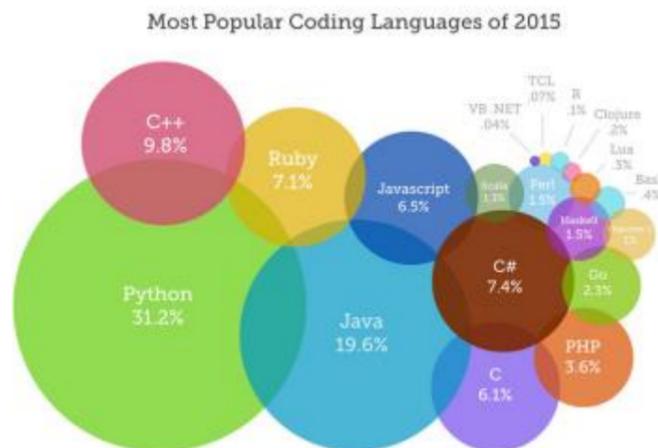


# NEWSLETTER

## ITECH COMMITTEE

### The Best Programming Languages Every Beginner Should Learn



Computer science is a booming industry in the US - and it pays extremely well. There's always demand for sharp, talented engineers, which is why learning how to code can seem like an attractive option. But, as is the case with any new skill, it can be difficult to know where to start.

Here are a few steps one should take early on:

Before learning a language, start with 'drag and drop' programming. "Drag and drop" programming is a basic technique that allows you to build code by dragging and dropping blocks or some other visual cue rather than manually writing text-based code. There are plenty of programs out there that can help getting started with drag and drop programming, including MIT Scratch and Code.org's Code Studio, and Google Blockly.

Python is one of the easiest languages to start with. Python is an easy language for beginners, because there's less of an emphasis on syntax. So, if you forget your parentheses or misplace a few semicolons, it shouldn't trip you up as much as it might if you were coding in a different language. But JavaScript is one of the most useful languages to know as a developer. JavaScript isn't as easy as Python, but it runs on every single platform out there - Mac, Windows, iOS, and Android among others. Every single Web browser and even new types of devices like smart watches use JavaScript at some capacity. Once the fundamentals of JavaScript are through, try playing with Ruby and Ruby on Rails. Ruby on Rails is a great tool that can help you with the backend aspect of your programming. Although Ruby and Ruby on Rails have similar names, there's actually an important difference. Ruby is a scripting language, just like Python, but Ruby on Rails is a Web app framework built on Ruby. In other words, Ruby is the language, while Ruby on Rails is a tool that makes it easy to use the Ruby language to build websites.

For a beginner HTML skills must be clear. While HTML isn't a programming language in the sense that Python, Ruby, and JavaScript are, it still a backbone to build a website. HTML is used to describe how the website looks, while other languages like JavaScript powers the interactive components

### Facebook will let you send money through Messenger app coming soon to Android, iOS



Facebook said it is adding a new feature to its messaging app that allows friends to send and receive money through it. Users can tap or click a dollar icon in a new chat window to send money to their friends, after they link a Visa or MasterCard debit card issued by a U.S. bank to their accounts. The free feature will roll out over the next few months for users in the United States who access Facebook Messenger through desktop computers or Google's Android and Apple's iOS operating systems on mobile devices.

Users can create a PIN or enable Touch ID if they have an iPhone to add a level of security to the payments. Snapchat had launched a similar service last November, called Snapcash. The mobile messaging company partnered with online payments company Square to allow Snapchat users to link their debit cards to their account and quickly send money to a contact by starting a chat on a smartphone.

### Windows 10 - The Dawn of Virtualized Desktop

The Start menu is back and so are the virtual desktops but the Charms bar hasn't gone away. And yet it is unpredictable when Windows 10 will ship or what it will cost. But as per the technical preview of Windows 10 and the word to bear in mind for this release is productivity.

Microsoft's Joe Belfiore repeatedly emphasized that this is a very early build without even all the features that have been announced, and that there might be rough spots. The problems didn't exist in the time we had to try it out at Microsoft's San Francisco event, but what's clear is that there is plenty more to come.

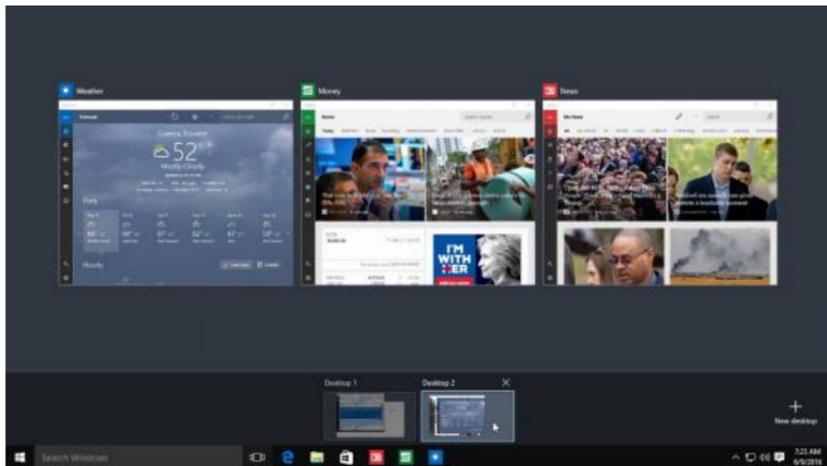
This isn't the place to look for changes in Explorer or the control panel, let alone desktop tools like Paint and Notepad or Store apps like Music and Video. The technical preview is about the core

features that are supposed to prove Microsoft can balance touch, mouse and keyboard without making any users feel abandoned.



## Start-Menu

As expected, the Start menu is the default if you use Windows 10 with a keyboard and mouse, though one can keep the full-screen Start screen if preferred. Even on the Start menu, you can pin Live Tiles in multiple sizes on the right, but on the left you also get the familiar list of pinned and recent applications, complete with jump lists for files, the search box that you can also use to run commands and a power button for shutting down or restarting your PC.



Virtual desktops aren't a new idea but they never graduated from utility to main Windows feature because they can be confusing to manage. There's a subtle clue in the taskbar to help you; if an app is open but not in the current desktop, it shows up as underlined rather than outlined in the taskbar - and if you click on its icon you go straight to it, and the rest of that desktop.

## What Is High Throughput Satellite?

High throughput satellites (HTS) is a classification for communications satellites that provide at least twice (and often 20 times or more) the nominal throughput of a classic satellite in the same amount of orbital frequency spectrum. Packing more bits into the same frequency spectrum significantly reduces the cost per bit. Leading-edge technologies such as ViaSat-1 and EchoStar XVII (also known as Jupiter-1) are capable of providing more than 100 Gbit/s of carrying capacity. Stated another way, this technology represents more than 100 times the capacity offered by a conventional Ku-band satellite. In fact, the 140 Gbit/s ViaSat-1 launched in October 2011 had more capacity than all other commercial communications satellites over North America combined.

## Pros and Cons

On the pro side, HTS transmits more power and packs a large amount of data into the signal than its counterpart, C Band satellites. HTS provides a powerful spot beam as well as excellent VoIP quality. Dishes are smaller in size, generally 2-5 feet in diameter in comparison to C band's "hard-to-hide" 8-foot dishes. However, the Ka band is improving. Ka band coverage is also not as wide-ranging as C band satellites. Latency can also be a problem, especially if one is into online gaming.

## ECO-ATM

EcoATM is a stand-alone machine (like a Redbox or CoinStar machine) that allows users to exchange old electronics for cold, hard cash. While it's not exactly new (the first eco ATM launched in 2010), this product was a hit this year at CES, where onlookers crowded around to watch the machine assess the value of beloved smartphones.



The electronics that ecoATM reclaims can be mined for the valuable and rare metals they contain. By recycling your old devices, you can prevent toxic mining waste from being poured into the environment, according to the company and by keeping electronics out of the garbage dump, one also prevent the toxic materials found inside these devices (things like mercury and cadmium) from leaking into the ground. Of course, not all of the electronics that find their way into the ecoATM are actually taken apart and used for parts.