

develop requirements specifications before entering into an implementation contract, as a strategy for minimizing these intractable schedule and budget problems. Unforeseen problems typically involve relationship issues that can crop up unexpectedly at any stage of the implementation, even in projects starting off harmoniously. The prominence of client expectations as a problem in both the intractable, unforeseen, and troubled project categories suggests that educating the client to have a realistic expectation of how the project will progress is a key strategy for vendor project managers in ensuring client satisfaction at the close of the project.

Clients, on the other hand, should take care to ensure their own expectations are reasonable, and again, the pre-partnering approach enables both sides to develop a clear understanding both of the complexities of the project requirements and of the likely performance of the other partner. Both clients and vendors should use this opportunity to evaluate the other party's likely working style before making any major commitment. ■

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HAZEL TAYLOR (hztaylor@u.washington.edu) is an assistant professor at the Information School, University of Washington, Seattle.

HOW THE STUDY WAS CONDUCTED

This study employed a variation of the critical decision interview technique designed to elicit expert knowledge and difficult-to-articulate tacit knowledge [4, 9]. Twenty-five experienced project managers from 12 different organizations within Hong Kong participated in the interviews, in which they described the risk assessment processes they had applied to particular projects, and then discussed specific incidents from these projects that were challenging from a risk perspective. By having the respondents discuss critical incidents at various stages of their projects, I was able to compare potential problems anticipated at the start of projects with problems that arose during those projects, in order to identify problems that proved to be intractable or unforeseen. The 10 troubled projects were of special interest in that the managers rescuing the projects discussed both their initial review of risks on taking over the project, and also their assessments of what had happened to derail the project prior to their involvement.

Interviews were recorded, transcribed, and coded by the author using a prior-research driven thematic analysis approach [1] based on a coding framework derived from the risk factor list developed by Schmidt et al. [7]. The projects discussed by respondents were split into stages (pre-sales, start of implementation, ongoing progress) and risks described and problems actually arising at each stage were identified. This distinction made during coding between potential problems identified at the start of projects and actual problems that arose during the project revealed three different types of problem that are interesting: 1) the intractable problems—those that are still likely to occur, even when they have been anticipated and mitigated at the start of the project; 2) the unforeseen problems—those that are most likely to be overlooked at the start, and then to arise unexpectedly at some stage during the project; and 3) the key problems that caused some projects to become troubled.

The organizations ranged from small boutique software houses, mainly focused on local clients, to Hong Kong branches of large multinational vendor and consulting firms, and in-house IT departments in both commercial and government organizations. Twenty of the respondents worked for vendor firms, while five worked in-house. The project management experience of the respondents ranged from 3 to 30+ years, and 5 to 150+ projects. All of the respondents had trained or worked abroad for part of their careers, and all had experience working with team members from a wide variety of cultures.

Most (77%) of the clients in these projects were commercial organizations, with the remaining 23% being carried out for government and semi-government clients. While most of the projects fell into a broad category of package implementation project, only two were described as straightforward package implementations with little or no customization. More typically, the projects included extensive customization, front-end Web development work, and/or major infrastructure upgrades. Finally, 10 of the projects discussed by respondents were troubled projects the managers had been called in to rescue. These projects in particular revealed some key insights into what causes projects to go wrong, and the key steps needed to fix them. ■