How long should it take to learn how to program? Frequently asked in

How long to learn "how to program" - all your life.

I've been coding professionally for 10+ years, and I'm learning something new every week. When a week passes and I haven't, I'm sad. When I get to learn a lot of new things in a week, I'm thrilled. And I know there's always a ton more to learn ... always (see

http://www.hanselman.com/blog/Im...).

Now, how long does it take to master "a programming language"? Suppose you focus on one domain, such as web programming, and one language such as python. I believe that within about one year of doing actual 9-hours-a-day work, you can "master" a language - that is, know all the major idioms and data structures, have at least one IDE that makes you feel super comfortable, know a good many important 3rd party libraries, and know how to investigate new problems.

You won't know all the hidden features, internal compiler details, and esoteric libraries in a year ... that simply takes time. But the good news this gets much easier after your second or third programming language. You start seeing patterns, and even though it always takes time to get productive in a new language, it really gets down to only a few months of re-wiring some brain patterns in new ways.

To me the most basic level of programming would be: to analyze a problem from the real world, think up a way to solve it in software, maybe find the right libraries to use, write all the code still missing, and get the thing to run.

Some side effects of achieving this level will be:

- you know all the constructs and keywords of your programming language by heart and don't have to copy and paste them from other programs.
- you can explain every single character in every single line of code in your program.

So when you write 'I mostly understand code when I read complicated programming, but I would not be able to write them on my own. ' to me that means: you can't program yet. You don't need more theoretical knowledge, you need more practical experience. Do projects. Finish them.
The key to learning to program is gaining confidence and learning how to teach yourself things you don't know in a relatively short period of time. The key to "learning to program" is actually a little different.

I believe the real question is how long does it take before you're capable of building things on your own without hand-holding and detailed instructions.

That point is what I like to call the "inflection point" of coding. When you become a self-sufficient developer.

Take a look at this blog post about what the inflection point of coding actually is and tips on how to get there faster.

The Key To Accelerating Your Coding Skills: Passing the Inflection Point and Becoming a Self-Reliant Web Developer

Rule of thumb: The faster you try to 'learn programming', the longer you take. Why? Because the moment you think you learned everything more new things will appear: Programming is once of those things you never stop learning, even after you program professionally for years.

> *I would guess a smart person can learn to hack sufficiently well in 6 months to a year.*
> *~Paul Graham*

http://paulgraham.com/raq.html

Yeah, a smart person can learn enough to be dangerous and do some serious hacking in 6 months, but if you want to get to the top-notch of the field, it'd probably take 10 years according to Peter Norvig http://norvig.com/21-days.html