

# The Fable of the Consulting Engineer

JAMES A. ROMANO, P.E.

*From Engineering Professionalism and Ethics  
(pages 476 - 482) 1983 John Willy & Sons, Toronto*

As all good fables should, this one starts with “once upon a time.”

Once upon a time, Childe Engineer, right at the beginning of this traverse and travel across the vast, uncharted wasteland that lies between the campus and maturity, came upon a copy of the NSPE Engineers’ Creed. The cursive type, dimly printed on glazed paper was hard to read but Childe Engineer finally deciphered it: he learned that the Creed called upon him:

- To give the utmost of performance.
- To participate in none but honest enterprise.
- To live and work according to the laws of man and the highest standards of professional conduct.
- To place service before profit, the honor and standing of the profession before personal advantage, and the public welfare above all other considerations.

Childe Engineer was impressed, overwhelmed is a better word. It was as if trumpets had sounded, calling on him to don shining armor, pick up a spear, mount a white steed, and go forth to slay all sorts of dragons. Vision rose before him, visions in which logic and goodness – but especially logic – triumphantly prevailed 100 percent of the time over ignorance, fuzzy thinking and venality.

In pursuit of those visions, Childe Engineer went forth and offered his services to a number of engineering organizations but, alas, few offered him place. And of the few that offered him place, none seemed to appreciate that under his burden of callow youth, under his untested store of knowledge, he had the noble purity of a Sir Galahad and, if he were only called upon, he could even find the lost Holy Grail.

After several years of erratic wandering in the wilderness, our Childe Engineer chanced upon a fair damsel who turned out to be the girl he dated in high school – or was it college? One thing led to another and Childe Engineer proposed a permanent arrangement, with benefit of the clergy. Now the fair damsel-like most of the fair damsels who marry engineers-kept hidden beneath her lovely exterior a very practical nature; the lady could add two and two

together several times and get a fairly consistent answer. So, she sighed prettily and said “OK, Childe Engineer, but first you have to cut out this wandering from job to job, find yourself and come up with the scratch to pay the rent and buy the groceries at the A & P.”

Taken aback by the common sense that came so trippingly off the tongue of his fair damsel, Childe Engineer sulked in his tent for a while and then, on a day when no dragons presented themselves for slaying, he betook himself to the Wizard, from who he sought advise. Now the Wizard was capable of changing his form, sometimes appearing as the Dean of a College of Engineering, sometime as an uncle, sometimes as a priest or minister, sometimes as a barber. On this particular day, he appeared to Childe Engineer in the guise of Your Friendly Bartender.

“Childe,” he said, after hearing our hero’s tale of woe, “Childe, if you really are hung up on that girl, you’d better get a job with a consulting engineering firm. They will give you a chance to stick to that Engineers’ Creed you’re always mumbling about, and pay you a decent salary while you’re doing it. And who knows? If you make some money for the consultant, he might even let you in on part of the action!”

Then did Childe Engineer, with lagging steps (for he was loath to swallow his pride and to abandon his complete faith in his store of knowledge, which he confused with wisdom) hie himself to the offices of Williams & Works where he was graciously received by the head guru himself, Scarred Veteran Engineer Everett Thompson.

After some preliminary sparring, in which Childe Engineer seemed to be confessing his brilliance rather than suing for a position, and in which Scarred Veteran Thompson mostly smiled and listened patiently, Childe Engineer finally got to the point. He asked Veteran Engineer Thompson what a consulting engineering organization does and whether there was a place in it for his spear. In reply, Scarred Veteran Thomas said to Childe Engineer:

“Putting it as simply as possible, consulting engineers are in the business of solving other people’s problems. Sometimes we are called upon because a client has no one on his staff who can solve his problem. Or he may not even have a staff. In any event, it is up to the consulting engineer to isolate the problem, break it down into its parts, and then come up with a solution or solutions. Another client may have engineers on his staff but, because they are temporarily swamped with other problems, he will call on a consulting engineer to solve his problems. Other clients favor a philosophy of not doing engineering on an in-house basis, maintaining a small group of staff engineers to work with outside consultants. But regardless of the capability of a client, his condition, or

his philosophy, the consulting engineer is in the business of solving other people's engineering problems."

Childe engineer was ecstatic! Imagine being part of such a noble adventure: solving other people's problems! He was sure he had found that place for his talents, his ideals, his longing to do the right thing, a place where he could be fulfilled and still come up with the scratch for the rent and the groceries. He could have his cake and eat, too.

*Some text missing...*to combine design and construction and others to combine design and construction with financing, all advocated in the hope that the alchemy of synergism would shorten construction time, reduce costs, and foster the applications of new ideas, materials, and techniques.

Partner Engineer also learned to live with lawyers at his side. No longer would a firm handclasp or a simple letter suffice to bind a contract between the client-owner and the engineer. He learned that only lengthy, formal documents studded with "whereases," "now therefores," and "parties of this and that other part" would suffice, but only if they were drawn up, reviewed, commented upon by batteries of attorneys.

Despite the advice proffered by one of Shakespeare's characters, "First thing, we kill all the lawyers." Partner Engineer learned to endure and even to enrich lawyers, for litigation had become a way of life for engineering organizations. In the haleyon days when Partner was Childe Engineer, engineers were seldom sued, but it had become quite the vogue to sue and to be sued. Partner Engineer's computer told him that, in any one year, he could expect to be involved in one active lawsuit for each million dollars of services his organization performed. He was greatly saddened to realize that acrimony and bile had seeped into the engineer-client relationship and were threatening to destroy it. He deplored the adversary relationship that had developed with many of the people and clients his firm was pledged to help. Partner Engineer despaired of these persistent trends, for he was convinced his clients would be served best in a personal, professional relationship. He shrank from the idea that a client could turn into yet another dragon with whom he would have to joust.

His despair was not alleviated by his induction into the mysteries of professional liability insurance. When he was Project Engineer, he looked upon professional liability insurance as a strictly private affair, as protection his organization bought for itself on its own initiative. He was astonished to learn it was not uncommon for a prospective client to insist or require that his organization carry professional liability insurance, almost as if it were planned from the start to sue the engineer for something at some time in their relationship. The dimensions and the cost of the insurance staggered him. He was astounded to learn that his organization had found it necessary to gradually

increase the professional liability insurance it carried until the face amount was as much as 20 percent of the total billing value of the work performed each year. More to his dismay, Partner Engineer found that, even after a sizable deductible was absorbed by his firm, the annual premium was about one percent of the total billing value of the services performed in the year.

Partner Engineer also learned to share a great portion of his time with government auditors. In fact, he spent almost as much time with auditors as he did with lawyers. Bemused by the thought processes of these functionaries, a paraphrasing of Alfred Lord Tennyson's "Charge of the Light Brigade" kept intruding into his consciousness, epitomizing the unequal battles between engineers and auditors:

Auditors to the right of them,  
Auditors to the left of them,  
Auditors in the front of them,  
Blue penciled and excised;  
Assailed with threats of living hell,  
Boldly they rode-I know not how well,  
Into the jaws of debt,  
Into the mouth of insolvency,  
Rode the profession.

In his natural zeal to be fair, Partner Engineer defended auditors for a while; were they not professionals simply trying to do their job? His defense was shattered, however, when Scarred Veteran Partner dryly asked, "Did you even hear of an auditor from the government who told you to add some charges to those you claim? Did you even hear of an auditor who didn't feel he simply *had* to find something to *disallow* in your charges?"

Sensing that he had captured Partner Engineer's mind as well as his ear, Scarred Veteran threw in the gritty observation that "unless and until engineers resist unreasonable regulations and audits, they don't deserve to call themselves professionals; they will be no more than technicians carrying out the dictates of others."

As Partner Engineer toiled in the inner chambers of his organization, he grew in wisdom but he was increasingly saddened by the persistent intrusion of crassness into his idealistic vision. He was dismayed that his overtures to do good were often misunderstood and frequently rebuffed; he was disheartened when personal pique subverted logic; he was hurt when good was repaid with evil; he was confused to observe that some people could forgive him for being *wrong* but could not bring themselves to forgive him when he was *right*.

Partner was suffering from mid-life crisis. He toyed with the notion of choosing another way of making a living; he wondered about the need for a midcourse correction. He wondered where and how his spear had ceased to be exclusively directed at tangible technical problems and had become principally titled at elusive dragons such as auditors, depressions, people problems, recessions, earnings, litigation, politics, insurance, etc.

His disenchantment grew as he came to realize he had excluded himself from that intellectual and philosophical discourse in which the values and goals of our society are shaped. He had devoted himself to technical pursuits only to find himself unable to respond when his professional product was misunderstood, misused, and misdirected by forces beyond his control. If. If. If only he had gained a liberal education along with his technical education.

Partner Engineer's dream of Camelot was fast receding, along with his hairline. His brow was perpetually furrowed, he grumbled much, his food did not satisfy him.

Then one day, when things seemed at their darkest, Partner Engineer had an experience that led him to understand, accept, and to even enjoy the perpetual balancing act in which he was cast, an act which compelled him to keep one foot in Camelot and the other in the hurly-burly arena of the real world, an act which required part of his intellect to contemplate Utopia while simultaneously another part coped with the mundane; an act which subjected him to warring, conflicting concepts but required him nonetheless to remain serene and judicious.

On that fateful day, weary from jousting with auditors and lawyers, Partner Engineer delivered of himself a might oath: "By the great Bent of the Tau Beta Pi," he swore. "I've been trapped, bamboozled, gulled, and plain deceived by the Engineers' Creed. I've tried to do all it had me pledge-*give, participate, serve, put service before myself*-and what has it gotten me? Headaches, heartaches, a 25-handicap at golf, a small bank balance, a blunt and bent spear, rusty and dented armor, paranoia that sees dragons everywhere, a library of moldy *Consulting Engineer* magazines, and a museum piece – my slide rule!

"Cursed is the day I found the Engineers' Creed, and cursed am I who found that scrap of glazed paper and strove to live up to the impossible Engineers' Creed inscribed thereon!"

No sooner had Partner Engineer uttered that terrible blasphemy than he was engulfed by a cloud of smoke, smoke reeking corrosively of equal parts of brimstone and noxious fumes from Milt Lunch's cigars. The smoke cleared a bit and through streaming eyes, Partner Engineer perceived the old Wizard in the cloud, staring and smiling. This time, the Wiz chose to appear in a composite,

kaleidoscopic combination, sometime resembling Mark Twain but blending with, or giving way to, Teddy Roosevelt, or Herbert Hoover, or Sam Florman, or any and all of the presidents of the National Society of Professional Engineers rolled into one.

"Nay, my Son." said the Wizard, "Curse not, but rather bless the day you took the Engineers' Creed to be your personal testament. Despite obstacles physical and mental, real or persevered, despite difficulties logical or political, selfless or selfish, you have preserve. You have tried, you have given your best. You have tried to provide food and shelter in abundance. You have striven to restore the purity of our air and water, to heal the blight of our cities, to harness our rivers, to develop power from a myriad of energy sources. You have made herculean efforts to control floods and to minimize danger from other natural occurrences.

"That you fell short at times, that you did not live up to the high expectations you set for yourself is not as important as having done the right thing, at the right time, for the right reasons.

"Though it troubles you that your education has not encompassed the arts and philosophy, do not despair. Your very awareness of the lack of such formal training has made you alert to the need to add taste and sensitivity to your arsenal of technical brilliance. Though your fellow man does not always appreciate your technical abilities and few consider you to be an intellectual, you have earned the accolade of all; you are a useful person.

"You do these things, you are this kind of person, because you have tired to live up to the Engineers' Creed. You will continue to do as you have done and to be as you have been because you must. You are indeed the prisoner of the Engineers' Creed but you are also its guest.

"And so my son, though you see yourself as flawed at times, though you sometimes have fallen short of your own high expectations, though you are scarred sometime have fallen short of your own high expectations, though you are scarred by the slings and arrows of life, you are not venal: you have raised yourself up, you are not beaten. You are not just a Consulting Engineer, you are an Engineer, you are a Man!"

With that, the Wizard faded from sight. The brimstone odor disappeared, and only Milt Lunch's acrid cigar smoke lingered. As for Partner Engineer, he lived happily forever after – at least it seemed forever to his Junior Partners.