Jeanne Ross earned a B.A. from the University of Illinois, an M.B.A. from the University of Pennsylvania, and a Ph.D., from the University of Wisconsin-Milwaukee. She is Principal Research Scientist at the MIT Center for Information Systems Research. Much of her work involves development of case studies that describe the human, technology, and IT-business relationship resources of firms that have successfully implemented technology-based changes. Her current research focuses on enterprise architecture, IT governance, and strategic outsourcing. She is the co-author with Peter Weill and David C. Robertson of *Enterprise Architecture as Strategy: Creating a Foundation for Business Execution*, published by Harvard Business School Press. Weill is Director of CISR and MIT Sloan Senior Research Scientist. Robertson is a Professor at IMD International, Lausanne, Switzerland. Weill and Ross co-authored *IT Governance: How Top Performers Manage IT Decision Rights for Superior Results*, also published by Harvard Business School Press.

**KL@TG:** What prompted you, Peter Weill, and David Robertson to write *Enterprise Architecture as Strategy*?

**JEANNE W. ROSS:** In our roles we meet many executives who are frustrated with how much they spend on IT relative to the value received. In our research we found a few firms whose executives felt they received extraordinary value from IT. We observed a few distinctive characteristics of these firms. Most notably, firms like UPS, ING DIRECT, Toyota Motor Marketing Europe, Dow Chemical Company, and MetLife have built a foundation of IT-enabled business processes. In contrast, most firms build individual IT solutions in response to localized business needs. In other words, firms receiving high value from IT had designed IT and business process capabilities in accordance with an enterprise architecture. We wanted to share the experiences of these few firms to help both IT and business managers understand the source of IT value. That’s the objective of *Enterprise Architecture as Strategy*.

**KL@TG:** What did the research reveal about strategy’s role?

**JWR:** Most firms develop IT solutions to respond to the firm’s many business strategies (e.g. product strategy, market strategy, pricing strategy, channel strategy, enterprise strategy, business unit strategy). We found that, instead, IT should be built according to an enterprise architecture.
to the requirements of enterprise architecture. We see enterprise architecture as the organizing logic for core processes and infrastructure, reflecting the firm’s desired level of standardization and integration. By focusing on standardization and integration requirements, the enterprise architecture is designed to help a firm do business the way it wants to do business. Building IT in response to business strategies solves only an immediate need. Building IT capabilities in line with enterprise architecture focuses on meeting immediate needs in a way that also addresses the ongoing needs of the firm.

Enterprise architecture boils down to these two concepts: business process integration and business process standardization. In short, enterprise architecture is not an IT issue—it’s a business issue.

**KL@TG:** What, then, is IT’s proper role?

**JWR:** IT develops the technology, application, and data foundation needed to deliver the needed integration and standardization. Then business can define the strategies that use the capabilities that are in place. IT needs to be included *from the very beginning* in discussions and decisions concerning an organization’s core business, business model, business plan, plan implementation, core processes, etc. More often than not, IT is brought in only to solve a
problem of some kind. Usually, the solution is only a local fix and doesn't meet the broader needs of the firm.

**KL@TG**: What do you suggest?

**JWR**: Peter, David, and I are convinced that, as I have indicated, IT should be involved from the very beginning. (Many companies make the same mistake with heads of HR but that’s another story.) IT should be viewed and valued as a resource and service provider, to be sure, but IT staff must also be expected to think in terms of the entire enterprise and understand the two core concepts: business process integration and business process standardization. The only way IT can understand those core concepts is to be involved in discussions of the business issues mentioned earlier.

**KL@TG**: Can you provide some real-world examples?

**JR**: Briefly, here are two. In the mid-nineties, Johnson & Johnson consisted of about 170 essentially autonomous companies. But global customers demanded a single point of contact and single view of their J&J relationships. J&J management decided to preserve as much business unit autonomy as possible. However, management created some umbrella companies and some governance structures that could institute integration and standardization across those operating companies that needed to work together to meet customer needs. I guess you could say that J&J wanted to have “the best of both worlds.” Committing to enterprise architecture (EA) as strategy accomplished that.

UPS offers an equally effective but contrasting model. For years, UPS did very well without much reliance on IT. The company knew what its core business was, had a business model which worked well, and everything seemed to be just fine. However, Federal Express introduced package tracking and it became clear that UPS needed to provide effective electronic information supporting its package delivery business. UPS’ commitment to building IT capabilities and to providing the required IT resources (as with J&J and countless others) enabled UPS to match Federal Express’ capabilities but to provide new, innovative customer services leveraging its architecture.
The key point is that a company must first “get it right” in terms of how it wants to operate. Only then can EA help to achieve efficiency in production and distribution, continuous innovation, and what many characterize as “customer intimacy.” But IT must be centrally involved as early and as actively as possible. The IT unit needs to understand not only who and what need to be connected but also why.

**KL@TG:** Based on what you, Peter, and David have learned from your research thus far, what must be done to ensure that an organization’s EA will be able to respond to significant changes in its competitive marketplace?

**JWR:** That’s an excellent question, a very important question. It is important to keep in mind that EA requires a mindset that IT will act as an enabler of business strategy, but it may also be a constraint. Once a firm understands its operational integration and standardization requirements, IT can build an enabling infrastructure to support the processes core to its operational needs. But the firm will benefit from this foundation only if it seizes on market opportunities that extend or leverage its existing capabilities. Some market opportunities will take a firm in a totally different strategic direction. Ideally, a firm can respond to strategic opportunities that leverage existing capabilities, while ignoring strategic opportunities that don’t demand existing capabilities. Firms can build new capabilities, of course, but if they don’t leverage what is in place, they don’t have an advantage over their competitors.

This is why it’s so important to focus IT capabilities on what won’t change about the way a firm operates. By wiring in the business operations that are core to the firm—and unlikely to change—a firm becomes very efficient and effective at performing core operations. IT and business managers can then turn their attention to processes that may differ by product line, geography, or business unit. With all due respect to the importance of business process integration and business process standardization, the challenge is to integrate and standardize only those processes that are absolutely essential to the entire enterprise. Otherwise, integration and standardization efforts force changes in business operations that are far too costly to implement.

**KL@TG:** One final question. What specific steps do you, Peter, and David recommend to senior-level executives who are about to evaluate their organization’s foundation for execution?

**JWR:** We are convinced that three disciplines must be mastered in order to build an effective foundation: The operating model which is the necessary level of business process integration and standardization for delivering goods and services; enterprise architecture which is, as explained earlier, the organizing logic for business processes and IT infrastructure, reflecting the integration and standardization requirements of the company’s operating model; and finally, the IT engagement model which is the system of governance mechanisms that ensure business and IT projects achieve both local and companywide objectives.

The research which Peter, David, and I have completed thus far clearly indicates that a foundation for execution allows a company to automate predictable processes so management can focus on higher-value tasks such as innovating, partnering, and identifying new opportunities. To date, for whatever reasons, few companies have built a foundation of digitized processes which facilitates agility throughout an organization. Those that have are much better positioned to take advantage of market opportunities and grow profitably.

As all the leading companies so clearly demonstrate, the process of formulating EA requires great discipline of everyone involved. Their managers embrace that challenge because they realize that the enterprise architecture journey is one well worth taking.

With regard to the specific steps of the evaluation process, we recommend these six and again strongly recommend that the organization’s IT people be centrally involved when taking each of them:

1. Rigorously analyze your current foundation for execution
2. Define your operating model
3. Then design your enterprise architecture
4. Set priorities and focus intensely on them
5. Design and implement an engagement model
6. Exploit (i.e. leverage) your foundation for execution for growth
According to Ross, Weill, and Robertson, the focus of initiatives needs to be on enterprise architecture, “the organizing logic for core business processes and IT infrastructure reflecting the standardization and integration of a company’s operating model.” Enterprise architecture boils down to these two concepts: business process integration and business process standardization. “In short, enterprise architecture is not an IT issue—it’s a business issue.” In this volume, Ross, Weill, and Robertson explain what top-performing organizations do and how they do it so that other organizations can be guided and informed in their efforts to improve their own performance. There must be effective leadership at all levels and in all areas of a given organization while creating a foundation for business execution. Everyone involved must be committed to the foundation, help to identify and remove barriers to progress, “feed the core” with continuous experimentation, use the architecture as a “compass and communication tool,” and collaborate with others while proceeding through each stage. In the final chapter, Ross, Weill, and Robertson identify and explain why companies which have learned how to implement and manage standardized and integrated processes are best prepared for the realities of the marketplace. “A foundation for execution allows a company to automate predictable processes so management can focus on higher-value tasks like innovating, partnering, and identifying new opportunities. The foundation empowers employees and enriches jobs by reducing redundant and tedious tasks while providing the information needed to innovate and customize.”