

What Knowledge is Unique to Project Management?

By Alex S. Brown, PMP

There is an on-going debate among scholars: is project management a profession or not? Are project managers “professionals” in the same sense that a doctor, lawyer, or engineer is a “professional?” Most experts have answered either “not yet” or “not at all”. One of the key reasons is the lack of a clearly defined, unique body of knowledge. I believe these knowledge areas could someday be part of such a body of knowledge:

- Scheduling techniques (critical path and critical chain)
- Earned value management
- Delay-claim damage calculations
- Work breakdown structures
- Project start-up and closure
- Integration of management techniques through the project

Today, these knowledge areas are too few, too inconsistently practiced, and too loosely defined to form a complete body of knowledge. With the right focus, though, I believe project management could develop these areas and more into a body of knowledge that could be the foundation of a true profession.

Why NOT a Profession?

Compared to professions such as medicine and the law, project management is missing key features such as licensing, well-established practices, and a controlled job name. Many experts have concluded that project management is not yet a profession, and there is debate about whether it will ever become one. For this discussion, we will call it an “emerging profession”.

One of the tests of a potential profession is whether it has a unique body of knowledge. Doctors and nurses, for instance, have specialized medical knowledge that non-professionals would not typically possess. Lawyers have specialized knowledge of legal principles and case law. While a layperson might learn some or even all of that knowledge area, the knowledge is still a unique, distinctive part of the profession, and it is rare for non-professionals to know it.

Does project management have a unique knowledge area like the law or medicine? If so, what is contained within it?

Why the Current Body of Knowledge is Not Unique

Project Management Institute, the International Project Management Association, and many other organizations have compiled different documents that would appear to identify a project management body of knowledge. Unfortunately they fail the test of uniqueness, because these documents include many concepts that are commonly used outside of project management:

- General management techniques like team building, conflict resolution, negotiation, and

recruiting

- Quality and risk management techniques used in many industries and in many process improvement methods
- Selection and optimization techniques used in many scientific disciplines

Removing the shared knowledge areas would require massive changes to these documents. These “body of knowledge” documents do not define the unique body of project management knowledge.

Candidates for Unique Areas of Project Management Knowledge

Contained within these documents, though, are some knowledge areas that could form the core of a new, unique body of knowledge. These techniques are not generally used by non-project managers, or they have been enhanced in unique ways by project managers.

Scheduling Techniques

Both critical path and critical chain scheduling techniques are rarely used by non-project managers. The basic concepts of sequencing, estimating, and scheduling work is fundamental to many types of planning and time-sensitive process analysis, but project management has gone beyond commonly-used techniques. “Finish to finish logic,” “scheduling buffers” and other concepts are more than just project management jargon. They are techniques and analytical tools that are particular to project management.

These techniques are not used universally by all project managers, though, and different industries use different terms to refer to the same elements of a schedule. Standard language and best practices are emerging, but slowly. Scheduling techniques are a potential basis for a unique body of knowledge, especially if these standardization and documentation efforts are successful.

Earned Value Management

The basic idea of measuring progress against baseline estimates is not revolutionary and not unique to project management, but earned value as a total system of measurement and control is unique in many ways. Earned value has developed complex standards of measuring and management, beyond the basic formulas and calculation techniques for EV, BCWP, SPI, CPI, and so on. Specialized software and change control systems are part of this practice. Experts debate finer points of how and when to use the technique, and whether it has been applied correctly in a given management system. The sophistication of the management systems involved in earned value management make this a non-trivial knowledge area that could contribute to a professional body of knowledge.

Delay-Claim Calculations

Within the construction industry, “delay claims” are financial claims based on contracts, damages, and schedule delays. Project schedules are a central exhibit in these lawsuits. This litigation has added rigor to scheduling methods. Experts have developed specialized techniques and methods to help value and settle these cases. Specialists audit schedules to figure out who caused the delay and the amount of damages due. Their techniques could become an element of a professional body of knowledge.

Work Breakdown Structures

Although they look similar to standard organization charts, work breakdown structures as a method to define and control scope are unique to project management. Almost all project managers recognize the acronym “WBS” and recognize a WBS diagram on sight. Not all project managers use one, but it is not uncommon for project management methodologies to assert that these are required tools. This method has gone beyond the simple concept of decomposing deliverables into parts and become a unique element of project management practices.

Project Start-Up and Closure

The process of starting and closing projects is one of the less-developed parts of the project management literature. These processes are truly unique to project management. By definition, any process that is unique to projects is a prime candidate for the unique body of knowledge of project management. Hopefully practitioners and academics will develop these knowledge areas more completely in the future. With a better-developed literature, these processes would play a central role in a unique project management body of knowledge.

Integration of Management Techniques

Integration is the most promising part of the body of knowledge, but it is also the most abstract. The very act of combining general management techniques in a specific, coordinated way to manage projects may be unique to project management. Even though the individual techniques are not unique to project management, their use in combination may be unique. Unfortunately, few articles and books specifically teach and define this issue specifically. Many project management textbooks and high-level documents talk about the need for the project manager to bring together, coordinate, and integrate all the project processes. The nature of the work and the specific steps involved are highly open to debate and interpretation, because the area is so abstract. If project managers can agree on common practices, integration of the project work, tools, and processes would form a uniting element to the whole body of knowledge.

The Case for Developing Unique Project Management Knowledge Areas

If the emerging profession of project management is to become a full profession, there must be increased attention paid to unique knowledge areas. The value of study in these areas goes far beyond this issue of professionalizing project management. Developing unique knowledge areas and practices increases the stature, usefulness, and originality of project management research.

As long as project management authors and academics are content to explore management techniques that are shared with many other areas, there will be a temptation to simply rework other people's ideas into a project management context and to present them as “new.” To develop a unique voice in academia and to create truly innovative techniques, the discipline of project management must develop ideas and techniques that go beyond those already in routine practice.

Whether project management becomes a true profession, remains an “emerging profession,” or is accepted as a discipline or technique, there will be something called “project management” for the foreseeable future. The better we can define what makes it special and different, and the more we develop unique techniques the better people will understand the unique value of project management.

I encourage you to consider, define, and develop knowledge that is truly unique to project management. If anyone has more unique knowledge areas to add to the list above or wishes to discuss this topic further, I welcome conversation with you at webmaster@alexsbrown.com.

Recommended Reading and References

"Exploring the Potential for Professionalization of Project Management" by Dr. Janice Thomas, with C. Delisle and K. Jugdev. Presented at the 33rd Annual Project Management Institute Seminars and Symposium, San Antonio, Texas, 2002.

Professionalization of Project Management: Exploring the Past to Map the Future by Janice Thomas and William L. Zwermer (Project Management Institute, 2004).

After the Gold Rush: Creating a True Profession of Software Engineering by Steve McConnell (Redmond, WA: Microsoft Press, 1999).

PM Forum (<http://www.pmforum.org>) has carried a series of articles under the "Viewpoints" section in 2006:

- "Project Management is a Profession: The Emperors Latest Outfit?" By Paul Giammalvo (<http://www.pmforum.org/viewpoints/2006/04.htm>)
- "Is Project Management a Profession?" by Max Wideman (http://www.pmforum.org/viewpoints/2006/04_a.htm)
- "Why I believe that Project Management IS a Profession" by David Pells (<http://www.pmforum.org/viewpoints/2006/03.htm>)

This article is based in part on an earlier article by Alex S. Brown, "Nine Elements of a Profession" available at <http://www.alexsbrown.com/prof9.html>.

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