### Harvard Business Review

#### **WEBINAR SUMMARY**

# Leveraging Agile IT for Digital Transformation

Featuring Jeanne Ross

OCTOBER 11, 2018



## Leveraging Agile IT for Digital Transformation

#### **PRESENTER:**

Jeanne Ross, Principal Research Scientist, Center for Information Systems Research (CISR), MIT Sloan School of Management

#### **MODERATOR:**

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#### Overview

As companies pursue digital strategies, they often struggle with execution. This is because multiple organizational elements must be synchronized to deliver integrated solutions. Aligning business leaders and IT is challenging, especially when speed is required.

To keep pace, CIOs must develop a strong IT operational backbone. They must also work with the lines of business to create roadmaps based on strategic priorities, cost/benefit analyses, and agile methodologies. Agile development techniques are a proven way to quickly experiment, iterate, and scale, promising digital solutions that can help businesses thrive.

#### Context

Jeanne Ross discussed why many companies often fail to achieve business agility, despite investing significant resources in IT projects. She described how demand-shaping tools and agile methodologies can transform the way organizations execute their digital strategies.

#### Key Takeaways

#### Most conversations between IT and business leaders don't focus on business agility.

Business unit leaders usually go to the IT department, say they need a particular technology, ask IT to implement it, and then walk away. Meanwhile, IT wants more information about priorities and requirements. Both parties have important demands, but are not on the same page.

The traditional approach to IT investment follows a funnel approach. The organization:

• Develops several business cases that justify the investment in various IT projects.

- Prioritizes business cases based on criteria such as the highest or fastest return on investment, or sponsors with the greatest political power.
- Selects projects for the company portfolio.

The projects ultimately funded usually ignore the dependencies that naturally occur throughout the company. As a result, traditional IT investments create siloed systems. As teams realize that greater integration is needed to support business agility, they undertake haphazard efforts to connect systems.

"Companies operate in a different world today. Agility is the key to successfully adapting and responding to market demands."

-Jeanne Ross

#### Although the path to business agility requires an IT operational backbone, many companies struggle to realize this goal.

Rather than siloed systems connected with a tangle of integrations, organizations need an IT operational backbone that supports all business units.

In the 1990s, companies believed that ERP systems would create this backbone. In many cases, however, ERP implementations failed to deliver. One contributing factor was that employees didn't change their behaviors. Data and systems alone can't create an IT operational backbone.

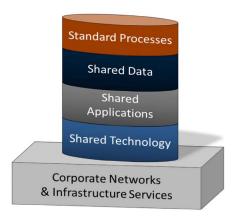


FIGURE 1: IT OPERATIONAL BACKBONE

August 2016 research by MIT CISR found that only 28% of established companies have an IT operational backbone. This percentage has remained constant for 11 years. Although companies want to become digital, they struggle until they master the basics. Creating an IT operational backbone is "table stakes" for a digital transformation.

#### Demand-shaping tools can enhance the dialogue between IT and business units.

Rather than simply "taking orders" from business units, some CIOs are trying to "shape the demand" for IT projects. Six tools IT leaders can use to guide the conversation with business units are:

- Roadmaps. By discussing what business units want to achieve in the future, IT teams can look
  beyond the immediate demands and create a bigger-picture, digital "roadmap." Roadmaps enable
  IT to build capabilities that will support the IT operational backbone, rather than siloed systems.
- 2. **Value tracking.** Although digital roadmaps are helpful, organizations don't want to wait years to derive value from IT investments. The goal of value tracking is to find short-term evidence that IT investments generate value. IT teams must be empowered to identify who will use an IT capability and then track usage over time to determine ROI. Examples of value-tracking metrics might include increases in website traffic or reductions in customer service call times.
- 3. **Business relationship management.** The IT function isn't simply about developing technologies. IT teams must also strive to understand what the business needs to accomplish and discuss how technology can help achieve those goals.
- 4. **Strategic program management.** IT projects must support the company's strategic priorities. At USAA, for example, teams evaluate whether IT projects support the company's strategic pillars. If the answer is "no," the project is cancelled.
- 5. **Transparent costs.** Measuring costs is easier than measuring value. A best practice is for IT teams to quantify the costs of running and maintaining technology systems. This information will help business teams decide if the project benefits outweigh the costs.
- 6. **Agile methodologies.** These allow teams to take a rough idea, develop a minimum viable product, and see if it is successful. If the result is well received, the team can iterate and enrich it.

#### Success with agile methodologies requires a balance between autonomy and alignment.

Agile methodologies are well suited for digital offerings. Agile works well for these projects because they are usually small ideas that are enriched over time, such as an app to onboard customers. With agile development, an empowered team owns a component which they build out over time.

Agile teams work best when the following elements are in place:

- 1. Clarity about each team's mission
- 2. Articulated architectural standards
- 3. Open knowledge sharing between teams

Although agile development can be used for IT operational backbones, it is better suited to experimentation and fast iteration on small projects.

#### Effective agile development uses small teams to experiment and rapidly deliver user-centered solutions.

When done right, agile has seven characteristics:

- Ownership of living assets. The components that agile teams work on are living assets. The
  product owner has a responsibility to act as a "mini-CEO," determining how to grow the
  component and improve it over time.
- 2. **Small cross-functional teams.** Agile teams working on digital components must include experts from across the organization. These individuals can identify the potential impact of improvements to the component.
- 3. **Minimum viable product.** As agile teams experiment with new ideas, they begin by delivering the minimum viable product. If this is well received, the team continues with additional work. If the minimum viable product is poorly received, work stops and IT resources can be redeployed.
- 4. **User-centered design.** Customers today expect their interactions with companies to be exceptional, especially when it comes to digital experiences like mobile apps. Technology now enables companies to tailor and differentiate the user experience for different customers.
- 5. **Customer engagement.** Teams have an opportunity to engage with customers on co-innovation initiatives. This type of collaboration leads to better user experiences.
- 6. **DevOps.** An IT infrastructure must be created which allows agile teams to test their work immediately in an environment that is separate from live code and from other projects that are under development. A DevOps system enables teams to go live with their code whenever they are ready.
- 7. **Test and learn culture.** Agile teams learn as they go. Information from prior work informs future iterations.

"It's important to remember that innovation and efficiency can be in conflict. Focusing exclusively on cost reduction may lead companies to miss opportunities presented by digital technologies. If the overarching company goal is to reduce costs, experimentation will stop."

-Jeanne Ross



Jeanne Ross directs and conducts academic research that targets the challenges of senior level executives at CISR's more than eighty global sponsor companies. She studies how firms develop competitive advantage through the implementation and reuse of digitized platforms. Her work has appeared in major practitioner and academic journals, including MIT Sloan Management Review, Harvard Business Review, The Wall Street Journal, MISQ Executive, MIS Quarterly, the Journal of Management Information Systems, IBM Systems Journal, and CIO Magazine.

She is co-author of three books: IT Savvy: What Top Executives Must Know to Go from Pain to Gain (2009), Enterprise Architecture as Strategy: Creating a Foundation for Business Execution (2006) through Harvard Business School Press, and IT Governance: How Top Performers Manage IT Decision Rights for Superior Results (2004). She has served on the faculty of customized courses for a number of major corporations, including PepsiCo, McKinsey, General Electric, TRW, Pfizer, News Corporation, Commonwealth Bank of Australia, IBM, and Credit Suisse. She regularly appears as a speaker at major conferences for IT executives.

Jeanne earned a BA at the University of Illinois, an MBA from The Wharton School at the University of Pennsylvania, and a PhD in Management Information Systems from the University of Wisconsin–Milwaukee. She is a founding senior editor and former editor in chief of MIS Quarterly Executive.



**Angelia Herrin** is the editor for special projects and research at *Harvard Business Review*. Her journalism experience spans 25 years, primarily with Knight-Ridder newspapers and *USA TODAY*, where she was the Washington editor. She won the Knight Fellowship in Professional Journalism at Stanford University in 1990. She has taught journalism at the University of Maryland and Harvard University. Prior to coming to HBR, Angelia was the vice president for content at womenConnect. com. a website focused on women business owners and executives.

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#### Break down data silos. Open up a world of opportunity.

In today's competitive business landscape, data alone is no longer enough. To gain the competitive edge and help your organization succeed, you need to know how to turn raw data into insight, use it to drive more intelligent choices, as well as predict answers to your most pressing business questions.

Realizing the true potential of data, however, is often easier said than done. What's getting in the way?

Aside from the operational challenge of deploying a data strategy, many organizations face problems with the data itself. Burdened by disparate systems and siloed data, these organizations can't access real-time analytics everyone can trust, seamlessly share information across the business, or view data in the context of their entire business.

Workday can help you overcome these data challenges. We built our finance and HR system in the cloud, on one technology platform, using a single codeline, so you get one source of truth. Because everything is in one application, data silos are never a problem. Everyone on every team can view the same live data, access KPIs and reports at the point of decision making, and gain visibility across the organization.

The result? Your teams can answer questions in seconds, align on critical financial and people decisions, and plan collaboratively towards a common goal. What's more, with global visibility and analytics customized to your business, you can anticipate key drivers of success or failure, make decisions based on facts, not instinct, ultimately impacting the bottom line.

Data and predictive analytics can open up a huge world of opportunity. But not every organization is ready for a data-driven approach, so it's up to you to take the lead.

Whether you're an IT, finance, or HR leader, you can help your organization see the big picture of what data can do, find ways to operationalize it, and deploy a data strategy that works for all parts of your organization.

Where do you begin? Start by looking at your current systems and processes. If you're challenged by multiple systems, stale data, and analytics that don't help you make better decisions, it's time to make a change. It's time to give your organization the finance and HR system it needs to run a smarter business.

