
Gary Pollice
Worcester Polytechnic Institute
5 March 2004

Book review – from The Rational Edge: Pollice reviews two books that attempt to provide a balanced view of the software development process landscape and address many issues critical to maintaining healthy, successful projects and project teams.

Balancing Agility and Discipline: A Guide for the Perplexed
by Barry Boehm and Richard Turner
Addison-Wesley, 2004
Cover price: US$29.99
304 pages

Agile & Iterative Development: A Manager's Guide
by Craig Larman
Addison-Wesley, 2004
ISBN: 0-13-111155-8
Cover price: US$34.99
368 pages

Are you a project manager trying to determine the best way to organize and manage your current projects? Are you confused by the vast quantity of information and misinformation that seems to flood your senses daily? Two books, Balancing Agility and Discipline and Agile & Iterative Development, can help you to sort out the mess. Both books attempt to provide a balanced view of the process landscape and address many issues critical to maintaining healthy, successful software development projects and project teams.

The authors of each book are acknowledged experts in the field of software project management. Barry Boehm and Richard Turner come from the academic sector, with a wealth of experience in government systems and large software development projects. Craig Larman has established himself as a knowledgeable advocate of object-oriented software development and project management, who has gained a lot of experience in commercial systems via his role as chief scientist at Valtech.

The books often have similar things to say but present the information very differently. Let's focus on their similarities.

Cover the same territory
Both books agree that people are the most important success factor for any software project. This belief has been held by many enlightened project managers over the years, but stated explicitly only recently. The key to full effectiveness is the ability to balance people issues with process issues. As Grady Booch said in 1996, "People are more important than any process. Good people with a good process will outperform good people with no process every time."¹

Despite this point of agreement, however, neither book focuses on people factors. Instead, both try to provide hard evidence about different processes, referring frequently to Alistair Cockburn's classification system for projects and team member skills.²

Each book also supplies detailed data supporting the use of iterative, agile, and plan-driven methods. Neither book explains this is an easy, or necessarily interesting, way. Larman warns his readers: "...exhaustive data can make for exhaustive reading." Boehm and Turner's opening chapters, which set their groundwork, are about as thrilling as reading an Audubon guide on the migratory birds of North America. In both cases, it is best to treat this material as a reference for specific topics.

Each book also includes a hypothetical example to illustrate how a team might approach software development using different processes. Boehm and Turner call their chapter "A Day in the Life," whereas Larman calls his "Story." Although the authors name the team members and try to make the examples seem true-to-life, to me they really seemed unrealistic.

Following the data and sample projects comes, in my opinion, the most valuable section of each book. Boehm and Turner advise using risk to find the right balance between agility and discipline, which they refer to as the home ground. Unfortunately, the chapter title uses "discipline" to mean the opposite of agility, which implies that agility is not disciplined. In the chapter itself, the authors use "plan-driven" as the opposite of agile.

3/16/2004
Larman describes four specific methods — Scrum, Extreme Programming, the Unified Process (and RUP), and Evo — in a comparable section of his book. Devoting a chapter to each method, he tries to supply enough detail for readers to understand how each one addresses iterative development and agility.

In this section Larman does two things that make the book a gem. First, he presents each method in a canonical form so that you can easily compare its work products, roles, and practices. And second, he wraps up each chapter with a description of common misunderstandings about the particular method, sample projects (large, medium, and small), a description of how the method meshes with the other three methods, and a set of strategies for adopting the method for your projects and organization.

Boehm and Turner also include a framework in an Appendix that compares thirteen different methods, using a consistent set of factors that address levels of concern, lifecycle activities, and sources of constraint.

All authors clearly agree on another major point: There is no silver bullet for software development. However, both books contain useful hints about how to select the right process for your needs. Whether you are trying to find your project’s “home ground,” or find out how to mix and match different techniques, these books can help you adopt effective development practices within your organization.

Footnotes
1 Grady Booch, Object Solutions: Managing the Object-Oriented Project. Addison-Wesley, 1996.
2 Alistair Cockburn, Agile Software Development, Addison-Wesley, 2002. This book can also help struggling project managers wade through the maze of information to find the most appropriate process for them.
3 Most readers will be less familiar with Evo, one of the earliest iterative methods with agile qualities.

About the author
Gary Pollice is a Professor of Practice at Worcester Polytechnic Institute, in Worcester, MA. He teaches software engineering, design, testing, and other computer science courses, and also directs student projects. Before entering the academic world, he spent more than thirty-five years developing various kinds of software, from business applications to compilers and tools. His last industry job was with IBM Rational Software, where he was known as “the RUP Curmudgeon” and was also a member of the original Rational Suite team. He is the primary author of Software Development for Small Teams: a RUP-Centric Approach, published by Addison-Wesley in 2004. He holds a B.A. in mathematics and M.S. in computer science.