

The Evolution of Agile Project Management: Part II

It's a Big Tent

Agile project management can cover a wide range of projects and organizational cultures. Given the right structuring, APM can coexist with other project management frameworks — even the PMI's PMBOK Guide® or the SEI's CMMI®.

It Can't Be All Things to All People

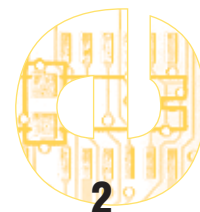
The principles and practices of agile project management are incompatible with the PMBOK, Six Sigma, or CMMI. When the prevailing culture stresses prescriptive planning and execution, APM is not a good choice. Politics always trump process — any process.

"We need to incorporate project managers into the agile quest, not attempt to keep them on the outside looking in."

— Jim Highsmith, Guest Editor

Opening Statement

by Jim Highsmith



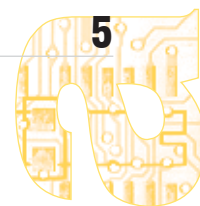
Agile PM and the PMBOK Guide®

by Donna Fitzgerald



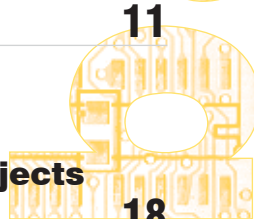
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by David J. Anderson



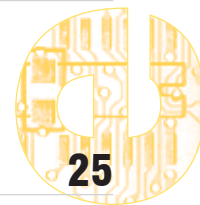
How to Succeed on Today's Extreme Projects

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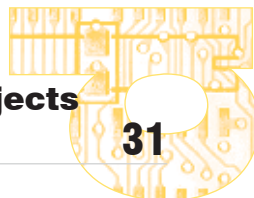
Beyond the Hype of a New Approach

by Jim Brosseau



Adding Stakeholder Metrics to Agile Projects

by Tom Gilb



Beyond the Hype of a New Approach

by Jim Brosseau

We used Extreme Programming for the prototype. You should see an Extreme project in action. Nobody's really sure what is going on, and there is no documentation. It's quite chaotic.

This quote came from a manager in a company I was assessing almost three years ago — a company that is no longer in existence. As the manager spoke, I held my tongue and studiously took some notes, then bounced the quote off of Martin Fowler, Agile Manifesto signatory and coauthor of *Planning Extreme Programming* [3]. His response started like this:

That comment sounds to me [like] they weren't doing Extreme Programming. It must have been its evil twin: "Stupid Programming."

Fowler went on to explain how the practices of XP tie together to form a system of practices that works well and provides far more visibility than the chaos described above. Clearly, in this case, XP was being used in name only.

More often than not, despite the breadth of good information available regarding XP, other agile approaches, or indeed almost any method intended to improve the ability to deliver software, the masses achieve only a superficial

understanding of how the pieces hold together to form a complete system. The result is a weakening of the adoption lifecycle. While pockets of faithful devotees of the new approaches persist, the mainstream quickly loses interest in favor of the next perceived fad.

Agile project management (APM) is becoming the latest in a long line of named approaches to software development and project management that promise improved project performance. APM is a clear, consistent collection of practices that holds together well and has the potential to reduce project risk for most organizations. But unless there are drastic changes to how this approach is presented, and even deeper changes to how it is typically adopted in organizations, the chances of it providing consistently strong results in the industry remains slim.

INFORMATION OVERLOAD AND DISAPPOINTMENT

In an era in which we are bombarded with information at such a rate that we tend to close down our pipelines just to survive the onslaught, very few people take the time to deeply understand any new piece of information. Methods such as APM need to have their message distilled down in order to

deal with the short attention span of today's audience. The focus often becomes the practices embodied in the new system rather than the principles behind it, as there is only so much you can get across in an article or presentation. Because we retain only a percentage of what we read or hear, the likelihood of correct adoption and corresponding improved practices in the weeks or months after a conference is low.

It is unfortunate that we cannot control the deployment of these approaches to a mass audience more effectively — a few papers or a series of books will be read by only a small percentage of the industry. Even if everyone who does read about a new approach were to understand the subtle nuances completely, the word-of-mouth propagation would lose fidelity with each step.

Groups that say they are using one of the agile software development methods are often, upon further inspection, doing themselves more harm than good. Light planning without constant refactoring or an on-site customer, for example, won't reap the promised benefits of XP. The few groups that suggest they have a disciplined approach have not, for the most part, institutionalized their practices — a little

digging shows that most are truly ad hoc. The term “development organization” is an oxymoron in many shops today.

In the past six years I’ve seen this phenomenon firsthand as I worked with a large number of companies across North America. I’ve since corroborated these impressions with quantitative data from a survey of more than 400 respondents from 32 different groups over the past year. Responses to the question “Which development approach does your organization use to develop software?” are shown in Figure 1.

In debriefing the responding groups, I discovered that the vast majority that stated their approach was “customized to culture” were actually working to unstated and widely varying approaches. Very few had institutionalized their practices. For those that indicated they were using XP or RUP (Rational Unified Process), generally the application consisted of a smattering of the practices, usually missing key components that bind the system together.

Incomplete understanding and application of a development or project management method will result in disappointment with the method and a growing backlash against it. Already, XP has been a disappointment to early adopters who misunderstood its intent. Overall, there are few disciples to continue to spread the word for what has been demonstrated to be a solid approach for projects

where it has been implemented appropriately.

BREAKING THE CAMPFIRE CYCLE

You probably recall your first experience as a youngster with the phenomenon of a story changing shape as it moves through a group. An initial version of the story, rich in detail and with a clear message and thread of events, is whispered to a neighbor, who in turn passes it on to the next person, and so on around the campfire. Finally, the last person tells the story out loud to the group, usually to raucous laughter. It was always amazing how the story evolved, as limited memories and different perspectives of what was important totally changed the result.

The same scenario plays out in the dissemination of what starts out as a clearly defined approach — from its initiators through the chain of

people who bring the message to those who will actually be using the approach. Often the results are disappointing, as described above. What happens? The perspectives of what is important in the original message change as it passes through the communication chain.

We need to be careful to transmit the complete message through this chain or be prepared to deal with the consequences of not doing so. Capturing key decisions in writing is critical, and we need to be aware of the implications of sugar-coating or downplaying key components of the message. While the evolution of a story can be hilarious around a campfire, the results in the corporate world can be disastrous.

A TOUGHER AUDIENCE

Adequately communicating the complexities and nuances of a development approach is no easy

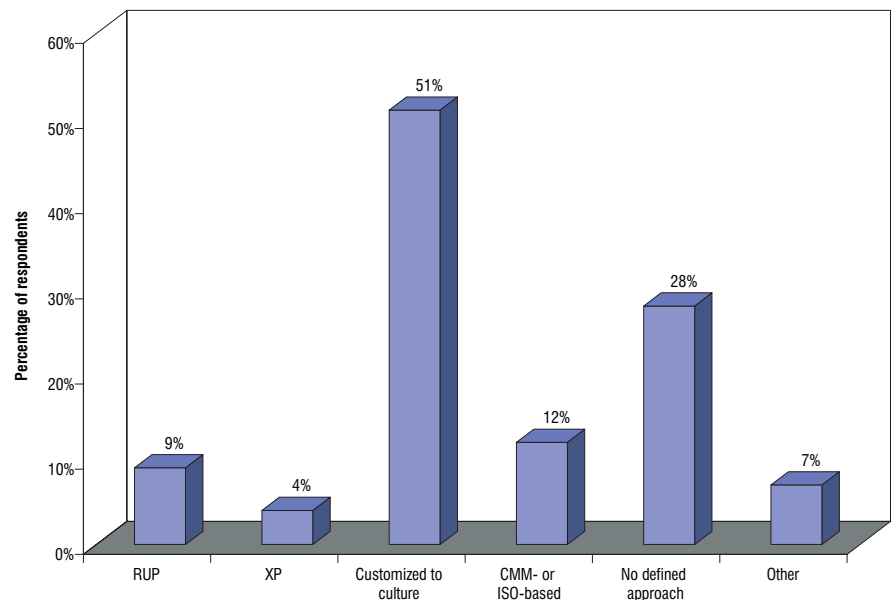


Figure 1 — Development approaches in use at the companies surveyed.

task. While the methodologist has reasonable control of the initial message in the production of a book or article or conference presentation, the challenges increase as he relinquishes control. There are a number of issues for the methodologist to deal with:

- While there is a strong initial focus on process, those who will be practicing the approach will rightly have a stronger focus on the project at hand.
- Proponents of the new method will have a weaker grasp of the terminology and the tacit knowledge behind it than does the originator, and the message will need to be passed on with this weakening lexicon.
- The further along the message is passed, the greater the dilution of interest and the greater the skepticism among the recipients of the message.

THE DISSEMINATION AND DISSIPATION FLOW

As the methodologist spreads an idea such as XP or APM to a wider audience and eventual adoption, there are a number of people in different roles that carry the message and a number of environmental factors that influence the quality of the information dissemination at each point. In this process, there is an ongoing dissipation of insight, focus, and clarity that tends to dilute the original message.

The Author

The author of the message — the originator of the new approach — has invested significant time and

effort in producing a coherent system that provides genuine value. The new method is usually tested in the field and ruthlessly peer-reviewed before reaching the mass market, so there is a good understanding of what works, why it works, and what the limitations of the method may be.

In the process of distilling the message down to a well-focused book, or even further to a magazine article or conference presentation, the methodologist must extract a great amount of the detailed knowledge, which becomes tacit knowledge that is not transferred. In some instances, such as XP, the practices remain in vogue long enough to support an expansion of the available knowledge base, through clarification by the originator as well as increased breadth of experience from a wider community. This is not usually the case.

The Messengers

While many of the issues that we face would be eliminated if the authors could transfer knowledge directly to the practitioners, this is simply not feasible. The message needs to be passed along through intermediaries, or messengers. In the IT field, these individuals are the ones who attend conferences and become aware of new information through trade journals, books, magazines, and content-related Web sites.

These messengers may have nearly the same strength of conviction that the originator does, but they often lack the depth of understanding of context and content that the

originator will have. In addition, they face the tougher challenge of passing the message on to a less receptive crowd: those who will decide to implement the approach and those who will eventually be tasked with performing the activities it espouses.

The messenger needs to look beyond the author's enthusiasm as he evangelizes his new method. She should realize that a healthy dose of skepticism is critical to understanding the limitations of any approach and necessary for preparing for the sales process that follows. With an emphasis on benefits rather than limitations, an initial pitch may be interpreted as a general solution, but methodologists are beginning to recognize the importance of communicating the limitations as well [2].

The Decision Makers

The people who actually decide to take on a new approach have a different set of challenges to deal with. Their concern has moved from a question of "Which process should we use?" to "How can we successfully deploy this project?" They are interested in solving the problem at hand, not in being the guinea pig for an approach they haven't seen work yet, especially one being pitched by someone fresh back from a conference with that starry look in her eyes.

It is tougher to sell a new idea to this group, and if they are astute, they will want to understand how it can solve their challenges. They will also want to know what to watch for to determine whether the new method

is working early in the game, not during a project retrospective.

The decision makers must avoid simply taking on the first promising new approach presented. It is important to understand the motivation behind the approach to determine whether it aligns with the problems at hand and to explore alternatives before making a considered choice.

At every point, the recipients need to hear enough to sell them on the product, as well as to allow them to make their own sales pitch downstream.

The Practitioners

Finally, assuming the decision has been made to try out the new approach, it is time for the people who will be performing these practices, the implementers, to understand what is being asked of them. Generally their viewpoint centers on what's in it for them that will make their life easier, and just as in the fireside stories, it's those parts of the information that will stick. In XP implementations, it is usually easy to get buy-in for practices such as user stories on index cards, a simple initial architectural spike, and pair programming, but tougher to get commitment to the balancing practices of test-first programming, constant refactoring, the on-site customer, and the planning game.

While it may be appealing to embrace a new, lighter approach to project management, chances are there is a reason behind that nagging feeling that it's too good to be true. Doing fewer things can make sense in some project situations, but most project teams I have seen have erred on the side of insufficient process. As a practitioner, it is also important to avoid being a lemming — doing things simply because you are told to rather than understanding the rationale behind an activity.

DIFFERENT STAGES, DIFFERENT EMPHASES

To successfully get the desired message through this chain of roles with varying interests and needs, it is important to foster appropriate communication in each transaction. At every point, the recipients need to hear enough to sell them on the product, as well as gather enough information to allow them to make their own sales pitch downstream.

This is a classic sales scenario. There's a need to start with a tagline to get the people interested (the term "agile" has served the AgileAlliance well), then the elevator pitch to get them past the initial look to seek more information. Finally, the story itself has to be compelling enough to motivate people to actually try it out.

For the originator of a promising new approach, the challenge lies in creating sufficient interest among the messengers to warrant further inspection. The author must get

past the sea of voices all espousing their own method as the latest silver bullet. Hyperbole has been known to run high in the field of development approaches.

Once the messengers have been hooked, it's time for the author to pass along the information that will facilitate the advancement of the message to a different group. It is important to clearly express the applicability of the method. What sort of project would this work well on, and which projects should avoid such an approach? Generally this subject is given brief coverage in publications; for example, *Extreme Programming Explained* [1] allocates four pages near the back of the book for this purpose. Emphasizing the caveats and the principles behind the approach (as the Agile Manifesto [6] does) goes a long way toward answering these questions in a general way.

Armed with this information, the messenger can then pitch the approach to the decision makers and participate in a thoughtful decision about whether the approach would make sense *in this instance*. She does not raise expectations beyond what is reasonable, and the stakeholder understands what to look for to ensure that the project is (and stays) on track.

A key component of the argument at this point is the venerable ROI. While everyone is interested in the "what's in it for me?" issues, the decision maker is usually going to be concerned about the measurable, financial value. Here are a few things to consider:

- Even light methodologies can be seen as more costly than ad hoc approaches that place no emphasis on planning at all. The few critical planning activities in APM are still explicit and can be shown to cost more than just a “get the code out the door” approach. Planning may be seen as an overhead activity, while coding, with no discrimination between initial development and later fixes, is seen as productive time.
- Few organizations have good accounting practices in place that allow them to quantify the “costs of non-quality,” such as rework, schedule slips, or reduced customer satisfaction, all of which can be reduced by adopting a more rational approach to development.
- It is difficult to incorporate into a financial ROI model “soft costs” such as internal morale, which can be a strong driver of team productivity.

Before the project actually starts, the team members need to understand not only what they need to do, but why they should be doing these things and how these practices work together to form a complete system.¹ They, too, need to

understand the limitations of the approach and what to look for as signs of trouble. Elements cannot be skipped merely for convenience; there needs to be a credible rationale behind any tailoring, which is something that is best left until after the group has some experience.

Once the right project has been selected (it is clear that the proposed solution fits the problem space) and the right people are enlisted (they understand why the changed practices are required and how they fit together), the real work begins. To this point, it has all been a sales exercise, but now the goods must be delivered.

The project needs to be closely monitored to ensure that the intended approach is being properly followed, and change management becomes an explicit exercise in determining whether issues are project or process related. It is a rare team that will get a new method correct right out of the gate, so midcourse corrections will be important. Constant focus on the goals of the project and the principles of the approach are vital for success.

THE BOTTOM LINE

Generally, the emphasis in most new approaches has tended to be in the area of practices, at the expense of other elements such as supporting principles or tailorability of the approach for different classes of projects. In my experience and that of others, the adoption of any new

method requires balancing its practices with the following elements:

- The *principles* behind the approach need to be clearly described and understood by everyone. These principles serve as an infrastructure to help determine whether the method would solve the problem at hand as well as whether the practices as implemented are aligned with the original vision.
- The *limitations* of any approach need to be clearly identified in order to avoid the problem of overselling to the masses. These limitations may involve project or team size, product criticality, or any number of other issues.
- The *scalability* of the approach needs to be explicitly specified, both up and down the range of team and project sizes. Which elements can be reasonably removed, which should be strengthened as the project grows, and how the elements support one another are important lessons to be passed on.
- *Guidelines* for implementation of the approach should be provided, including potential signs of trouble as well as indications of positive progress.

Emphasized properly, these elements will not scare away potential followers of the approach but will set reasonable expectations up front to reduce downstream disappointments. It is heartening to see that these elements are being given a stronger emphasis in Cutter Business Technology

¹Achieving this understanding can be a tall order. Most projects will fail as a result of inadequate communication, but clear, common understanding is what is being asked for here. It is a distinct possibility that significantly improved project performance can be attributed not to the different practices being implemented, but simply to the discussion and shared understanding of existing practices to be used consistently by the group.

Council Fellow Jim Highsmith's *Agile Project Management* [4], but time will tell if the readership sees past the list of practices.

Organizations will need to establish strong oversight, both to ensure that the project team is adhering to the new method's prescribed principles as well as to monitor overall project performance. We need to avoid the tendency of individuals and organizations to try new approaches with only a cursory understanding of them. With deeper, more accessible insight into the rationale of methodologists such as Highsmith [5] or Cutter Consortium Senior Consultant Alistair Cockburn [2], the guidance is out there, but methodology still does not receive the attention it deserves.

There needs to be strong emphasis on the deployment of any strategy, particularly an agile one. Agile is not ad hoc; agile is an ability to recognize and take advantage of opportunities and to recognize and counteract threats. Indeed, an agile approach is actually more disciplined than the development approaches most organizations currently apply.

Simply distilling an approach won't work — what is needed for true institutionalization is a thorough understanding of how the system works, and this will come only with deep thinking, trial and error, and commitment to learning and discipline. We have to get past the hype

An agile approach is actually more disciplined than the development approaches most organizations currently apply.

and truly understand the goals and principles behind suggested approaches in order to become more effective in applying them.

It would be great to see agile project management have a strong impact on software development. For this to happen, though, a change in the way we communicate the essence of the approach may prove as important as the approach itself. We still have a long way to go to improve the deployment of sufficient, reasonable processes on software projects, which in turn will improve the overall success rate that we enjoy. A key part of this path is to understand and manage the flow of information from the evangelists of improved approaches such as agile project management to the practitioners themselves.

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Jim Brosseau has 20 years' experience in the software industry in a wide variety of roles, application platforms, and domains. A common thread through his experience has been a drive to find a less painful approach to software development. Mr. Brosseau has worked in quality assurance at Canadian Marconi and was involved in the development and management of the test infrastructure used to support the Canadian Automated Air Traffic System. He is principal of the Clarrus Consulting Group in Vancouver, Canada, and in the past six years, he has consulted with numerous organizations throughout North America, specifically to improve their development practices.

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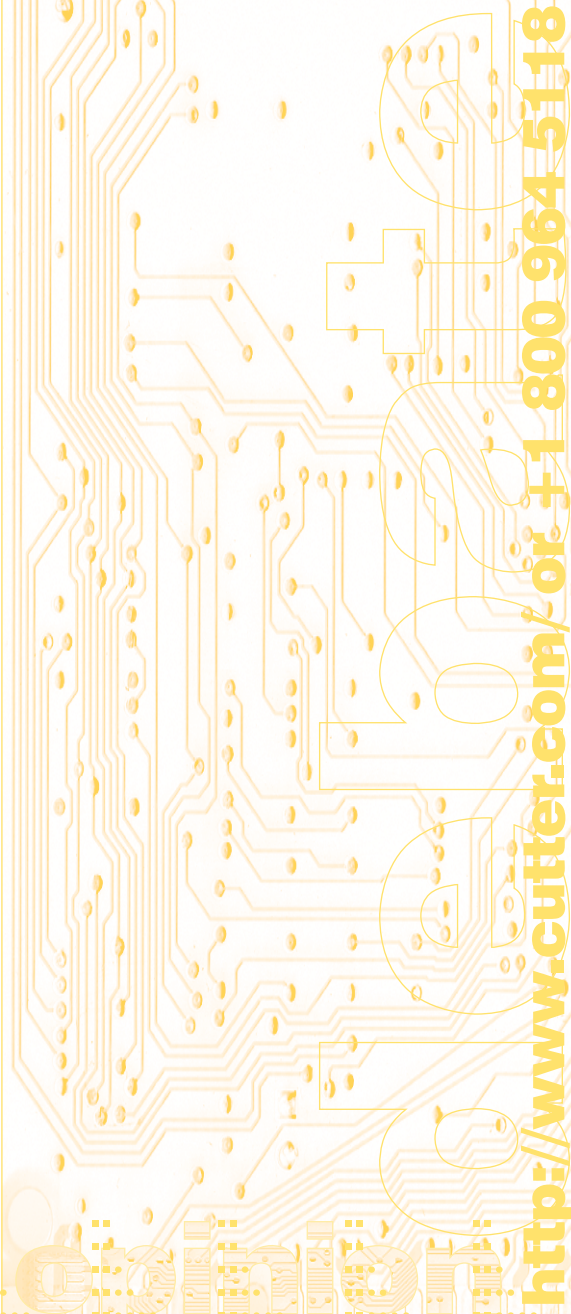
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