



Saving Money on a New Computer

ARE YOU THINKING ABOUT BUYING A NEW COMPUTER? IT'S SOMETHING A LOT OF PEOPLE DO AROUND THE END OF THE YEAR, SO IT MIGHT BE IN YOUR THOUGHTS. LET'S CONSIDER CUTTING COSTS.

There are good ways to save money and there are bad ways to save money. The best way to save money is to buy smart. The best way to waste money is to buy cheap.

Buying cheap is almost always bad, no matter what you're purchasing. Economists explain how poor people spend more for shoes than rich people. The rich person buys an expensive pair of shoes that are well made and may last for five years or more. The poor person can't afford high-quality shoes, so the shoes will have to be replaced once or twice per year. In the end, buying cheap costs more.



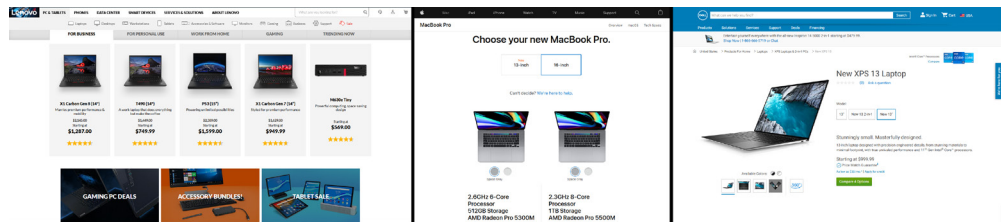
COMPUTER COMPONENTS VARY IN QUALITY. HIGH QUALITY PARTS WORK BETTER AND LAST LONGER.

The same is true of computers. Cheap computers are assembled from low-end components, so the CPU will probably be underpowered, the manufacturer will have skimped on memory, and the disk drive will doubtless be a slow mechanical drive.

Plan the Purchase Carefully

IF YOU HAVE ENOUGH MONEY TO BUY THE TOP-OF-THE-LINE MODEL WITH ALL THE LATEST AND MOST POWERFUL COMPONENTS, DON'T.

Cheap certainly isn't good, but neither is buying the computer with the fastest CPU, the most RAM, and a huge solid-state disk drive.



MANUFACTURERS WANT YOU TO SELECT THE MOST EXPENSIVE MODELS, SO THAT'S WHAT THEY PROMOTE. YOU DON'T HAVE TO TAKE THE BAIT.

Start by thinking about what you need. Do you really need the fastest CPU? How much RAM is required by the applications you use most? How much disk storage will you want?

Unless you spend a lot of time editing photos and videos, paying extra for a super-fast CPU and GPU will be a waste. Desktop computers can often be fitted with more than one disk drive, so a fast but small boot drive for the operating system and applications can be coupled with a slower mechanical drive for storage. Notebook computers are rapidly replacing desktop systems, and most have no room for an additional internal hard drive. Attaching an external drive is an easy an inexpensive way to add storage.

How much disk space do you need? I have to confess that my primary system has more disk space than I need: There's a 500GB internal solid-state drive for the operating system and applications, four external drives in an Orico four-bay USB case, and one additional USB drive that used to be a network-attached device but is now attached directly to the computer. My objective was to have sufficient disk space for digital photographs and digital videos, so there's approximately 14 TB of attached storage. This is far, far more than I need, but it does provide some redundancy.

Although I would probably use smaller drives if I had this to do again, I'm not distressed by having the extra space.

RAM is relatively inexpensive, too, but buying more than you need is a cost with little discernible benefit. Because I use several applications that need a great deal of memory, I have 64GB of RAM. You'll find computers for sale with just 4GB of RAM, and that's not enough even for basic use. Eight or 16 GB of RAM is sufficient for most users, but let the applications you need to run be your guide.

Is Second-Best the Best Choice?

ONE OF MY LONG-AGO CO-WORKERS ALWAYS PURCHASED A NEW COMPUTER BY SELECTING THE MODEL WITH THE SECOND-FASTEST CPU, AND HIS LOGIC WAS GOOD.

A computer with the fastest CPU will probably cost 20% to 25% more than the one with the second-fastest CPU, and yet the CPU's performance will be less than 5% better. The lower cost system will still perform well for three to five years, and maybe longer.

My primary computer is more than four years old, but I have another computer that's a year or two older, and one that's still in use after 10 years. I wouldn't want to use the decade-old machine for any current tasks, but it's more than adequate for its intended use.

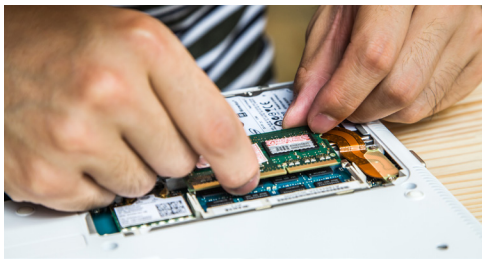
A Sneaky Way to Save

ANOTHER WAY YOU MIGHT BE ABLE TO SAVE MONEY INVOLVES SPECIFYING LESS MEMORY THAN YOU NEED AND A MECHANICAL HARD DRIVE INSTEAD OF A SOLID-STATE DRIVE.

This little trick works only with some computers and only if you're comfortable opening the case. Apple in particular charges absurdly high prices for disk drive enhancements and memory. Desktop systems could be opened and the user could swap one disk drive with another and also add memory.

That's much more difficult with Apple's current desktop machines and not possible at all with its notebook computers. Apple uses screws that are unique to Apple products because they don't want anyone but Apple's technicians to get inside. But Microsoft and most of the companies that manufacture tablet computers are no better. Opening the cases requires specialized tools and many of the components are held in place with glue, not screws.

But if you have a more standard notebook computer that uses covers held in place with screws to provide access to the disk bay and the memory compartment, you can perform your own upgrades. For example:



- Purchase a computer with the minimum amount of memory and add RAM or replace the existing memory components with modules from a company such as [Crucial](#).



- While you have the computer case open, swap out the hard drive. If the computer came with a 1TB mechanical drive, you

can remove it and put it in a \$10 case to create a handy portable USB drive. Then install a solid-state drive to improve the computer's performance.

Must it Be a New Computer?

THERE ARE ONLINE MERCHANTS WHO SPECIALIZE IN USED COMPUTERS.

Some of these computers come from corporations that routinely replace systems after three years. It's important to find a seller that you trust and that will accept returns if the computer you buy doesn't meet your expectations.

There's another possibility, and it is usually safer than dealing with an unknown third-party vendor: Most manufacturers sell refurbished computers.

This includes manufacturers such as Apple, Dell, Lenovo, and HP. Buying a refurbished unit can reduce the cost by 30% or more. You'll generally get a shorter warranty, but refurbished units have been examined by technicians and repaired so that they meet all operational specifications.

Here are just four options.

- [Apple](#)
- [Lenovo](#)
- [Dell](#)
- [HP](#)

One difference between new and refurbished computers is that refurbished computers have each been examined by a technician. That's rarely the case for new computers.

Most manufacturer-sourced refurbished units come with the manufacturer's standard one-year limited warranty and have a brief period during which the computer may be returned for full credit.

Retailers such as BestBuy, Target, Walmart, Amazon, Staples, EBay, and others also offer refurbished computers, but be sure to read the warranty and return conditions.

So when you're in the market for a new computer, consider all the options to ensure that the computer you purchase will suit your needs for several years.

Buy smart, not cheap. 🐛

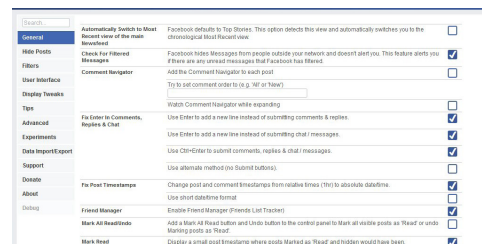
Fix Facebook!

FACEBOOK USERS CAN IMPROVE THEIR EXPERIENCE WITH FB PURITY OR SOCIAL FIXER.

Facebook sometimes seems intent on making a system that users detest, and a new interface hasn't helped. Two applications exist to make things better, FB Purity and Social Fixer. The FB in FB Purity stands for Fluff-Busting, not Facebook. If you're not using one of these, Facebook is a lot more frustrating than it needs to be.

Social Fixer is my preference, and both applications have been created by single developers. By contrast, Facebook has a cast of thousands of developers.

These applications can hide ads and eliminate unwanted features, but they work only on browser-based instances of Facebook, not on the Facebook app on mobile devices. I hide the Marketplace and Stories sections because I find them intolerable. There are also functions in Facebook's left column that I'd like to get rid of, and Social Fixer's developer, Matt Krause, is working on it.



Even without some of the advanced features, Social Fixer still makes Facebook a lot more usable, and if Mark Zuckerberg and his developers were as smart as they think they are, they would implement many of Krause's features in Facebook.

Facebook demands that participants use the Top Stories view even though many people prefer the Most Recent. Social Fixer fixes that. There are several usability functions, too—the ability to stop Enter from submitting a posts, for example, and options to hide posts that users don't want to see based on the content of the posts.

If you haven't tried one of these browser add-ons, give FB Purity or Social Fixer a try. You'll find links to install both in the browser's extensions section. 🐛