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Unleash the Business Potential of Your Technical Experts

Examine the need to broaden the business capabilities of IT professionals, engineers and scientists

Learn the business competencies most relevant for these specialists

Gain insight about how you can improve performance by developing and managing your technical talent

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Is your business under-performing because your technical experts are not business people, too?

>> DO ANY OF THESE SITUATIONS SOUND FAMILIAR?

The over-engineered product

An engineer for a major electronics company spent six months developing a new handheld entertainment device. Much smaller and with more applications than anything to date, the device came equipped with all the latest bells and whistles. When presented to market, however, it was far more than what the consumer wanted or needed at a cost far greater than the market would bear. Essentially, tens of millions of R&D dollars and months of valuable time were spent developing an unwanted product. As a result, close competitors swept up market share by offering products that were perhaps not as "perfect" from an engineering standpoint but exactly what the consumer demanded.

Great expert, terrible manager

A leading consumer packaged goods company recently promoted one of its top IT professionals to manage a group of six. This individual found it difficult, however, to move from his role as individual contributor to manager and lacked the skills needed to effectively manage a team of people. The new manager quickly adopted a "whip and chair" leadership style, which just as swiftly alienated his team. Within six months of the promotion, the company lost two of its top IT experts, and the manager's confidence, ego, and reputation were irreparably damaged.

Money talks but only if you speak the language

Scientists from a multi-national pharmaceutical company presented their financial forecasts and R&D requirements for a new product to senior executives. The product showed much market promise, but the scientists were not financial experts, and their analysis had glaring holes in it. As a result, the information, as given, prevented the leadership team from making critical decisions. The meeting wasted valuable time and delayed development of the product until the analysis could be redone and presented again.

Businesses under-perform when technical specialists aren't also businesspeople

Do you recognize these scenarios? If your business is under-performing because your IT professionals, engineers or scientists don't speak the language or fully understand the business implications of their actions, you're not alone. Organizations everywhere face these very real challenges because their technical professionals are specialists first and business people second. This is great; businesses

need people like this. But these professionals need to make the connection between what they're doing and how it fits into the overall business.

Of course, businesses unquestionably need people with technical expertise. A company can't sell a new medical therapy until scientists can develop the product. Still, businesses risk under-performing if they are not operating synergistically. Just like the over-engineered cell phone, that same medical therapy won't go anywhere if the scientists don't understand the market forces, including costs, which drive the development of the product.

The costs of technical specialists over-engineering products, pursuing product development paths that are not aligned with market needs, or otherwise doing the wrong things right are significant. Similarly, the toll on personnel when a technical specialist steps into a management role without knowing how to work with and manage people can be devastating. As business needs change, organizations must also rethink who they hire as IT professionals, engineers and scientists as well as how they manage this technical talent.

A recent study by Lake Forest Corporate Education (LFCE) examines this issue through interviews with more than 35 business professionals:

> senior executives;
> specialists in IT, engineering, and science who have successfully transitioned into general management;
> specialists currently moving towards general management; and
> specialists who have chosen to stay on the technical career path.

The study concludes that, by and large, most technical and scientific experts cannot remain pure specialists within their organizations if these organizations want to compete effectively in today's business environment. Put simply, technical experts must become businesspeople, too. They must expand their skill sets — and their mindsets — and align their work styles and professional capabilities to serve the greater good of the entire business enterprise.

"Many technical careers have the challenge to develop ideas from a customer's perspective. While an idea might be 'neat,' it may not meet what the market demands. Having a broader business context is critical for success."

ANNE KELLY

Senior Manager,
Web Strategy and Marketing,
Zebra Technologies Corporation

"All the rules are changing. Industry boundaries are breaking down and it's creating a need for a different kind of leadership. Now, subject matter expertise must be integrated with business leadership skills that together become transformational."

ALLAN F. "DUFFY" GAYNOR

Vice President,
IBM Global Services and
Senior Location Executive

Different times, different skills, different success

What is so different about the business world today that organizations are under-performing, even as their technical specialists develop products using high-tech processes unimaginable even a generation ago? Just as global competition and emerging economies create markets for businesses, they also exert extreme pressure on U.S. businesses. Companies must eliminate costs, move faster to market and operate more efficiently just to keep up. This, in turn, means that businesses must rely even more on technical specialists with strong business acumen.

"People go into science because they want to be scientists, and the characteristics of scientists are different from the characteristics of businesspeople."

ED OGUNRO

Senior Vice President and Chief Scientific Officer, Hospira, Inc.

So what's the problem? Why do technical specialists often find it difficult to make the jump from experts in their field to strong business professionals? In part, it's because the qualities and skills that make great technologists, engineers and scientists are not the qualities and skills that make great businesspeople. For example, think of a technical specialist and what picture appears? Often the mind conjures up the stereotypical image of the "gear head" sitting in his or her respective cube tinkering with the latest gadget, the "heads-down programmer" hovering over the computer writing code, or the "man in the white coat" watching the contents in the glass beaker boil atop the Bunsen burner.

These are, of course, stereotypes, but these images were born from somewhere. Traditionally, technical specialists pursue careers in their respective fields because that is where their interests and proficiencies lie. They're good at their jobs, and certainly, businesses cannot survive without experts such as these. Still, people who focus on data, who can follow an idea from start to finish in perfect order, who concentrate on a single project, are not generally the people who are seen confidently taking questions at a business meeting.

"These functions tend to attract people who are not extroverted," says Greg Young, CEO of CorePharma, LLC. "You have a lot of people who are linear thinkers who understand what they are doing but not how that fits into the rest of the world. I tend to think that IT, engineers and scientists share that same general mindset."

At the opposite extreme, however, sound businesspeople embody an entirely different set of characteristics. They're the conference presenters, hand-shakers, and deal-closers. "Early in your life, you figure out whether interacting with people is something you like or you don't, and you carry

TRAITS OF A STRONG TECHNICAL SPECIALIST	TRAITS OF A STRONG BUSINESSPERSON
Possesses an in-depth knowledge of a narrow discipline	Possesses broad knowledge across multiple disciplines
Dedicated to serving a single discipline	Dedicated to serving the customer and the greater business enterprise
Uses hard data – numbers and facts – to make decisions	Confidently makes decisions using incomplete, often ambiguous information
Linear thinker	Strategic thinker
Focuses intently on a single task	Focuses on the "big picture"
Individual contributor	Team player
Values intelligence over emotion	Has strong people skills

that with you your whole life," says John M. Gentry, managing director of CSC Consulting. "A lot of people who make interacting with people a priority don't end up as technologists."

But just as technical skills can be learned, so can business skills. That's important, because organizations today need people who possess both. They need versatilists, good technical and scientific specialists who are well-versed in their area of expertise but who also possess the traits of good leaders and managers. They are businesspeople first, technical experts second. As a result, they have a much more far-reaching impact on their organizations than pure technical specialists.

John Landgraf, senior vice president, Global Pharmaceutical Manufacturing and Supply, Abbott Laboratories, sums up this growing need.

"The biggest problem we have is that we let people come up through functional silos," he says. "Think of it this way. If the only tool you have in your toolbox is a hammer, then you are good at hammering nails, but you're in trouble if you do a job that requires a screwdriver or a saw. If you're an expert in one function, you have only one tool. As a company, we are starting to see that we need more general talent — more people with more tools. And that need is only going to grow with time."

An issue of supply and demand

This is not to say that the demand for pure technical specialists has disappeared. Businesses need and value workers across the spectrum but in a different capacity than has historically been the case. Today, many purely technical roles are being outsourced, while other positions are being automated or made obsolete by newer technologies, processes and capabilities. The LFCE study revealed that non-technical organizations typically need only one or two pure technical specialists, and in some cases, these organizations are turning to consultants rather than growing the talent in-house.

"I'm not sure there are fewer IT jobs, but the field is being restructured," says Stella Kalfas, associate dean for Lake Forest Graduate School of Management. "My opinion is that many organizations will be outsourcing to Application Service Providers (ASP) or consulting firms. There will be many more IT consulting firms and IT positions that will require general business knowledge and experience in different areas as opposed to one specific business unit or industry."

The supply of these business-literate technologists, engineers and scientists, however, is simply not there. Today, the spectrum is very much weighted in favor of pure technical specialists due in large part to the type of individuals who naturally gravitate toward careers in technology and science.

	PURE TECHNICAL SPECIALIST	VERSATILISTS
DEMAND	DECREASING	INCREASING
SUPPLY	INCREASING	DECREASING

The right balance of professionals

Currently we see most organizations address this business challenge — not having the right supply of technical talent — situationally rather than holistically. They often react to changes as they come up rather than look at the big picture. For example, as companies have seen their need for IT, engineering or scientific talent change, they have outsourced positions to cut costs, laid off personnel where activities could be handled differently, or patched the skill gap by offering makeshift training opportunities.

Today's business climate, however, requires companies have a deeper understanding of what happens when technical specialists are not businesspeople first. Companies then must proactively manage their technical talent pool by:

> hiring people with the right mix of skills;
> developing career paths for specialists and versatilists;
> investing in the right specialists;
> knowing the key competencies that distinguish versatilists from specialists; and
> implementing the best approaches for developing technical talent.

Hire the right people

First, and perhaps most importantly, companies need to hire people with the right mix of skills from the start. This means looking for people who are not just experts in IT, engineering or science, but who are also able to work with people and possess a certain level of business savvy.

"Some companies look purely at a student's academic record; they look for the straight-A student," says David Lum, director, Asia/Pacific product and support operations for Motorola, Inc. "The problem with looking only at academic performance is that the straight-A student may have limited social skills. We hire students from top schools who have a blend of good engineering skills and the social skills they'll need to work in a team environment."

Develop formal career paths for specialists and versatilists

Everyone wants to know where he or she is headed in an organization. That's why it's important to offer solid career paths for technical specialists. Traditionally, there have been two. One path allows the technical or scientific expert to dive more deeply into technical areas. The other challenges the technical specialist to broaden his or her managerial skills. But to truly take advantage of the talent in your organization, those career paths must be available and well-defined.

Leslie Weber, senior vice president and CIO of True Value Company, acknowledges the value of these two tracks.

"One option is to stay on the technical track," she says. "You're a programmer, and you want to continue to deepen or broaden your technical competencies. Your career aspiration is to be a strong, technical talent that people will draw on. In this role, you get the more challenging technical things thrown your way."

For the technical specialist – which path is right for you? Check out page 21 to see where you might fit in best.

While this track takes the specialist toward deeper and deeper technical training, there's another option available — the management track.

"In this arena, you do need certain competencies in terms of business acumen, understanding of finance, people skills, project management, communications, and other soft skills," she says.

Each track comes with its own benefits. Let's look first at the technical path. It generally offers a good salary early on, but those careers are not as lucrative in the long run. Furthermore, the ladder of the technical path may take longer to climb, and reaching the top can result in less flexibility and less visibility while increasing the likelihood of being labeled as strictly a technical professional.

> "I like science; it's all about discovering something new. Not everyone has the patience to dig deep into a topic, but I find it fun and rewarding."
>
> **JANET COOPE-EPSTEIN, Ph.D.**
>
> Development Chemist, Schick

In addition, technical path options are declining while management opportunities are increasing. This makes sense given that fewer pure technical specialists are needed to fill fewer and different types of positions. Look, for example, at positions involving computers. According to the U.S. Department of Labor's Bureau of Labor Statistics, the need for computer programmers — professionals who focus on the technical aspects of computers — is expected to slow in coming years whereas the need for software engineers and analysts — typically professionals who may be part of a marketing team — is expected to rise. And while the skills necessary to succeed in each area may differ, the management track can feed on a technical person's desire to learn new ideas and conquer new challenges.

This is not to say that there is not money to be made on the technical track. There is; in fact, the technical track can be very lucrative, although only the best of the best can realize those rewards. A technical specialist cannot afford to be mediocre, especially since there is a large talent pool for fewer and fewer positions.

Other positives about pursuing the technical track? Technical experts are typically free from the responsibility of managing others. They can also work independently for the most part and there is a sense of autonomy, perhaps even a bit of intrigue, in doing work that few people understand. Most specialists are passionate about their work and the technical path leaves them free to dedicate themselves to their passion.

"When you work in industry, you don't necessarily get to choose your area of expertise, but it doesn't really matter," says Janet Coope-Epstein, Ph.D., development chemist for Schick. "As a chemist, I've worked on laundry detergent, hair dyes, and shaving products. These fields are not as glamorous as developing a cancer drug, but I'm still making contributions and breakthroughs in uncharted territory, and that makes it interesting."

Still, companies must recognize the different qualities needed in each type of position and offer solid career paths in both directions. Otherwise, the business risks losing much-needed talent. "I have seen cases where someone goes down the management track who just wasn't wired for it," says Joe Manning, director of systems at Crate & Barrel. "It's unfortunate. Here you have a solid

developer who shifts into the management track. And what happens over time is he or she becomes ineffective. It's a damaging experience."

And it's because they were not ready or interested in switching tracks. That's why it's important to look for the people in the middle, those who have solid technical skills but who are also open to learning the business side of their work. Finding those people and taking the time to develop them into businesspeople, as well as taking steps to ensure your technical experts have a path to success, requires a solid plan.

Invest in the "right" specialists

Here's an ironic twist. There are more technical specialists available today than management professionals, yet few organizations offer a solid path to career growth in the technical arena.

> "There are people – technical specialists – who simply can't make it on the people track. They don't have the personality. They don't have the interest."
>
> **CARYL BARCLAY**
>
> President,
> Usable Systems, Inc.

"In a lot of organizations, managing people is really the way to advance. And that is a problem with the structure of the industry," says Caryl Barclay, president of Usable Systems, Inc. "There is a need for extremely bright people in purely technical roles, and you need to have a viable career path for them. But you will not see that in a lot of organizations."

As you develop your technical talent, consider who will be receptive to and benefit from training initiatives. It may be tempting to offer training and development to everyone, but this can actually dilute the effort. It's better to identify the high potential candidates — the "stars" — and invest heavily in them. These emerging leaders will have a tremendous impact on the organization, and it's important to support them.

As mentioned earlier, there are those technical specialists who are well-suited for the technical path. These people don't understand the business issue, don't want to understand it, and will be resistant to the changes necessary to take on a broader role within the organization. These individuals should be allowed to progress along a well-established technical career track.

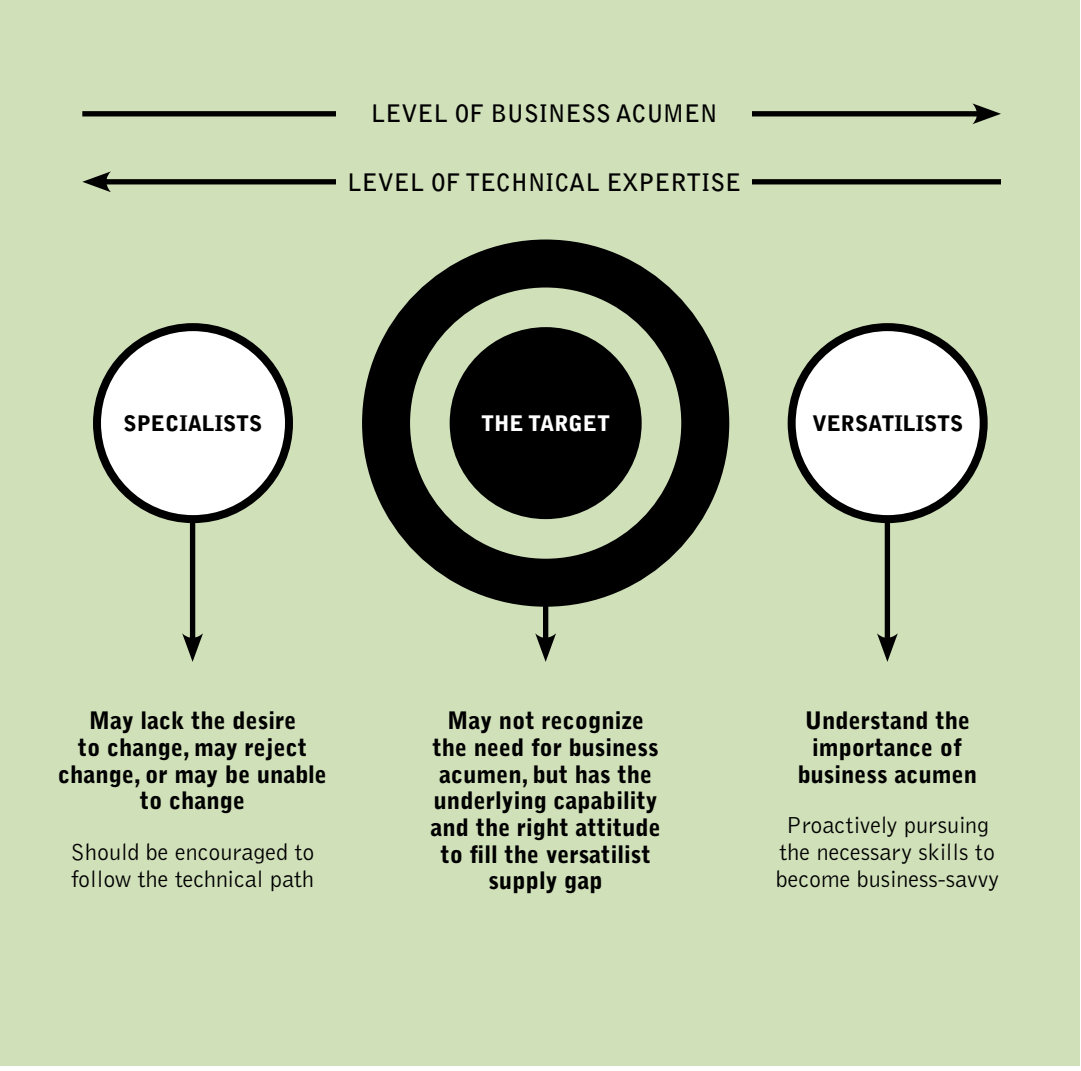
"You have a mixture of people," says Ed Ogunro, senior vice president and chief scientific officer for Hospira. "There are some you can say, 'Don't train them for management; they will never get it. They love being purely scientists and are often the best ones. Let them do that.'"

But then you have those at the opposite extreme. They already get it and have likely taken it upon themselves to acquire the business and people skills they need to become versatilists and move along the management path. These people tend to proactively pursue their MBA degree or some such equivalent.

The attention must go to the people in the middle, the group that exists between the resistant pure specialists and the self-made versatilists. These are the specialists who may not know they are short on skills and who may be indifferent as to obtaining these skills, but who possess the underlying capabilities and the right attitude to become versatilists and fill the gap. They are the target.

Of course, not all of these target individuals will possess a deep desire to be businesspeople, and perhaps they will not cherish the idea of working with people rather than ideas and data. They may not believe the managerial path is for them. As a result, businesses must remember that these technical experts enjoy what they are doing and are good at it. Still, they can remind these specialists that the company believes they can make the transition. They must tell the specialist that others have been there, are successful and enjoy what they are doing, and these people can help the technical professional on that career path.

"Going into management can feel like a loss because you are not able to dedicate yourself to pure research," says Dr. Qingxia Liu, group leader, New Product Development for USG. "For me, however, that loss was counter-balanced because, as a manager and leader, I can make a greater contribution to the company. My technical skills are still valuable. But by leveraging my own knowledge, I can bring out the talents of others to make even greater progress in our research pursuits."



>> WHAT AREAS SHOULD BUSINESSES FOCUS ON?

The LFCE study revealed five competencies critical to business success. Businesses should focus on these areas as they move to develop their technical specialists into business professionals:

> interpersonal and communication skills;
> negotiation skills;
> financial skills;
> strategic thinking skills; and
> project management skills.

Interpersonal and communication skills

"You can have some brilliant ideas, but if you can't get them across, your ideas won't get you anywhere."

"A whole host of skills merit focus and attention, even something like negotiation skills. You need to be able to talk to and negotiate with people in other functions."

BRIAN SVENKESON

Vice President and Release Team Lead for Enterprise Processes and Systems, PepsiCo, Inc.

"Sometimes you need to push technical people to make presentations. The challenge for them is focusing on what is essential. They need to be detail-oriented, but they also need to focus on the issues. Sometimes this is very difficult."

GUILLERMO HERRERA

President, CEO and Director, NeoPharm, Inc.

Spoken by business icon Lee Iacocca, those words hit at the core of what makes a strong business professional. Need to negotiate a contract? Businesspeople must be able to speak with others and get what they want without appearing abrasive and putting off their colleagues. Thinking towards the future of the organization requires knowing how to get "buy in" from various constituencies. Project management? Like being a strong negotiator, coordinating the work of many people with different personalities and from various departments demands flexibility and the ability to motivate others to get the job done. Even financial expertise involves communication skills. If a businessperson understands an accountant's forecast but can't explain how it affects marketing efforts, the information is useless.

In other words, in some jobs, communication skills are important, and in some they're not. For managers, they are paramount.

"The management track takes two sets of skills," says Manning of Crate & Barrel. "One is technical prowess — the ability to fulfill technical responsibilities. The other is a whole host of soft skills — the ability to listen; the ability to have an effective conversation, have fun, crack jokes when tension is too high; the ability to compose your thoughts and get them on paper in a way that influences the audience you are communicating to. All of these things are so critical to moving projects forward."

Negotiation skills

Managers must work with other people not only within their business units but across the country and around the globe. It takes special skills — negotiation skills — to ensure that all sides can work together.

"Especially these days, not all R&D is done within the walls of Hospira," says Ogunro of Hospira. "Some of it is done with companies in Dallas, Buffalo, and even China. We have people who manage and negotiate those contracts, but the R&D people lead the projects. They have to know what we are signing up for."

These skills go beyond formal meetings, too. Catherine S. Brune, senior vice president and CIO for Allstate Insurance Company, says building relationships is a part of this.

"Our really good project managers stand out because they are great at getting behind the scenes. I see them making phone calls or in the cafeteria having a conversation," she says. "It's not necessarily about the project, but they are building a relationship so that when it comes to crunch time, they can ask a favor and use their influence."

> "Scientists have to learn that every decision they are making, every piece of work done under their supervision has a cost, an NPV, and a scope in terms of returns. They need to be able to set science aside and focus on returns."
>
> **GUILLERMO HERRERA**
>
> President, CEO and Director, NeoPharm, Inc.

Financial skills

Remember those scientists we mentioned earlier who pitched new product plans to senior management but were unclear in their presentation about the financial implications? While not every scientist is cut out for management, those who move into that track must be able to speak the language of money.

"You can't cross that bridge if you're not taking care of shareholders. The business world is about making money," says Kevin Quinn, vice president of operations for Pactiv.

Jim Zitnick, Chief Information Officer for the Office of Technology and Intellectual Property at the University of Chicago, agrees. "Accounting and finance are two basic disciplines that you have to get down. How are you going to make the money? It sounds weird, but many people lose track of the fact that they are selling a product or a service for a profit."

Strategic thinking skills

In every organization there are — indeed, there have to be — thinkers and doers. In this sense, the thinkers are not the scientists contemplating the next miracle drug but the visionaries, those who can look at the current project and see the future beyond it. That's what Daniel Nottke, CIO of Navigant Consulting, sees as important.

"I think the technologists who get out of the pile are the ones who know how to look at the longer horizon, understand the strategy of the business, understand how technology is an enabler of that strategy and then communicate that up to the executives who may be from more of a business or a financial background," Nottke says.

Project management skills

Just as businesses require technical experts who know business, developing a product doesn't happen one department at a time. Professionals must be able to see a project through from conception to market, and that requires an overall knowledge of business as well as strong interpersonal skills.

"The combination of being customer-centric, applying sound project management process, and serving as a cross-functional lead are valuable attributes at Zebra," says Anne Kelly, senior manager, web strategy and marketing, Zebra Technologies Corporation. "We equate these attributes with being a strong leader."

> "You need to be a sound project manager to rise up through the ranks."
>
> **JEAN LUBER**
>
> Vice President and
> Chief Information Officer,
> Schwarz Paper Company

Brune, of Allstate, says that despite the importance of project management skills, many people coming out of college today don't know how to do it.

"These specialists need to be learning project management," Brune says. "Right now, I have some experienced project managers, but I need many more. Still, there are very few small projects here where someone can learn project management. A project here impacts tens of thousands of people, and most are in the couple hundred million dollar range. But you have to build those skills somehow."

>> WHAT'S THE BEST WAY TO DEVELOP YOUR TECHNICAL TALENT?

You've identified your targets for the management track and know what skills they need to be successful on this track. Do not, however, lose sight of what made these individuals successful in the first place. Making them into versatilists does not mean abandoning technical expertise for the sake of developing business acumen. Rather, to function as both a specialist and leader requires a marriage of the technical skills they already possess and the business skills they will develop.

How does this marriage occur? For starters, all initiatives must be firmly based in self-assessment in order to increase awareness and buy-in. Allan F. "Duffy" Gaynor, vice president, IBM Global Services and senior location executive, says this is probably the most important element of professional development. "As a technical expert, you have to know where you are and where you want to go," he says, "or you're not going to be successful."

"Business is changing, and you'll need to change with it," he continues. "In order to grow your skills, you have to make yourself vulnerable. Seek new workplace experiences outside your comfort zone. Learn to be flexible and to manage ambiguity. You will learn that your skills are transferable and you will be on your way to becoming a skilled business leader."

From there, it boils down to finding the fastest and most effective means for specialists to attain the desired skills. There is no one, single, perfect solution, and what works for one organization may not work for another. Businesses must weigh timing, urgency, pervasiveness of an existing problem, and available resources — both human and financial. In determining what's best for the organization, many times multiple avenues for development are appropriate.

To help businesses navigate this area, the LFCE study identified four approaches companies should consider when developing technical talent: experience; coaching and mentoring; training; and pursuing an MBA.

Experience

When it comes to learning, nothing beats experience. What better way to understand what it means to be a financial analyst, sales manager or marketing professional than to actually walk in their shoes? Specialists who understand this will seek out positions that challenge their skills and comfort level.

Chris Begley, for example, now chief executive officer of Hospira, started college as a psychology major with intentions of pursuing a Ph.D. and a university teaching job. He picked up a business minor and, after graduation, began his career in a management training program. Even though he was rotating through several different functional positions — purchasing, product line supervising, etc. — he realized he needed a more solid business background.

"After my MBA, I took a manufacturing job with American Hospital Supply," says Begley. "At that time, I saw upper level executives selling concepts, and I felt I couldn't sell my ideas. What better way to learn how to sell your ideas than to sell a product and be close to the customer?"

As a result, Begley took on a sales region and learned firsthand what sales is all about. He was willing to learn.

"There are not enough people in business who will move out of their comfort zones and try new things," he says. "Moving around like that gave me the experience I needed so that when I became a general manager, I understood the different functional areas."

Experience can mean a number of other things as well. It may be informal. Simply by being in a position for a number of years, a specialist may gain a deeper understanding of his or her role within the business enterprise and develop a better appreciation for how business works. They may also, in time, hone their people skills. There is nothing to ensure, however, that the specialist will seek out opportunities to broaden his or her skill set. Sometimes these technical experts just need a nudge to uncover their business potential.

"Some time ago, I was in a small company doing research. I went from there to a company in a field I knew nothing about, and then another job. People ask, 'Aren't you ever happy?' The truth is, I loved the job, but I had gotten to the point where I had learned all I could. You have to learn by doing, so it was time for a new job. You have to leave that comfort zone."

JOHN LANDGRAF

Senior Vice President,
Global Pharmaceutical
Manufacturing and Supply,
Abbott Laboratories

Some organizations implement formal programs that allow their technical specialists to interact more with the business and develop their business savvy while they also work on interpersonal relationships. These programs include job rotations, opportunities to accompany the sales team on calls, and working on cross-functional projects from start to finish.

"From my own experience, I hated to give a programmer just the specs. It's better and much more rewarding to give them the whole project," says Zitnick, of the University of Chicago. "I often challenge these people to take a project from start to finish — from communicating with the end user, to understanding the business process, to developing specifications, installing, testing, following up, etc."

In short, offering formal opportunities better ensures that specialists get the necessary exposure to expand their skill sets.

Coaching and mentoring

Coaching or mentoring is another means for helping technical specialists develop the skills they need. (The terms are sometimes used interchangeably, so we will use mentoring for ease of reading). The mentoring relationship provides a forum for identifying skill gaps and then working on specific competencies — especially those outside a specialist's comfort zone. When matched with an appropriate mentor, technical specialists can:

> gain wisdom as to what the market or organization demands of them and how it benefits them, their careers and their organization;
> better understand their strengths and weaknesses and the demands of their transition to businessperson;
> obtain feedback on the changes they make; and
> receive support as they continue the change process.

"Technical specialists need the ability to think strategically – visionary thinking, innovation, direction setting, etc. But they get caught up in their traditional roles. These people say, 'What does the business want?' They need to move away from this order-taking mentality and look at the business as a collaborative effort."

RICK ADAMS

Vice President,
Supply Chain Process Management,
Grainger

The mentoring relationship is different from the manager/employee relationship. A specialist and mentor form a long-term partnership, often for a year, where the specialist can ask for guidance while working on specific goals.

In addition, for this partnership to be beneficial, it should be non-threatening. A mentor should not be in a supervisory relationship with the technical expert, since making these types of behavioral shifts yields greater success when the specialist knows he or she can freely express apprehension or ask questions. Rather, the mentor serves as an impartial party with enough knowledge about the organization and career transition to offer insight, guidance and support along the way.

"The beauty of it is candor," Brune, of Allstate, says about mentoring. "I try to mentor people outside my department or even outside my company. By setting up the relationship this way, we can have a conversation that's 'safe' and work through any issues openly."

Plus, a mentor is a valuable resource for the technical specialist making important career decisions. Mentors can speak from experience about the ups and downs of pursuing the management path. They have seen others, as well as themselves, try, and sometimes succeed, sometimes fail. But the very existence of the mentoring relationship means that the transition is possible.

Training

Training is another high impact option, and it concentrates on developing the specific competencies most needed by the specialist.

For training to make the desired impact, it must occur through a blended learning approach. This means face-to-face learning, combined with real projects and followed by reinforcement. These new skills must be taught using highly interactive exercises, group problem solving and peer feedback while providing the opportunity for the specialists to assess themselves and discover what other personal changes they need to make to be successful.

Regardless of how the training is imparted, the effort will be far more beneficial if driven by the highest level of the organization. This top-level support communicates the business need for training and promotes standardization of vital leadership skills across the company.

"To ensure success as they transition from individual contributor to management, tech people need solid information, support and training," says Mary Lynn Godee, employment manager for SPSS. "We provide education on budgeting and employee relations in addition to other management development training to ensure a smooth and successful transition for our skilled technicians. Not to provide those basics would result in failure."

For specialists to fine-tune their communication style, ability to influence others, and negotiation skills, a process of self-discovery must be built into the training. As a result, the right training can be a catalyst to uncover the type and degree of change they need so they can "reach over the table" to their business partners.

"One of the things I try to advise people is that you have to understand yourself — you have to understand where you want to go, you have to understand your own personal definition of success," says Lum of Motorola. "If you don't, everyone around you will choose it for you."

Specialists often learn the data-driven and fact-based content easily but they often face challenges in the more people-based skills that are critical to business success. They also need to learn how to read financial

Technical specialists succeed in training when the program speaks their language and addresses the skills they need most – interpersonal and communication skills, negotiation techniques, an understanding of finance, etc. Lake Forest Corporate Education's Business Leadership Certificate Program for IT professionals focuses on honing these important skills in IT experts. In the five-day program, participants learn from practitioner faculty as they apply concepts to real-life business scenarios.

Considering a training program? Look for one that:

- ✔ Has clearly-defined, measurable outcomes
- ✔ Is customized to your profession
- ✔ Sees training as a process rather than an event
- ✔ Fits into your overall leadership development plan
- ✔ Emphasizes self-assessment
- ✔ Focuses on specific skills
- ✔ Includes theory and practice with case studies / simulations that mirror actual workplace situations
- ✔ Is interactive and engaging
- ✔ Is taught by dynamic practitioners who have lived the transition from technical expert to businessperson

statements, present projects in financial terms and lead with the business objectives foremost in mind and not concentrate solely on the technical objective.

Therefore, programs should be geared toward the technical and scientific expert and delivered in a language they understand. All course content must be tailored to their frame of reference and experiences. Training initiatives also must come from the perspective of the specialists who may be apprehensive about developing skills which may not be comfortable or natural for them.

Here is perhaps the most important concept to remember about training. Training is not just training. It is an investment and must be tied to business results. If it's not tied to results, training is just money thrown away.

Pursuing an MBA degree

A formal degree program is another alternative. Pursuing an MBA or similar degree requires a great deal of commitment on the part of the specialist. Still, it offers in-depth exposure to the core business topics in an environment that develops people skills as well. Quinn, from Pactiv, points out that it's not a matter of intelligence, but a matter of exposure.

"Before I got my MBA, I would sit in meetings, and it was as if there was another language being spoken. I could go in and speak the language of engineering, but I couldn't turn it into returns on capital or on investment. I felt like I was in over my head," Quinn says. "It wasn't from an intelligence perspective; it was exposure. I didn't take those courses in college. When I saw the need, I went to get my MBA. Then I could go into a room and could hold my own, and then some. The finance people could just look at numbers. I could take equipment or a process and turn that into numbers. It got me where I am today."

> "Going to a night program and working full-time is the best way to complete an MBA because it's practical learning, not textbook."
>
> **CHRIS BEGLEY**
>
> Chief Executive Officer,
> Hospira, Inc.

The MBA provides a unique learning experience that forces the technical specialist outside his or her comfort zone and encourages risk taking, all in a safe environment. Plus, it allows the specialist to learn from other business professionals — instructors as well as classmates.

If a specialist decides to take the MBA route, he or she must choose the right MBA. They are not all created equal, and it is critical that the program meets the technical specialist's needs. For example, an online MBA will net someone credentials. But if the specialist needs to gain practice in building interpersonal relationships, a purely online environment won't build those necessary skills.

Additionally, the program should stress group work, projects and applied knowledge with students learning from practitioners who truly walk the walk. An instructor who works every day in the "real world" gives students a tremendous value by sharing his or her experience.

"If your company is going to spend $35,000 or more on an MBA, make sure you get more than just the academics," says Motorola's Lum. "Look for a program that changes the technical professional's perspective on the world and does that through experiential and practical learning about people."

All in all, the MBA isn't — or shouldn't be — about getting that piece of paper. It should be about building skills through practical experience.

A necessary change

Today's business environment demands more IT professionals, engineers and scientists who, in addition to the mastery of their technical skills, embody a broad cadre of traits and skill sets that allow them to function across the business enterprise.

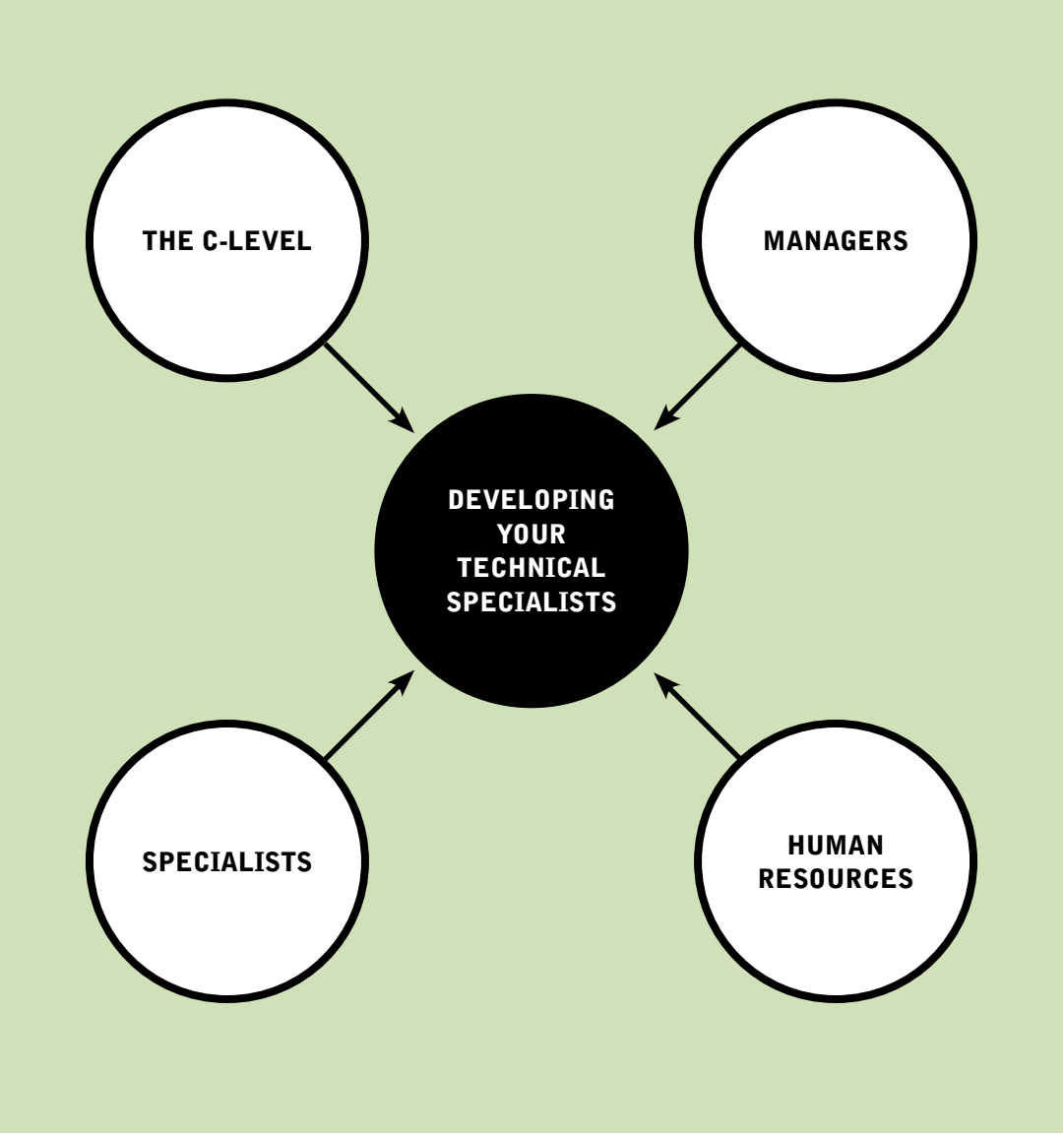
Businesses that don't develop a true appreciation for this issue and take the necessary steps risk not being able to compete effectively in today's business environment. Technical experts must understand the financial impact of their work, whether it's developing a new product, managing a team of other technical specialists or trying to garner R&D funding.

"I absolutely believe that the more these people (technical and scientific experts) have of this managerial business acumen, the better the company will be," says Young, of CorePharma LLC. "If you are a director managing a workforce, you should understand how that workforce influences all aspects of the organization. If you don't understand this, you can't optimize performance."

And so it is that this business challenge belongs to all members of an organization and must be tackled from all sides for any solution to be effective.

>> THE BLITZ: COMING AT THE ISSUE FROM ALL SIDES

Who should lead the charge in taking the technical talent pool to the next level, in making technical specialists business people first? From C-level executives concerned with performance, to the workforce manager striving to assemble the right team and deliver results, to the specialist looking for the right fit in today's business environment, to the human resources community which is charged with building the right talent resources, no one can afford to sit on the sidelines. For an organization to operate most efficiently and effectively, all four parties must recognize their mutual responsibilities in optimizing the specialist's broader, total role within the company.



The C-level

The biggest push must come from the top. C-level executives (CEOs, CIOs, CFOs, etc.) must buy-in to both the problem and to the solution. Once this happens, they must communicate the urgency of the issue and raise awareness throughout the organization while giving their full support to development solutions. This also includes making sure the resources are there for the specialist to make the transition to versatilist. Otherwise, companies risk lack of standardization, discontinued programs, and lower returns on training and development investments.

The Managers

In many instances, it is up to managers to give the specialists that extra little shove. Teaming with the human resources department, they must pull specialists out of their silos, make them aware of the issue, steer them in the right direction, and encourage them to take risks and accept change. And it all has to have meaning for the specialists. Managers must emphasize to their technical people that what they are learning has value by showing them how it connects to the overall business.

> "Those who remain in the technical field will become IT versatilists, equally at ease with business and technical issues..."
>
> "They're 50/50 professionals..."
>
> "The IT cohort of the future has to be a good protector of technology but also a savvy businessperson."
>
> **CIO MAGAZINE**
>
> "2010: The Future of Jobs and Innovation"

Leslie Weber, senior vice president and CIO of True Value Company explains it this way. "Just because you offer a program or training solution doesn't mean that technical associates will take advantage of it. Sometimes individuals need to be tapped on the shoulder and told, 'We see you as someone with great potential, and here is how we will help you and position you for continued success and contribution.' Sometimes leaders in technology don't recognize their leadership qualities and capabilities, and we, as management, have to help them not only recognize it but realize and develop it."

Human Resources

Neither managers nor specialists have to — nor should they — go this alone. The human resources group plays a critical role in making sure the right people receive the right support in moving from specialist to versatilist. In general, HR supports high performance by clearly identifying the skills needed for all positions. It can also provide incentives to urge candidates for the transition to actually make the move. Finally, HR serves as an employee advocate in making sure these employees receive the necessary development, whether in the form of training, formal education and/or mentoring, so that they succeed in their new roles.

The Specialists

Development programs require dedication, hard work, and sacrifice and, as a result, will stumble if the specialists themselves aren't convinced. The ultimate responsibility for learning must come from the technical and scientific experts themselves. They must be ready to accept the need to broaden their skill sets and then devote themselves to acquiring the necessary skills. Once they have those skills, they must integrate them into their everyday work.

Catherine S. Brune, senior vice president and CIO, Allstate Insurance Company, conveyed this message in describing an emerging leaders program at Allstate.

"We tell people going into it that there are no guarantees. And we tell them that this is on top of everything they are asked to do everyday. So there is a commitment here. Do you want the special training that will come along with this? The special influence you will gain? The exposure you will get? They have to understand they are going to have to work harder. This is not a gift from Heaven."

A MESSAGE TO THE TECHNICAL SPECIALIST:

>> WHICH WAY SHOULD YOU GO WHEN YOU REACH THE FORK IN THE ROAD?

If you are an IT professional, engineer or scientist, you must acknowledge that shifts and changes in the business world will likely impact you. Armed with this realization, you then must consider how you fit into today's business environment and define your personal path for success. As you plot your course for the future, consider these questions.

> **How do you feel about people?** Do you prefer to instant message someone — even the person sitting in the cube next to you — when you have a question? OR Would you walk the lengths of the office for a one-on-one chat and the opportunity to interact with your colleagues?

> **Where do your interests lie?** Are you the type of person who likes to hole up in a cube and write code for hours? Are you a genius in the lab whose idea of a "mixer" is combining different chemicals and waiting for a reaction? OR Do you prefer to tackle a business challenge from all angles — working across functional boundaries to deliver a product that both satisfies the customer and grows company revenues?

> **What do you want to do?** Do you live for JavaScript? Or is your goal in life to find the cure for cancer? Are you happiest knowing that you have a single focus and that with each day you become more and more expert in your area of expertise? OR Do you tire quickly of doing the same thing? Do you seek out opportunities to try new things and learn new skills?

> **Do you have what it takes?** Are you the "best of the best" at what you do? Can you surpass the competition to fill the slots available to pure technical specialists in your organization? OR Do you need to sharpen or expand your skills to stretch into a different role?

> **What are your options?** Do you work for a company that has clearly defined, supported and respected career paths for both specialists and general managers? OR Does your company — as is true with most organizations — have only the management track to choose from?

As certain doors close and others open, you as the IT professional, the engineer, or the scientist must be aware of how these changes affect you. If you have it in you, the world is looking for people like you — versatilists willing and able to expand their skill sets and their mindsets, people who are ready to jump from being an individual contributor to being a collaborative team player. If you know you're not that person, then make sure you are in a company that will allow you to dive deeper into your expertise while continuing to rise higher in your career.

Regardless of the path you choose, continuous learning will ensure your future. Whether it's reading a business best seller, attending a seminar, pursuing a degree, or challenging yourself to take on new assignments, you will be investing in yourself and paving the way for success.

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