

InFocus | The Challenge of Writing

By Jon A. Schmidt, P.E., SECB



Writing is hard work for most people, myself included. Mozart supposedly finished entire musical compositions in his head before committing any of the notes to paper, but for almost everyone else, our minds simply do not work that way. As David Hare put it, “The act of writing is the act of discovering what you believe.” I have certainly found that to be true when preparing these columns over the years.

I generally start by sorting through a particular jumble of thoughts, and then try to reorganize them in a way that will (hopefully) make sense to someone else. I know that I have not always – perhaps not even often – succeeded in that regard. This magazine’s audience of practicing structural engineers is not known for its philosophical bent, as I have acknowledged (and sought to change) in papers and presentations with titles like “Engineers Don’t Think Enough About Engineering.”

Perhaps I am hopelessly “kicking against the goads” by continuing to offer up rather dense tomes that advocate a different (one might say foreign) perspective on our profession – exploring not only what we do, but also how we do it and why it matters. The general dearth of feedback from readers, even in the days when there was a dedicated “Your Turn” page on the website for that very purpose, suggests that this might be the case.

At the same time, I do occasionally receive encouragement to continue doing what I have been doing, and not just from my fellow members of the Editorial Board and the SEI Engineering Philosophy Committee. It seems like, whenever I attend a conference, at least a couple of people come up to me and say that they enjoy my columns, even while not necessarily understanding them. They probably mean this as a compliment, but I cannot help feeling a twinge of frustration.

Such a comment is sometimes accompanied by the suggestion that I should “write a book about all of this.” Maybe the underlying assumption is that the limitation to a single magazine page forces me to boil everything down to an extent that precludes careful explanation, and not having that constraint would free me to lay things out more clearly. My honest response, though, is that I find the notion of writing an entire book very intimidating.

For one thing, I know how many hours I spend grinding out a 950-word piece every couple of months; so it feels like it would take me forever to generate 60,000 or more words to fill 150 or more pages. In addition, I simply consider myself to be far more adept at condensing and summarizing than at expanding and elaborating; why take a whole chapter to make a point when I can capture its essence in a paragraph or two?

I wonder, though, if I am falling into a common trap that authors Chip and Dan Heath call “the Curse of Knowledge” in their 2007 bestseller, *Made to Stick*. Back when I was in college, I tried to help my girlfriend (now wife) with her calculus homework, but I was consistently unsuccessful because – according to her – I kept “skipping steps” that were obvious to me, but evidently not apparent to her. Have I been guilty of making the same mistake here?

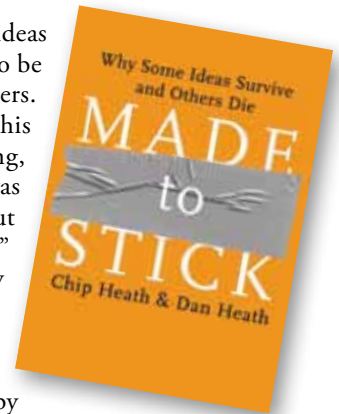
The Heath brothers carefully investigated what causes some ideas to thrive and others to fade away. Their goal was to identify

what steps we can take to make our ideas more “sticky” – that is, more likely to be remembered and acted upon by others. The Curse of Knowledge inhibits this because, “Once we know something, we find it hard to imagine what it was like not to know it.” The book lays out six specific characteristics of “sticky” ideas, which together form the slightly misspelled acronym, SUCCES:

- Simple – prioritize to determine the core of your message, and then express it in a compact way by linking it to something that is already familiar.
- Unexpected – grab attention with your message by breaking a pattern, and then keep it by offering meaningful insight and sparking further curiosity.
- Concrete – employ sensory language in your message by painting mental pictures that relate to the real world and trigger multiple types of memory.
- Credible – confirm your message by citing expertise or experience (yours, others’, the audience’s) and including human-scale statistics or vivid details.
- Emotional – associate your message with something that people already care about by appealing to self-interest or group identity.
- Stories – prompt action in response to your message by providing simulation (how to act) and inspiration (why to act).

The 2010 movie *Inception* portrays how these ingredients could facilitate planting an idea in someone else’s head without the other person realizing it. Although dreams take place entirely in the mind, they seem quite concrete while we are dreaming, and the strategy is to create a story with unexpected elements that will surprise the subject in a certain way. The characters explicitly discuss the importance of finding “the simplest version of the idea” and tapping into (preferably positive) emotions. One of them specializes in impersonating someone who already has credibility with the target.

The film made me wonder if it would be possible to “perform inception” *without* dream-sharing technology, because I want to be more successful in conveying and spreading my ideas about engineering and philosophy. That led me to the Heath brothers, and they revealed the problem: like most engineers and philosophers, I am quite comfortable operating in the realm of the complex, routine, abstract, and analytical. Breaking out of this default mode of thought requires an alternative, which I will discuss next time. ■



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