

Standing On the Shoulders of Giants!

Since 1997, I have been writing BackTalk columns on a semi-regular basis. I tend to work best under pressure (translation—I have raised procrastination to an art form) so I typically start writing the column about a day before it is due. There is nothing like sheer stress and a looming deadline to sharpen up my writing skill. But I start thinking about the column weeks in advance—writing in my head, discarding ideas. This column, I was stumped. I could not come up with just the right idea. As I was teaching Software Engineering today, I was going over some pithy and somewhat painfully funny quotes covering programming and software engineering. I realized that the column was writing itself—and others were writing it for me! After a little research looking for quotes that sum up our profession, here is my contribution.

Requirements

“If you don't know where you're going, you're unlikely to end up there.” - Forrest Gump

“All projects are iterative—it's just that some managers choose to have the iterations after final delivery.” - Urban Wisdom

“It is easier to change the specification to fit the program than vice versa.” - Author Unknown

“When somebody begins a sentence with 'It would be nice if...,' the right thing to do is to wait politely for the speaker to finish. No project ever gets around to the it-would-be-nice features: or if they do, they regret it. Wait for sentences that begin 'We have to...!' and pay close attention, and see if you agree.” - Tom Van Vleck

Cost Estimation

“It always takes longer than you expect, even when you take Hofstadter's Law into account.” - Hofstadter's Law, Douglas Hofstadter

Design

“Programs must be written for people to read, and only incidentally for machines to execute.” - Abelson and Sussman

“The hardest part of design ... is keeping features out.” - Donald Norman

“A designer can mull over complicated designs for months. Then suddenly the simple, elegant, beautiful solution occurs to him. When it happens to you, it feels as if God is talking! And maybe He is.” - Leo Frankowski (in *The Cross-Time Engineer*)

“The purpose of analysis is not modeling but understanding.” - Sun Tsu, *The Art of War*

Programming and Programming Languages

“C++ would make a decent teaching language if we could teach the ++ part without the C part.” - Michael B. Feldman

“It has been discovered that C++ provides a remarkable facility for concealing the trivial details of a program—such as where its bugs are.” - David Keppel

“And then it occurred to me that a computer is a stupid machine with the ability to do incredibly smart things, while computer programmers are smart people with the ability to do incredibly stupid things. They are, in short, a perfect match.” - Bill Bryson

“Good code is its own best documentation. As you're about to add a comment, ask yourself, 'How can I improve the code so that this comment isn't needed?'" - Steve McConnell

“The only way for errors to occur in a program is by being put there by the author. No other mechanisms are known. Programs can't acquire bugs by sitting around with other buggy programs.” - Harlan Mills

“There are two ways to write error-free programs; only the third one works.” - Alan J. Perlis

“There does not now, nor will there ever exist, a programming language in which it is the least bit hard to write bad programs.” - Lawrence Flon

“That's the thing about people who think they hate computers. What they really hate are lousy programmers.” - Larry Niven

“The evolution of languages: FORTRAN is a non-typed language. C is a weakly typed language. Ada is a strongly typed language. C++ is a strongly hyped language.” - Ron Sercely

“You can tell how far we have to go, when FORTRAN is the language of supercomputers.” - Steven Feiner

Reuse

“I've finally learned what 'upward compatible' means. It means we get to keep all our old mistakes.” - Dennie van Tassel

Testing

“Debugging is twice as hard as writing the code in the first place. Therefore, if you write the code as cleverly as possible, you are, by definition, not smart enough to debug it.” - Brian W. Kernighan.

“Software undergoes beta testing shortly before it's released. Beta is Latin for 'still doesn't work.'” - Author Unknown

“If debugging is the process of removing bugs, then programming must be the process of putting them in.” - Author Unknown

“It's not a bug, it's an undocumented feature.” - Author Unknown

Maintenance

“Always code as if the guy who ends up maintaining your code will be a violent psychopath who knows where you live.” - Martin Golding

“Programming today is a race between software engineers striving to build bigger and better idiot-proof programs, and the universe trying to produce bigger and better idiots. So far, the universe is winning.” - Author Unknown

Software Engineering in General

“If builders built buildings the way programmers wrote programs, then the first woodpecker that came along would destroy civilization.” - Gerald Weinberg

“It has been said that the great scientific disciplines are examples of giants standing on the shoulders of other giants. It has also been said that the software industry is an example of midgets standing on the toes of other midgets.” - Alan Cooper

If you have other “Great Quotes,” please send them to me and I'll publish “Quotes Volume II” in a later column!

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