



## **Short-Term Loan**

**David Alan Grier** 

We find ourselves expending all our effort in gaining technical skills to make the objects or design the systems that benefit society, with little time to broaden our intellectual basis.

he last time I visited India, I gave an interview to a reporter from the Bangalore Mail Leader or something similar. He was quiet and barely out of college, as many reporters seem to be. After all the disruptions caused by Facebook, Twitter, and Tumblr, the traditional media outlets seem to be populated only by the very old and the very young—no one falls in between. The old are fighting to finish their careers, and the young are willing to take low pay in order to gain some experience. They are short-term employees on a short-term loan.

That morning, my reporter was obviously agitated as we started our interview. After a few moments of awkward questions, I asked him what was wrong. He replied that a recent post to his blog had drawn an overwhelming and entirely negative response from his readers and that the experience had shaken him. He had written about how engineers usually serve only five years in a technical job, and his readers had concluded that he was claiming that a technical degree wasn't worth the effort and were suitably outraged.

We talked for a few minutes about the arc of a technical career. I explained how the steps in that career require deep technical knowledge, even though they appear to be managerial positions. Indeed, many engineers spend only a few

years writing code or designing devices, but they almost always work in jobs that require knowledge firmly based in their engineering education.

Before we turned to our interview, my reporter confessed that he had written the post because many of his engineering friends, who were about five years out of school, were starting to take managerial jobs. I wanted to put my hand on his shoulder and offer the fatherly advice that the patterns of human life are a little clearer when you've invested a little more time on this Earth.

It was a tough sell: the reporter's paper had just featured an article on engineering education that described a similar path. It argued that engineers now needed a variety of skills that could only be obtained by studying nontechnical subjects, such as small-group communication, marketing, and interpretive dance. Again, I wanted to stretch my arms out to that author and give my fatherly advice about how she had confused the job of making things with that of leading people.

With limited time to devote to education, we find ourselves expending all our effort in gaining technical skills to make the objects or design the systems that benefit society, with little time to broaden our intellectual basis. But at some point in our lives, we usually shift from making things to leading people, from things to thoughts. To do this well, we need empathy, we need imagination, and we need to understand the consequences of our actions—consequences that are expressed economically, politically, socially, and even aesthetically. The proper management of a career investment is more of a spontaneous improvisation than a well-tested plan.

As I've watched my students move from job to job, I sense that they know that they work on a short-term loan, even if they can't always articulate what that means. Like all of us, they need the vision of someone who can explain the commitment that they're about to take. This vision comes from those who are only a few moves ahead, not from those who have finished the game. As we have shattered careers into tiny pieces, we have made it increasingly difficult for younger workers to find that vision. Without any connections, they're left to extrapolate the long-term returns from the little gain that they have already seen.

David Alan Grier is the author of many books, including The Company We Keep (IEEE CS, 2012).
Contact him at grier@computer.org.

selected CS articles and columns are available for free at http://ComputingNow.computer.org.