In many technical professions, the complete focus of education and training is on technical topics either directly or indirectly related to a career or discipline. Students are generally required to master various mathematics skills, science skills and detailed technical skills directly related to the specific discipline they are planning to enter. This curriculum is critical to their success, and yet the fast-paced, global marketplace of today is demanding more.

Technical professionals in various disciplines such as information technology, engineering, architecture, and research and development are increasingly required to broaden their skill sets to master the so-called soft skills. Soft skills, as defined by Wikipedia, are “the cluster of personality traits, social graces, facility with language, personal habits, friendliness, and optimism that mark people to varying degrees. Soft skills complement hard skills, which are the technical requirements of a job.”

**Why are Soft Skills Becoming so Important?**

There are three driving forces behind business leaders’ increasing demand for a broader skill set from technical professionals: necessity for improvements to the bottom line; increasing competition; and globalization. Increased competition puts pressure on companies to operate more efficiently and effectively and show a positive return on technology resources and investments.
This increased pressure on the bottom line translates into a requirement for a higher rate of project success. But technology-intensive projects, for example, tend to have high failure rates. When “failure” is defined as a project that is never completed, or completed significantly over budget or beyond deadline, industry studies put the failure rate somewhere between 40 percent and 70 percent. That translates to wasted resources, a shrinking of the bottom line, and in extreme cases, a loss of competitive advantage in the marketplace.

A recent survey of more than 250 technical leaders cited the biggest reason for project failure as a lack of soft skills. When nontechnical skills are developed to complement technical skills, personal productivity, collaboration and synergy are increased. This translates into improved project success rates, sustainable competitive advantage and increased profitability.

Historically, soft skills have been less important in many technical disciplines. In today’s fast-paced, global marketplace, they are more important than ever. Companies are using technical capabilities not only to operate more efficiently, but their strategy is derived from, and integrated with, their technical competencies. This increased strategic focus raises the stakes and puts pressure on technical professionals to master a broader range of skill sets.

Also, many of the jobs that have historically been more “back room” or “heads down” are now outsourced to companies that can provide these services more cheaply by leveraging economies of scale and focus. The technical jobs that are not outsourced have moved higher up the value chain, demanding more interface with the overall business and more collaboration with other technical and nontechnical professionals.

Finally, technical disciplines historically have been poor at grooming future leaders for their own disciplines as well as for corporate leadership positions. In order to move into management or supervisory positions, candidates must show that they have skills in such areas as communication, interpersonal skills, teamwork and leadership.

What Soft Skills are Important

The topics of soft skills training vary from company to company and industry to industry. There are, however, a core set of topics that are common to most all programs. Often communication is the skill that technical professionals are accused of lacking. Communication training programs usually contain a mix of topics such as: face-to-face communications, nonverbal communication, active listening, writing and presentation skills.

Basic interpersonal skills such as self-awareness, social awareness, relationship management, conflict management and diversity are excellent complements to communication skills. Various topics come into play in the areas of leadership and teamwork, including empowering others, emotional intelligence, negotiation skills, change management and team problem solving.

Teaching Soft Skills to Technical Students

When soft skills topics are introduced into a technical training program, the first order of business is to create a certain degree of buy in with the students. Too often the more linear-thinking, task-oriented personalities will roll their eyes and disengage when they perceive the topic has shifted to subjects they consider “fluff.” Real-world examples, directly related to their field of study can help students relate to the importance of soft skills, with special emphasis on the end result: teams of people who work well together produce better and more ef-
effective technical solutions and more satisfied customers.

For example, a senior manager for a Fortune 500 company was recently quoted in a major business publication saying, “We have made a concerted effort to hire IS [information services] people with both hard technical skills and the softer people skills. It has a direct impact on customer satisfaction. A customer will be much more patient if the IS person is personable and patient with him. Our customers want to feel that IS is not treating them like ‘just another dumb user.’”

Once a degree of buy-in has been achieved, it’s best to present the soft skills topics in a linear and tangible way, similar to the way in which technical subjects are typically digested. For example, active listening is a critical soft skill. When teaching active listening techniques, a list of active listening steps is a great place to begin the conversation (see the sidebar on active listening).

Once the topical steps are well understood, the instructor can switch to a non-linear technique to apply the learning, such as role playing. Role playing can be a very effective technique to drive these points home in a way that pure theoretical lecture cannot. Role playing often takes people out of their comfort zones. But getting them out of their comfort zones and actually practicing the theories of soft skills helps make the concepts more real. Experience helps turn it into learned behavior.

To make the role playing more acceptable, a great technique is to set up the scenarios based on real-world situations that the students are likely to encounter in their professions. For example, in an architectural program the students might play the roles of architect and customer. In this scenario, the customer is describing the functional and aesthetic nature of the home or office building he is looking to create. The architect is actively listening and then must accurately replay those needs back to the customer in language that the customer understands.

**Soft Skills Make the Difference**

Regardless of the techniques used for teaching soft skills to technical professionals, one thing is clear: increased global competition and the changing nature of most technical jobs have made soft skills more than simply a “nice to have.” These skills are a “must have.” Employers and business leaders are demanding that technical professionals not only master their technical disciplines, but participate as full partners in the mission of the organization.

The more soft skills training can be integrated directly into technical training programs, the more successful the graduates will be in the increasingly demanding global economy. While some people consider soft skills the intangibles, these skills are quickly becoming a requirement that drives tangible and measurable increases in personal productivity and directly translates to sustainable competitive advantage in a global marketplace.

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**Active Listening**

To help students learn the soft skill of active listening, here are the steps involved.

**Create a Safe Place**
- Draw the other person out.
- Use door openers: “Could you explain?” or “Tell me more.”
- Be acknowledging: “I see,” “yes,” or “go on.”

**Become Actively Involved**
- Focus your complete attention on the speaker.
- Make eye contact.
- Smile genuinely.
- Maintain an open, relaxed posture.
- Sit or stand squarely.
- Lean forward.
- Avoid physical barriers.
- Tune out distractions.

**Avoid the Temptation to Evaluate**
- Don’t judge.
- Don’t criticize.

**Search for Meaning**
- Decode the message.
- Perceive the speaker’s feelings.
- Discover the real messages.

**Confirm your Understanding**
- Acknowledge.
- Restate.
- Paraphrase.

**Bring Closure**
- Summarize.
- State your position (if appropriate).
- Agree on actions to be taken (as necessary).