Learn to code - become a citizen

Daniel Bakkelund

May 13, 2016

Ten, fifteen years ago, young people were told to learn to code to secure their future jobs, a statement that is failing as we speak, when more and more code jobs are outsourced to low cost countries.

None the less, learning to code has become more important than ever. Not because it will secure you a job, but because computer programming is a literacy. It is a skill that is required by anyone wishing to be a partaking member of society. By anyone wishing to to understand the world around us.

Computers are pervasive. They are already everywhere, in our cars, in our TV-sets, in our kitchen utensils, and even in our phones. During the next two or three decades, many will experience that a computer (or robot) will replace them in their jobs. Computers and robots are going to replace humans in critical functions in our daily lives, and we will no longer have the privilege of choosing whether to interact with a computer or a human in order to complete many everyday tasks. Indeed, this is already reality for most of the modern world, but the process has barely started.

Society will be going through a massive transformation in the years to come, and if you want to partake in the debate about this transformation, or even just understand the debate, that already is ongoing, one of the prerequisites is to understand what computers are.

Take, as an example, the emerging debate around artificial general intelligence (AGI). Up to now, artificial intelligence (AI) has been about making the fridge able to deduce how much non-expired milk you have left, based on your shopping- and milk consumption habits. Or figuring what your two top ranked hobbies are, based on your internet usage pattern. This is, of course, not real AI, but just advanced use of computers and statistics. AGI is about the real AI, when you may no longer be able to tell the computer and the human apart.

If AGI should actually emerge, this is probably a paradigmatic event, comparable to the invent of the internet or the nuclear bomb, or the computer itself. At the time, very few of the contributors to those breakthroughs had any vision of the tremendous changes that would result from their work. The same is likely to be true of AGI, and if democracy shall play a role, AGI may very well be a central topic in a coming government election near you: If computers can develop reasoning, emotions and relations, what rights should they have? Are they still just machines? Can we turn an AGI off? The debate will take the same form as the current political debates about religion or abortion, but how
are you to partake in this debate, or even understand it, if you do not know what a computer is, quintessentially?

Of course, the true literacy that is needed is not coding skill. The true literacy is that of computers; what they are, what they can do, and perhaps most of all what they cannot do. But in order to understand this, the only path is through learning to code. Just as reading is a required skill to be able to access the world of poetry. Not because poetry is composed of fragments of text, but because the tool that is used to build the amazing universe of prose is textual language. Similarly, computers are made up of computer programs, and computer programs are written in code. Without understanding what it is to code, you will never understand what a computer program is, and therefore, neither what a computer is.

Take the first step. Learn to code. Become a citizen.