Applying "The Algorithm" of Elon Musk to Project Management: *Learning from the Master Disruptive Provocateur* [1]

William A. Moylan, PhD, PMP, FESD, DTM
Professor Emeritus, Eastern Michigan University

Up front, full disclosure by the writer – I am ***not*** a fan of Elon Musk. However, a rather good book by Jon McNeill, a former president of Tesla, provides intriguing insights and interesting lessons applicable to project management. McNeil's book *The Algorithm* reviews Elon Musk's 5-step approach of the same name that "… requires radical thinking to explode the status quo, attack complexity and set seemingly unrealistic goals" (McNeil, 2026).

This article reviews Musk's Algorithm 5-step process and discusses how the steps apply to project management including automotive product development applications from the annals of General Motors and the Ford Motor Company.

Step 1. Question every requirement.

The Algorithm's first step is the must-mindset for the project manager at the onset of the conceptual phase. The Japanese method of "*The 5 Whys"* comes to mind. Discerning the critical needs that must be accomplished by the project is the key purpose of the Project Initiation process (PMI, 2026). Following the directive of Step 1 empowers the team to muse through the long list of possibilities they are tasked to consider and distill away any imprudent requirements. The conceptual phase is the appropriate time for the project team to filter out any nonsensical dreams and ludicrous wishes made by the stakeholders. Step 1 of The Algorithm is sound project management practice.

Step 2. Delete every possible step in a process.

This next Step is death to the adage *"We always did it this way."* Old habits do not open new doors; one must eliminate in order to evolve. The project manager must challenge their team to remove process complexity without sacrificing product quality. Just as the efficiency of computer

[1] How to cite this article: Moylan**,** W. A. (2026). Applying "The Algorithm" of Elon Musk to Project Management: Learning from the Master Disruptive Provocateur, *PM World Journal*, Vol. XV, Issue VIII, August,

programs is a function of minimizing the total lines of code, blending two or more steps into a single succinct statement yields simplicity that in turn breeds elegance. *"Less is more"* is the maxim for the project manager to follow.

Step 3. Simplify and optimize.

At the PMI 1993 International Symposium in Pittsburg, a panel discussion of several project management gurus including Dr. David Clealand and Walter Bowman, addressed the elements of successful projects. Remarks by the panelists noted the elements of pre-planning, good communication, strong leadership, and solid project management controls as contributors to successful projects. Interestingly, Dr. Cleland remarked that he knew of projects that had all of these items yet failed. Walter Bowman countered that he had examples of projects that did not include these features and succeeded. My question to the panel was "What element of project management, if included, will assure an 80% probability of project success? And likewise, an 80% probability of project failure if it is not?" They both agreed that the availability of a defined project management process for the team to follow met the 80% probability requirement of my Project Success Rule.

Moreover, these PM stalwarts both agreed that the 80% Project Success Rule requires a process that is properly *simplified* and suitably *optimized* for the particular project team to follow. Overly complicated procedures with intense bureaucratic reporting requirements defeat the purpose of autonomous project teams, and ergo, gaining the value of project management. Consequently, best follow Step 3 and simplify and optimize the defined project management process for the team to follow. That is, *KISS*.

Step 4. Accelerate cycle time.

In 1991, Kim Clark and Takahiro Fujimoto published *Product Development Performance*, the seminal work on project management in the world auto industry (Clark & Fujimoto, 1991). At that time, the fundamental reason that drove the American automotive industry to integrate project management into their product development process was to achieve *Step 4 - accelerate cycle time* (Chapter 4). Interesting to the writer, the PM initiatives for this era incorporated Steps 1, 2, 3 and 4 of the Algorithm. Step 1 included refinements to auto product requirements and mapping the concept-to-market process development (Chapter 5). Step 2 tackled managing complexity in project strategy, (Chapter 6). Step 3 incorporated continuous development process improvements and integrated problem-solving into each cycle of the process (chapter 8).

The Algorithm (Chapter 4, pg. 85-91) includes a case study on General Motor's Electric Hummer. The book's author Jon McNeill joined the board of GM in 2022. He noted that, although the leadership and management styles between CEO Mary Barra and Elon Musk being starkly different, their approaches are similar. From the beginning of her ascent to the CEO position, Mary Barra has been simplifying, questioning requirements and setting stretch goals. McNeill notes "her crash project to build an electric truck is a shining example" of Mary Barra's Musk-ish behavior (pg. 86). The bold vision and crazy-fast target for the EH project, empowering a brash young team to freely innovate, and shaking the corporate hierarchy on all fronts – product and process, are all reminiscent of the master disruptive provocateur Elon.

Step 5. – Automate last.

My good friends Antonion Nieto-Rodriguez and Ricardo Vargas have widely written and presented how artificial intelligence [AI] will transform Project Management. They noted that AI can be utilized effectively and efficiently to a) improve project selection and prioritization, b) monitor progress, c) speed up reporting, and d) facilitate testing (Nieto-Rodriquez & Vargas, 2023). In essence, AI is catalyst to automate Project Management.

Applying the "The Algorithm" within the Automotive Industry *before the dawn of Elon Musk.*

In the early 1980s, the Ford Motor Company was initiating CADD [computer aided design & drafting]. Ed Moylan (not directly related to the writer) and Henry Zanerdelli mapped out completely the 59-steps to manufacture an engine head. They chose this critical auto part because it required multiple manufacturing processes that must be completed with accuracy and precision- casting, polishing, boring, reaming, tapping, and installing. Each step was analyzed as to inputs/value added/outputs. One manufacturing step required the cleaning of raw castings when it was received at the engine plant. This was accomplished by submerging the casting in an acid bath -- a rather nasty task for the plant to complete.

The dynamic duo of Moylan & Zanerdelli astutely researched the history of this particular step. Amazingly, it was introduced in the early days of the Ford Model T Paquette Assembly Plant in Highland Park, Michigan. The 'wet' castings were wrapped in burlap and then transferred from kiln area to the assembly point by horse drawn wagons. Unfortunately, the burlap left "hairs" on the fresh casting. The acid bath cleaning step was included in the manufacturing process to remove these impurities. It remained in place for all casted parts until Moylan & Zanerdelli questioned the need for this step. Seems the burlap wrapping was replaced with non-stick paper

(like used at butcher shops) around 1920. (A newspaper strike made paper readily available and at a low cost.) So, what was the purpose of keeping the acid bath cleaning step? *We always did it this way!*

When Moylan & Zanerdelli contacted various plants about the possibility of *removing* this manufacturing step, they feared UAW retaliation for the loss of jobs involved in the acid bath cleaning step. On the contrary, Moylan & Zanerdelli were cheered! The manual labor involved were the absolute worse jobs in the plant including breathing noxious fumes, handling toxic acid, and handling "hot" parts. The process required special air handling and extra, dedicated space. Getting rid of this step was a "no brainer" for all involved.

Moylan & Zanerdelli continued to follow the Algorithm process: question every requirement, delete every possible step in the process, simplify and optimize, accelerate cycle time, and then automate last. The original 59 steps were reduced to 29 steps followed by whittling down to 20 steps. Removing the casting acid cleaning step was just one example of resolving 60+ years of hell requiring expensive, dangerous work yielding "zero" value-added. Gives "Ford Has a Better Idea" a whole new meaning.

If you wish to discuss this topic in more detail, please feel free to contact me at William.moylan@emich.edu

Best regards,

Dr. Bill

William A. Moylan, PhD, PMP, FESD, DTM

References

Clark, KB & Fujimoto, T. (1991). *Product Development Performance – Strategy, Organization, and Management in the World Auto Industry.* HBS Press, Cambridge, MA.

McNeill, J. (2026). *The Algorithm*. Portfolio-Penguin, New York.

Nieto-Rodriguez, A. & Vargas, R. (2023). "How AI Will Transform Project Management" webinar.

Project Management Institute. (2026). *The Guide to the Project Management Body of Knowledge – 8th Edition.* PMI Press, Newtown Square, PA.

About the Author

William A. Moylan, PhD

Ypsilanti, Michigan

William A. Moylan, PhD, PMP, FESD, DTM, is a Professor Emeritus with Eastern Michigan University - College of Engineering & Technology. He has extensive professional experience in all aspects of program and project management, including over eleven years internationally with the Saudi Arabian American Oil Co, and since 1983, has been involved in implementing information technology. He has degrees from Lawrence Technological University, Massachusetts Institute of Technology, and Capella University. He is s active in a variety of professional societies and civic activities including American Society of Civil Engineers, Engineering Society of Detroit, Project Management Institute, Habitat for Humanity, Rotary International and Toastmasters International. He can be contacted at William.moylan@emich.edu