

TIPS & TECHNIQUES

Overcoming Cultural Obstacles to Managing Risk

By Daniel Galorath

Many organizations create cultures that emphasize achievement of goals in the face of overwhelming challenges. This is an essential attitude for any successful organization, but if taken to extremes, this attitude makes it very difficult for management to accept risk and believe in and support risk management as an important discipline. There is an underlying belief that all will be well. Management is confident that the software gods will shine on this deserving project.

When managing or participating in a software-intensive project, there is no reason to be optimistic; history doesn't support it. Yet, for many reasons, optimism slips into projects time after time. When a project begins, the team genuinely desires to do well and assumes the lessons learned from the last project will take hold this time. After all, many aspects of the last project went well and it seems reasonable to assume that such success will continue.

Hope always has a way of triumphing over experience. For example, a young programmer was assigned to solve a problem with a critical interrupt handler in a real-time system. Rather than repair it once again, he decided to rewrite about 300 lines of assembler code. He worked day and night for 60 hours straight. When he was done, the interrupt handler was tested and deployed without a flaw. Sweet success! By remembering the success, the programmer believed the next time he could write 300 lines of code in a day (his lack of sleep blurred his perception of time). He forgot that in actuality the project took 60 hours and violated every company quality policy. Once again hope triumphed. Software people in particular need such successes to keep from losing their self esteem because much of their work requires them to confront today the mistakes made yesterday.

It is only human nature (optimism bias) to believe that all will be well, which is why process-based risk management cannot be truly effective without management support and staff acceptance. Management often chooses to dismiss evidence that contradicts its belief that a project is proceeding to plan, even if that evidence results from critical processes such as quality assurance, metrics, and process improvement that provide objective, often quantitative information that accurately describes project status.

This attitude also prevails when management is confronted with the information that results from risk management. To paraphrase Tom DeMarco, there are many individuals and activities within a project organization whose focus is to reinforce what is going right in a project; risk management's job is to point out what can go wrong. Therein lies the problem. Managers and staff who are committed to making the project succeed and who are working long hours under intense pressure do not want to be reminded that one crisis can lead to another. Senior management,

customers, and stakeholders often adopt the Nike philosophy: just do it! Their interests lie in minimizing the reality of risk, not in embracing the fact that risk is a normal part of all projects that cannot be ignored. Risk management hands them more reality than they want to deal with.

An organization's culture is also defined by the manner in which its members communicate. Experience shows that many failures in regard to risk management are caused by imperfections in the human communication process. For example, many program managers, especially those facing more problems than they can handle, unconsciously signal to their teams that they do not want to hear about any new risks, even if they explicitly support good risk management processes. Their teams thus become reluctant to identify and report risks even though they could significantly affect the project.

Because "the spouting whale gets the spear," team members become deaf and blind to essential information that would enable them to mitigate long-term threats and are forced to respond to problems as they arise, often in crisis mode. The project manager will tend to assign part or all of the responsibility for mitigating a risk to whoever identifies it. Such a response can communicate to team members that it is dangerous to identify new risks, because they will be stuck with mitigating the risk while performing their regular duties, most often without appropriate resources.

Continuous, proactive risk management can overcome these cultural barriers when it openly involves all members of an organization or participants in a project. It helps managers, staff, and stakeholders make correct, informed decisions by allowing them to anticipate what can go wrong rather than waiting to react to it. When performed correctly, risk management dispels the myth of the no-risk project. To the benefit of the project, it confronts assumptions and projections that do not include contingency factors. It questions commitments and agreements that assume rigid adherence to plans while omitting options to address the reality that a potential risk can occur.

It takes a truly mature manager and a savvy customer to embrace the benefits of risk management because the message is not entirely pleasant. Risk management tells them they must recognize that if risks are not addressed when identified, they are likely to negatively affect a project in the future. That is an unpleasant reality, but a manager ignores that reality at his or her peril. The positive aspect of the message is that it is within a manager's control to determine the degree of impact of a risk based on the actions he or she takes today.

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Daniel D. Galorath has over 35 years of experience in the software industry where he has solved a variety of management, costing, systems, and software problems, and performed all aspects of software development and management. Mr. Galorath is founder and president of Galorath Incorporated, maker of the SEER® suite of estimation tools. Mr. Galorath is one of the principal developers of the SEER-SEM™ Software Estimation Model. Mr. Galorath completed his undergraduate work and MBA from California State Universities. He is a member of the International Society of Parametric Analysis (ISPA), Society of Cost Estimation and Analysis (SCEA), IEEE, the International Function Point Users Group (IFPUG), and the Association of Computing Machinery (ACM). He was honored with the Freiman Award, recognizing his long-term contributions to the field of parametric analysis. Mr. Galorath teaches courses in software cost, schedule, and risk analysis; software project management; software engineering; systems architecture, and other related topics. He has lectured internationally and is the author of many papers about software project management.

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