

Adults like to use a lot of complicated words to say something. This could be because they want to show their impressive vocabulary. It gets worse in technical fields like Computer Science which have a lot of big technical words. These technical words are supposed to help differentiate between similar ideas. But most often it complicates simple ideas. In this article, I'll try not to use these complicated words. This is so that you can understand the ideas clearly rather than memorize big words. So let's get started with a bit of history.

### **Let's take it from the top.**

You might have seen computers all around you. From the smartwatch to phones, tablets, and laptops — they are all different forms of computers. These useful gadgets of today have always been "Dumb Machines". They are good at obeying orders like an obedient puppy (or kitten for those who are weird like that). If you tell it to Swipe Right, it swipes right. If you tell it to Swipe Left, it swipes left. If you tell it to open Instagram when someone clicks on the Instagram icon it will open it. You get the drift. It can't think of anything on its own. Although these machines are dumb, over the last 50 years, we have made the computers do many things. From adding numbers and playing songs to defeating grandmasters at Chess. But for each of those things, someone had to tell the computer what to do and exactly how to do it. So the things that a computer could do for us was limited. Computers could only do things that we could show them how to do (step by step). As you could guess, that magic lost its charm pretty soon. There are always some things where :

- Unordered List Item even humans don't know how to do it (let alone explain to the computer)
- Ordered List Item and some tasks where we don't know how to tell the computer what to do. (we can't explain it clearly in a language that machine could understand)

(A big word for telling computers what to do and how to do it is programming. But we wouldn't use these big words because we don't wanna be adults yet.)

### **What's the story today?**

For a very long time, computers couldn't do anything without someone telling them how to do something. This was true until recently. Some very smart people\* found a way to teach computers to learn by themselves. (Another big word adults use for this is Machine Learning, but psst. who needs that). Imagine you are in a classroom without a teacher. There you and all your classmates learn on your own without any teacher. Weird right? Imagine how weird it must be for a computer to learn on its own. Surprisingly the computer is very good at learning on its own. It can even learn complicated things that people can't teach it. (\* The pioneers of this field didn't give up on computers -like some good dedicated teachers. They kept trying to teach computers until slowly even the dumb computers started learning)

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