Bob
Behn's Performance Leadership Report

An occasional (and maybe even insightful) examination of the issues, dilemmas, challenges, and opportunities for improving performance and producing real results in public agencies.

On why all public officials need to accept (if only grudgingly) that

"What were they thinking?"
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There is No Silver Bullet

No matter what purpose a human seeks to achieve, he or she would prefer a "silver bullet." It would make everything much easier. Without it, unfortunately, we humans have to do the hard work of (1) developing a strategy for achieving this purpose, and (2) actually motivating other humans to implement this strategy.

Of course, "silver bullet" is not the only name given to this desire for a solution that is simple, easy to understand, easy to explain, easy to implement, hard to screw-up, and thus guaranteed to work. Others include: "system," "model," "technique," "formula," "routine," "the one best way," or (the contemporary version of "one best way") "best practice." These words suggest, as Jean Hartly and John Benington write, a "mechanistic model" of "copy and paste."

Of course, not all purposes are equally challenging. Some purposes might be more susceptible to a "silver bullet" solution than others. Performance leadership is demanding because the number and diversity of influences is often very large. Thus a "best practice" that proved effective to achieve a quite specific public purpose in one set of specific circumstances might not help to achieve the same purpose in different circumstances (with a different diversity of influences).

But suppose we could strip away the complications created by humans—their differences in perspectives, stakes, and desires. In such circumstances, we might find a silver bullet.

For example, it might be easier to develop and employ a silver bullet to improve the performance of a piece of technology (such as computer software) than to do so to improve the performance of a public agency.

Not so fast, wrote Frederick P. Brooks, Jr. nearly three decades ago. For his contributions to computer architecture, operating systems, and software engineering, Brooks won the Turing Award. He helped to design the IBM 7090 "Stretch" supercomputer, which was given this nickname in 1961 because it was a significant, "stretch" improvement over both the existing technology (it used transistors, not vacuum tubes) and the existing performance. (The 7090 did not meet its projected speed; nevertheless, at the time, it was the world's fastest computer).

Despite his skill and knowledge, Brooks recognized the constraints of his field. In creating software, he argued, there is "No Silver Bullet."

Why? Because, wrote Brooks, there are two types of tasks in software engineering: "essential tasks," the conceptual work of designing the software; and "accidental tasks," making the program actually work given the constraints imposed by the hardware. (To Brooks, the accidents that created the second kind of tasks were not necessarily someone's mistake but simply the inevitable result of chance.)

> "Silver bullet" is not the only name for a simple, easy-to-understand, easy-to- implement, hard-to-screw-up, guaranteed-to-work, solution to a problem. Others are "system," "model," "one best way," (and its modern equivalent) "best practice."

Much of past improvements in the productivity of computer programming, Brooks concluded, had come from eliminating specific "artificial barriers" such as the constraints imposed by the hardware or the software that created challenging tasks of the accidental kind.

In 1987, however, Brooks argued that most of the "artificial barriers" created by the technology had been eliminated or at least significantly reduced. Thus, the biggest remaining barriers to improved computer performance were created by the "essential tasks" necessary to achieve the purpose for which any specific piece of software was to be designed:

> as we look to the horizon of a decade hence, we see no silver bullet. There is no single development, in either technology or in management technique, that by itself promises even one order-of-magnitude improvement in productivity, in reliability, in simplicity.

Several years later, in "'No Silver Bullet' Refired," Brooks summarized his position explicitly and succinctly: "Complexity is the business we are in, and complexity is what limits us."

Complexity! This is certainly the business that all public executives are in. Whenever public executives seek to exercise performance leadership, whenever they attempt to achieve specific results, they face limits imposed by complexity.

Moreover, I suspect, appreciating, predicting, and understanding complexity is much more of a challenge in public management than it is in computer design. After all, the vagaries of the silicon and the software languages with which programers must cope are much more limited and comprehensible than are the vagaries of the humans—employees, citizens, legislators, journalists—with whom results-focused, performance-driven public executives must deal daily. Certainly the behavior of many people will affect those results.

Sorry. Don't expect the Masked Man to come riding up in a cloud of dust on a fiery horse with the speed of light to vaporize your complexity with one of his silver bullets. B

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