at the University of Michigan Health System, and also to Lynn Kelley and Eric Ethington at Textron. In a few days an archived version of the webinar will be on our website, [lean.org](http://lean.org), along with a transcript. So on behalf of everyone here at the Lean Enterprise Institute, we wish you continued success in making the Lean leap.