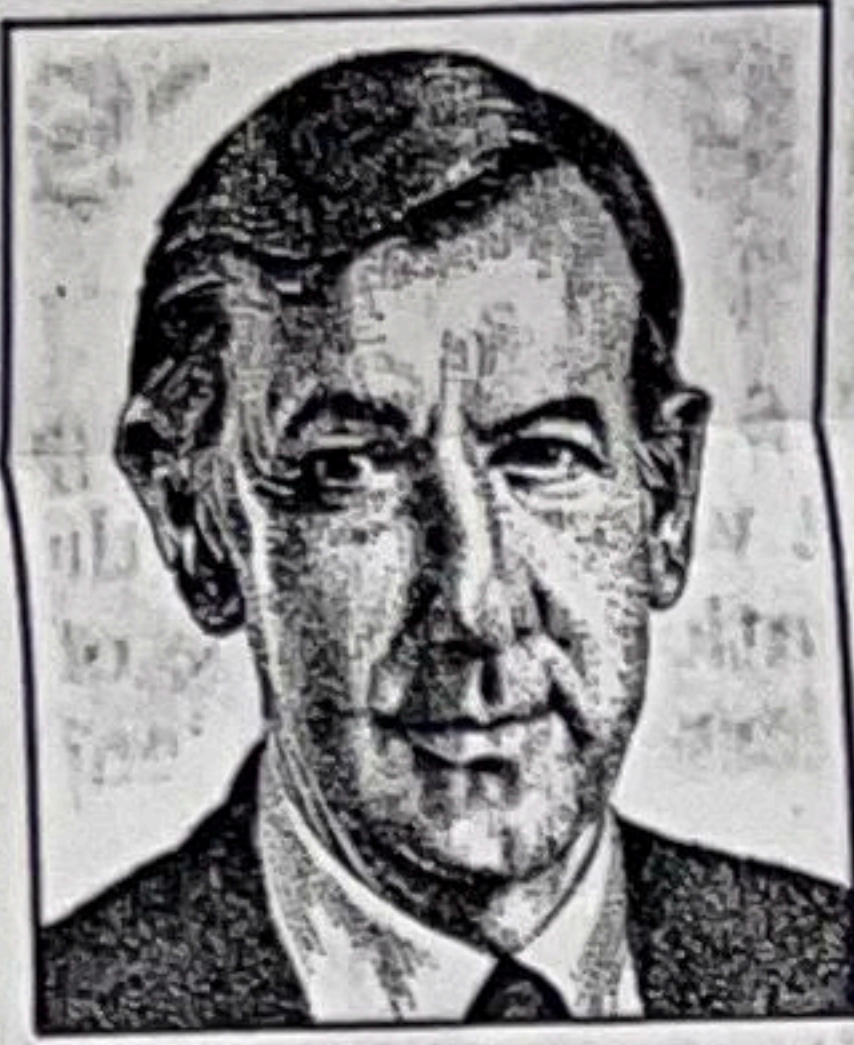


APPLIED INTELLIGENCE

# IS Executives Must Manage the Cultural Change to RAD



**JAMES MARTIN**

*The successful introduction of new development methodologies, such as rapid applications development (RAD), requires careful attention to human motivation.*

Because information-systems (IS) managers often hesitate to learn something

new, it's frequently difficult to alter the culture of a large IS organization. As a result, the introduction of innovative development life cycles such as RAD can be alarming and threatening to such organizations.

An efficient IS staff today needs to work in an environment of information engineering, RAD and reusability. These all require integrated computer-aided software engineering (I-CASE) tools with a well-managed repository. Thus far, however, many IS shops have not even experimented with these techniques. Introducing them represents a revolutionary change in the way an IS organization functions.

Such a change requires the total commitment of the top IS executive. This executive must fully understand the methodologies described in this series and work hard to implement them. The top IS executive should also have an excellent rapport with the organization's CEO, who in turn should understand that the business needs to retool IS. It is the CEO's responsibility to make sure that the rest of top management understands the urgency of this retooling.

Some of the retooling provides no short-term improvement in profits; its results are evident over the long term. In fact, the payoff from the introduction of RAD techniques can adversely affect the current year's profit. Management must be aware of the strategic benefits of retooling IS and be willing to make the investment.

The IS organizations found to be the most successful in achieving high-productivity and fast-development goals were constantly striving to improve. In meetings and in casual conversations, people were preoccupied with being the best. This was a common goal.

In other IS organizations, this motivation was lacking. Interchangeable programmers came and went, often claiming that CASE tools do not improve productivity.

When we change the world too fast for human comfort, we need to pay careful attention to human motivation. This is especially true with the introduction of RAD life cycles. The champion of RAD should know how best to motivate the users involved and the IS staff. The management of cultural change is particularly important when old methodologies are entrenched in the IS bureaucracy.

Individuals usually are motivated by fear, money, prestige, pride and excite-

ment. Of these, fear is the least effective in the long run. Money is the most expensive. A sensitive combination of all of these factors is probably the most effective means of motivation.

Perhaps the single most powerful motivator is excitement. When people are excited about what they are doing, they work hard for long hours and enjoy it. RAD leaders should generate the kind of excitement that occurs with fundamental changes. It should be exciting to be part of the RAD revolution, and to build a mission-critical system that will change the enterprise in a relatively short time.

Prestige is another motivator. Con-

menters' performance.

What motivates one person may not motivate another. The answer to the question "What's in it for me?" depends on the individual. The leaders of the RAD revolution should identify the most effective way to motivate each person involved.

When new tools and methodologies are introduced in an IS organization, some professionals immediately become enthusiastic about them; others resist and want to delay their introduction. It is useful for management to categorize the professionals into the following groups: experimenters, early adapters, pragmatists, late adapters and resisters.

their environment.

The champion of new techniques needs early successes. To accomplish this, he or she must identify the experimenters and early adapters, since early successes come about from energetic people excited about learning a new skill and putting it to work to achieve something special. The champion must form organizational structures appropriate for the early adapters, motivate them well and protect their potential achievement from opposition by the resisters.

The early adapters should know that if they fail the first time, there will be no penalty. People often learn from an early failure.

Excitement is an effective way to motivate the early adapters. There must also be a high level of prestige associated with the achievements of the early adapters. Management should ensure that their successes are highly visible.

The pragmatists are the middle-of-the-road developers. They are cautious of failure and reluctant to spend time learning new methods until they're sure it will be a good investment of their time. These developers adopt a new methodology only when the early adapters have demonstrated that it is significantly better than what currently exists and have demonstrated repeated success with it.

The prestige attached to early accomplishments should be used to persuade pragmatists to learn RAD methods.

The late adapters are reluctant to change; they're the old dogs who do not want to learn new tricks. Financial incentives may be the best way to seduce them.

### Disarming Troublemakers

The resisters consciously oppose the new methodology, sometimes disguising their negativism in intellectual arguments. Resisters are present in most IS organizations and sometimes voice their opposition vigorously from the start.

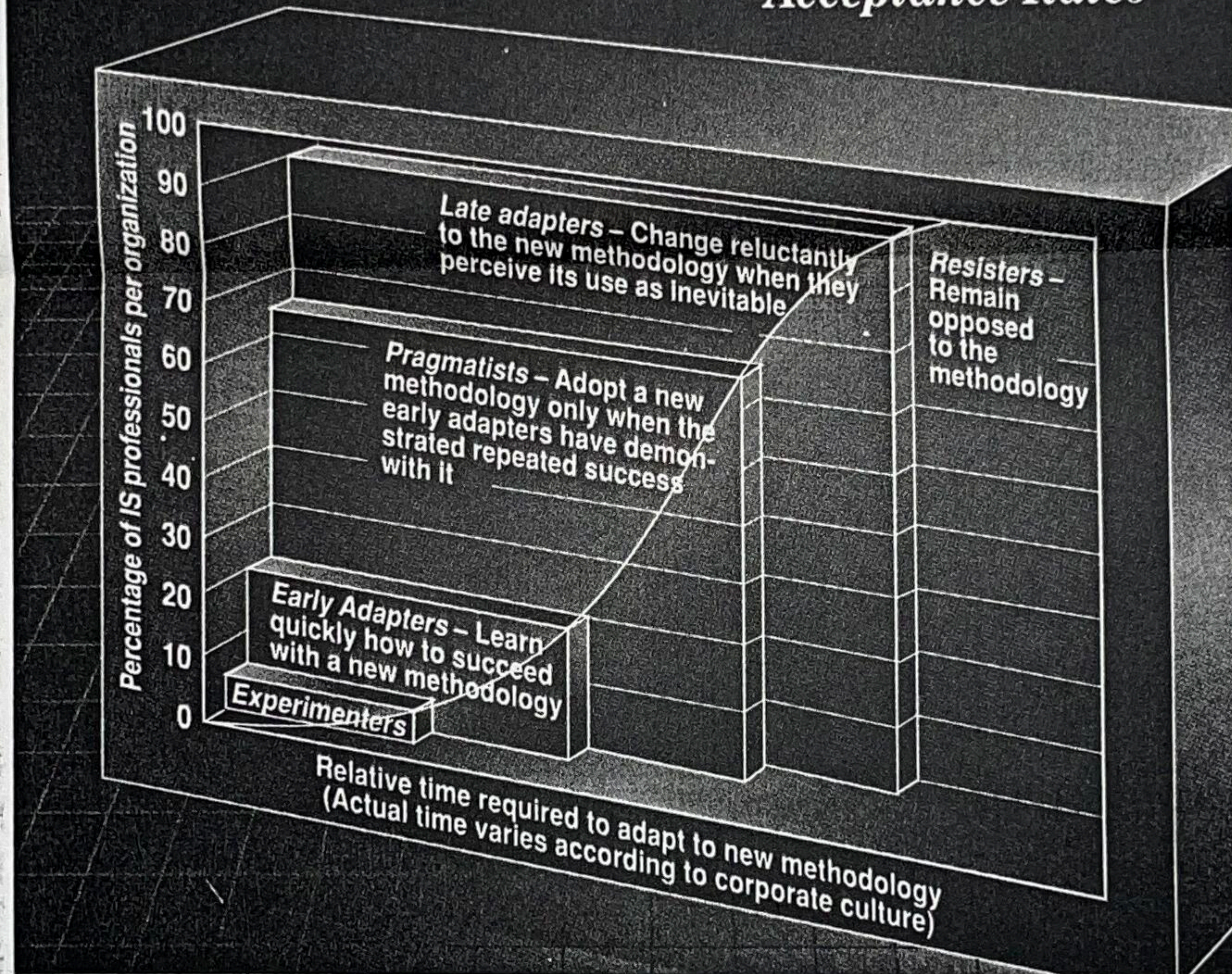
The champion of a new methodology has to know how to deal with the resisters. The worst of them may search for subtle ways to sink the methodology before it takes hold.

The resisters are the most difficult to motivate. For them, a subtly applied dose of fear is often the most effective. If necessary, their power and prestige can be removed. It may be necessary to move them to a position where they cannot have a negative influence.

Next week, I will discuss the techniques that can be used to introduce new development life cycles, such as RAD, into an IS organization. ■

## Acceptance of a New Development Methodology

### Five Types of IS Professionals and Their Relative Acceptance Rates



John Avakian

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struction teams should be encouraged to take pride in their superior performance. Individuals should take pride in achieving superior results with the best available tools.

The prospects of prestige should encourage non-RAD developers—or non-CASE developers—to switch to the new environment.

Money, of course, is a universal motivator. Pay raises should be based on performance in achieving high speed, productivity and quality. Organizations that don't use financial incentives as a motivation technique suffer a bureaucratic obstacle that lowers program-

The figure shows the average representation of these types in some IS organizations and the relative time they take adapting to the new methodology.

Most IS organizations have some experimenters who like to try anything new but do not necessarily stick with it. Although the experimenters get excited about a new endeavor, they do not always convert their excitement into solid construction. These people often respond well to encouragement.

The early adapters see the value of a new methodology and lead the way in making it practical. They adjust the methodology to make it work well in

*The concepts embodied in RAD are described in a new volume in the James Martin Report Series. For more information on this volume, call (800) 242-1240. For information on seminars, contact (in the United States and Canada) Technology Transfer Institute, 741 10th St., Santa Monica, Calif. 90402 (213) 394-8305. In Europe, contact Savant, 2 New St., Carnforth, Lancs., LA5 9BX United Kingdom (0524) 734 505.*