Using the Information Process-Maturity Model for Strategic Planning

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Why should we be interested in strategic planning for our information-development organizations? We might simply apply specific tactics for getting our everyday jobs done. We might focus our concerns on producing a manual or getting the online help finished. We might even plan far enough in advance to send staff members to workshops on the latest online help development tools. These tactics would get us through the day, or the week, or even through the end of the year, and we would be busy doing useful things (or at least things that we hope others find useful). But as we keep busy doing our everyday jobs, we may find ourselves surprised by the decisions of those who decide to eliminate our function, outsource our tasks, or disperse our staff throughout the organization. Only then we will recognize that we lacked an overall goal, a vision of what we should be doing, of how we want to be perceived in the future.

By concentrating on the immediate job at hand, we pursue *tactics* to meet specific and immediate objectives but we lack an overall *strategy* that helps us decide whether we are concentrating on the tasks that will add value to our organizations and convince others that we have a legitimate purpose for our existence.

Both external and internal forces push us toward strategic planning. The senior management of the organizations we work for ask us to reduce the costs of what we do or find out why customers are complaining about the quality of the technical publications. We want to do our jobs more effectively by allowing time to get out and meet the customers, introduce new and better methods of working, integrate usability testing into our process, and create information that we can be proud of. Because of pressure from management and customers as well as our own desires to do a better job, we are urged to build more effective information-development organizations. Strategic planning is an important means to help us succeed.

Strategic planning helps us to establish goals and outline the steps necessary to reach our goals. Without a plan in place, we are likely to engage in activities that seem interesting at the time but don't make our work significantly better nor improve our work environment. With a strategic plan, we can set aside activities that don't lead in the direction we want to go and emphasize activities that are most likely to move us in the right direction.

Strategic planning enables us to respond to the organizational pressure we experience. Many information-development organizations feel threatened by the pressure to reduce costs, eliminate jobs, do more work with the same or fewer people, hire more temporary workers, reduce the number of permanent staff, even outsource the entire effort to another company. If managers and staff members don't find a way to do a better job than they are doing today, increase customer satisfaction with their efforts, and be recognized as significant contributors to the organization's bottom line, they will often find their jobs eliminated in favor of cheaper alternatives.

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In a high-pressure business climate, strategic planning becomes critical not only to our success but also to our survival. We cannot stay the same, even if we have been doing what we thought was a pretty good job. We have to find ways to do a better job, and in many cases, do that job faster and with the same or fewer resources.

The strategic planning process begins with several key investigatory steps:

♦ understand the *marketplace* for our products and the needs of the *customers* we serve

♦ examine our *strengths* and *weaknesses* today

♦ identify the *threats* that come from our competition and from negative forces at work in our markets and in our own organization

♦ identify the *opportunities* we have to succeed if we act quickly and intelligently

Based on the data gathered in these steps, we go on in strategic planning to

♦ establish *goals* and measurable *objectives* describing what we want to be in the future

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♦ identify the *strategies* we must pursue to achieve our goals and meet our objectives

♦ devise *action* plans that outline the steps we need to take to enable the strategies.

For example, in studying our customers, we may have learned that they believe that the technical information provided in the documentation does not support their needs. They believe that the information does not help them to get started using the products and does not assist them in keeping the those products operating effectively. In fact, they frequently create their own technical manuals at considerable expense.

In response to this finding, we establish a goal—to produce technical information that meets and exceeds our customers' requirements and enables them to use our products efficiently and effectively. We will know that we have met our goal if our customers stop writing their own manuals and testify to the excellent quality and usefulness of the information we provide them. One of our objectives will be to determine exactly what type of information is needed by our customers.

To meet this objective, we create three strategies:

1 Conduct a customer study to understand exactly what is wrong with the current technical information and what our customers actually need from us

2 Develop prototypes of a new information design

3 Engage customers in a joint project to review the prototypes and assist us in tailoring them to their needs.

Then we set up action teams to work on the strategies by developing specific step-by-step plans to carry them out, including schedules, deadlines, assignments, and measures of success or failure.

Just how did we arrive at our goal to improve the quality of our technical information? How did we know what objectives and strategies needed to be put into place? We learned what to do from the investigation that inaugurated our strategic planning activity. We studied our customers, looked at the strengths and weaknesses in our development processes, and learned what our competitors and the best-in-class companies were doing to deliver information that pleases and excites their customers.

Using the Information Process-Maturity Model to Prepare for Strategic Planning

Despite the best intentions, most information-development organizations find it challenging to assess their own strengths and weaknesses. It is always difficult to be objective about ourselves. We have often been doing something for so long that we take it for granted. Or we know something is missing from the way our processes work, but we don't quite know what the missing pieces are.

We also often find it difficult to collect good information about how our competitors work or how their products differ from ours. Even if we get a chance to study the competition, we often find that no one in our industry is doing a particularly good job of meeting customer information needs. We then want to find out what the best companies in the field are doing and how they achieve success. But we don't know who they are, nor can we easily ask them to spend time and effort teaching us what they know.

To respond to these dilemmas and make the investigative steps easier and faster come experiential models such as the Information Process-Maturity Model (IPMM). The IPM model was created out of a need in the technical-communication industry to establish best practices, not by applying theory but by closely examining those organizations that appeared to be doing an excellent job. The IPMM grew from three sources: my experience working with hundreds of information-development organizations for nearly 20 years; work done by others studying successful software-development organizations; and the results of a study sponsored by BMC Corporation of Houston, Texas, of 12 companies recognized for the high quality of their technical information and their information-development processes—the best in class. These companies included IBM, Hewlett-Packard, NCR, DEC, Dell Computer, and DuPont.

Before publishing the IPMM in 1994 as part of *Managing your Documentation Projects*, I had studied the work done by the Software Engineering Institute (SEI) to establish the Capability Maturity Model (CMM). In the late 1980s, SEI, working under the auspices of the US Department of Defense and Carnegie-Mellon University, had examined the processes of successful software-development organizations. Based on what they learned about the practices followed in these orga-

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nizations and their achievement of quality software products, they created the CMM, which outlined the characteristics required for an organization to have a quality software-development process. The CMM is described by Watts Humphrey in *Managing the Software Development Process* (1989). SEI conducts assessments for organizations wishing to improve their process maturity and holds workshops that explain the model and assist those who want to conduct an assessment.

Similarly, the information provided here will enable you to conduct a self-assessment based on the eight key characteristics identified in the IPMM. Or you can work with an experienced assessor to conduct the assessment with you. During the formal assessment, you and members of your staff complete a self-assessment questionnaire and host a series of interviews conducted by the assessment team with information-development staff, senior managers, and customers. At the completion of the assessment, you receive a report identifying strengths and weaknesses of your organization and placing you at one of the five levels of process maturity in the model. The report also contains recommendations for process improvements to bring your organization to the next higher level of process maturity.

The IPMM helps you identify the strengths and weaknesses in your current practices and compare them with the best practices in the industry. It helps you satisfy the chief investigative requirement of strategic planning—to know yourself and your organization and to assess the capabilities of the competition. The IPMM provides you with an objective method for looking at yourself and a method for benchmarking against best-in-class organizations without asking them to devote their own resources to your efforts.

Because the IPMM outlines the most typical stages of process improvement and growth in information-development organizations, it also provides you with a means for setting objectives. For example, if you find that your organization is at Level 1: Ad hoc in its practices, you can use the characteristics of Level 2 and Level 3 organizations to establish objectives that will bring your practices in line with other organizations that are effective at meeting customer needs. In a Level 1 organization you may be weak in planning your projects. Organizations that follow strong project-planning practices have demon-

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strated that they are more likely to develop technical information that meets customer needs, is well-organized according to customer goals, contains the right information, and is developed according to the required schedules. You may decide, as a Level 1 organization, that one of your objectives should be to strengthen your project planning activities to reach your goal of meeting your customers' information needs more effectively.

THE FIVE LEVELS OF PROCESS MATURITY

The IPMM establishes five levels of process maturity based on field observations of mature and immature information-development organizations, as described in Table 1. The goal of the model is to identify those practices that contribute to achieving quality and meeting customer needs with every product that is produced by an organization. It is not enough to have some highly skilled technical communicators producing good work. It is necessary to find a way to produce throughout the organization consistently good work that demonstrably meets the needs of customers for useful, accessible, accurate, and readable technical information. Each piece of technical information coming out of a mature publications organization is consistently and equally successful in meeting customer needs, no matter who created it.

At each level of process maturity, strategic planning remains a requirement for focused growth and improvement. Part of the strategy, however, can be defined in terms of moving the organization to a higher level of process maturity. A Level 3 organization might include in its strategic plan objectives that will enable it to become a Level 4 organization. For example, in one report I provided to a Level 3 organization, I recommended that the department conduct customer studies to better understand their customers' information needs, a weakness that emerged from the assessment. Although the organization had instituted and was following uniform practices in planning and quality assurance, their plans and their quality assurance activities were not sufficiently informed by a thorough understanding of customer needs.

The process-maturity levels are best characterized by an attention to process and the recognition that processes must be managed if they are to succeed in producing consistently high levels of quality. The summaries that follow focus on process.

TABLE 1. THE FIVE LEVELS OF PROCESS MATURITY IN THE IPMM

Level	Characteristics	Transition to the next level
Level 1: Ad hoc	Characterized chiefly by a lack of structure and uniform practices. Communicators usually work alone, most often hired and managed by a professional from another field. Each individual follows a unique process and applies standards independently. The quality of the product is highly dependent upon the professionalism and expertise of the individual. No quality assurance activities take place except for reviews for technical accuracy. There is little opportunity to study customer needs.	Consistent staffing with professional technical communicators. Building cooperation among the communicators through more effective management and joint process-improvement activities.
Level 2: Rudimentary	Characterized by beginning to establish structure and uniform practices. At a grass-roots level, communicators together establish style standards and institute uniform practices. At a management level, a new organizational structure brings isolated communicators together into a unified organization that begins to establish best practices. Often characterized by beginning to institute quality assurance practices, including copyediting, developmental editing, and peer review.

Rudimentary new practices are often abandoned under pressure of deadlines and constantly changing requirements, as well as a lack of commitment among the communication staff to changing individual practices. | Development of a style guide and introduction of project planning. Beginning of a commitment to uniform practices and recognition of the importance of customer understanding to producing high quality information. |
Level 3: Organized and Repeatable	Characterized by a commitment among the majority of staff members to uniform best practices and standards. Often the consolidation is aided by the role of a strong leader and the addition of customer studies. Practices begin to take on a customer focus. Planning and quality assurance activities are stressed and are incorporated into every project. Attention is paid to hiring qualified individuals and providing them with opportunities for continuing education.	Introduction of project planning and standard practices, including quality assurance throughout the organization. Beginning studies of customers and improved attention on customer-based quality.
Level 4: Managed and Sustainable	Characterized by a stable commitment to the mature practices of a Level 3 organization. The leadership may change without a loss of commitment to planning, quality assurance, hiring and training, and budgetary controls. Level 4 organizations become increasingly sophisticated in handling customer studies, assessing and meeting customer needs (including regular usability testing), managing return on investment. Recognized as effective by the larger organization. Effective participation in a matrixed structure in which individual communicators represent the interests and goals of technical publications on diverse development teams.	Strong implementation of quality-focused activities, especially customer needs assessments, cost controls, and evaluation of customer satisfaction
Level 5: Optimizing	Characterized by innovation beyond the stable commitment to mature practices of a Level 4 organization. An Optimizing organization continually calls into question its own practices and standards, continually seeking ways of meeting customer needs more effectively, reducing process and production costs, and achieving a superior return on investment.	Continuing efforts to improve all practices throughout the organization. Special focus on customer needs and measurements. Strong and sustainable commitment to continuous process improvement

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Level 1: Ad hoc. A Level 1 organization is best identified by its lack of process. Little planning takes place for information projects. Most projects begin at the end of the product-development life cycle, so little time is available to verify the accuracy or test the quality of the information. Information developers in a Level 1 organization usually work as independent contributors, primarily directed by managers from a variety of development-related departments. There is little or no teamwork, no quality assurance (editing) except that done voluntarily by individuals, and no project management to maintain control of budgets and schedules. Any innovation in practices or information products comes from the individual initiative of the information developers. Some information developers do a wonderful job, whereas others lack opportunity and often lack inclination or training.

Level 2: Rudimentary. A Level 2 organization has begun to put the rudiments of good practices into place. The first activity is usually to develop style standards for all technical publications, although enforcement may be lax or impossible; some copyediting may occur. The Level 2 organization may continue to progress by introducing information plans. The plans may be rudimentary, but they represent a major attempt to define the information goals for a project. Project management is still largely absent, so projects are frequently overwhelmed by change. Most of the direction for projects is provided by technical or marketing specialists. The information developers continue to work almost entirely alone, even though they may be part of a publications organization and have a publications manager.

Level 3: Organized and Repeatable. A Level 3 organization is clearly in transition toward fully developed processes. information plans are standard, and project-management plans are put into place as early as possible. Information developers work as teams on complex projects, and all work is edited by editing specialists. Project managers have a database of experience from previous projects to use as an estimating guide. Projects are estimated carefully and staffed appropriately to maintain quality, and change is controlled throughout the development process.

Level 3 information developers are beginning to recognize that all projects must be planned, especially when the technical content of the project changes frequently. Project managers believe in the management of process and product at Level 3 and begin to recognize that the product will not meet the required quality standards without a strong process in place to guide team members and help them work toward common goals.

At Level 3, information developers clearly recognize the need to be closer to the customer (or user) to maintain quality improvements and achieve customer satisfaction. However, they still may not have sufficient time in busy schedules to conduct the user studies they would prefer to do. Until their processes become second nature, and they find more opportunities to eliminate unnecessary steps, they will have difficulty finding the time to do the customer-oriented work they know is necessary.

Level 4: Managed and sustainable. A Level 4 organization has a well-defined process that is always followed. Yet, on special projects and under increasingly common rapid development, teams have the option of modifying the process so that they can respond to the need for innovation and experimentation. Information developers are regular members of the product-development teams from the very beginning of the development life cycle. They begin moving into wider areas of responsibility for the product and process. Project-management techniques are well developed, with projects kept under control. Often there is a division of responsibilities so that specialists handle production, translation, planning, editing, and usability assessment while still remaining integral members of the information-development team.

Perhaps the most stunning accomplishment of a Level 4 organization is the devotion to customer-driven quality. Because processes are so much a part of everyone's standard practices, even with very short schedules, there is sufficient time to devote to observing customers and measuring quality. Level 4 organizations devote a much higher percentage of project and departmental budgets to quality assessment and improvement than at any earlier level. They can do so because they have stopped doing activities that don't add value and have stopped producing documents that do not support customer satisfaction.

Level 5: Optimizing. The Level 5 organization is ahead of the curve. Not only are team members doing a good job of managing their projects and producing work of consistently high quality, but they also have the luxury of continual self-review.

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All team members review their own processes and institute improvements. They introduce quality measurements and promote innovative techniques.

The brief descriptions above and the summaries in Table 1 briefly outline the characteristics of the five levels, but the complete assessment of strengths and weaknesses is based on eight key practices that are described in the next section. The key practices emphasize the importance of a strong organizational structure to support quality practices.

Eight Key Practices of a Successful Information-Development Organization

To conduct a self-assessment of your organization's strengths and weaknesses, focus on the eight key practices that have been identified as essential to a mature organization, as shown in Table 2.

Although particular organizations may vary somewhat in the specifics of their processes, these key practices point to an important general statement about achieving quality. To ensure consistent, repeatable quality in its information products, an information-development organization must have in place a sound development process that is well-managed. It is not enough to hire good people; they must also follow a sound process that includes quality assurance activities (such as editing), publications planning, estimates of the work to be done to achieve a defined level of quality in the product, and more. Not only must individuals follow a sound process, that process also must be managed to ensure that adequate staff is available to do the job at hand, quality is not sacrificed to deadline unless the consequences are assessed, and everyone understands all the process requirements thoroughly.

Table 3 lists the eight key practices and defines the qualities you should look for as you examine your strengths and weaknesses. The table is limited to the first three levels of process maturity, in part because these levels dominate the organizations we have studied in the last four years and because the characteristics of Level 4 and 5 tend to be expansions on and more consistent institution of the practices in the table.

As you review the practices, think about how they may apply to your present information-development activities. For example, the "information planning" practice requires that you produce information plans for every project you conduct and that the plans be reviewed internally by other information-development staff members for compliance to organization, customer, and company strategies and requirements. Project planning also requires that plans be maintained through the inevitable changes that take place in a project and that those changes be assessed in relationship to the quality goals stated in the plan. Furthermore, project planning means that you review the project at its conclusion to measure the success with which the plans were accomplished and to assess problems encountered and solutions found.

After reviewing the strengths and weaknesses of your organization based on the key characteristics, you are prepared to identify the level of process maturity you have attained. Please be very careful, however, not to overstate your maturity level. An overstatement (deciding you are at a higher level of process maturity than you really are) will give you a false reading and lead you to ignore significant changes that must take place in your processes if you are going to be successful in achieving world-class quality.

My experience indicates that individuals and whole departments tend to overstate their level of process maturity and usually do so by one level. This tendency suggests that if you initially determine you might be a Level 3 organization, you are more likely to be a Level 2. The reason for the overstatement is obvious—optimism. When my assessment team administers self-assessment questionnaires, we ask participants to answer Yes to a question only if the practice in question is a standard part of their process. For example, the questionnaire asks if you always produce information plans for every project you conduct. Yet, respondents often answer Yes even when they produce information plans only occasionally. It's as if wishing would make it so. People are sincere and have good intentions, but good intentions do not make something a regular practice. It's best to be scrupulous in answering the questions and conducting a rigorous self-assessment. You can't begin to improve a process that you don't recognize is broken or that you won't admit is broken.

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TABLE 2. THE EIGHT KEY PRACTICES OF THE IPMM

Key Practice	Definition
Sound organizational structure	An organizational structure that enables technical communicators to produce consistently high quality work throughout the organization.
Quality assurance activities	A series of activities specifically designed to promote uniform high standards of quality, including copyediting, developmental editing, peer reviews, and technical reviews of draft information products. Includes usability testing and customer studies to ensure that the quality achieved meets customer needs.
Information planning	A series of activities that ensures that every information product is planned so that it meets customer needs as well as the demands of schedule and budget. Includes the development of adequate resources and budget to ensure that required quality standards are met.
Estimating, scheduling, and tracking projects	A series of activities that ensures that the information development process is being followed according to schedule and budget requirements. Includes continual project tracking to assess and accommodate the impact of project changes and changes to customer requirements through the course of the project. Establishes project histories to better inform planning for future projects.
Hiring and training	Hiring of communicators is conducted by professionals in the field and is based on a wide range of clearly defined professional requirements. Once hired, communicators are provided with internal and external opportunities for continuing training so that best practices in the field are understood and maintained.
Innovative information designs to support customer needs	Activities are conducted to ensure that the organization is following the best practices in the industry. Design innovations are regularly introduced based upon research in the field, usability testing, customer studies, and practices learned through exposure to the work and ideas of industry leaders.
Cost and budgetary control	The publications organization has budget authority for its activities and carefully tracks the costs of its development projects. Costs are well understood and regularly evaluated in terms of return on investment and value added. Budgets are defined by the need to achieve a stated level of quality in information products.
Quality management	A series of activities directed toward complete and well-informed definitions of quality, including regular studies of customers' needs, regular usability assessments, regular assessment of customer satisfaction with products, regular assessment of the impact of poor quality on training, support, sales, and others. Strong communication of goals and strategies to senior management and peer managers. Recognition by the larger organization of the value added by technical communication activities.

You'll also find in reviewing the key practices that you may be at a somewhat different level of process maturity for each key practice. For example, I often find information-development organizations that are putting a great deal of care into their quality assurance activities. They have developed style and format standards and have created templates to help enforce the standards. They have instituted copyediting as a regular part of the process, and occasionally a more senior information developer reviews the work of newer members of the group for content and organization. Such an organization may be at a Level 2 or Level 3 in quality assurance. On the other hand, the lack of planning, project estimating, appropriate staffing, training for new and continuing team members, and other key practices are either absent or performed only intermittently. Such an organization is more likely to be Level 1: Ad hoc than

Level 2: Rudimentary when the key practices are reviewed as a whole. One or two strong areas are a definite advantage to future progress but not enough to turn the general tide of process implementation.

DETERMINING YOUR LEVEL OF PROCESS MATURITY
The five levels of process maturity in the IPMM are based on the progression we have observed in the hundreds of organizations we have studied, from an immature organization that cannot reliably produce documents at a repeatable level of quality to mature organizations that consistently produce information products that satisfy customer needs. We have found that organizations at Level 3: Organized and Repeatable have all the processes in place to produce information with a dependable level of quality. However, at Level 3, an organiza-

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tion has not had sufficient experience with its new processes to be secure. Often, if key people leave the organization when it has just moved to Level 3, it is likely to revert to Level 2 or even Level 1. There has simply not been enough time to solidify the practices so that new staff members or new managers can be counted on to assume responsibility for their continued success.

We also find that organizations at Level 3 may still have some lingering remnants of Level 2 practices, even while some of their practices seem to be moving into Level 4. The practices appear not to progress evenly, often because an organization finds itself working hard to improve one area while holding other areas in abeyance. However, with a long-term strategic plan in place, such a mixed organization will have clearly identified areas requiring improvement (weaknesses) and have a schedule of actions established to achieve needed improvements (turning weaknesses into strengths).

The descriptions of the process-maturity levels are summaries. In most cases, a process-maturity assessment requires careful and detailed examination of current practices. In the examination, it is most important not to be overly indulgent of good intentions. Only by reaching an accurate assessment of the current state will you be able effectively to set goals and plan your strategy for reaching them.

Although it is very important in your assessment to be aware of the threats to your success in reaching your goals, it is equally important not to let apparent barriers become self-fulfilling prophecies. I often watch managers and staff members convince themselves that they cannot change because they believe they have no power to change their working environment. They look around themselves at an ad hoc and chaotically unmanaged company and moan about their inability to influence the larger organization. Certainly, it will be difficult to establish a level of process maturity much beyond the level of the dominant organization. I have observed that, in most cases, it is unlikely that an information-development organization will be able to sustain a level of process maturity more than one level above the organization in which it exists. For example, if a software-development organization is at Level 1 in the CMM, then it will be difficult for the information-development organization to sustain more than Level 2.

At the same time, it is equally important that you do not let the disorganization of the rest of your company serve as a deterrent to your own plans to improve quality and achieve a higher level of process maturity. I have worked with several companies where the increased maturity of processes in the information-development organization has positively influenced the larger product-development organization. For example, information-development organizations have sponsored usability testing of documentation with customers, a process that is an integral part of a Level 4 or 5 organization. By using publications usability tests to increase awareness of customer issues, information-development organizations have succeeded in getting the larger product-development organizations to incorporate usability testing into the product-development process. In another example, an information-development organization that began creating thorough and carefully crafted information plans succeeded in influencing the software developers to begin developing their own planning documents for the software-development effort.

As a result of determining your level of process maturity, the strategic plan you begin to develop will be influenced by the strengths and weaknesses you have identified. If you lack a sound quality assurance process as a Level 1 organization, you will need to make instituting a quality assurance process one of your objectives. If you are a Level 2 organization with the rudiments of a quality assurance process, your objective will be to strengthen the process and ensure that it is practiced consistently for all projects. If you are a Level 3 organization with a strong quality assurance process, but you discover through customer studies that technical inaccuracies are slipping through, you may need to add processes to trace technical accuracy more thoroughly as part of your quality assurance. You may be a Level 4 organization with a strong commitment to customer-centered design when you learn through your customer and competitive analyses that customers prefer the information designs used by your competitors. To strengthen your Level 4 position and possibly begin progress toward Level 5, you will need to strengthen the practices you use to ensure that you are aware of customer needs and design innovations in the field.

Moving from a Study of Process Maturity into Strategic Planning

Armed with a completed process-maturity assessment, you are ready to turn your analysis into a strategic plan. The pro-

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cess-maturity assessment, while focusing on an analysis of the current state and benchmarking against best-in-class organizations, is only a starting point. By knowing where you are and understanding where you would like to be by analyzing higher levels of process maturity, you have much of the information you need to

♦ Formulate the goals you would like to achieve

♦ Create measurable objectives that you need to meet to achieve your goals

♦ State strategies you will use to meet your objectives

♦ Create action plans for putting your strategies into place

One organization learned that it was functioning at a basic Level 1: Ad hoc. Individual writers worked directly for software development managers. As a result, they had no standard processes in place to create information products. The manuals and online documentation produced by one writer had little resemblance to the manuals and online documentation produced by any of the other writers. Writers had little or no training in documentation practices because they were hired primarily for their technical skills. No one skilled in document design reviewed their work, nor were there any standard templates for them to follow.

After the process-maturity assessment, this organization begin the laborious process of constructing a strategic plan. Because so many changes were necessary to achieve a Level 3, which was their aim, they needed to establish a strategic plan with a schedule of action plans set by priority. Their primary goal was to improve the quality of their documentation so that they met customer needs. To do so, they set objectives of instituting better hiring practices, providing training for all information developers, establishing a quality assurance team, creating and a style guide and standard templates for information design, establishing project managers for the information-development activities, and more. In just one year, they made substantial progress in putting new practices and processes in place. They are well on their way to becoming a Level 2 organization and moving on to Level 3. The IPMM helped them identify their areas of greatest weakness and develop plans to turn the weaknesses into strengths. It also made them aware of the threats they faced in reaching their goals because of a number of practical and organizational constraints.

In another case, an organization found itself to be Level 3 following the IPMM assessment. However, they learned that a few of their practices were still at Level 2. In developing their strategic plan, they first concentrated on strengthening the Level 2 practices and bringing them into alignment with Level 3 standards. In particular, they needed to track their projects more carefully so that they had better data to use to estimate the resources needed to maintain quality on new projects.

Their goal was to ensure that they maintained a high level of publications quality for their customers. To do so, they needed to assign resources appropriately. Difficult projects with too few information developers on the team had suffered from last-minute quality comprises. Standard quality assurances activities had to be curtailed to get the information products completed on time. The organization tended to staff all projects identically, even though some were clearly more difficult than others. More detailed project statistics would enable them to analyze each project more precisely and then staff it appropriately to maintain quality standards.

In addition, this organization discovered that their greatest weakness and a requirement to achieve a Level 4 was inadequate information about their customers. As part of their strategic planning, they needed to emphasize the importance of gaining customer information by conducting field studies, surveys, focus groups, and usability testing. Although they had previously made substantial changes to their document design, these changes were not adequately informed by customer feedback through usability testing and through follow-up surveys.

A Level 4 organization learned that they needed to become more customer-oriented in their approach to information products. Their customers were generally pleased with the information received but often found it more extensive than they needed. The information developers had gotten into a rut—producing the same information products that customers had found useful years before. They needed to better understand the changing information needs of their customers to reduce the volume of information, reduce development costs, and better meet new customer requirements. Their strategic plan emphasized the customer analysis objectives identified in the process-maturity assessment.

> *"Strategic planning is no longer an option for an information-development organization that hopes to survive and thrive in the current climate of downsizing and outsourcing."*

Conclusion

Strategic planning requires that your organization first analyze its current state by

- Understanding who your customers are and what they need from your organization

- Understanding who your competition is and what threats they present to your success or to your continued existence

- Understanding your strengths and weaknesses

- Understanding the opportunities offered by learning how best-in-class organizations operate and incorporating some of their practices into your own

I have recommended using the Information Process Maturity Model to assist with this analysis. The IPMM helps you examine your strengths and weaknesses in light of a model that reflects the processes and practices used by highly skilled information-development organizations. The key practices highlighted in the IPMM represent those activities that will significantly contribute to your achieving consistently high and repeatable quality in the information products you develop.

In a complete assessment, I also recommend that you accompany the process-maturity assessment with a study of your customers' needs (field studies, surveys, focus groups, and others), a benchmarking study of your most significant competitors, and possibly a heuristic analysis of your products.

- The customer study will tell you if you are meeting your customers' information needs, and if not, how you might begin to improve.

- A competitive benchmarking will give you information about the work being done by your competitors.

- A heuristic evaluation of your information products by outside experts will tell you how well your work conforms to the most innovative design principles and practices in the field.

Armed with this understanding and adding to it information about trends in information development for the future, you will be prepared to develop a sound strategic plan. Remember the critical steps:

- Establish the goals that you must achieve to be successful.

- Create measurable objectives that will enable you to determine if you have achieved your goals.

- Develop working strategies (specific things to be done) that will move you step-by-step toward your objectives.

- Create working committees and have them develop specific action plans to put the strategies into place.

Charles Breuninger's discussion of the process used at Dupont to develop their strategic plan, included in the November 1977 issue of *Technical communication* will give you the details you need to create your plan from your assessment.

Strategic planning is no longer an option for an information-development organization that hopes to survive and thrive in the current climate of downsizing and outsourcing. Information developers must prove the value of their products and their organizations and demonstrate that they are aligned with corporate goals and objectives. Use strategic planning both as a tool to improve your organization and as a sign that you are willing to look closely at the old and comfortable ways of working and make significant quality and process improvements.

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BioSketch

JoAnn Hackos is president of Comtech Services, Inc. and Director of The Center for Information-Development Management, which she founded in 1998. She is a partner in SingleSource Associates. She and the Center Associates engage in advising managers of documentation and training organizations in many areas, including single sourcing, developing documentation databases, structuring information, implementing minimalism, and designing and developing quality information for customers.

She lectures worldwide and conducts workshops and seminars that assist communicators and managers in improving their performance and that of their organizations. She has published many professional articles and monographs, contributed to collections and special issues and is known for three significant books, *Managing your Documentation Projects* (Wiley, 1994), *Standards for Online Communication* (Wiley, 1997 with D. Stevens), and *User and Task Analysis for Interface Design* (Wiley, 1998 with J. Redish). She served as STC President in the early 1990s and as editor of *Common Ground*, the journal of the Usability Professionals Association.

TABLE 3: KEY PRACTICES ASSOCIATED WITH THE FIRST THREE LEVELS OF PROCESS MATURITY

KEY PRACTICES	LEVEL 1 AD HOC	LEVEL 2 RUDIMENTARY	LEVEL 3 ORGANIZED AND REPEATABLE
Organizational Structure	◆ writing is directed by professionals in other fields ◆ individual writers manage their own work	◆ a publications department and a department head is in place ◆ individual writers are supported in quality activities by a core organization ◆ writers still manage their own work most of the time	◆ professional communicators as project leads are in place and managing all information-development projects ◆ writers are a regular part of product-development teams
Quality Assurance	◆ quality is the responsibility of the individual writer ◆ style standards may exist, but are followed sporadically	◆ standards are in place, but not always followed ◆ occasional editing, both developmental and copy, takes place	◆ standards exist and editing is a regular part of the process ◆ reviews, quality assurance, and testing are becoming regular parts of the process
Planning Activities	◆ little or no project planning occurs ◆ project planning is up to the individual writer ◆ project panning is not valued in the organization	◆ project plans are developed and sometimes reviewed by peers and external reviewers ◆ but plans are abandoned when projects get tough	◆ project planning is taken seriously ◆ project plans are continuously updated ◆ user needs are studied during planning
Estimating and Scheduling	◆ projects are not estimated or tracked ◆ unclear relationships exist between quality and the scope and schedule	◆ estimating, scheduling, and tracking is beginning to occur on some projects ◆ projects are often out of control	◆ projects are estimated, scheduled, and tracked ◆ projects are reviewed and database maintained ◆ projects are more frequently under control and changes are assessed for the impact on quality
Hiring and Training	◆ hiring is done by technical experts ◆ training and professional development is not supported regularly	◆ hiring is under the control of information developers ◆ training is encouraged but not formalized	◆ regular training and continuing education is provided for writers ◆ project management is a process to be learned ◆ participation in professional development is expected

TABLE 3: KEY PRACTICES ASSOCIATED WITH THE FIRST THREE LEVELS OF PROCESS MATURITY (CONTINUED)

Publications Design	◆ technical experts (SMEs) determine the organization and content of most documents ◆ some specialists may be used for graphics or editing ◆ little or no innovation occurs except for individual initiatives	◆ writers are increasingly responsible for design and content ◆ writers are exposed to new ideas and are encouraged to improve publications quality on their own ◆ outdated standards are being questioned	◆ new designs are introduced regularly ◆ publications are produced by teams of specialists ◆ customer requirements are added to the design process ◆ training in new design ideas is actively pursued
Cost Control	◆ no regular publications budget exists ◆ publications are overhead ◆ publications are not considered to add value to the product ◆ publications are routinely subjected to cost cutting	◆ department budget represents headcount only ◆ staffing is still determined by non-publications people ◆ project needs and hiring are not related to quality requirements	◆ budgets are well-designed and costs tracked ◆ communicators are recognized as a significant part of the project team with a budget ◆ budgets depend on project and quality requirements
Quality Management	◆ no measurements are made of customer satisfaction ◆ customer interactions are often not permitted of the writers ◆ no one in management is particularly concerned about the quality of technical publications	◆ customers are sometimes polled in a very general way ◆ writers may respond to customer problems report ◆ no regular customer contact occurs ◆ no quality measurements are made	◆ customer concerns play a more important role than previously ◆ benchmarks and competitive studies are being planned ◆ customer studies are being planned or have just begun ◆ quality measurements are being considered but have not yet been adopted
How to get to the next level	◆ style standards ◆ documentation plans ◆ process-maturity study ◆ significant staff change, such as hiring an experienced publications manager	◆ planning and estimating have been put into place and are beginning to occur regularly ◆ accountability for staffing is beginning to occur ◆ budgets are becoming more realistic	◆ the process is firmly in place ◆ time is available for process improvement ◆ staff members are anxious to continue improving the process ◆ there is enough time to do good work