

## Crossing the Digital Divide (v42)

### “Holiday Shopping”

By Joseph Feigon for the Observer

It's that time of year again, and many of you may be considering a new computer for yourself or a family member. I'm often asked to help, and while I have personal favorites, I am generally vendor agnostic. I hope the following will help you spend wisely (if you are shopping technology).

First and foremost, what would you like to do with a new computer?

Is the user a student? Is the user an artist, photographer or engineer?

Is the user seeking an entertainment gateway (movies, media, etc.)?

Will the new computer need to be portable? If not, how much space is available?

Do you or the intended user have an Internet connection?

Is this a first computer or replacement?

Once you've got a general idea of the computer users' needs, you can then assess the kind of hardware and/or software that will be required.

Does the user have a photo or music library that continues to expand?

Does the user have backups of those files?

A computer, whether desktop, tower, laptop, pad or smartphone/tablet, are composed of several component groupings.

Screen size/maximum resolution. Movie quality resolution isn't a given. With laptops and other portable computers, different devices can deliver a richer media experience, finer resolution, and faster refresh. Not everyone needs that, and some need more. If you really think a 17" screen is minimal, consider a desktop, where you can invest in whatever size display suits your environment or need. With custom built computers, advanced graphic card options can deliver impressive video clarity.

Storage capacity and technology. You're looking for the fastest storage media you can afford to equip a computer with. Many manufacturers promote large capacity drives, most of which are slow, but are inexpensive. Mass storage is great, but as a primary disk drive, it lends itself to poor data management, and the average user has no idea why the computer feels increasingly slow over time. The "average" computer contains roughly 100GB of Operating System, program files and client information. For those with huge music/photo/video/document libraries, secondary storage is not only prudent, it will make life easier when access to that information is required.

Solid State is preferable to rotating disks. Fast rotating disks are preferable to slow disks, except when the storage needs are massive. Users with thousands of pictures and enough music to play a non-repeat loop for 235 years will find keeping that information on a portable drive will improve performance speed and reduce single point loss of information when the disk fails.

RAM - Random Access Memory. More is generally better. 8GB ideal for 64bit Windows or Apple products. 16GB will keep most power users very happy, and anything over 16GB, is generally a waste of money, unless there's specialized needs.

CPU - the brain, or central processing unit of a computer. The fastest/biggest isn't necessarily the best use of your money. Smaller processors run cooler, cost less, and generally provide enough horsepower, when combined with ample RAM and a high speed Solid State drive or 7200RPM SATA drive, to keep most users very happy. In general, bigger/faster CPU's are best deployed in a computer that's working - e.g., like a web server or music/video editing station.

Aesthetics - keyboard, finish, weight. Subjective stuff.

Make/Model - this is where aesthetics and reputation come into play. If the new computer needs to be an Apple, the choices are somewhat limited. Desktop or laptop, power user or general user. Don't forget your \$100 discount on an Apple product if the user is a student.

With a Windows laptop, once you've identified the model with the right screen size, storage type, processor and RAM, the price differences between Acer, Asus, Dell, HP, Lenovo, and Sony are minimal. Computers are an assembly of commodity parts wrapped together. A well informed buyer will get the best deal possible, as any cost difference between an Acer and HP, configured identically, will be minimal.

\*\* A \$300 computer may be a perfect solution for someone who does little more than email and web searches. A decent pad/tablet may be a better investment at this price point.

\*\* A \$500 laptop will not last long in a students' hand, a \$500 desktop will feel slow

\*\* The typical "big company" staff computer is \$700+

\*\* A "road warrior" laptop will cost upwards of \$900

Windows computers will require you to invest in an anti-virus/anti-malware suite.

I hope this helps. Happy Holidays!