

## Techbits

### Online date service tries voice chatting

DALLAS (AP) — Online dating services may be convenient, but they're not the most personable way to meet a potential mate.

What's been lacking, Match.com Chief Executive Jim Safka believes, is a way for would-be couples to hear each other talk.

A new service from the company called matchTalk aims to do just that.

Free for basic subscribers beginning Thursday, matchTalk will let users go online and signal if they're interested in speaking to each other anonymously by phone.

The system protects privacy by assigning the couple a unique number that they can use to talk to each other without fear of giving away their real telephone number or other personal details. People with caller ID will see the matchTalk number instead of their actual listing.

Safka described the technology — an industry first — as an important step in the development of Internet-based matchmaking services.

"It's one of those back-to-the-future features," he said. "We're really starting to weave in the natural way people meet."

### Study: Few check basics on health info

NEW YORK (AP) — Search engines are common starting points for Internet users seeking health or medical information, but most of them fail to check where the information comes from and how current it is, a new study finds.

The Pew Internet and American Life Project's August survey found little change in how many people go online for health-related information.

Eighty percent of U.S. Internet users have searched for information on at least one health topic, comparable to 2002 and 2004 surveys despite growth in residential high-speed connections, which have driven increases in other online activities.

Among the online health seekers, 66 percent started at a search engine for their most recent health inquiry, and 72 percent ended up visiting multiple sites for information. About half said they were looking up information for someone else, not themselves.

Only a quarter of the online health seekers said they always or usually check the information's source and date. In a 2001 survey, half said they did so. Pew researchers said the drop might be blamed on how little health sites generally reveal about the source and update schedules.

### Indian outsourcing group to hold tests

NEW DELHI (AP) — The main trade body representing software services companies in India will hold entry-level tests to gauge the abilities of people seeking jobs outsourced by overseas companies.

The move aims to tap new talent and cut the time and expense of recruiting new hires to India's outsourcing industry, a key engine of the country's fast-growing economy.

Candidates who pass will be regarded as having the basic skills to work in the outsourcing industry, even though the qualification would not guarantee employment, said Deepakshi Jha, a spokeswoman of the National Association of Software and Services Companies.



The photo at left has enough resolution to produce an acceptable 8-inch by 10-inch print. However, cropping into the two girls in back, right photo, yields visibly "jaggy" results when blown up.

WAYNE PALMER/For the Sun-Gazette

# The megapixel race

## How much resolution does the average photographer need?

How many do you really need to take good pictures?

As the holiday season approaches, camera manufacturers have released a new crop of cameras reaching the 10 megapixel capture level.

Perhaps this new level may have you thinking your current camera is now obsolete. Before you trade in your current model, however, evaluate your current camera's capabilities and see if you really need or will benefit from those extra pixels.

When the first consumer 1 megapixel (1 MP) digital cameras came on the scene, you could produce a nice normal sized print and could even make a decent 5x7.

But when the file was enlarged to make an 8x10 or larger, you could clearly see that film still had the advantage in terms of resolution and detail.

The 1 MP camera quickly gave way to the 3 MP camera, and the race between the various camera companies was off. The 3 MP cameras gave way to 4, which gave way to 5, and then 6.

Last year 8 MP was the number to beat and now it has reached 10. Where will it stop?

A recent trade journal reported that as long as the public is buying, the megapixel increases will continue.

The megapixel number, or the amount of data the digital camera can capture, has always been compared to film.

The more capacitors that are built into the camera's sensor, the more information it can record.

The increased amount of information is why professional photographers would use large film formats that would result in sharper images and the ability to make very sharp enlargements.

A number of years ago the film market offered miniature films like the 110 and the disk sizes.

They would yield a decent normal sized print and maybe even a good 5x7, but going larger usually produced unsatisfactory results.

What we have essentially seen in the digital revolution through the increase in megapixels is the increase in "digital film" size.

For years, 12 MP has been held as the milestone at



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which a digital file would have the resolution equivalent of 35mm film. Cameras of 12 MP and higher are available, but the price usually keeps them in the range for professionals.

One caveat to this increase in the megapixel sensor size is that for most cameras the physical size of the sensor has remained the same while the capacitors that gather the light have been made smaller. This makes them less receptive to light.

So even though you are supposedly gathering more information, the less receptive sensor can make for noisy images.

"Noise" refers to the randomly patterned areas of colored pixels that show up in darker areas of the image. It is the digital equivalent of graininess, which was the downside to film.

It has been argued that a lower megapixel camera can actually make a nicer image because of this problem.

Digital Single Lens Reflex (DSLR) users are also aware of a second caveat to this smaller sensor size, which is smaller than the full frame they had with their film cameras.

The lenses that they have brought over from their film cameras are all now magnified in power, usually by a factor of about 1.5. Those who prefer using a telephoto lens but not those who use wide-angle lenses have welcomed this.

This effect has also spawned a new generation of wider lenses, lenses that would be considered fisheye or ultra-wide for a full frame camera.

Full frame DSLR cameras are available, but again at a hefty price.

So the question remains, how many megapixels do you really need?

Part of that answer lies in what you want to do with the images.

If you only make normal sized prints or share images on the Web than just about any digital camera will suffice.

Most people seldom print an image larger than an 8x10. If that describes you, and you don't crop your images, than you might be surprised to learn that a 3 MP camera will be adequate for your needs.

However if you want to make large prints or large prints from a cropped version of an image, than you will probably want a larger megapixel camera.

You can enlarge any image file to any size.

Most editing software has the ability to interpolate, or make up the pixels, to fill the dimensions you want.

Upsizing the picture does not add any detail to the picture. It just keeps the pixels from being visible in the picture by making more of them.

Whether you will like the results of the enlarged file has a lot to do with the subject matter.

A picture in which you would scrutinize a small section, like a group photo, generally would not be satisfactory. However a picture in which you embrace the entire subject matter, like a scenic, may be just fine. And of course, large prints are made for viewing from a distance.

Let's say you have a digital image file that measures 4x6 at 150 pixels per inch (PPI). If you would like to make a larger version of the image, such an 8x12, resizing the image would result in the file being 8x12 at 75 PPI.

At this low resolution, you would see the pixels in the printed picture. Through interpolation you can resize the image to 8x12 at 150 PPI.

Keeping the PPI the same forces the computer to make up data to fill out the new dimension requested.

### File and Printer Resolutions

One area of confusion for people in the home digital darkroom is that of resolution, particularly the resolution of the image file as opposed to the resolution of the printer.

These are two different specifications. The image file resolution is how many pixels will be printed within a given area on the page while the printer resolution is how many dots of ink will be used to represent the pixel. Usually the printer's resolution will be a lot higher than the image resolution.

Why not match them? In some situations you probably could. However, often the amount of dots per inch setting is tied into how fast the printer operates.

Faster printing speeds often equate to lower print quality, which can be seen as lines running through the print. If your printer does not have the ability to specify resolution output, it may have generic settings like Draft, and Photo Quality.

It is also a good idea to use an image resolution that is a multiple of your printer's resolution. That can speed up the process and eliminate the need for the printer to round off the number of pixels to dots ratio, which if they are multiples of each other, could lead to a softening of the sharpness of the image.

Remember, the added pixels will not bring out any more detail in the picture. You are just doubling the information that is there, which makes the pixels small enough to be invisible.

Adobe recommends a resolution setting of 150 PPI for output when printing to an inkjet printer.

You may see recommendations for a higher resolution, but after you have reached 150 PPI, the eye cannot see the difference. And if it requires a magnifying glass to see any difference in printing at a higher resolution, than I think the case has

been made.

Using this resolution as a standard, a 6 MP camera can produce an image larger than 11x17 without interpolation.

So with the promise of continual development, and most consumer cameras not reaching the perceived 35mm equivalence, do you need to keep updating cameras?

Maybe not, as most people probably do not take full advantage of their camera's resolution. It may also mean that if you are in the market for a new camera, the size of the image capture may not be the most important feature.

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