1.4 CRITICISM OF PM 2.0

All new techniques bring with them both advantages and disadvantages. The disadvantages will most certainly undergo criticism. PM 2.0 is no exception. Examples of some of the criticism are:

- Some people argue that PM 2.0 is just a variation of traditional project management and that the changes would have happened anyway.
- Many companies have track records of success using PM 1.0. Asking them to now use PM 2.0 may lead to unnecessary problems.
- PM 2.0 works only on IT projects, especially those requiring use of agile or Scrum techniques.
- PM 2.0 advocates open communications, and this may not be possible on large projects. Distribution and control of proprietary information could be an issue as well.
- The data distributed in PM 2.0 may not be auditable, whereas most people believe that PM 1.0 data are auditable.
- Additional tools will have to be created to support PM 2.0 implementation. The cost of developing the tools may be expensive.
- Data requirements can easily get out of control and we can end up with information overload.
- Although PM 2.0 focuses on collaboration, there is no guarantee that stakeholders or governance committee members will communicate freely with one another.
- Even though PM 2.0 will most certainly benefit strategic as well as operational projects, there is no guarantee that executives will allow project managers to manage strategic projects even if governance is provided.

There are naysayers that will argue against any new technique that may be perceived as pulling them away from their comfort zone. Only time will tell if the criticism has any merit. But one thing is for certain: PM 2.0 is being implemented and it works.

1.5 PROJECT MANAGEMENT 2.0: TECHNOLOGICAL BLESSING OR CURSE?*

There is no question that advances in technology have impacted and changed both our professional and personal lives in ways that most of us could not have imagined 20 years ago, or maybe even 10 years ago. The combination of mobile access to an ever-expanding Internet has created a level of connectivity to information and remote ideas that is unprecedented in the history of humanity, perhaps second only to William Caxton’s first printing of a book in English in 1473.

Today we live and work in a Web 2.0 world of the three dynamic Cs: namely, connectivity–context–collaboration.

The smartphones, tablets, and smart technology that we carry with us as we move through our daily lives enable us to be connected not only to online information but also to people. One only has to stand in a public space and look around to see that

* Material in this section was graciously provided by John R. Winter, Vice President—Global Learning Solutions, International Institute for Learning, Inc.
what it can do for them, that is, how it can help make their lives better/easier, they will quickly turn away and look for the next innovation.

One only has to think back to Apple's Newton that was released in 1993 and was subsequently discontinued in February 1998. This product was really the precursor of what is today a tablet, or tablet computer. Some people still maintain it was an amazing device that was ahead of its time, which indeed it probably was. However, it never achieved the kind of mass adoption that smartphones and tablets have today, because people could not see how it made life better for them and it ended up being coveted by “geeks” and “tech-heads”!

Simplicity and ease of use also contributed to our willingness to embrace the Web 2.0 world. Even though a staggering amount of complex engineering and programming is taking place just behind the glass surface of our touch-screen devices, what we appreciate most is the fact that it appears simple to use and just works in a reliable and predictable way.

Much like our day-to-day life, the work life of busy project, program, or portfolio managers is complex and there is a real need for the powerful handheld devices to help sift through, control, and coordinate the massive amounts of information that assault their senses every minute of every day.

If you have not come across the acronym VUCA yet, you probably will hear it soon. It comes from the U.S. Army training for soldiers and leaders of soldiers in intense combat situations. It describes situations they face which are volatile–uncertain–complex–ambiguous and how to account for this when gathering information, making decisions, and providing direction.

This categorization of factors can easily apply to situations in which project managers find themselves having to achieve results. Although the consequences may not be life or death as they are in the military; nonnegotiable changes in scope; reallocation of resources; unexpected cuts in budgets; midproject changes in stakeholders or the project sponsor; multiple schedule disruptions; changes in project deliverables; leading global team members with distinct cultural biases; all can at times make it feel like a VUCA battlefield for the project manager.

Successful project managers (of PM 2.0) not only need to understand effective project management methodology and be skilled in leading their project teams but also must know how to manage fast-paced and multisourced flows of information, curate it, and make the right decisions in a timely manner. Today that means using the hardware and software of today’s Web 2.0 environment.

The key to being an effective PM 2.0 manager is mastering the art of being connected and using the best technology tools to get the job done in a collaborative way while working with a distributed team.

The importance of managing connectivity is probably more critical during the planning, executing, and monitoring and controlling phases of a project, that is, when the bulk of the project work is being completed. However, I am not discounting the importance of initiating or closing, as giving these phases scant focus and attention will invariably lead to major project troubles. But missing a vital piece of information or a warning sign when the project engine is running at full throttle and it is full steam ahead can quickly jeopardize a project’s success.
Most PM 2.0 projects will be more complex than PM 1.0 projects. As such, the projects must undergo value health checks to confirm that the project will make a contribution of value to the company. Value metrics, such as KPIs, indicate the current value. What is also needed is an extrapolation of the present into the future. Using traditional project management combined with the traditional EPM methodology, we can calculate the time at completion and the cost at completion. These are common terms that are helpful that appear in earned value measurement systems. But, as stated previously, being on time and within budget is no guarantee that the perceived value will be there at project completion.

Therefore, instead of using an EPM methodology which focuses on earned value measurement, we may need to modify our existing methodology to create a VMM which stresses the value variables. With VMM, time to complete and cost to complete are still used, but we introduce a new term, value (or benefits) at completion. Determination of value at completion must be done periodically throughout the project. However, periodic reevaluation of benefits and value at completion may be difficult because:

- There may be no reexamination process.
- Management is not committed and believes that the reexamination process is unreal.
- Management is overoptimistic and complacent with existing performance.
- Management is blinded by unusually high profits on other projects (misinterpretation).
- Management believes that the past is an indication of the future.

An assessment of value at completion can tell us if value trade-offs are necessary. Reasons for value trade-offs include:

- Changes in the enterprise environmental factors
- Changes in the assumptions
- Better approaches found, possibly with less risk
- Availability of highly skilled labor
- Breakthrough in technology

As stated previously, most value trade-offs are accompanied by an elongation of the schedule. Two critical factors that must be considered before schedule elongation takes place are:

- Elongating a project for the desired or added value may incur risks.
- Elongating a project consumes resources which may have already been committed to other projects in the portfolio.

Traditional tools and techniques may not work well on value-driven projects. The creation of a VMM may be necessary to achieve the desired results. A VMM can include the features of an EVMS and an EPM, as shown in Table 4-11. But additional variables must be included for the capturing, measurement, and reporting of value.

We must remember that PM 2.0 is just in the infancy stages. There are going to be significant challenges in order to reap the benefits. The process of measuring and reporting value will be one of the challenges.
10.0 INTRODUCTION

The environment in which the project managers perform is changing significantly. Our projects are becoming more complex. The importance of time and cost has reached new heights in the minds of clients and stakeholders. Clients want to see the value in the projects they are funding. All of this is creating challenges for project managers in how they identify and resolve problems. To make matters more complex, project managers are now seen as managing part of a business when managing a project and are expected to make both project and business decisions.

Decisions are no longer a single-person endeavor as was often the case with PM 1.0. Project managers are expected to form problem-solving and decision-making teams. Most project managers have never been trained in problem solving, brainstorming, creative thinking techniques, and decision making. They rely on experience as the primary teacher. While that sounds like a reasonable approach, it can be devastating if project managers end up learning from their own mistakes rather than the mistakes of others. It is a shame that companies are unwilling to invest even small portions of their training budgets for these courses necessary for PM 2.0.

There are numerous books available on problem solving and decision making. Unfortunately, they look at the issues from a psychological perspective with applications not always relevant to project and program managers. Some books use the term problem analysis rather than problem solving. Problem analysis can be interpreted as simply looking at the problem and gathering the facts, but not necessarily developing alternative solutions for later decision making. In this chapter, problem solving is used throughout reflecting the identification of alternatives as well.

¹ Much of this chapter has been adapted from a work in progress, Project-Based Problem Solving and Decision Making, by H. Kerzner and C. Belack. Cark Belack can be reached at cbelack1@verizon.net and 1-978-266-3716.
and drawing a mind map, which is a visual note-taking technique in which people diagram their thoughts. Individual brainstorming is a useful method in creative writing and has been shown to be superior to traditional group brainstorming under many circumstances.

**Question Brainstorming**

- This process involves brainstorming the *questions*, rather than trying to come up with immediate answers and short term solutions. This technique stimulates creativity and promotes everyone’s participation because no one has to come up with answers. The answers to the questions provide the framework for constructing future action plans. Once the list of questions is set, it may be necessary to prioritize them to reach the best solution in an orderly way. Another problem for brainstorming can be to find the best evaluation methods for a problem.

Wikipedia provides an excellent list of references for brainstorming.

### 10.9 CREATIVITY AND INNOVATION

You are placed in charge of a project that is quite complex and perhaps even a high risk. Some sort of technical breakthrough may be required for the project to be regarded as a success. Your team keeps coming up with problems that need to be resolved. How does a project manager know if the assigned resources have creative abilities? This is an essential skill for problem solving.

Not all people are creative even if they are at the top of their pay grade. People can do the same repetitive task for so long that they are considered subject matter experts. They can rise to the top of their pay grade based upon experience and years of service. But that alone does not mean that they have creativity skills. Most people think that they are creative when, in fact, they are not. Companies also do not often provide their workers training in creative thinking.

In a project environment, creativity is the ability to use one’s imagination to come up with new and original ideas or things to meet requirements and/or solve problems. People are assigned to project teams based upon experience. It is impossible for the project manager, and sometimes even the functional managers, to know whether these people have the creativity skills needed to solve problems that can arise during a project. Unless you have worked with these people previously, it is difficult to know if people have imagination, inspiration, ingenuity, inventiveness, vision, and resourcefulness, all being common characteristics of creativity.

In project management, creativity is the ability to think up ideas to produce something new through imaginative skills, whether a new solution to a problem or a new method or device. Innovation is the ability to solve the problem by converting the idea into reality, whether it is a product, service, or any form of deliverable for the client. Innovation goes beyond creative thinking.

Creativity and innovation do not necessarily go hand in hand. Any problem-solving team can come up with creative solutions that cannot be implemented. Any
Qualified Majority or Consensus: If a majority is not reached, then the project manager, the client, or another designated individual will make the final decision.

Project Manager Directed: The project manager makes the decision and informs the team which alternative he or she selected. This approach is most effective on crisis projects.

Client Directed: The team identifies the alternatives, makes a recommendation, and presents the data to the client. The client then makes the final decision and informs the team. The client may have the right to not select from the team's alternatives and to develop their own solution to the problem.

Routine Decision Making

Some decisions are easy to make whereas others require teams of experts. The tools and techniques used are dependent upon the type of decision. As an example, let us consider three types of decisions:

- Routine decisions
- Adaptive decisions
- Innovative decisions

Routine decisions are often handled solely by the project manager. Routine decisions may involve simply signing purchase orders, selecting which vendors to work with, and deciding whether or not to authorize overtime. Usually routine decisions are based upon company policies and procedures.

While routine decisions seem relatively easy to make, the number of routine decisions can be troublesome. Too many routine decisions can become time robbers and prevent the project manager from effectively managing the project. If the decisions are routine in nature, then many of the decisions may be able to be delegated to members of the project team.

Adaptive Decision Making

Adaptive decision making may require some degree of intuition. The problem is usually well understood and the project team may be able to make the decision without outside support or sophisticated tools and techniques. Adaptive decision making is the most common form of decision making used on projects. Examples are:

- Determining the number of tests that should appear in the test matrix
- Determining when an activity should begin or end
- Determining how late an activity can start without delaying downstream work
- Determining how late raw materials can be ordered
- Determining whether the work should take place on regular shift or overtime
- Determining whether a risk management plan is necessary, and if it is necessary, how much detail should appear in the plan
- Determining how often testing should take place to validate compliance to quality requirements