Digital Transformation
A conversation with R. “Ray” Wang
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.


Biography

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5 Factors for Success
R “Ray” Wang is the Principal Analyst, Founder, and Chairman of Silicon Valley based Constellation Research, Inc. He’s also the author of the popular business strategy and technology blog “A Software Insider’s Point of View”. With viewership in the tens of millions of pageviews a year, his blog provides insight into how disruptive technologies and new business models such as digital transformation impact brands, enterprises, and organizations. His new best selling book *Disrupting Digital Business*, published by Harvard Business Review Press provides insights on why 52% of the Fortune 500 have been merged, acquired, gone bankrupt, or fallen off the list since 2000.

Wang has held executive roles in product, marketing, strategy, and consulting at companies such as Forrester Research, Oracle, PeopleSoft, Deloitte, Ernst & Young, Personify, and Johns Hopkins Hospital. His Silicon Valley research firm, Constellation Research, Inc., advises Global 2000 companies on the future, business strategy, and disruptive technology adoption. Ray is a regular contributor to Harvard Business Review and has thrice won the prestigious Institute of Industry Analyst Relations (IIAR) Analyst of the Year Award.
Constellation 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 how you change 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.

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 six or seven years ago, 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.
Digital transformation isn’t working for a lot of orgs b/c it has to start from the top

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

A:

Mobile is great. It’s about doing things in motion. It’s not about a device.

Social is about our ability to sense and respond, to actually have conversations, to collaborate.

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.

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.

And then there’s artificial intelligence. We’re doing a lot of machine learning — learning about a lot of patterns so that we can augment humanity. These represent the broader spectrum of technologies needed for success.
52% of the Fortune 500 have merged, been acquired, or gone bankrupt since 2000; 55% have lost money in 2015. 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.

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. And 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.

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 second 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 color outside the lines and color inside the lines when they have to.

¹ Bourree, Lam, “Where do firms go when they die?” The Atlantic, 12 April 2015
It has to come from the board, and then, of course, the executives have to set up an environment for people to be successful. 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.

Digital transformation isn’t a project that you just put up once—it’s part of your culture.

Q: Who are the “change agents” in leading a digital transformation initiative?

A: It has to come from the board, and then, of course, the executives have to set up an environment for people to be successful. 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.

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

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

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. And 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.

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.

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. So, customer service and customer success is really about all of those things that get a customer to come back and renew.

So, 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

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. And 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.

The way we do marketing today is about to be changed—you don’t have to guess anymore.

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. 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. So, you no longer have these 10-year platforms. You basically have to think in terms of 18-36 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.

And 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. So, getting to the cloud is basically table stakes. You have to be there. But that means everyone is at the same level.
IT (Cont.)

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

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. The reason this is important is because you have to understand your mission and what you’re trying to do to accomplish it.

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.

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.

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.

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