CUTTER CONSORTIUM

Executive Update

Business-IT Strategies Advisory Service ■ Vol. 5, No. 20

PEOPLE: TRAIN THEM OFTEN, TRAIN THEM RIGHT

by Steve Andriole, Senior Consultant, Cutter Consortium

The pace of today's business is generating technology problem-solving requirements faster than employers and employees can satisfy them. This is stressing learning organizations to the point where they have to invest in serious training programs for their employees. Corporate "universities" are springing up all over the place, and the number of new content titles is growing by leaps and bounds. All of this effort, however, must be targeted with coherent strategies. If the strategies aren't clear, then all of the work to keep employees current may be misdirected: training requirements should be derived from business strategies and tactics — not the other way around.

New hires already take courses about your industry, your company, and technology. If you develop lots of applications, you probably already have courses in systems analysis and software engineering. It's important that learning be continuous and current. Do you have a robust learning strategy? Are you committed to training?

WHAT THE DATA SAYS

Figure 1 shows that most of us "get it" (i.e., most of us have proactive training programs designed to keep our technology professionals current). Maybe the term proactive is what keeps the percentage at 63%. Although 63% is a healthy number, the percentage could easily reach 90% — perhaps if we hadn't required respondents to have "proactive" training programs.

Figure 2 reveals that many of us have embraced online distance learning as a way to get critical content to our employees. And why not? It works, is cost-effective, and offloads lots of learning responsibility on to the employees, who can self-serve

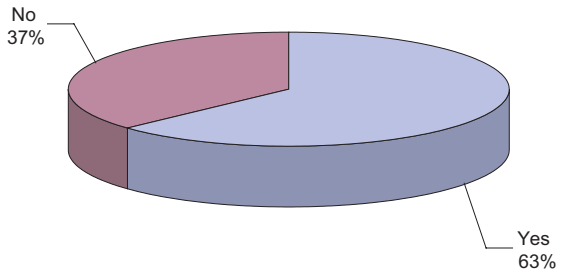

Figure 1 — Does your company have a proactive training program designed to keep its technology professionals current?

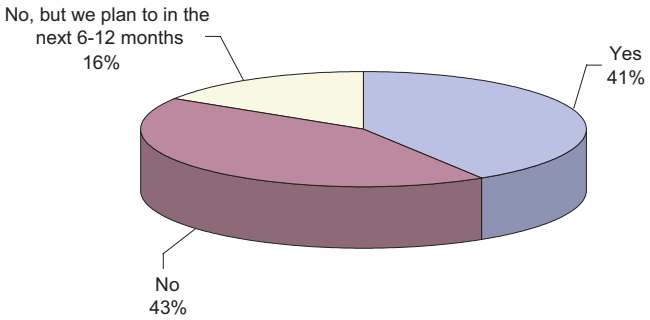

Figure 2 — Has your organization deployed any online distance learning courses?

themselves to the learning content they need (or are told to acquire). The total percentage of those who are already supporting online distance learning or plan to in the next six to 12 months is almost 60%.

Figure 3 shows that 40% of respondents have taken some tough steps to get a handle on what their technology professionals know and don't know. Another 11% plan to do so in the next six to 12 months. This is important because it speaks to causes rather than symptoms. And it takes some courage — especially since any analysis of skill sets is likely to be controversial.

Figure 4 measures our commitment to certifications. We're committed: 67% of respondents believe that certifications are important enough to pay for — the ultimate commitment metric!

We switched gears a bit with the next question and asked whether respondents look to local and regional universities for new talent. To some extent, this question (see Figure 5) — as well as the next (see Figure 6) — tests how smart we all are. The hypothesis is that it makes sense to recruit talent from our own backyards and to "try before we buy" through internship and co-op programs. More than 50% of us have formal relationships with local and regional universities, while nearly the same percentage use internship and co-op programs as ways to recruit technology professionals.

WHAT DOES ALL THIS MEAN?

The data suggests that we're learning a lot about learning. We're proactive, online, certified, and recruiting from all the right places in all the right ways. We should congratulate ourselves — though there's definitely room for improvement. But what about content? What should everyone be learning?

Here's a list of courses you ought to be offering. They represent some new and some old standby content. Take a look and see whether these make sense:

- **Applications architectures** — looks at how mainframe (single-tier), client-server (two-tier), and Internet/intranet (three-tier → *n*-tier) applications have changed and what the tradeoffs among the architectures (defined around flexibility, scalability, reliability, etc.) are, as well as how they should be modeled.
- **Messaging and workflow** — examines the platforms that support all varieties of communication and how communications technology enables communication and transactions among employees, customers, and suppliers inside and outside the corporate firewall.
- **Customization and personalization** — builds upon the basics in database management systems and data warehousing/mining to examine mass personalization, behavioral models to correlate online and offline behaviors, wireless personalization, and personal and professional customer relationship management (CRM), among other topics.
- **Automation** — introduces professionals to intelligent systems technology and the application of that technology to personal and professional automated transaction processing, monitoring, e-billing,

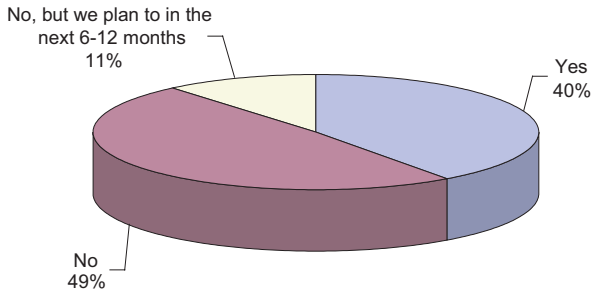

Figure 3 — Has your organization conducted a skill set analysis designed to determine what your technology professionals know and don't know?

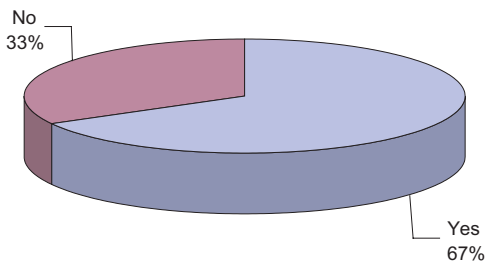

Figure 4 — Does your organization fund professional certifications?

and the like. The course should review the methods (e.g., neural nets, fuzzy logic, expert systems) and how these methodologies have been embedded in tools and applications.

- **Content management and understanding** — positions data, information, knowledge, and content — of all varieties (e.g., static, dynamic, text, video) — and how they can be managed for alternative purposes.
- **Optimization** — looks at major technology and business processes and how they can be optimized with a variety of models, tools, and technologies. This course would examine the need for integration, interoperability, and synchronization and would explore how optimization becomes the nexus for productivity and profitability.
- **Integration and interoperability** — looks at the technical requirements for making disparate, incompatible applications, standards, platforms, and architectures communicate with one another. It should focus — at a high level — on enterprise application integration, Internet application integration, and wrapper/glue technologies like XML, as well as more conventional middleware.
- **Business technology metrics** — introduces professionals to return on investment, economic value-added, total cost of ownership, and other models for assessing business/technology effectiveness.
- **Security and privacy** — examines the concepts, models, tools, and technologies that enable security architectures, authentication, authorization, administration, and business resumption planning. The technologies should include encryption, biometrics, public key infrastructures, and smart cards, among others.
- **Business/technology strategy** — examines the methods for developing and assessing business strategies in specific and converging vertical industries. Some of the models and methods might include scenario planning, decision modeling, and alternative futures development.
- **Project and program management** — requires professionals to understand project management processes, methods, and tools.
- **Supply chain management (SCM)** — introduces professionals to supply chain concepts, models, and tools. Integrated SCM (by vertical industry) should be a central focus of the course, along with the technologies that enable SCM.
- **Professional communications** — requires professionals to understand the roles of the form and content of professional written and verbal communications. Business case development and communication, due diligence, and related challenges should be used to demonstrate the significance of the professional communications that occur within simple and complex organizations.

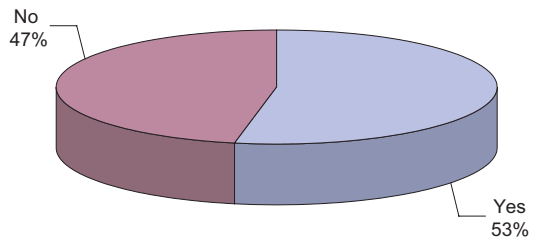

Figure 5 — Does your organization have recruiting relationships with local and regional colleges and universities?

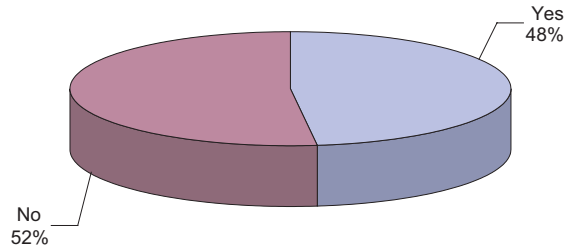

Figure 6 — Does your organization regularly use internships and co-ops as a strategy for recruiting full-time professionals?

These course ideas close the loop between our obvious commitment to training and the need to identify the skills that our professionals need to master. Although we should feel good about our learning and training progress, we should continue to enhance our efforts to deliver more and more content (and more and more of the right content) to as many of our key business technology professionals as possible.

ABOUT THE AUTHOR

Steve Andriole is a Senior Consultant with Cutter Consortium's Business-IT Strategies Practice and a contributor to that Advisory Service. He is also the author of Cutter's Business-IT Strategies monthly, survey-based Executive Updates *for 2002. Dr. Andriole is the Thomas G. Labrecque Professor of Business at Villanova University, where he conducts applied research in business-technology alignment. He is also the founder and CTO of TechVestCo, a new economy consortium that focuses on optimizing investments in IT. He is formerly the Senior Vice President and CTO of Safeguard Scientifics, Inc. and the CTO and Senior Vice President for Technology Strategy at CIGNA Corporation. Dr. Andriole's career began at the Defense Advanced Research Projects Agency, where he was the Director of Cybernetics Technology. He can be reached at sandriole@cutter.com.*