

# Code Generation: A Paradox of Our Time

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Code Generation is a way to leave to the machines the tasks of the software development process that can be automated. It sounds like a very natural, XXI Century, thinking; however, it is rejected by many software development professionals. The Code Generation Paradox is that some of the professionals that revolutionized the world in the last few decades, automating from accounting to film-making etc., are very reluctant to drink their own medicine.

As marketing manager for a software company, I am a knowledge worker that relies on software tools to support many of the tasks that my job demands.

## ***A day like many others...***

Today I woke up and got ready to go to work. I took a shower, had breakfast, and headed for job. I am lucky enough to live 10 minutes away from my office, by car, of course. I could have walked or cycled to my office. Much healthier alternatives by the way. However, I drive my car every day because it's more convenient and faster.

After saying hello to the co-workers that I found on the way to my desk, the first thing I did, even before getting the first coffee of the day, was to turn on my computer. The second thing was to open my email (third was the coffee!). The reason for this behavior is that every day 50 to 80 people make a choice to send me email(s) rather than communicating with me by regular mail. They do so because they find it more convenient, more effective, and faster.

After replying to the urgent emails, and archiving the others in the trash bin, I turned my attention to my personal calendar to remember my agenda for the day as well as to appoint and to reschedule some meetings. I used to rely on a paper calendar, but I find the electronic one is more flexible (especially when I need to reschedule a meeting), more reliable (as much as I hate "reminders", I don't forget my appointments...), and easier to share than its paper antecessor.

After reviewing my calendar, I needed to do some basic media planning. Guess what? I used my worksheet instead of a pencil and a piece of paper. I guess that you already got the idea so I won't torture you with more daily stuff.

## ***Software is Good***

My point is that ever since industrial revolution we have learned to do things faster, more conveniently, more reliably, and exactly by using modern machines.

Computers, and particularly the ubiquitous PC, made it possible to automate tasks that were previously the exclusive realms of accountants, engineers, salespeople, and any other "knowledge worker" that you may think of, through the use of software.

In addition, to the great qualities that computers inherit from other machines, computers add a new bright element: outstanding flexibility. That is, you cannot erase from your calendar the appointment that you wrote down using your favorite pen and that have just been rescheduled; or worse, you cannot go back the previously saved version of your car; the one just before you crashed.

Velocity, convenience, reliability, accuracy, and flexibility make software the silver bullet that transformed every knowledge-based profession in a few years.

## ***Software Development Future***

Sure that when the first electronic worksheets appeared, most accountants thought that they already had the means to do things the good old way. Some people argue that those that resist the change more fiercely, are the ones that more thoroughly master the current way of doing things. But, as long as 50% to 90% of the "old way" tasks can be undertaken by a software tool, they surely will.

The last few decades teach us that the part of your knowledge-based trade that can be done faster, more conveniently, more reliably, more precisely, and more flexibly using computers will end up featured in a software tool, soon. Designing your database and writing code that implements a set of specific requirements and rules is already possible. Moreover, the most "intelligent" tools can refactor your code and database when your requirements change. Therefore, it may not take long before opening your code generator will be the first thing you do when starting coding.