

In living color

Some monitors less than colorful

I've considered my business to be on the cutting edge of digital technology and over the years that edge has resulted in a lot of bleeding from the wallet. Being an early adopter of new technology often comes with a price tag. It wasn't all that long ago that my first 17" monitor cost over \$1,000. The monitor eventually failed, could not be repaired and is filling up a landfill somewhere. Time and technology has moved on and now LCD (Liquid Crystal Display) monitors of the same size are selling for a little over \$100.

And what's not to love about LCD monitor? They are lighter, take up less space, use less energy and don't produce the heat that the CRT (Cathode Ray Tube) did. The rush to LCD monitors has been very quick and has been reminiscent of the switch from vinyl to CD. Many monitor manufacturers have dropped CRT monitors all together. When purchasing a new computer, CRTs are included on the least expensive models and if you are shopping for a monitor you have to do a little hunting to find one.

But before declaring the CRT dead, there is one characteristic they have that keeps them from being obsolete. The picture on a CRT is better than that of most LCDs. Here's why. Most computer users have their video display card to display 8-bit color. That means each color channel can display 256 values of brightness. There are three color channels, red, green, and blue. So when you multiple 256 by the three channels, you come up with over

16.7 million color possibilities. In reality, that number was probably more theoretical than real, as many monitors weren't good enough to really display that many colors.

With the development of the LCD screen, there became a problem with displaying 8-bit color. Many monitors were used to watch video and due to the technical limitations of LCD technology, the colors could not be changed as fast as would be required to deliver a good video picture. The manufacturers solved this problem by changing the monitor to only display 6-bit color. This change reduced the amount of possible colors to 262,000 colors. Through an advanced process called dithering, the missing colors are simulated.

For the average user, this change may not mean much. But for the photographer, it may mean the monitor is not capable of displaying what the camera is recording. Prints may not match what is seen on the screen. True color accuracy isn't possible because the screen can't display true color.

There are LCD monitors that display 8-bit color but you will have to do a little research to find that specification. Because most of the inexpensive monitors run at 6-bit display, the 8-bit color is not a specification that is promoted. Look for the specification 16.7 million colors, not simply millions of colors.

So a CRT monitor, despite its heat, weight, size and energy consumption, might actually still be the photographer's best choice.



PHOTO PROVIDED

Is your LCD monitor not matching your prints? There might be a very good reason. Most LCD monitors only display 6-bit color.



WAYNE PALMER

Bits & BYTES

Where did I put that picture? Question more difficult as technology advances

When shooting in analog (film) was the norm, we use to keep shoeboxes and drawers full of negatives and prints. We may have had a hard time laying our hands on a particular image, but we knew they were in that drawer somewhere.

With digital imaging, this has been a bit tougher. Our images are recorded to media cards, we transfer the files to our computers where they sit or may be moved to CDs/DVDs. Over the years the files may be moved from computer to computer as we upgrade. Since we can't simply hold the file up to the light to identify an image, locating digital files can be a little more difficult than sifting through a drawer.

Most cameras drop images into a generically named folder called DCIM. If you simply move this file into your computer, you will have to rename the folder to avoid overwriting any existing file with this name. Cameras usually assign a unique number to

the recorded image, but this isn't a guarantee. I have learned moving cards between cameras of the same manufacturer can lead to the creation of duplicate numbers.

There are numerous programs available to help you keep track of your files. With programs updating every 1-2 years, I have yet to embrace any of them. Often when a program updates, previously made files have to be updated or can't be updated. If you have spent a lot of time cataloging your images, you may find it all for naught should the program cease to exist or updates make your efforts unusable.

Let me share with you a much simpler time-saving method I use for keeping track of my images. The first step is to ID the images when they come out of the camera. You can use file-naming programs to rename the files to something you would recognize if you came across the

file individually. I simply group my images into folders by time frame and or event, putting them in a folder named that date or event. If you are like me you often take pictures in groups, like family gatherings, vacations, holidays, etc. Then I place all these folders in one location in my computer, like the My Pictures folder in Windows.

Eventually you may want to move these files out of your computer by burning them to CD/DVD. When I do, I number the disk by year and assign a number to it. A free program found on the Web called Folder Print will print a simple listing of the folders on the disk in a layout that can be used for a cover. I then enter this information into a spreadsheet program like Excel. If that program is outside your budget, check out Open Office, another free program. My disks are stored in order on a shelf and when I need a file, I simply do a search in the spread-



PHOTO PROVIDED

Storing digital files, the way we did our negatives, can lead to a lot of time lost searching for images.

sheet program for the date or event and usually can lay my hands on the file very quickly.

I've also learned over the years that CDs, DVDs and hard drives can become unreadable or fail. So I've learned to make two backups

of important information.

One last tip on finding files still stored on your hard drive check out Google Desktop.

This free program indexes all your files so searching for files can be done in seconds.

Libraries lack space, wiring, funds to expand Internet despite growing demand

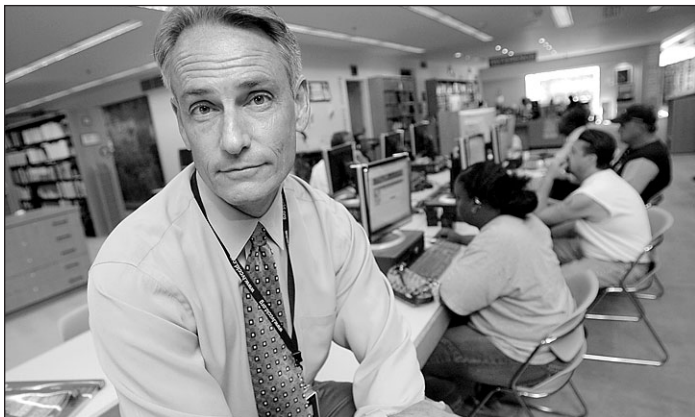
By ANICK JESDANUN
AP Internet Writer

NEW YORK — YouTube, online job applications and homework help sites have boosted demand and contributed to lines for Internet access at the nation's public libraries, yet a new survey finds the majority have no immediate plans to add computers.

For many library systems, the buildings simply do not have enough room, and their electrical wiring couldn't deliver the required power. Others are already struggling to stay open, buy books and encourage youths to read.

"We have this entirely brand new service coming to libraries, but the funding has not recognized that," said Kathleen Reif, director of the St. Mary's County Library in Leonardtown, Md. "We're still continuing the books, the outreach, the work with young children and the student support."

A new study from the American Library Association,



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Robb Morss, deputy director of Las Vegas-Clark County Library District, poses for photos at the Las Vegas Library in Las Vegas

tion, scheduled for release Wednesday, finds the average number of public Internet terminals largely unchanged since 2002, yet only 1 in 5 libraries say they have enough computers to meet demand at all times.

Besides cost, limitations in space, electrical outlets and cabling are cited as the chief factors preventing libraries from buying more computers. Las Vegas officials, for

instance, say they reached capacity a few years ago.

"There are times, especially during those peak usage after school and as people get out of work, that you may have to wait an hour, an hour and a half," said Robb Morss, deputy director of the Las Vegas-Clark County Library District.

Meanwhile, three-quarters of the libraries say they are the only source of free Inter-

net access in their communities, increasing pressure on them to meet demand.

"Libraries are a place where books and periodicals are available, but increasingly public libraries are being asked by their patrons to make these information technologies available," said Greg Shaw, the director of U.S. program advocacy for the Bill & Melinda Gates Foundation, which co-sponsored the study.

Local and county governments remain the chief sources of funding for libraries, but the study found many libraries having to turn to non-tax revenues such as fines and donations to pay for basic technology-related services.

The St. Mary's system is likely to leave one full-time position unfilled to free up \$40,000 to buy an additional 20 computers, Reif said. That means a 50 percent cut in staff available for outreach programs serving youths.

"You've got some basic missions that you're trying to achieve in a community, try-

ing to reach children at birth and trying to get them ready for school, and you have these computers you need to access the world of information," Reif said. "It's a very difficult choice you have, to be constantly balancing those needs."

Libraries are increasingly turning to wireless networking to help reduce wait. More than 17 percent of libraries say they plan to add wireless capabilities within a year, meaning 71 percent would be allowing patrons to connect through their own laptops and in some cases through loaner machines.

But libraries haven't always been able to boost the size of their pipes because of cost or availability of high-speed services in the area. More computers sharing the same pipes mean slower speeds, even as Google Inc.'s video-sharing site YouTube and interactive homework help sites like Tutor.com demand more capacity.

"We may be in fact where we were in 2002" when many

libraries still had only slower, dial-up access, said Denise Davis, director of the American Library Association's Office for Research and Statistics. "Just everything is faster and larger files are being moved around."

Las Vegas is one of the more fortunate systems, serving a growth area with ample revenues. Although it doesn't have room to add computers, it has money to add bandwidth — something it had to do earlier this year with the growth of interactive sites.

"We were seeing a great slowdown after school," Morss said. Students "are looking at interactive sites. They are not looking at text-based sites. Everybody who wants their site to be viewed realizes they have to keep up with the competition."

About half the libraries, however, say their connection speed is inadequate some or all the time. Yet 17 percent say they cannot get anything faster in the region, and another 18 percent say they cannot afford to upgrade.