Payoff

The best way for IS professionals to adapt to change is by being proactive: by understanding that they must assume responsibility to continually reposition themselves as value-adding resources in the overall organization. This article gives nine steps to self-directed learning as a career insurance policy.

Problems Addressed

In some organizations, changes are reactive, designed to enable the organization to survive. In other cases, the changes are proactive, designed to enable the organization to reposition itself for its next stage of growth. In all cases, change poses threats and opportunities for IS professionals, for they too must change to survive and grow. They can do this best by being proactive and being prepared to continually reposition themselves as value-adding resources in the organization. Above all, IS professionals need to understand that they alone bear responsibility for their future.

For many IS professionals, this represents a departure from traditional career-path-planning expectations. The requirements for survival and success have shifted from a focus on being individual technical experts to becoming business partners. In short, IS professionals are at a crossroads. This article discusses issues and strategies that can help IS professionals to stay on top of their careers.

Career Opportunities and Threats

It has been said that where people stand on an issue depends on where they sit. The gulf between the individual cubicle and executive suite widens as changes overtake the organization. What could be a growth opportunity for the organization and its employees often deteriorates into a struggle for personal survival. The changes that result from corporate restructuring that represent opportunities to those on top are seen as threats by those on the bottom. Those in middle management seem to have the most to lose.

When many IS professionals talk about being change agents in their organizations, these are often code words for inflicting change on others. When it becomes their turn to be on the receiving end of change, IS professionals experience all the emotional wear and tear that change brings. Changes that threaten careers are seldom initially perceived as representing potential gains.

If people perceive that changes brought about by downsizing or outsourcing may be career-threatening, resulting in their losing more than they may gain, then they will prepare themselves psychologically to resist it (notwithstanding the rhetoric from the executive suite). If they perceive that a change may enhance their careers and well-being, then they will prepare themselves to support it.

The importance of perceived benefits is a critical success factor for change agents. Those who would be agents of change need to take every opportunity to sell the benefits of the new undertaking to everyone involved. The significance of change must be expressed in personal terms.
Participation in Reengineering

Organization and personal changes are increasingly driven by process and technological reengineering: rethinking and remaking the enterprise. Whether or not its payoff exceeds its promise remains to be seen. To reengineer an organization is essentially a political process, and because reengineering represents a change for everyone it touches, it represents both individual opportunities and threats.

Reengineering means rethinking and altering the way an organization does business. It affects the organization's processes, jobs, intra- and inter-departmental relationships, structure, and most important, its organizational beliefs.

In organizational reengineering, every element in the status quo is challenged. Reengineering is about process management, and processes become cross-functional. The creation of cross-functional teams involves the participation of IS professionals and their colleagues from the business units. Active participation on such collaborative teams requires the development of skills that may be unfamiliar and uncomfortable for those IS professionals who are accustomed to working alone or in small groups of colleagues. Collaborative teamwork also requires a high tolerance for ambiguity. Systems professionals usually prefer certainty, which is scarce during process reengineering.

Rethinking and reengineering the organization requires changing the perception the organization has of itself. It requires thinking horizontally instead of vertically—that is, thinking across the organization instead of in terms of a single department. This thinking requires a knowledge of the entire enterprise and how it works.

For IS professionals to participate successfully in reengineering projects, they need to change their perceptions of themselves from technical experts on vertical applications to business partners using technology to improve enterprisewide business processes. For example, such processes can involve an entire procurement to payable cycle, spanning several functional areas. Information technology becomes the enabler.

To be perceived by their clients as business partners, IS professionals must demonstrate a willingness and commitment to learn the businesses they serve. This means learning about such issues as:

- The company's objectives in terms of product strategy, revenue growth, focus, customers, geographical breakdown, and distribution channels.

- Company mission, business objectives, and long and short range strategy; business plans of strategic business areas; organizational functions and cross-functional activities; customer expectations.

- The information implications of business activities. (IS professionals cannot know these implications unless they understand the business activities themselves.)

- Culture, processes, and politics, all of which are required for IS to be accepted as a vital part of the business.

Because of the demands of reengineering and the pressure to become business partners, IS professionals must also rethink their own career development and redefine what is required to remain effective in their work in the coming years. Systems professionals have always been highly achievement-oriented, and research has repeatedly shown that those making a career in IS lead their colleagues in other business departments.
in their need to achieve. This high level of achievement motivation can be beneficial as career insurance.

**Responsibilities for Professional Development**

The question of whether to refocus and retrain employees or bring in new blood has been elevated in importance by the worldwide economic downturn and enterprisewide restructuring. Although both the enterprise and the individual have a role to play in providing the opportunities and resources IS professionals require to continue to grow and become true business partners, the emphasis has changed.

For many years, an implied contract existed between employee and employer, under which the employer had the long-term career growth interests of the employee in mind and would supply appropriate opportunities for its people to grow and advance in their jobs and careers. Human resource departments flourished, career paths were carved out, and training departments were created. IS personnel were included and an entire career field of IS training and education was born. People came to expect that they would receive a certain number of days of training per year (10 on average). This commitment to regular training was viewed as a major advantage when hiring and retaining IS talent. Upward mobility, in terms of rank, responsibility, and remuneration, came to be expected either in the form of promotions, with more people in the manager's span of control, or new and challenging technical assignments, with opportunities to learn and use new technologies.

With the business downturn, however, organizations have cut costs and are examining closely their patterns of spending and investment. Layoffs and budget constraints have affected IS so that existing career paths have become casualties. There are fewer opportunities for upward mobility, and fewer dollars and time for training and education. In many cases, the need for certain types of training lessened because organizations cut back purchases of hardware and software.

A key requirement for IS professionals—including managers—becomes the need for them to view themselves as value-adding resources. This means viewing themselves as products that deliver a bottom-line payoff to the organization. It represents a significant change in self-perception. People can be uncomfortable thinking of themselves as products, but the fact is that seasoned IS veterans may be candidates for early retirement if they have failed to keep pace with both evolving technology and the changing business needs of their organizations. Having X years of experience is no longer viewed as a career asset; more often, IS professionals are perceived as having one year of experience X times—which is a considerable career liability.

**The Politics of Reengineering**

Because new business processes are cross-functional and enterprisewide, they may have no real owners. This makes the reengineering process inherently political. Reengineering requires rethinking and redefining the interfaces—those locations in the horizontal process flow where there are handoffs between departments, teams, and individuals. Multiple stakeholders emerge, including work groups and individuals. These constituencies have a stake, or a vested interest, in conditions as they are. The political process of influencing and persuading can become frustrating and time-consuming for those involved in the change process. If reengineering fails to deliver its promise potential, it is usually because of the political obstacles in its path, not because of problems with new technology.
Line managers in the functional areas and business units must drive the process. IS staff and information technology become the enablers. The IS department takes on the role of influencer, positioning itself and the IS staff as value-adding resources to the business managers who are rethinking the business processes. This requires that the business people perceive their IS colleagues to possess competencies that transcend the technical and include an understanding of business issues and interpersonal skills.

**Value-Adding Skill Sets**

It is important for IS professionals to learn about the businesses they serve so that they might be better perceived as partners by their clients. Not all of their partners, however, feel a reciprocal need to learn a great deal about information systems. Business users may know how to do spreadsheets on the microcomputers but this is a far cry from their understanding their role and responsibilities in the systems development process. Consequently, IS professionals may find themselves forming partnerships that are less than equal and require more new learning on their part than on their partner's.

The Boston Chapter of the Society for Information Management (SIM) has conducted research into the levels of expertise required of the next generation of IS professionals. Its study revealed movement away from several tasks and skill sets long considered essential. For example, two of the groups surveyed, IS practitioners and IS educators, agreed on the declining importance of such standbys as Common Business Oriented Language and operating systems knowledge. In their place, practitioners and educators see a growing emphasis on understanding the broader issues of analyzing business problems in user-driven, distributed computing environments in which information is treated as a strategic corporate resource. Furthermore, instead of concentrating on purchasing and tailoring applications software, tomorrow's IS professional will need to plan and manage enterprisewide information strategies. The orientation is shifting from a narrow departmental or functional focus to a broader, enterprisewide, cross-functional focus. This requires the acquisition of a wide range of managerial and interpersonal skills, plus business awareness and organization knowledge, that provides the context within which these new skills and competencies will be used.

The emphasis on reengineering cross-functional processes and systems is ratcheting up the importance of understanding behavioral issues. This knowledge includes the development of interpersonal, intrateam, and interteam skills, including influencing, negotiating, managing expectations, giving and receiving feedback, conflict resolution, coaching, consensus building, and coalition building.

**Being Accessible to Business Partners**

For IS professionals to add value to their clients in business units, they have to be in close, continual contact with them. This contact must include opportunities for in-depth communication between IS managers and their peers, and among IS professionals and their colleagues in user departments. This contact and communication must be championed by senior management, for it is almost impossible for significant communication and understanding to happen in the middle and lower echelons if it is not present and visible at the top.

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There are increasing numbers of ambitious IS professionals who are making the sacrifices necessary to maintain not only their technical currency, but also to gain the knowledge and understanding necessary to partner with their business-oriented peers and colleagues. This understanding includes strategies, products, markets, customers, channels of distribution, competitors (and their products and strategies), and of course, how information can, does, and should be supporting functional areas and business units. Coupled with this hard business information is the savvy about corporate power structures and politics, key people and departments, and formal and informal human networks, for it is through these channels that work gets done. IS professionals must gain access to these relationships if they are going to become value-adding business partners.

A key requirement for success today is visibility and more hours on the job. Many IS professionals are no strangers to long hours and hard work, but the bar for achievement and success is being raised higher. If there is a glass ceiling over the careers of IS professionals today, it exists for those who do not have business savvy and sophistication and who (for whatever reasons) are unable or unwilling to make the commitment to continuous learning and extended hours on the job.

The Learning Organization: A Model for the Future

The only sustainable competitive advantage for individuals is their ability to learn. This is as true for organizations as it is for individuals. For learning to take place, risk must be encouraged. Risk opens up the possibility of failure, but some of our most effective learning comes through failure.

Individuals who are risk-averse may enjoy short-run security but they cut themselves off from longer-run opportunities for learning and improvement. Risk is always uncomfortable, but its quality of uncertainty is the driver for continuous personal improvement.

The same is true for organizations. Those enterprises that encourage risk and the entrepreneurial spirit learn the most about their environments. They also enhance their ability to survive. These organizations usually outdistance their more risk-averse competitors in the marketplace.

In his book *The Fifth Discipline*, Peter M. Senge defined the learning organization as “an organization that is continually expanding its capacity to create its future … adaptive learning (to survive) is joined by generative learning (to create)…” In the adaptive and generative organization, the vehicles for organizational learning are teams that coalesce around problems, needs, and issues. These teams can be ad hoc, coming together as needs arise and dissolving as needs are met. Team members are flexible, and do not seek to perpetuate the team beyond solving those problems that brought the team into existence in the first place.

The learning organization metaphor can be applied to individuals as well. Those persons who are both adaptive and generative, who adapt and create, can adopt self-directed learning techniques. Individuals—not their employers or organizations—hold the key to personal and economic security. It is through self-directed learning that individuals can exercise this responsibility. Those who take the initiative to plan their own career future and who accept the responsibility to seek out the training and education necessary to secure a career future are making the correct turn at the career crossroads.
Self-Directed Learning: A Personal Survival Skill

Self-directed learning is learning for which the individual takes the initiative and bears the responsibility. As such, it represents a departure from the learning style with which most adults are familiar.

Most people grew up with an other-directed, dependent style of learning whereby someone else (e.g., teacher, employer, manager, or trainer) determined what was to be learned, when it was to be learned, how it was to be learned, and if it was learned correctly. The infrastructure that has traditionally provided IS-related training and education opportunities within the organization—the internal IS training department—is withering away, however. The individual stands at the crossroads with basically two choices: either wait for the doubtful return of those who might make learning opportunities available—a reactive strategy—or become proactive and seek out learning opportunities on one's own. The latter strategy is the best career insurance policy available.

As IS training staffs shrink, any decision to wait for supervisors or managers to provide learning opportunities and resources is a shaky strategy, because it is based on the questionable assumption that managers feel accountable for the career development of their people. The reality of career enhancement in the slow-growth environments of organizations today is that individuals must be self-directed in planning and implementing their own career development programs.

Self-directed learning is learning for which the individual:

- Takes the initiative to learn about problems the organization is facing.
- Accepts responsibility for developing personal learning objectives designed to help solve those problems.
- Establishes learning objectives that meet not only personal needs but contribute to meeting the learning needs of the IS staff and the organization as a whole.
- Locates learning resources, including people, materials, courses, conferences, professional associations, situations, and circumstances that provide learning opportunities.
- Uses these learning resources in disciplined, purposeful ways.
- Validates what is learned by working with those who understand the organization's problems and who possess relevant subject matter expertise.
- Tests what is learned to determine if the new knowledge and skills help to alleviate or solve the problems.
- Develops new learning objectives based on the outcomes of the previous learning experiences and the evolving situation.
- Continues the process of self-directed learning to meet the demands of new and changing requirements.

The traditional, other-directed learning model was effective because it enabled people to absorb a great deal of information. In some cases it prepared people to act upon that
information. Unfortunately, it did not help them understand the most basic survival skill of all: how to learn on their own.

Self-directed learning is situation-centered learning. It is the structuring of learning experiences based on life-changing events and is predicated upon the belief that one's personal development is one's personal responsibility. The enterprise or organization and its managers and staff can and should be resources for continuing self-development, but the locus of responsibility rests with the individual.

Nine Steps to Self-Directed Learning

Many IS professionals arrive at a mid-career plateau where they have advanced as far as they can go using their technical skills. To continue to grow in their careers they must develop new competencies outside the technical realm, primarily in the area of people skills. If they are fortunate, they may become aware of their arrival at a career plateau through a performance review discussion with their manager, or perhaps during conversations with a colleague. If they are not so fortunate, they may stumble upon this insight after watching some of their peers who possess the requisite organizational and business skills move past them.

There are nine stages, or steps, in the self-directed learning life cycle. These steps are applied to a common IS career crossroads dilemma to illustrate how IS professionals in question might benefit from their use.

Career Development in a Matrix Environment

Many organizations are redeploying their systems analysts from the centralized IS department out into the business units. Working as business analysts, they operate in a matrix environment, one of the most challenging and frustrating of all organizational designs. A matrix is an organizational environment with dual chains of command; there is a direct link to the functional manager but also links to the client or customer. The client or customer relationship is the most important in terms of responsibility but the relationship with the functional manager is most important in terms of authority and accountability. To be successful in such an environment, the IS professional must be proficient in influencing and negotiating.

For IS professionals to make this career move successfully, they need information about the business unit and its mission, objectives, and strategies. This knowledge and these skills can be learned and developed. The resources are available, but to take advantage of them IS professionals must undertake self-directed learning, which requires a high degree of personal discipline and initiative. The context for the design of a self-directed learning experience is a learning life cycle consisting of the following nine steps.

Step One.

The IS professional must understand as much as possible about the current and future direction and goals of the organization, as well as the changes that will be required if the goals are to be achieved. This step, in and of itself, requires that the professional actively gather information.
Step Two.

Changes must be placed in a larger context (i.e. what is happening in the organization's industry and in the IS profession and computer field?). This also requires information gathering; however the individual gains the insight required for self-directed learning decisions.

Step Three.

Using what was learned from steps one and two, the IS professionals' next step is to determine as clearly as possible where they would like to be at some predetermined point in the future (i.e., in one or two years). An individual's next career objective needs to be expressed as clearly and as unambiguously as possible. The more precise the description, the better.

Step Four.

With a career objective in mind, IS professionals need to determine the competencies required to attain that objective (i.e., what must they need to know, or be able to do to perform that job in an outstanding manner?). Because of the availability of talent, continuing career advancement and success may accrue to those who learn how to perform in a consistently outstanding manner.

Step Five.

Professionals should assess, as objectively as possible, their current competency level and determine the gaps that exist between the competencies they possess and the competencies required to attain the career objective identified in step four. Steps four and five may also require some self-directed information gathering.

Step Six.

Professionals must create learning objectives designed to enable them to close the competency gaps identified in step five. These learning objectives should:

- Be clear and unambiguous.
- Be expressed within a specific time frame.
- Be measurable.
- Be expressed in terms of cost—both out-of-pocket cost and opportunity cost. For example, if people attempt to achieve a personal objective, what will they have to give up or sacrifice?

The more a person's objectives meet these criteria, the easier it will be to focus on the objectives and gather the resources to achieve them.
Step Seven.

Professionals must locate learning resources and design learning experiences to accomplish their learning objectives. These are really two steps in one, but they are so intertwined as to be interchangeable. In some cases, an individual may design a learning experience and, in so doing, locate a suitable learning resource. For example, IS professionals who are gathering some first-hand experience in a particular business unit may discover someone from among user management who could become a temporary mentor.

Learning experiences can include informal but focused individual reading programs, small-group discussions on specific topics, participation in courses, and active involvement in professional association programs, perhaps by serving as a chapter officer. Other learning experiences and learning resources include such temporary assignments as:

- Short-term (i.e., one to three months) participation on a task force.
- Longer-term field assignments in branch offices.
- In the case of multinational organizations, assignments in overseas locations.

Task forces are increasingly popular as organizations rightsize and as IS departments attempt to do more work with less staff. A task force is a team of people brought together to accomplish a specific assignment. It is usually short-lived. Task forces often consist of people with specific and complementary competencies, and they may be extracurricular in nature. In other words, task force members may serve on their own time, with their primary responsibilities remaining their own jobs. The career benefits accruing from serving with people from different departments in the organization comes with the price of extra hours and additional effort.

Sometimes task force assignments may be of longer duration, even up to a year. In such cases, task force members relinquish their primary positions and work on the task force full-time. One organization formed a task force of seven IS professionals to work on temporary assignments for a year, at the end of which time all seven people returned to the IS department, but not necessarily to their former positions. Assignments ranged from assuming the role of an internal IS consultant to formulating an internal IS management development program. The rewards were considerable, but so were the risks. The only guarantees were a stimulating change-of-pace assignment for a year, with no loss of benefits or of seniority. The risk was that the participants’ former positions might not be available; this was in fact the case for all of the seven, who afterward had to compete for new positions.

Step Eight.

Results of the learning must be validated through applying the learning on the job, to determine the effectiveness of the learning experience. This sets the stage for the final step in the self-directed learning life cycle.

Step Nine.

The IS professional must continually identify new or modified learning needs and begin the life cycle process again.
Recommended Course of Action

IS professionals examining their careers must remember, first and foremost, that they bear primary responsibility for their own career development. This is a difficult reality for many highly competent and loyal systems people to accept yet it may be the best advice they ever received.

IS professionals are among the most highly trained, educated, and motivated in today's workforce. Their focus on the rapidly evolving technology is both an advantage and a disadvantage. It is an advantage because IS professionals are on the cutting edge of the technological advances that organizations must make if they are to remain competitive. It is a disadvantage because they can become so transfixed by the technological changes that they lose sight of the changing economic and organizational conditions that provide the basis for the changing technology in the first place.

To take charge of their careers, IS professionals can begin by following this course of action:

- Assuming responsibility for career growth and development.
- Focusing on what they want out of their careers; becoming explicit about what they do well and want to do more of in the future.
- Becoming disciplined students of not only their technical specialty but also of their organization and their industry.
- Understanding what makes their organizations successful and concentrating their efforts upon aligning IS projects with these critical success factors.
- Seeking out key managers and professionals in the functional areas of the organization and building value-added partnerships with them.
- Reading widely; concentrating on those professional journals that contain industry-related information they can use as they build relationships with their internal customers, IS management, and senior line managers.
- Becoming active members of professional associations, not only those related to the IS function but also to those connected with their organization's industry. (IS professionals who are not joiners miss out on opportunities to learn about new issues and developments and to network with their peers and colleagues.)
- Becoming habitual self-directed learners; creating, finding, and using the many learning resources available.
- Being alert to opportunities for growth that are consistent with career goals. If a person's goal is to move into an IS management position, this may require saying yes to a transfer into a business unit and accepting interpersonal responsibilities while saying no to an opportunity to learn more about a technical specialty. The issue is to become increasingly clear about personal career aspirations, then to manage those aspirations accordingly.
- Becoming risk-takers.
There is no career growth without risk.

IS professionals must adopt a proactive posture toward their personal career planning. Training, education, and professional development resources still exist, but it is the individual’s responsibility to activate these resources. The core of this proactive posture is self-directed learning. The only sustainable competitive advantage for both individuals and organizations is their ability to learn, and self-directed learning is becoming more important as organizations change and individuals strive to survive.

Bibliography


Author Biographies

Stewart L. Stokes, Jr.

Stewart L. Stokes, Jr., Jr., is senior vice-president of QED Information Sciences, Inc., in Wellesley MA.