



The Deloitte On Cloud Podcast

David Linthicum, Managing Director, Chief Cloud Strategy Officer, Deloitte Consulting LLP

Title: Digital transformation: It's a big leap from theory to practice

Description: Digital transformation (DT) is often easier said than done, but it's essential for organizations to transform to remain competitive. In this episode, David Linthicum talks with Thomas Erl, author of the book *A Field Guide to Digital Transformation*, about putting DT concepts into practice. According to Erl, customer centricity is the driving force behind DT efforts, and to be successful, it's absolutely critical to have the right thought leadership at the helm of any DT initiative.

Duration: 00:26:54

David Linthicum:

Welcome back to the On Cloud Podcast. Today on the show I'm joined by Thomas Erl, thought leader in the digital transformation space and bestselling author of his recently-released book *A Field Guide to Digital Transformation* published by Pearson. Thomas is the president of—is it Arcitura? How do I pronounce that?

Thomas Erl:

It's Arcitura.

David Linthicum:

Arcitura—just like it's pronounced, okay. It's A-R-C-I-T-U-R-A Education, for which you oversee the Digital Transformation Professional Academy Accreditation curriculum and also accessing your advisor for transformative digital solutions. So, how long have we known each other, Thomas? I think it goes back, what, 20 years? I mean, the early days of SOA.

Thomas Erl:

That sounds about right, yeah. I started writing my first book in 2003. It was published around that time, and I think we've been in touch ever since around that time, yeah.

David Linthicum:

Yeah, he coauthored 15 books, and he was publishing the bible around service-oriented architecture. Everybody had his book on their shelves, and this is back in the enterprise service bus days, and kind of the early days of cloud computing and getting into service-based architecture and service-based delivery of systems. And there was a tremendous amount of—I thought a knowledge gap that needed to be bridged between what people should be doing with services and the right architectural approaches, things like that, and what was actually occurring, which, I was in the middle of both sides. And it was a huge struggle trying to figure out how to leverage services correctly and then ultimately morph them into what cloud computing is today and then morph them into modernization of existing technologies and morph them into digital transformation. So, how has the journey been for you, say in the last just, say, 15, 20 years?

Thomas Erl:

It's been really interesting, and I think that what we have evolved to now with digital transformation has several of its roots in what we were exploring back in those days, because much of what service technology has become has inspired a lot of the different elements that we can now combine as part of greater enterprise-level digital transformation solutions. And what I also see, which is interesting, is how there are opportunities to also benefit from some of the standards and some of the regulatory aspects that we learned that we had to learn when we were adopting service-oriented architecture and other architectural models that needed to be consistent in how they were established. A lot of that forms the basis of best practices in the digital transformation space as well.

David Linthicum:

So, you formed your company, Arcitura—hopefully I got that close—Education, and you led the development and courses, internationally recognized vendor-neutral training and accreditation programs, portfolios consisting of over 100 courses—wow—and then different exams, 40 certification tracks covering topics such as digital transformation, robotic process automation, DevOps, blockchain, IoT, containerization, machine learning, artificially-intelligent server security, service-oriented architecture, and cloud computing just to name a few. Man, you're hitting these old topics we never hear about anymore. *[Laughter]*

Thomas Erl:

Yeah, it's—that whole curriculum, that whole program, that whole portfolio of courses and certification, it evolved over the past—I started that around maybe 15 years ago. It began with SOA courses, then grew into cloud courses, grew into big data analytics, and then into contemporary topics such as blockchain, IoT, RPA. And then more recently we released the Digital Transformation Professional Academy, which is a curriculum of 18 courses and 9 certifications dedicated specifically to digital transformation.

And it's interesting how, when we grew that whole program, we were documenting technology innovations that eventually became part of the core technology set that digital transformation relies upon. A lot of those technology innovations that comprise digital transformation solutions today, they're not new. They're AI, machine learning—all those different aspects of data science and automation technology have formed the basis of what we now build in very, very modern, cutting-edge digital transformation environments.

David Linthicum:

Yeah, that's very profound, and we're going to talk about your book, *A Field Guide to Digital Transformation*. If you think about it, digital transformation, at least the way I see it—and I read your book and I saw aspects of this as well—is able to bring many disciplines and many learnings that we have figured out over the years and then put them into some sort of a configuration where we can actually modernize existing enterprises to kind of get into the last mile of automation, get to a point where they can generate better customer experiences, generate different innovations, and things like that where you're leveraging digital transformation and leveraging technology. But the portfolio and the technology that you leverage—and you just covered this—are already pretty well-known. We know how to use them. It's the ability to use them in the right configuration that makes digital transformation successful. Am I off base?

Thomas Erl:

Absolutely. It's cherry-picking specific technologies that relate directly to the objectives we have when undergoing a digital transformation. There are common target states, there are common goals that we pursue that are specific to our business, but that are also common to what digital transformation as a whole offers us—for most of those it's enhanced customer centricity, in addition to all of the other automation and data science enhancements that we gain from undergoing digital transformation. But, ultimately, we're looking at being able to grow our business, become more relevant online in digital marketplaces, but also give our organization the opportunity to explore new lines of business, which is what is referred to as being disruptive.

When there are markets out there that are relatively established, that have been established historically for long periods of time, now with the technology innovations we have, we are enabled to enter new markets with whatever products or services we may have to offer, explore those markets, and disrupt those markets by basically muscling ourselves in there looking to grow our organization, not just with what we've accomplished so far in terms of the scope of what we do, but increasing the scope of what we do in new lines of business.

And, so, it's causing all kinds of interesting dynamics in global marketplaces where you have players in certain markets that never existed before. But through utilizing data intelligence collected from contemporary data science systems, we have the ability to assess new markets and target them and find our way in there as true competitors. And all that relates back to customer centricity because valuing customers as important assets that we look to foster in terms of customer loyalty, in terms of positive customer relations, that all has become more important than ever because we can no longer take customers for granted, because the digital marketplaces are now so competitive and volatile. So, new disruptive organizations entering a market do so to take customers away from others. Those in that market need to step it up and increase their competitiveness and try to gain back those customers or themselves grow and overtake others.

So, it's very, very interesting. It's very dynamic. For some organizations it's a bit scary because they're a bit behind the cycle. But overall, just from an international business technology perspective, this is a very interesting time.

David Linthicum:

Yeah, and we've talked about this on the podcast many times. The reality is if you don't become a disruptor, you're going to get disrupted.

Thomas Erl:

Exactly.

David Linthicum:

And your ability to leverage technology as a force multiplier to better the customer experience is core to fundamental to what business is going to be. I mean, we look to all the disruptors in the market right now, but many of them weren't even conceived ten years ago. And now we're moving these disruptions into pharmaceuticals, and finance, and banking, and insurance, and all these industries that are just more traditional in nature that have these brands that have been around for a long period of time. And your ability to create a digital presence to delight your customers and create a superior customer experience and create value in the minds of your customers is ultimately going to be strategic to your success. And people who don't understand that are going to find they're going to fall by the wayside.

Thomas Erl:

That's right.

David Linthicum:

So, I loved your book because it focused on two concepts. It had one section which was the fundamentals and another section which was digital transformation in practice, so the fundamentals of digital transformation and digital transformation in practice. I loved that because there is kind of a divergence between what we think is fundamental to technologies, in other words what looks good on paper and the way you actually make this stuff work in the field, which is sometimes completely different. And I loved the fact that you really said, "This is fundamentally what you learn. This is how we're considering this technology. This is how we're considering the concept of digital transformation. And this is how to make it work." And that's a missing part of the conversation, I'm finding, in the digital transformation space. So, what motivated you to cover both ends of the spectrum there?

Thomas Erl:

Well, what frustrated me about where digital transformation was going in terms of its perception within the industry was the ambiguity surrounding it, which is a similar feeling that I had in the early days of SOA, which led me to author concrete aspects, characteristics, principles, patterns about that technology model. It led me to lead the SOA Manifesto that we published back then to clearly state to the industry based on this consensus, "Here is what SOA is; here is what SOA is not." So, that was over a decade ago.

I felt the same was needed for digital transformation today because organizations attempting it have been failing because of a lack of understanding of what it is they were expecting to achieve or a lack of understanding of what it is they needed to do to achieve their expectations. So, I really wanted to pinpoint based on a great deal of research I did with my coauthor, Roger Stoffers, of what exactly contemporary digital transformation—as a field of practice that transcends both technology and business—what it is comprised of and what it is not comprised of. What exactly are the goals? What are the criteria? What are the risks? And what are the practices and technology that commonly comprise these environments? And that gives us a template. It gives us a vanilla template that we can look at, that we can then marry with our business requirements, our unique goals for our own organization, and then chart a very specific roadmap that we can then follow in order to carry out the transformation.

And, so, what further influenced this book, which was different from my previous books, was that because digital transformation is not an IT-specific topic, it's something that business needs to understand as much as IT does in terms of what the overall scope, objectives, and requirements are. So, my previous books were more technical. They were written for a technical audience.

With this book I made an effort to split it into those two parts you mentioned. The first part is more—is written more for a general business and IT audience, anybody that wants to understand digital transformation conceptually and wants to understand how it relates to the business and some technical aspects that business must understand. Business leaders, business professionals involved with these types of initiatives, they do need to improve their awareness and understanding of certain aspects of technology. That is a requirement to successful transformations. And then on the flipside, IT professionals involved in these initiatives also better need to understand the business context of what it is they're building for.

And, so, that first half of the book is for business and IT in general. This is what you need to understand. This is what it is, this is what it isn't. And because of that broadened audience, we had to offer it in more of a plain English style that really was accessible to anyone without getting into technical details where they were not necessary.

And then the second half of the book is more for the technical business professional, but also it is for the IT audience to better understand now how we actually put this in practice and build these environments that provide us with the benefits and enhancements and characteristics that we describe at a higher level in the first part of the book? And that's where we get into those primary technologies, we discuss them individually, and then the book concludes with somewhat of a case study that shows them in a step-by-step application in a real-life type of solution, which is not just about demonstrating technology.

But it's also about demonstrating how the application of that technology realizes customer centricity on a number of different levels and in a number of different ways, because that's what a lot of this maps to ultimately. There are connection points between what we build and specific goals that pertain to enhancing customer centricity that need to exist in the solutions that we end up building, and that ties back into our business objectives, as well.

So, that was sort of the approach we took, which was different from previous titles. But I have found it actually more challenging than previous titles because the language had to be simplified in order for that to be accessible and understood by a broader audience.

David Linthicum:

Yeah, it's a great approach and it makes the book more effective. I've recommended it to many colleagues and many of my clients or people who look to figure this out because again you get both sides. You get the fundamentals of what this is—and I've written lots of books on the fundamentals of technology—but you get the real-world practicality and use in a case study, which I think is missing in a lot of the books that are out there. And, so, it's a better approach, I think it's the way people are going to look to have books written moving forward, and even taking courses they're going to see that they need the reality aspect of it. They need to figure out what's the inside baseball and how you make this stuff work. What are the secrets that I'm not hearing in other places? And I think that's going to be a valuable message moving forward. So, what are the current trends in digital transformation that you've been watching? And what do you see kind of emerging?

Thomas Erl:

Well, there's evolution of the technologies themselves. There are—we talk about how we can delegate decision making logic to AI systems in order to enhance our automation. We talk about how we can secure data in blockchain-distributed ledgers in order to have immutable and highly—high-integrity in terms of the data we capture because as we move more to a digital presence, we expose ourselves potentially to more cybersecurity concerns. And we see evolution in those technology advancements, which even though those technologies have existed for some time, now that there's an appreciation by the technology vendors of how they are being used together as part of greater digital transformation solutions, there are enhancements being made in accommodation of that, which is really encouraging to see.

And the—in terms of the trend of the field of practice of digital transformation itself, even though we're advanced in terms of the technology, I feel like there's a lot of technology out there that can do a lot of very powerful things for us. Even though that is an advanced stage and will continue to advance—RPA, which I neglected to mention, is another one that has to further evolve—what we really are seeing, which is a critical success factor for organizations everywhere, is an advancement of the business awareness, the business understanding, and what I refer to as leadership intelligence surrounding these initiatives, because as much as they are technology-centric and as much as the technology enables everything we do, we cannot achieve digital transformations successfully without not just an understanding of our business goals, but strong leadership and awareness of how transforming towards a digital environment impacts the organization, its culture, and the human elements that are part of enhanced automation.

For most, it introduces significant shifts in those areas. The culture needs to change. It needs to become more customer-centric. Just building customer-centric solutions isn't enough. We need to ensure that all those who have traditionally had a certain mindset regarding external customers, be they retail customers or partners or different levels of interaction we have with our outside parties, that there's an attitude change that organizations have to undergo to carry forward a more customer-centric approach. So, that impacts the culture.

Also, there are structural changes within the organization. Whereas we previously may have had different departments and different silos working on different products or product lines, those need to be consolidated in order to achieve certain levels of customer centricity to enhance not just cross-marketing, but also just to make things as easy and convenient for customers to be able to interact with all of our different product lines together. And often that requires a change to the org chart where we are now combining departments, reallocating different types of resources, and so on.

And then finally, with the enhanced automation there is often an ambition to step up automation that—of tasks that have been traditionally carried out manually, which means replacing human workers with automation. And, so, that's not something you just want to do and lay people off as a result by. You want to have a plan in place to reallocate human workers affected by that, ideally retrain them, and then give them more responsibility, more meaningful responsibility so that the menial tasks can now be automated, and they can move on to doing more rewarding things, both more rewarding for the organization and for their own fulfillment. So, that requires planning, that requires strong leadership, and it requires that awareness of what that all entails.

And, so, that's a trend that I see. That's a trend I'm hoping publications such as this book will help support, because the scariest thing is an organization that sees these technologies and says, "Yeah, we want to become more digital. Let's start adopting some of these things and let's get out there, put things online, and let's get into the digital space." And if that's the vague sort of notion of what they are working toward and it's labeled as a digital transformation, then there are about a hundred red flags that just jump up right away. But they may not be aware of that just because of that lack of understanding, both from the leadership side as well as others involved.

So, having that very concrete and clear and unambiguous perspective of what it is we're doing—are we ready to do it? Once you have that understanding, you can also better look inside your organization and determine are we actually ready to undergo this? Should it be carried out in stages or should we start making some internal communication and restructuring efforts before we even begin in order to maximize our chances of success? So, that type of realization, that type of insight is also necessary, and that also traces back to strong leadership.

So, that's a trend I see now more than even a year or two ago, where it was just not as much in the foreground in terms of considerations and factors for organizations undergoing these types of initiatives. And now it's become more to the forefront. It's something that organizations, that leaders, that even IT is talking more about. And there's often a hesitation. There's, oh, well, if it is all that, are we at that point? And then that sparks conversation about steps to take to get us to that point where it can be concretely planned.

So, that's I think the most important trend. There's all kinds of individual technology trends, but ultimately with this type of initiative, having that thought leadership right at the helm of the initiative for a given organization is paramount.

David Linthicum:

So, where can the listeners buy a copy of your book? And, also, more importantly what would be some short—what would be some advice in terms of them breaking into digital transformation from whatever IT career path they seem to be on right now?

Thomas Erl:

The book is available via Pearson. They have their own site, Inform IT. But it's also available via the regular book outlets. In terms of advice my work with the Digital Transformation Professional Academy is dedicated to providing a vendor-neutral but really comprehensive curriculum that has certification tracks for the primary roles that we find projects now need for digital transformation initiatives. So, whether it's this type of program or another, my advice is to get some form of accreditation so that when you have the opportunity to be part of a digital transformation initiative, you can present accreditation that promotes that context.

You have blockchain experts, you have IoT experts, you have data science experts that can be—that are necessary as part of these types of initiatives. But to—now as we are growing in our understanding of what it's all about, we have this realization that there is a very unique and distinct context and distinct parameters and requirements that all this is based on. It's very concrete now. It's very straightforward. So, once that realization is there with an organization, they will want professionals on their team that also have that understanding, that don't just have an understanding of AI on its own, but have an understanding of AI, data science, and how does that fit in and how is it positioned or how can it be positioned as part of a digital transformation environment. And when that common understanding exists across the entire project team, then you maximize your chances for success.

David Linthicum:

So, where can the listeners go to find out more about your company, your education company? And, also, do you have any podcasts or blogs you want to promote here?

Thomas Erl:

Oh, thank you, David. So, Arcitura.com, A-R-C-I-T-U-R-A.com has all the information about our courses and certification programs. I just began a podcast series called "Real Digital Transformation." The first episode was published last week. That's available on most platforms. And then I also act as a senior advisor with Transformative Digital Solutions. The website is Transformative.Digital. And there I work with a team of digital transformation experts to provide different types of professional services for organizations that are embarking on digital transformations.

David Linthicum:

Well, make sure to follow Thomas because he's got some great insights into where this technology is going and he's always five to ten years ahead of everybody else in understanding where—not only where the transformations and the evolutions are moving, but pragmatic approaches to understanding the technology and pragmatic approaches to making the technology work, which is the most important thing out there. Everybody can explain and have theories on where things are going and how things should be used but understanding how it works inside a real business with real people is really the larger problem to solve.

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