10 essential competencies for IT pros

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Enjoying a successful career as an IT professional has always presented a challenge because you're expected to be jacks of all trades, masters of none. Or maybe that's masters of all trades, jacks of none. In any case, and however you approach it, you need a bewildering and ever-expanding array of cross-functional competencies to get and stay on top of your game. One thing in particular should strike you about the following list: Most of the competencies lie beyond the traditional IT skill set and could be equally well applied to other functional disciplines. There's less difference between us and "them" than is usually thought.

1 Understanding existing and emerging technologies

Probably the most fundamental competency that all IT professionals need is a deep and broad knowledge base in their bread-and-butter technical skill sets. If we were talking about Maslow's hierarchy of needs, this would be the food and water level: No matter what else, you must have this for simple survival. Take courses, read publications, research products, join a professional organization, spend more time on TechRepublic, but make sure you have all the information you need on the technology you're using, along with the best practices for applying it.

If you go for certifications, remember your goal is not simply to put more letters after your name but to maximize the value of the educational experience. Winning the game requires that you not only keep your eye on the ball but also anticipate what the next pitch will be. Historical evidence suggests that the average lifespan of any system is approximately 18 months, so the planning process for how you're going to replace what you just built starts pretty much the moment you finish building it. Planning is a lot more effective when you know what you're talking about. Being informed on emerging trends is a fundamental job responsibility, something in our business that needs to be done daily to keep up.

2 Designing technical architecture

Anyone can build a system component that as an individual function is brilliantly conceived and executed. But if it sputters and groans when you plug it into the larger system, you haven't accomplished very much. Whether you're responsible for overall application and network design or part of a team building components in support of an enterprise architecture, you need to know the principles of good, solid architectural design.

The design of an effective technical architecture puts the pieces together such that the machine works without sacrificing ease of use and cost. I've always found that architectural design is best done when based on Occam's Razor, which literally translates from Latin as "entities should not be multiplied unnecessarily." Stated another way, simpler is better. When thinking about design, remember that while every organization has some unique processes, most operational procedures are fairly common and can be addressed with configurable commodity solutions. Many architectures can be based on buying and assembling a fairly small number of pre-existing components rather than trying to reinvent a better mousetrap. By so doing, you can typically provide your customers with a quality, easy-to-operate product in less time and at less cost. This same concept translates equally well to the design and development of individual applications and systems.

3 Integrating systems

Technology serves many purposes, and high on the list of important capabilities is automating processes. Rather than use traditional methods of ordering supplies, managing inventory, and getting products to market, supply chain processing streamlines the operation by allowing suppliers and producers to control the complex interactions that enable raw materials to move through the manufacturing process and get finished goods in the hands of customers. Any organization that has an architecture populated by legacy systems (and who doesn't) can improve productivity through better movement of data through those applications. Sarbanes-Oxley and other regulatory compliances require companies to certify internal controls, which are often found at the common boundaries between systems. As products and platforms continue to proliferate and as companies increasingly connect their systems with others, high quality interoperability is imperative.

4 Understanding business practices, approaches, organization, politics, and culture

Corporate entities are complex organisms, and just like snowflakes, no two are the same. The dynamics that drive how a particular business operates are not easily understood. Oftentimes, especially in larger organizations, multiple cultures must be reckoned with—one at the enterprise level and others at the divisional or departmental level. And just when you thought it was safe to go back in the water, your finely honed instincts about how your company works fail you in the wake of a merger or management upheaval that changes everything. We ignore politics at our own peril. We may dislike ostrich managers—those who put their heads in the sand and pretend nothing's going on out there. But we can't be so smug as to think we can navigate treacherous corporate waters without paying any attention to the strength of the tides or the direction of the winds. Likewise, although much about organizational dynamics is generic, transferable knowledge, it's foolish to think that success in one corporate environment guarantees success in another. We must learn the idiosyncracies of each new environment we find ourselves in.

5 Managing projects; planning, prioritizing, and administering work

Joe Torre is commonly regarded as one of the best managers of all time. It's doubtful that the New York Yankees would have had nine out of 10 first place finishes, six AL championships, and four World Series rings since 1995 if Joe didn't have a pretty good game plan. Not just a plan on how to get to and win in the post season each year, but a plan for each and every game.

Whether you're a manager or a player, a superstar or a second stringer, you have to be able to plan your work for the short and long term. What do you plan to do today? This week? This year? How are you going to achieve that? Ask a lot of questions that begin with "what" and "how." If you're a developer or a net admin and you have any designs on making it into the management ranks someday, you need to be developing those planning skills right now. If you can't manage yourself, you're surely going to have a hard time successfully managing people and complex projects.

6 Communicating and listening; gathering information

Be mediocre at everything else but be perfect at this: communication. It's one of the two key competencies everyone must have, and it's especially important for IT pros. Good communication is bidirectional, giving as much as receiving. This is a wonderful place to indulge your generous spirit, because there's no such thing as too much communication.

No matter what you think you do for a living, every IT professional is actually a consultant. As a consultant you have a responsibility to your customer to provide maximum value. Doing so means you know your customers' business at least as well as they do, and that means listening. Your customers are entitled to know what they're getting for the money they're paying you, and that means you must proactively and regularly let them know what you're up to on their behalf.

This is a hard one for your typical IT professional. Most of us went into this field in part because we related more to code and wires than we did to people. And most of us, by and large, are accommodating folks. We hate to say no, and we hate to deliver bad news. Better to just sit at our desks with our heads down and do our jobs. These are all fatal mistakes, and although it's far from easy and may be run counter to your personality, you have no choice but to develop these skills. Here's the good news: Anyone can learn how, and it gets easier with time and practice.

7 Focusing on results

The other absolutely critical competency is the ability to execute. Plans are great, but talk is cheap. At the end of the day, you have to have something to show for your efforts. A good way to start is by knowing some key facts about your customer, like who are they and what do they want? As an IT professional operating consultatively, you have a responsibility to advise your customer, based on your knowledge and experience. But don't forget that ultimately it's up to your customer—your boss, your co-worker, your team leader, whoever is the ultimate consumer of your efforts—to make the decisions, and sometimes those decisions are not what you recommend. Check your ego at the door and do what's necessary to achieve the agreed-upon results. Don't let analysis paralysis slow you down and don't indulge yourself in a quixotic crusade to achieve some random level of perfection. The 80-20 rule is in force: 80 percent of the result can be achieved through 20 percent of the effort, and the incremental value beyond that level is frequently not worth the cost.

8 Thinking strategically

It's an increasingly competitive world, and today's IT professionals must prove, every day, that they can add tactical and strategic value and that they belong and are welcome at any meeting taking place anywhere in their organizations. Over the course of the last 10 or so years, businesses have started to recognize the strategic importance of IT and to see that IT is not just a backwater stepchild of the accounting department but adds value throughout the organization. IT professionals are service providers, and we must think of ourselves as such.

Get intimate with your company's business and strategic plans and constantly strive to come up with ways of supporting and furthering those plans. Your company has no such plans? Devise one for technology. Your department, at least, will be operating strategically and you may be able to use that as a springboard to provide thought leadership to management in expanding the plan to cover the whole business.

Most IT departments are reactive, waiting for their business customers to bring them ideas for new systems. High functioning, highly successful IT departments are proactive, working consultatively and collaboratively with their business customers in pursuit of overall corporate goals and objectives.

9 Influencing and persuading

The military style hierarchial chain-of-command organizational model of the 1950s has given way to flatter, more horizontal structures. I know, we all still have bosses, and bosses still have direct reports. However, the person who does your performance review may not be the one giving out your work assignments. Throw into the mix some geographical dispersion, add a dash of decentralization and a pinch of autonomous work groups, and you've got quite a stew.

Direct management has been supplanted by influence management. We no longer order people to do things, we sell them on it. We convince them. We negotiate, cajole, and urge. Remember communication? Here's a great place to exercise all those wonderful communication muscles you've been developing. This is a capstone competency, in that it brings to bear other skills, including strategic thinking and results orientation. IT professionals adept at influencing others almost always stand out as effective, competent, well regarded producers. Don't make the mistake of thinking this is a competence for managers only. Influence and persuasion are among the key skills that drive collaborative work environments.

10 Being adaptable

Gone forever are the days when being a technology professional meant having expertise in a particular development environment or being able to build and support a network. Don't get me wrong, you can still make a good living doing just those things, and you're every bit as professional as anyone else who gets paid to provide an IT service. But to become a truly well-rounded IT professional, you need to work constantly on expanding and honing your skills.

Some competencies, such as technical skills and knowledge, are relatively easy to acquire. Others, such as business knowledge, take more time. Management of individuals and teams, leadership, and the ability to work collaboratively with colleagues and customers require behavioral competencies based on personal attitudes and characteristics.

If you chose a career in IT, you also chose, by definition, to be an agent of change. Our profession changes swiftly and profoundly, and we have to take seriously our responsibility to change along with it. Our businesses change, like it or not. Competitive pressures, new industry entrants, management turnover, strategic shifts, product development, and any number of other factors cause change. There's almost no area in any organization that isn't touched by technology, and as responsible professionals, we must help by leading our organizations in adapting to that change.

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