



Digital transformation

A Dynamics 365 conversation
with R "Ray" Wang



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Introduction

Breakthroughs in and the exponential pace of disruptive innovation are fundamentally changing the way we live, interact, and do business. In response, companies are looking to digital transformation as the key to innovation, growth, and the discovery and creation of new business opportunities. So, while the “why” of digital transformation may seem obvious, it’s the “how” that isn’t always as clear.

That’s where R “Ray” Wang, Principal Analyst, Founder, and Chairman of Constellation Research and author of the best-selling book *Disrupting Digital Business*, comes in. Microsoft sat down with Wang to get his insights on the impact of digital transformation on business processes and the keys to successfully navigating digital transformation.

Portions of the content from this interview have been edited for clarity.



Biography

R “Ray” Wang is the Principal Analyst, Founder, and Chairman of Silicon Valley–based Constellation Research, Inc. He’s the author of the popular business strategy and technology blog “[A Software Insider’s Point of View](#),” which provides insight into how disruptive technologies and new business models impact brands, enterprises, and organizations.

His best-selling book, *Disrupting Digital Business*, published by Harvard Business Review Press, provides insights on why 52 percent of the Fortune 500 have merged, been acquired, gone bankrupt, or fallen off the list since 2000.

Wang is a prominent and dynamic keynote speaker and research analyst working with clients on harnessing innovation, creating next-generation business and IT leadership, and applying

the new rules of business. He’s spoken around the world, from keynotes for tens of thousands of people to intimate executive settings such as Davos. Technology topics include artificial intelligence, blockchain, service design thinking, digital transformation, and dynamic leadership.

His research firm, Constellation Research, advises Global 2000 companies on the future, business strategy, and disruptive technology adoption. Wang is a regular contributor to Harvard Business Review and is well quoted by *The Wall Street Journal*, *Forbes*, Bloomberg, CNBC TV, Reuters, IDG News Service, and other global media outlets. Wang has won the prestigious [Institute of Industry Analyst Relations \(IIAR\) Analyst of the Year Award](#) three times and has repeatedly been in the number one slot on the ARInsights Power 100 list.



Digital transformation: setting the stage

Question

How do you define digital transformation?

Answer

Constellation Research defines digital transformation as the methodology in which organizations transform and create new business models and culture with digital technologies.

When we look at digital transformation, people tend to think about technology, but it's about how you change your business models and the way you engage with stakeholders.

Once you get the business model down right, then you can figure out what technologies you need to support. And when you bring those two together, that's when you actually get to digital transformation.



Question

What are the top trends that have had the biggest impact on digital transformation?



Answer

The trend that's had the biggest impact to date on digital transformation has been the move to the cloud, because it has democratized access to compute power.

Anyone or everyone can access not just information, not just storage, not just processing capability—you now have access to all of the technology around you. When you have democratization of access, it gives you so much opportunity to create new business models.

I started my business in 2010, and what I can do now without having to buy all that technology, set all these systems in place—the sum that I've saved is probably in the millions.



Question

What types of technologies are needed to be successful in digital transformation?



Answer

Everything from a technology point of view in digital transformation starts with the cloud. The latest exponential technologies to make an impact include augmented reality and blockchain, as they are beginning to really transform how businesses deliver customer experiences.

When we think about the cloud, it is an ultimate aggregation of not just compute power, not just storage, not just processing—we're centralizing a lot of things in the cloud so that we can write it once and have multiple access points.

Mobile is great. It's about doing things in motion. It's not about a device. And social is about our ability to sense and respond, to actually have conversations, to collaborate.

Big data and analytics are really important—the ability to transform data, bring that information to insight, and make decisions based on patterns of insight.

The Internet of Things is also really important because it's the interface among humans, machines, and objects. It's more than sensors. It allows you to get the context—to understand location, time, weather, even sentiment.

What types of technologies are needed to be successful in digital transformation?

Augmented and virtual reality (AR and VR) are changing the way we view user experiences. And, as a result, that shift changes the way we look at advertising, field services, and customer engagement. These technologies are being packaged into devices, so AR and VR are easier to use than ever.

Enterprise applications for blockchain and synchronous ledger technology (SLT) are emerging as well. Smart contracts are one example of how this technology helps to quickly negotiate deals that used to take days. Blockchain can also help to expedite commerce by tracking supply chain data and reduce friction in trust by verifying digital identities.

And then there's artificial intelligence. We're doing a lot of machine learning—learning about patterns of behavior so that we can augment humanity. Machine learning in AI provides a foundation to not only figure out what's going on today but also potentially identify future problems, trends, and signals in order to improve personalization. These represent the broader spectrum of technologies needed for success.



Prioritizing and initiating digital transformation

Question

What is the risk of not prioritizing digital transformation?



Answer

We're living in what we call a winner-takes-all market. And it's not about the digital divide. It's the fact that the top three players in almost every market segment are taking the most market share and most of the profits—anywhere from 40 to 70 percent in every field.

Since 2000, 52 percent of the Fortune 500 have merged, been acquired, or gone bankrupt. According to Richard Foster from Yale, the S&P 500's average age of a company since 1959 was about 58 years. [Foster states] it's down to 15, and [he predicts] it's going to be 12 by 2020.¹ There's no time to wait. Digital Darwinism is unkind to those who wait.

We're talking about a 3x to 4x compression in terms of age of a company since the '50s and '60s. So, if you're not making the shift—if you're not even moving in that direction—you're probably going to be merged, be acquired, or go bankrupt.



1. Bourree Lam, "Where Do Firms Go When They Die?" The Atlantic, April 12, 2015.

Question

What are the obstacles standing in the way of successful transformation?



Answer

The reason digital transformation isn't working for a lot of organizations is because it has to start from the board level. It has to start from the top.

It's hard because what you're asking yourself to do is to develop a business model that will disrupt yourself. That's not in human nature to do.

We're also starting to realize that some organizations just don't have the DNA to make the move. In order to compete, they need to be part of a larger ecosystem where they can participate in digital transformation by pooling resources. We're going to see more of that going forward.

What people can do along the way is to make it easier from concept to commercialization. You create joint ventures. You create a mechanism that allows people to innovate and to disrupt themselves while keeping the existing business running efficiently. That's the art of it.

The last part of this is the culture. In order to be successful here, that cultural dimension is really about finding those people who know how to both color outside the lines and color inside the lines when they have to.



Question

Who are the change agents in leading a digital transformation initiative?



Answer

It has to come from the board, and then, of course, the executives have to set up an environment for people to be successful. We found in a recent survey that 29 percent of CEOs are advocating for and driving digital transformation.

So, the top-down setup is important, but then it's the bottom up, where people are able to submit ideas and know that they can innovate and co-innovate inside organizations. Executives are beginning to realize it takes a good amount of re-skilling and investing in human capital if you're going to succeed in digital.

And so digital transformation isn't a project that you just put up once—it's part of your culture. It's ongoing. You have incremental innovations and you have transformational innovations.

You're changing the business models. You're delivering brand-new products or services, insights, experiences, or outcomes. So digital transformation isn't a one-and-done, and that's why it requires the commitment of the board and the executives to build this into their culture. It's a way of life.

Question

How should enterprise organizations approach the digital transformation journey?



Answer

Many organizations begin the process with a design-thinking exercise. Design thinking is basically a methodology to unlock solutions to questions you never would've asked.

By starting with empathy and understanding the individual's role or customer's role in a process or business model, you have the ability to rethink or reinvent what happens inside your organization. It's a great exercise because it frees people from the boundaries of what they know inside their workplace, and it opens it up to multiple sets of disciplines.

The key part of successful design thinking is diversity, but not in the traditional sense of race, religion, or gender. In this case, it's about disciplines. Accountants, architects, authors, artists—they all think differently. When you put them in a room and they're trying to solve the same problem, they come up with different angles. It's the intersection of these different disciplines that sparks innovation.

The impact of digital transformation inside organizations



Question

How should key leaders and departments within an organization think about and prioritize digital transformation?

Answer

Sales

For salespeople, the shift that's happening is that you have access to better data and better information. You can actually get to team and collaborative selling techniques that you weren't able to get to before.

Over time, a lot of the selling that we were able to do by gut is happening in front of you in terms of insight. What digital does is it democratizes the ability to access information, and it ultimately democratizes decisions and allows every sales rep to be productive.

Customer service

In transformation, post-sale engagement becomes extremely important. We are in a post-sale, on-demand, attention economy.

What people don't realize is that everything that comes after the sale is now more important than just the sale—because in an on-demand economy, instead of buying the whole thing, you're buying access and not ownership.



You're buying smaller and smaller pieces of a product, service, or experience. Customer service and customer success are really about all of those things that get a customer to come back and renew.

We're seeing a whole bunch of machine learning services evolve, and that means they study patterns to see why certain sales are more effective, or why certain techniques are more effective, or how certain products work with each other. That information is going to arm your sales teams so that they can be more successful with certain types of accounts. And mining the patterns that are happening in the marketplace, tying that back to relevant news, tying that back to tribal knowledge within the team, gives you a competitive advantage.

We see customer service as not just that continuing engagement and customer success—it's about developing loyalty and creating relevant engagement points so that people come back. It's also about issue-to-resolution, which is the original point. But it's more than just the resolution. It's about understanding what the customer really needs, driving a demand signal, and helping people design new products and services.

People say customer service is part of marketing, customer service is part of sales, customer service is part of commerce. Really, what they're talking about is anything and everything happening after selling to the customer. That process requires a lot of care, especially when we think about what happens in

digital transformation.

Marketing

The way we do marketing today is changing—you don't have to guess anymore. A lot of marketing has been based on gut-driven decisions. But in digital, you see what really happens, not what you think people are going to do.

Because you get that level of a signal, the signals you have are so rich that you can cut out a lot of the false positives and false negatives. So, when you run a campaign and do an A/B test, your immediate reaction is, "I'm going to do an A-to-X test because I can. And I can deliver mass personalization at scale."

You can do things that you couldn't do before, because you're seeing things happen in real time. And that changes not just how you service a customer and not just in terms of the brand perception, but it also changes the types of experiences and immediacy of experiences that you can deliver to customers.

Plus, it changes the way you alter campaigns in the process, because you understand the impact of context in those campaigns. If you don't have context in a customer's experience, you're not relevant. If you're not relevant, no one will engage with you. And if no one will engage with you, then you've failed.

For example, with CRM, this means we're looking to create contextually relevant experiences and meaningful interactions. And these signature moments should reflect your brand—that's where we're headed.

IT

They have to be able to look at IT not in bimodal. Basically, you've got a team that has to run ops so efficiently that you have your core team also spending as much time on innovation as they are on efficiency. But it's the gap between those two that typically has to happen, which is why a bimodal approach often fails.

What happens over time is you take a new idea or a new concept that's coming because the business model is changing. You have to figure out how to make that work on its own, and then you have to figure out how to make that work inside your existing organization. And then, over time, you have to figure out how to do that better and faster than everyone else. That is not bimodal IT.

We actually have continuous sets of innovations within IT,

and you have to think about how technology plays a role in supporting these business models. The average age of a mobile app on the consumer side is something like 42 days. You no longer have these 10-year platforms. You basically have to think in terms of 18 to 36 months, and what changes have to happen.

And so, on the IT side, you want to invest a lot more in architects. And you want to invest a lot more in folks who understand how to translate between business and technology so that you're successful.

Over time, what's going to happen is that the technology teams start to realize that you want to get certain things off of your team—in terms of your mission, and in terms of automation, regulatory, compliance, operations—so that as you move to the cloud, everything becomes standard. And the advantage is really what you do in terms of application development.

The companies that are going to be more innovative are going to have people that develop on platforms, people that develop and build software and technologies that don't even exist yet to support those business models. Getting to the cloud is basically table stakes. You have to be there. But that means everyone is at the same level.

Innovation is going to require you to take advantage of cloud platforms that allow you to really build that scale. This is ultimately a battle for how efficient you are at using compute power to transform your business.

Here's the thing people don't realize—the CIO is the grownup in the room, and, in fact, the CIO is gaining more and more influence again because we have a new generation of CIOs who understand they have to innovate. It's not about standardizing everything on one platform and making everybody force-fit to use it. It's really about adapting to change and being able to deliver technology as a service to match new business models.

Finance

One of the elements we talked about is unit-cost pricing—what's the smallest increment that you can sell to a customer of your product, service, or insider experience? In business school, people talk about how "you don't sell the razor, you sell the blade."

Dollar Shave Club is a great example because they're selling

shaves as a service. So, if you can imagine the smallest increment of something you sell, you can do some crazy things. You can reimagine how you can craft new experiences and outcomes by doing that.

CFOs now have the ability to reimagine new types of business models by understanding the smallest unit they can sell.

Related to that, because we're in digital and have all that data and information, we now have the ability to model and create forecasts and planning in ways that we haven't before. You have the power of machine learning that's there, mining for patterns, understanding different types of insights that you might not have seen before.



Five factors for success



Question

What do you consider the five critical success factors for digital transformation?



Answer

Following these steps can help you get to digital transformation:

- 1. Understand your mission.** Really think about what outcomes you are trying to achieve. What is that final brand promise? We start there. Your mission, which drives the experience and outcomes you want to deliver, needs to align with your brand promise. If it doesn't, you might need to adjust either your brand or your mission.
- 2. Build a culture of digital.** We spend a lot of time talking about technology and business models—but how do we humanize digital? Part of it is building a digital DNA and a culture of digital inside organizations. One element of that is having digital artisans. You have a lot of left-brain and right-brain people, and you have to balance it out—lots of science, technology, engineering, and math combined with storytellers, UX designers, and people who understand ethnography and anthropology. And when you balance those out, you get closer to building a culture of digital.
- 3. Remember—form follows function.** Once you get those business models right, then you can think about the cool disruptive technologies. There's the basic social, mobile, cloud, big data, and unified comms. Then there's all the other cool stuff that's happening, like IoT, cognitive, AI, robotics, or AR and VR. But the tech is just half the equation—you also need a business model that can change with innovation, so you can move from products to services and, ultimately, experiences to outcomes.

4. Move from gut-driven decisions to data-driven decisions.

You can't function without data—data is the heart of digital businesses. And it's about tapping into insights and taking advantage of these insights that help you differentiate. This will be even more critical as businesses progress from predictive analytics to machine learning and machine learning to neural networks to get them from data to decisions.

5. Encourage co-innovation and co-creation. You want to take advantage of P2P models that are already in place. You want to take advantage of network economies. You want to build a platform that even your competitors will build on top of. Co-innovation is even more important for businesses that don't have the means to invest to succeed in digital transformation. Finding the right type of partners can take them there.



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