

CIO ROUNDTABLE:

Driving Digital Transformation

New Skills for Leaders, New Role for the CIO | Summer 2015

A new global study conducted by Harvard Business Review and sponsored by Red Hat concludes that digital leadership correlates to higher profit margins and revenue growth. It's also directly linked to CIOs who bring a strategic and collaborative approach to connecting IT to the business. The challenge: fewer than 20 percent of companies surveyed qualify as digital leaders.

How are Enterprisers driving their own digital transformation efforts? The Enterprisers Project asked a group of leading IT professionals how they are staying in front as digital leaders and the best practices they are using to bring their organizations along.

Panelist Profiles



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How Does a Digital Leader Lead?

THE ENTERPRISERS PROJECT (TEP): This report surveyed nearly 450 business leaders around the world about digital transformation and puts the responsibility for digital leadership squarely on the shoulders of the CIO. Let's start by discussing what digital transformation means at your organization and the sorts of people you need to make it real.

CLIFF TAMPLIN: First I would say that in my experience that phrase, "digital transformation," is not used. It's more about having a focus on innovation. Digital is not an end in its own right, but it's the most powerful tool available to help you evolve and grow. So I would ask, "How does a company develop innovation to stay relevant in a changing world, when change comes in the form of digital or demographics or growing globalization or all of the above?" And, "What do we have to do as IT professionals to work with the company and enable it to innovate?"



Jeffrey J. Guterman

JEFFREY J. GUTERMAN: As you talk about innovation, I wonder if there is a role for someone who is the glue between the business and the technology side. It's sort of a tech-savvy businessperson who understands what's possible and reason-

able with technology, but he or she doesn't have to know how to accomplish it. The last time healthcare business folks dreamed of what was technologically impossible, the world of medical and nursing informatics was born. That was built by people with medical and nursing degrees who knew enough about technology to be translators between what previously had been two warring factions. I'm wondering is there an equivalent outside of healthcare.

“*The last time healthcare business folks dreamed of what was technologically impossible, the world of medical and nursing informatics was born.*”

TOM SODERSTROM: I think your point is very well taken, and I think those in-between people are exceptionally valuable to digital transformation. Sometimes they come from the business side, sometimes from the IT side. The challenge for the CIO is going to be to keep up - to enable all the transformation efforts and ensure that they don't compete. The IT organization used to have the luxury of this stuff taking a while, but we're not going to have that luxury anymore. Rapid prototyping has a way of driving an enterprise architecture forward. If we don't manage and help enable these efforts, they will happen anyway. And it won't just be shadow IT, but it'll be the IT that we don't know about.

MATT GLOVER: A lot of these challenges are putting a significant burden on the CIO. You need a lot of characteristics to be successful today. For example, if you're not up, stable, and secure, you're not hitting your "table stakes," so you're going to be looking for a new job. You have to deliver an operational, solid, and secure platform to

your business. At the same time, you have to be a creative CIO who can transform the organization, or effect what I call self-disruption, so the business can thrive. What we really need in CIOs is a more creative, strategic thinker who can transcend these boundaries.

What I found fascinating when I worked for Intuit was that they had set up a department called the Blockbuster Division. And they used to say, "We want the Blockbuster Division not only to hurt our competitors, but to destroy our current product. If we're not doing that as a business, then somebody else is going to disrupt us." Today the question is how do we, as leaders, move the dial in a meaningful way to empower those that may have the creative juices while creating the stability to keep all those wheels churning.

TEP: Clearly all these digital efforts require some juggling on your part. As these transformation projects move forward, what should CIOs do to get their arms around them?

CLIFF TAMPLIN: First you have to build relationships. One thread I found in this report is that the CIO's unique strength is that they can see across the organization in ways that typically only the CEO would. IT touches everything, so the CIO needs to have relationships across the whole of the organization so that they can facilitate the integration and get people to work together. In a retail organization, for example, you require massive cross-functional collaboration for digital transformation. Sadly, I think that collaboration is lacking in a lot of organizations.

TOM SODERSTROM: I completely agree with that. One of the trends we're seeing is that Millennials are entering the workforce in big ways, and they are digital natives. Which means that the CEOs of the future are going to be fairly IT-savvy. A

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CIO needs to create the energy that allows for brainstorming with the business side, and then enable some rapid prototypes for the businesses.

“ *If you focus on everything, of course, you're exactly focused on nothing.* ”

MATT GLOVER: If you focus on everything, of course, you're exactly focused on nothing. In my organization I empower each key leader with a mission and a vision to achieve whatever it is I need them to achieve, but they have full and complete control and domain responsibility in that space. And I give them guiding principles to operate within. Once you've set your framework in place, put the right people in the right seats. If you inspire them to seek, they will destroy.

TOM SODERSTROM: That's really well put because the CIO's job is hard, but in some ways it's made easier because you need those volunteer armies in each business. Because they're becoming so IT-savvy, business end users increasingly know what needs to be done. So if we can pair a passionate end user with a passionate developer and rapidly create a prototype, this creates a return on attention from the customer side where they are now co-creators. And now you can get all these new business solutions very rapidly that the CIO doesn't necessarily have to create. He or she just has to champion them and make them part of a system of record that lasts. Nowadays, the CIO is still responsible even if the CIO didn't create it. That's the challenge, I think.

MATT GLOVER: You also have to have CIOs who have the wherewithal to see where a business-led IT effort might go. If

you turn a blind eye because of a lack of knowledge in a particular space, then what happens is a detriment to the organization as a whole. Without an impassioned CIO to help lead an effort then it doesn't become normalized. And without normalization, you can't get the efficiencies of scale. And you end up with a whole bunch of disparate technologies that are trying to play in the same space, so you just waste time, money, and company valuable treasure in that process.

CLIFF TAMPLIN: True. If the CIO isn't coordinating all of these things, you end up with islands of information, and it's anarchy. And that is very much the role of the CIO: to ensure consistency and integration across the enterprise.

MATT GLOVER: And the challenge there is that you can't apply a significant amount of controls that people will then promptly ignore.

Framing Digital Chaos

TEP: Clearly digital leadership means managing with a new framework. How do each of you approach this challenge?



Matt Glover

MATT GLOVER: Whatever framework you develop, it must be inclusive of the business folks that are trying to move the dial, because all they're trying to do is make a difference for the business, generate revenue, or drive up customer satisfaction. If you go around and tell them, "Well, we already have an app for that and you just need to use this one," and they say, "If that app doesn't do all the things I need it to do, where is your flexibility in helping us deliver this other solution?" then you need to work through what that looks like. That might be a modification to your current app or a more global or unified application that delivers that value across the organization.

Here's an example: one group might use Yammer for collaborative communication between external groups and their department. Another group might use it completely differently as a way to communicate internally on projects. And let's say that ties directly into Outlook, which has some capability non-Millennials value, such as email. That integration allows an older but very wise generation of folks to tap into new talent. All you're doing is trying to incite and inspire so people can leverage the technologies that are most meaningful for them, instead of trying to push people down a specific path that is going to ultimately end up in failure anyway.

CLIFF TAMPLIN: The only caveat I would put on that is the CIO is generally tasked with the governance of the systems, whether that's from an SEC perspective or a HIPAA perspective or whatever. In providing a framework, the CIO has to ensure that when anybody is doing anything, they are aware of the external constraints that are applied on them. I've found a lot of the times that when people go off and find themselves a cool bit of technology, they haven't thought of the integration or the

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regulatory frameworks that are involved. And that creates a lot of conflict, and that is where the role of the CIO or the C-level staff in general is to address that and to work a way around that integration, but within the controlled framework.

TOM SODERSTROM: So let me throw out something perhaps controversial. We've been looking at frameworks for several years now at JPL. And our CIO, Jim Rinaldi, and I came up with a term that we're now using called "chaotic architecture." It's based on the realization that all of these things are going to change from under your feet. However, if you choose chaos as the framework, you can handle it, plan for it, and not be disrupted by it. So that's how we're looking at the future now.

And exactly what you said, Matt: some people use Yammer, some use other things and it's okay. But it all starts and ends with the use cases - what are people needing? What do they use? We look very carefully at the use cases, and then we say we have an enterprise-level product that does something. If it doesn't provide what another group does, maybe it's okay that they use a different tool, but it's still in the framework, in this chaotic architecture.

And what we're looking for is something we call experience readiness levels, where it's the user experience that matters. So how do they have to get in through the network? Is it going to work on their mobile device? You can't just be isolated looking at one tool, but how it fits in that entire framework, which we call chaotic architecture. It sounds scary to many people, but we think it's going to be disruptive anyway, so we may as well get ahead of it and lead that disruption.

MATT GLOVER: I think it's brilliant, so I wish you all the best in that.

Designing a Digital Curriculum

TEP: One thing that came through very clearly in the study across digital leaders and digital laggards was a thirst for deeper knowledge about hot digital topics, especially analytics. It was way out front as an area where respondents felt their company needed information to drive their digital transformation. How would you design a digital curriculum to have maximum impact if it was about something like analytics?

TOM SODERSTROM: We actually did that at JPL. We brought in a bunch of master's students and did an internal startup around analytics. In doing so we realized that it's all about visual analytics and showing people in the business their own data. We got very rapid results and then did iteration on that data back to the person who owned it. We didn't worry as much about cleaning all the data, just wanted to see if there was a trend there. We called it the low-hanging fruit approach.

As a result of this educational program we ended up hiring those people and the next generation - not the super expensive data scientists but people who were interested in this - and then infusing them into the business units themselves. So we had a culture of analytics as opposed to a hard-wired group of analytics people. And they are now loosely connected and sharing information. The cloud was the enabler for us because it gave them a safe place to experiment.

MATT GLOVER: The big challenge I have with analytics is that small data is what runs the business. And when you talk about statistics you can often make them whatever you want them to be to tell whatever story you want to tell. I wanted to get

the team out of the habit of trying to paint a specific picture, but to paint a righteous picture of the data so it can transform from information into actionable information that we can use to help drive revenue numbers for our business. Sometimes when you talk with data scientists or data engineers or analysts, they're so focused on the minutia that they lose the whole point of what they're trying to do. So as you're working with this new team that you're talking about, try to keep them anchored in the truth of what they're doing.

TOM SODERSTROM: I'm curious, Matt, because one of the problems that I've found is that people say, "Oh, big data, that doesn't apply to me." But the biggest challenge we have in our enterprise is the variety part - structured and unstructured data and how to make sense out of it. We got the biggest benefit from focusing there, whether they were huge amounts of data or not.



Tom Soderstrom

“Data is clearly our new currency.”

Data is clearly our new currency. Data is long term, applications are short term. And the analytics have proven the value for that. As people can interact with their own data and ask questions they previously had to get preprinted reports for, now

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they can get those answers themselves. We think that's the future.

MATT GLOVER: I wish I could completely agree with you. We have the tools that the people in finance or operations need to pull the data from a business intelligence stack today, but the challenge I keep facing is they don't totally understand what the data is. Oftentimes I find my IT team working on more of the precision pieces. My DBA may come to me and say, "Well, this is what they said in the report, but that's not actually factual because of these following five constraints that weren't really aligned appropriately." So there is often tweaking, and I find that IT has consistently had to come in and be a mediator in the process, and I don't like that. I wish it was just totally hands off, that the business could make those great decisions on their own. But the wonderful thing that we have is a great partnership between our business users and IT where they have us validate the data. We're a disinterested third party in the process. So we don't get any benefit. I don't get a bigger bonus, or any of my IT team get a bigger bonus by what they find out on the statistics. However, a business leader would get a bigger bonus if it was skewed their way. So we're often used as that mediator to say, "Well, here is what's righteous, and here is what's not, and here is why."

CLIFF TAMPLIN: Would you be happier if you did get a bonus for it?

MATT GLOVER: No, because I believe when you start to throw money at things you start to lose the focus on truth. And if you're running a business by motivating people with bonuses, then you end up getting what you pay for. I just wish I wasn't using some of our most well compensated people to make sure that the data that is being presented to our board is righteous and holy.

CLIFF TAMPLIN: It's a bit of a backhanded compliment, isn't it, that you are perceived to be the honest broker? But you're right; it is a nuisance that you're suffering from that workload.

TEP: To continue on the theme of digital education, one idea presented in the paper is using a group like talent development or human resources to join forces with IT to build digital leadership, to take on more of an educator role across the organization. How do you all feel about that, or does that work in your organization?

TOM SODERSTROM: For us at JPL, that is a very important role. It serves two purposes. One, it informs. So we look at trends that will be relevant to us for the next three years—that's an IT decade. And then we socialize that, have meetings and presentations. Then the magic happens where we draw in the people in the businesses who are strong in those trends, and they become co-leaders, or leaders of these new initiatives. And we can then prototype it, see if it is valid and relevant to us. That's especially important for the disruptors, things that will disrupt us either way. And if we get ahead of it, it's not a problem; in fact, it becomes an advantage because we're already on it. So that all starts with the education, but it's a two-way education. By educating the businesses, you also learn from them. You learn not only the business needs but uncover the IT skills they have that were previously hidden. So I think it's a really key thing to be educating all the time.

MATT GLOVER: I completely agree. I think the challenge is whether you have the right people in the right roles to do that. My HR team at my organization is fantastic. When I need a specific type of resource, they comb the hills and the countryside to try and get that right resource for me, but

that's not always true of every organization I've been to. A lot of these guys are just like, "Hey, they match all the job description stuff, so go interview these guys." And it becomes more of a churn process. I think it depends on who your HR leadership is and whether they feel that they're just in the role to provide warm bodies in seats for you. Our HR department gets their compensation based on our EBITDA. Meaning if they don't have the right butts in the right seats, they don't get paid. So they passionately want to make sure we're not getting somebody in the seat to do a job, they want somebody in the seat to do the right job. In all the organizations I've worked for, this is the only HR department that's been like that.

CLIFF TAMPLIN: I think you're very lucky in that regard.

TOM SODERSTROM: I see many, many new ways of educating that we didn't have before, anything from MOOCs, massive online open courseware, to Lynda.com for IT. But we don't have to deliver it all ourselves. The other thing we realized is that we could use two-minute videos to get the message out. So the way we educate has changed. It isn't just holding classes or sending people to conferences, it's a much richer environment and different strokes for different folks. And that's kind of part of that chaotic architecture idea.

TEP: And you've found that this approach has measurably increased the functional leaders' skills and knowledge, Tom?

TOM SODERSTROM: Yes. Because often it's really getting them over that introductory hurdle and getting their interest up. And then a lot of people learn on their own anyway, and they seek out the people who will know. So it's a richer and perhaps more complicated training environment, but it works, especially with this generation.

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Another thing we've realized is that the open software world is moving at break-neck speed. We're using a lot of open software, but we also took their techniques of open development, and now I see our businesses sharing HR programmers with science programmers, et cetera, in ways that we never saw before. And that's another way of learning code development.

Digital Leaders are Digital Learners

TEP: Final question: would you all consider yourself to be in the digital leadership category?

MATT GLOVER: Yes.

TEP: How about you, Cliff, it sounds like you see a whole mix?

CLIFF TAMPLIN: It varies. I would put Hyatt in the leadership category, but some of the other companies I work with I would not, which is a good business opportunity for me, isn't it, to help them out?

TEP: That's why they need you, that's right. Tom, it certainly sounds like you would agree.

TOM SODERSTROM: I think we're in the digital leadership category, but I think we're very much in the digital learning mode as well. If we think we are digital leaders and get content, we'd soon be digital laggards because it's moving faster and faster.

CLIFF TAMPLIN: The only point I would add to that is that wherever you think you're going to be in ten years, it'll have moved.



Cliff Tamplin

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...wherever you think you're going to be in ten years, it'll have moved.

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TOM SODERSTROM: Exactly. Oh yeah.

MATT GLOVER: It's kind of funny because I actually think we're digital infants, even if we say we're in digital leadership. I mean, I'm just looking back over 24 years of my career; there is nothing that I am using from a technological perspective that I had implemented 24 years ago today. Nothing. I can even say that, in many cases, even stuff I implemented seven years ago we're not using today. It's all been changed, modified, morphed, transitioned over a short period of years. So even where we sit today, even if it's at the leading edge, we're just one disruption away from having that all go away and being onto something new. That's why I love IT.

TOM SODERSTROM: I agree. There has never been a better time to be in IT than now. Except for the next three years.

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