

The Necessity of Simplicity and the Power of Visuals

Not a single project manager would disagree with the necessity of simplicity or that a “picture is worth a thousand words.”

The difficulty arises in our attempts to find that elusive balance between too little and too much and in crafting just the right visual.

For us project managers, the “detail syndrome” seriously compromises this quest. Yes, the detail syndrome—you have it, and so do I. We have been successful project managers in large measure because we understand and focus on the details, we manage and drive the details, we constantly think about the details, we know which details are critical to our project’s success, and we want management to appreciate the complexity of our efforts.

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However, our attempts to communicate often include too much detail.

Now before moving on, let me make it clear that this propensity for both detail awareness and management is indeed essential to successful project management, yet it can add confusion to, and dilute the clarity of, our project communication.

Okay, still no debate. Yes, we should communicate simply even when it feels counterintuitive. So how do we know how much is too much? Mick calls this the quest for “serious simplicity.”

Edward R. Tufte is professor emeritus at Yale University, where he taught courses in statistical evidence and information design. In his remarkable book *The Visual Display of Quantitative Information*, 2nd ed. (Cheshire, CT: Graphics Press, 2001), he says, “Often the most effective way to describe, explore, and summarize a set of numbers—even a very large set—is to look at pictures of those numbers. Furthermore, of all methods for analyzing and communicating statistical information, well-designed data graphics are usually the simplest and at the same time the most powerful.”

Einstein is reputed to have said, “Everything should be made as simple as possible, but no simpler.”

THE GUIDING PRINCIPLE

Be as simple as is practicable.

Practicable is precisely the right word here. Serious simplicity is not just as simple as possible, but as simple

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as practicable. *Practicable* has roots in Medieval Latin (*practicabilis*, meaning “capable of being used”) and Greek (*praktikos*, meaning “fit for action”). Synonyms would include *achievable*, *attainable*, *feasible*, and *executable*.

I have had the privilege to travel and speak together with other authors in the “Nationally Renowned Best Selling Authors in the Project Management” series sponsored by the Project Management Resource Group. One member of our group, Michael J. Cunningham, president and founder of the Harvard Computing Group, writes in his book *Finish What You Start: 10 Surefire Ways to Deliver Your Projects On Time and On Budget* (New York: Kaplan Publishing, 2006), “One of the most complex issues about larger-scale project management is *visualizing* what is happening. *Communication* may be time consuming and might not appear to produce immediate results, but trust me, *this is the big one*” (italics added).

A wristwatch provides a useful visual and metaphor for project management. The elegant transparent face of Swiss-made Vacheron Constantin watches in Figure 1.1 show both the time and a visual display of the movements, all working in perfect harmony to determine, convey, and then maintain the correct time.



FIGURE 1.1 *Visual Movement Watches*

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FIGURE 1.2 *Simple Watch Face*

A project manager, like the watchmaker, knows every cog, spring, post, jewel, and movement. The principle purpose of a watch, however, is not to reveal its workings, but to simply communicate the time. See Figure 1.2.

Project managers are prone to communicate project status with pages of paragraphs and comprehensive visuals—not dissimilar, metaphorically, to communicating the time with watches like those in Figure 1.1. This is because of the following:

1. We are inflicted with detail syndrome. “We are the watchmakers.”
2. We sense that by exposing more of the project’s “inner workings” our conclusions will be more credible. “You can see why this watch keeps perfect time.”
3. We are fully conversant with all the details and quite at home with their interrelationships. “I find satisfaction in working with, and in observing the inner workings of, my watches.”
4. We want others to know *what* we know and also to know *that* we know. “See how complicated this watch is, and I was the one who built it.”

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5. We allow a request for one detail to open a floodgate for revealing many details. “Because you asked for the date, I’m sure you will appreciate the day, the month, the phases of the moon, and more.”
6. We already know the status and therefore are not able to perceive the distraction magnified by a veil of details. “It is clear to me what time it is.”
7. Finally, some of our bosses want all the details. Selected discerning customers are certainly willing and able to invest in the stunning timepieces shown in Figure 1.1.

Jeffrey Kluger, senior writer at *TIME* magazine, muses in his best-selling book *Simplexity: Why Simple Things Become Complex* (New York: Hyperion, 2009), “Complexity, as any scientist will tell you, is a slippery idea. Things that seem complicated can be preposterously simple; things that seem simple can be dizzyingly complex. We’re suckers for scale.”

Comments from Readers and Users

OPPM’s approach to simplification of reporting and status is a great value. Status reports rebuild the whole watch rather than simply showing where we are and what is needed next.

—C. Burnside, FEMA

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The one-page project manager (OPPM) obliges project managers to communicate in a sufficient, and yet efficient, way. It compels them to communicate just the right balance of too much and too little. Using our watch metaphor, the OPPM is the watch face and not the watch mechanics. Stakeholders are not generally interested in a project's mechanics (details deep into the work-breakdown-structure or financial minutia or comprehensive task dependencies), but just the essential pieces of information on how the project is progressing on schedule, task, cost, quality, and risk deliverables.

It has been fascinating to observe how the OPPM is an effective communication tool. We have watched as those who knew virtually nothing about it found it could be read without much training, almost as readily as a watch by a child who has recently learned to tell time. As in Figure 1.2, watches are designed to simply communicate the time. The OPPM is designed to communicate project status simply and intuitively.

Over the years, Mick and I have conducted OPPM training sessions in Europe, Asia, Canada, the Caribbean, and many major American cities, at which we have handed out sample OPPMs to thousands of attendees before they receive any training with it. Consistently, they have understood much of it after a few minutes of study. And with no more than 15 minutes of clarification to explain aspects of the tool that are not immediately apparent, these project managers can read and understand the entire OPPM. If you want an example of simplicity in

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communication, I think I can say, without hubris, look at the OPPM.

Comments from Readers and Users

I've heard about OPPM, but didn't think it could help me. After seeing how it is created, I know it to be an extremely useful tool to track projects and communicate status.

—D. Harrington, ELCAN Optical Technologies

The 1848 Shaker song by Elder Joseph Brackett begins, “’Tis a gift to be simple, ’tis a gift to be free, ’tis a gift to come down where we ought to be.” OPPM has proved to be a simple gift to those wrestling with project management communication.

Remembering Einstein, it would be a gift only if it were not *too* simple. The power and simplicity of OPPM is a combination of the following:

1. All five essential parts of a project (tasks, objectives, timeline, cost, and owners) plus risk and quality
2. The linkages and alignment of each
3. A clear, efficient, and accurate representation of both plan and performance
4. An addition to, rather than a replacement of, current powerful project management tools
5. An intuitive picture that is easy to create and easy to maintain

Comments from Readers and Users

Most valuable—learning the OPPM methodology. I have been searching for simplicity and easy communication skills. Hearing the message to focus more on communication and be simple was valuable.

—K. Gray, Enterasys

THE POWER OF VISUALS

The power of the OPPM comes from its use of graphics. This is not a new idea. Those old enough to remember the early days of the personal computer in the 1980s and early 1990s remember what it was like to operate those machines. Most used an operating system known as DOS (which had versions from IBM and Microsoft) and required the user to type in instructions in cryptic codes. For example, `backup c:\oppm\*. * d: /s` tells the computer to back up all the files and subdirectories in the OPPM directory found on the c: drive and save them to the d: drive.

Professor Margaret J. Wheatley, in her book *Leadership and the New Science: Discovering Order in a Chaotic World*, 3rd ed. (San Francisco: Berrett-Koehler, 2006), concludes, “Our yearning for simplicity is one we share with natural systems.”

Today computers use graphical user interfaces, commonly called GUIs, which allow the user to save files by clicking with a mouse or tapping with one’s finger

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on the “save” icon (a graphic) and directing it to save wherever on the device the user wants. In Apple’s iTunes, for example, to take a song in your music library and save it to another place, such as a playlist, just click on the song and drag and drop it into the desired playlist—no typing, no text. It’s all about the graphical depiction of drag and drop.

The reason the OPPM communicates with simplicity and clarity is because it, like today’s computers, relies on displays, graphics, and images. These visual depictions in general have remarkable power to convey a great deal of information, quickly, accurately, and with clarity. Before children learn to speak and long before they learn to read, they often can recognize visuals like drawings and photos. Understanding visual representations seems an innate ability.

No one would think of describing the outline and features of a country or region with words alone; maps are infinitely more effective and clear. When traveling and wanting to convey one’s experiences and adventures to friends and family, most people rely far more on photographs and videos than words. Television, YouTube, and movies attract billions of viewers precisely because they are visual media.

By using graphics, the OPPM is able to provide the reader with a project’s essence, its essentials, not its underlying nuts and bolts or cogs and wheels.

Yale professor Edward Tufte, in helping us understand how something can be explained, teaches what he calls the Five Grand Principles of Analytical Design.

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1. Show comparisons.
2. Show causality.
3. Show multivariate data.
4. Show “whatever it takes.”
5. Show documentation.

The OPPM is assembled to display each of these five principles.

CRITICAL PATH METHOD AND EARNED VALUE MANAGEMENT

Well established in the project management profession are two elegantly simple metrics designed to convey information and meaning simply and with clarity. First is the critical path method, or CPM, which came out of DuPont in the 1950s. Its objective is to calculate and communicate the shortest completion time possible for a project and highlight those critical tasks, which, if delayed, would delay the whole project.

By design, the OPPM’s tasks do not show dependencies; therefore, a critical path is not readily apparent. Experience has shown that full PERT (program evaluation and review technique) charts and graphical network illustrations of the work breakdown structure, although essential to hands-on project managers for large projects, often tend to overcommunicate and therefore don’t communicate well to important stakeholders. The typical CPM Gantt chart visual is not part of the OPPM. When CPM is important,

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OPPM users identify these tasks by showing their task numbers in red. In this way, critical path tasks are communicated to stakeholders simply.

The second is earned value management, or EVM, which emerged in the 1960s, when the US Department of Defense established a computation and communication approach using a set of 35 criteria. Industry has now codified EVM in the ANSI EIA 748-A standard. Calculations can be complex, but the intent is to appraise and drive improvement in project scope, schedule, and cost with the simple comparison of earned value to planned and actual performance. The driving idea is to show project performance with two numbers—the schedule performance index (SPI) and the cost performance index (CPI).

For most, the two earned value indices by themselves are insufficient and often expensive, especially when considering the cost of maintaining the requisite data.

The basic OPPM shows a bar in the lower-right section representing planned project cost. Actual cost is shown on a comparative bar with both an amount and a color indicating the seriousness of any overruns. Without the performance-to-schedule shown above in the middle of the OPPM, the cost comparison graph is insufficient because with that data alone, you don't know whether you are getting the value (scope and timing) you wanted for what you planned to pay.

EVM is specifically designed to address these issues by simply comparing value earned with value planned, which is information found in the OPPM. Where

required, EVM can be shown in the cost metric section of your OPPM with color and numerical designations.

NOW TO TURN THINGS 180 DEGREES – BEWARE OF BEING TOO SIMPLE

Simpler is not always better. Because complexity is well recognized as a culprit of poor communication, it is not surprising that those in project management have attempted to instill too much simplicity—sometimes to the detriment of what they are communicating.



Do not equate simplicity with brevity. You can be very brief and communicate poorly. A concise description of over or under budget alone is not enough, however. What appears to be under budget—good news—could really be bad news with reduced spending resulting primarily from delayed work. Also, apparent over budget bad news could really be good news because extra expenditures have produced greater scope in less time than originally planned.



Consider this quote from US Supreme Court Justice Oliver Wendell Holmes, Jr.: “I wouldn’t give a fig for the simplicity on this side of complexity; I would give my life for the simplicity on the far side of complexity.” In the phrase “I wouldn’t give a fig for the simplicity on this side of complexity,” Holmes is saying he is uninterested in getting a shorthand version of something that does not convey all that is important, say like someone who reads the Cliff Notes for a novel instead of the novel itself. But the phrase “I would give my life for the simplicity on

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the far side of complexity” is saying he seriously values communications that simply and adequately convey, elicited by full understanding, the essence of a subject.

An example of a succinct project status report occurred between novelist Victor Hugo and the publisher of his masterwork, *Les Misérables*. Wondering whether the publisher’s work on his book was complete, Hugo sent a telegram whose message was in its entirety: “?” The publisher replied with a message of equal brevity: “!” Hugo wanted to know the status of his book, and the publisher understood it from the question mark, and Hugo understood that the book was complete from the publisher’s exclamation mark.

I like to think the OPPM can, simply and adequately, convey the essence of a project. And by using it, you can be on the side Holmes so greatly valued.

Comments from Readers and Users

OPPM—this will revolutionize how my team and I present information. Simple, yet powerful!

—F Griffin, Northrop Grumman

