



THIS NASA PHOTOGRAPH OF MOFFETT FIELD, THE GOOGLEPLEX AND PART OF MOUNTAIN VIEW WAS TAKEN BY ED LU, A FORMER ASTRONAUT AND CURRENT GOOGLE EMPLOYEE, DURING HIS EXPEDITION 7 MISSION ABOARD THE INTERNATIONAL SPACE STATION.

Google, NASA work on the big picture

COLLABORATION HAS RESULTED IN SEVERAL HIGH-TECH APPLICATIONS

By Jill Michaels

It was May 2005, three months before Hurricane Katrina raged over the Southern states, that Google Inc. and NASA Ames Research Center first made eyes at each other.

Photographs of the disaster taken by the National Oceanic and Atmospheric Administration — a close cousin of NASA — were posted online in Google Earth, to powerful effect. The partnership between these Mountain View neighbors seemed so natural that a group formed to discuss how they might work together in the future.

It wasn't long before the Global Connection Project was born. This advanced-imaging project had its origins in a partnership between National Geographic and Carnegie Mellon University, which operates a campus at NASA Ames, said Dr. Terry Fong, director of the space center's Intelligent Robotics Group.

According to the Global Connection Web site, "The project's long-term goal is to help us learn about and meet our neighbors across this globe, and learn about our planet itself." Fong highlighted the project's early work, which included placing aerial images from NOAA, National Geographic and NASA into Google Earth.

With that under their belt, the Googlers and NASA engineers "threw around ideas about how to

continue to work together," said Tiffany Montague, who five years ago was an Air Force flight test engineer in Washington, D.C. before Google lured her to Mountain View.

The business relationship progressed from "ideas on the back of napkins" into a full-blown, reimbursable "Space Act Agreement," signed in November 2006. Its purpose was "to explore areas of mutual interest," Fong said. "We also focus on technological problems and how to solve them."

Today Montague serves as the Google liaison to NASA, working closely with her former Air Force mentor, S. Pete Worden — the director of NASA Ames.

"He has been a great friend to Google," Montague said.

According to Montague, the Space Act Agreement has been "creatively fruitful. It is allowing brilliant engineers, on both sides, to reach a wide audience, with great coverage."

New projects

The fruits of the Space Act Agreement continue to be far-reaching (and far-seeing). Researchers noted three other important projects that have so far resulted from this symbiotic relationship.

Topping that list, in Fong's opinion, is GigaPan. The GigaPan Epic camera and software allow a photographer to snap a series of gigapixel photos and then merge them together into one composite

panorama. Photos assembled in this way allow viewers to browse and zoom around the image to incredible levels of detail.

GigaPan images have been shot worldwide to document notable landscapes or special events. For example, former NASA Ames employee and astronaut Scott Parazynski captured two GigaPan images of Everest Base Camp at an elevation of 17,500 feet last spring on his way up the mountain. And GigaPan photos from the Masters, Yankee Stadium and the Olympics have been published by Sports Illustrated, said Fong.

Last year, during President Obama's inauguration, photographer David Bergman used a GigaPan camera in Washington, D.C., to compile 220 individual images into one panorama that has since been viewed online by 12 million people.

"This panorama was revolutionary," said Fong. "It was a huge wake-up that interactively explorable images could revolutionize the way we relate to and understand historic events." Fong believes this tool will be valuable in the future when it comes to exploring environments and documenting field work.

Another major group effort is the Planetary Content project. Fong said the collaboration means raw NASA planetary data is being transformed into

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Keeping up with your contacts

By Angela Hey

Jon Ferrara founded GoldMine Software in 1989 with a \$3,000 investment and sold the company for \$100 million. GoldMine tracked sales leads on a PC. Last month, Jon came to Mountain View from Santa Monica to speak about Nimble, his latest venture. The occasion was Tatyana Kanzaveli's Bay Area Executives Meetup, held monthly at the Samovar Conference Hall, and the place to be if you want to discuss social networking for business.

Nimble is a web-based sales lead and customer tracking system for small businesses, currently in beta testing.

"Most sales-tracking packages look like database applications," Jon said, as he showed a screenshot of Salesforce, a web application used by over 72,500 companies. "Traditional CRM (customer relationship management) systems look like they were designed for old DEC computer terminals," he noted.

Today's sales people no longer sit at PCs, they travel with tablets, netbooks and phones. Email, Twitter and instant messaging have replaced street address and fax as primary ways to contact people. Jon demonstrated Nimble, showing phone number, e-mail address, blogs and information from social networking sites — LinkedIn, Facebook and Twitter — on each contact's page.

If Nimble is as easy to use as Jon's demo, account managers in small businesses will find it quick and easy to record sales communications and track customers. You can sign up to be a developer, marketing partner or beta user on www.nimble.com. For single users, Nimble is free. For sales teams, pricing ranges from \$9 to \$29 a month. That's not quite as good as Zoho, offering a basic CRM system that is free for up to three users.

Last week I wandered over to Mozilla Labs in the Mountain View Town Center on Castro Street, to check out some experimental add-ons for the Firefox browser. Developer Michael Hanson spoke about the work he has done on Contacts. At a first

glance, it looked very like Nimble with Twitter and Facebook information for each contact. The Contacts add-on can get contacts from Facebook, Gmail, LinkedIn, Plaxo, Twitter and Yahoo! address books. If you are an Apple Mac user, you can also add contacts from the Mac Address Book. Unlike Nimble, Contacts doesn't actually track contacts, it just finds web information about people. As a labs product, it shows where things are heading, so it's not perfect yet.

Michael told me that he was motivated to create Contacts to show people how easy it is to find information about someone — from their friends to their Flickr photos. If you are a Facebook user, you might just want to check your privacy settings — go to Account in the top right corner of the screen and choose Privacy Settings. Contacts also uses the OpenSocial specification.

Nearly three years in the making, Open Social 1.0 has now been finalized. This means that you can expect to see social data like friends and photos being shared across many applications and websites, making the need to manage your online reputation even more important. If you have an uncommon name or company name, then you can set up a Google Alert to send you e-mail whenever you are mentioned (<http://www.google.com/alerts>).

Just when you thought you'd removed yourself from annoying telemarketing calls by putting your phone number on the Do Not Call List (donotcall.gov), don't be surprised if a customer service rep knows the color of your hair, your hobbies and where you went on vacation. Nimble's going to have plenty of competition, but so far it looks like a company worth watching. ■

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HEY TECH!

Donating gift certificates helps charities, and businesses, too

By Jennifer Pence

Question: How can a business donate thousands of dollars to charities without incurring any significant costs and possibly find new clients in the process?

AnsWER: By donating gift certificates to charity auctions.

Vincent Isola of Genesis Photography in Mountain View is one local business owner who has discovered the joys — and business benefits — of donating to charity fundraisers. (Disclaimer: Genesis recently donated gift certificates to a charity fundraiser that I co-chaired.)

Vincent's contributions to charity auctions began years ago when his children's school, McAuliffe Elementary School in Cupertino, was doing a fundraiser. After the event, some parents who also had

children at other schools asked him to donate certificates to those fundraisers. From there, requests for donations continued to grow by word of mouth.

In the past year, he has donated to numerous groups, including the Mountain View Educational Foundation, the Glow Foundation, the Burlingame Community for Education, Notre Dame de Namur University, Jewish Family Services of Silicon Valley, the American Cancer Society, and numerous public and private schools throughout the Bay Area.

Over the years, Vincent has made some observations that have allowed him to improve the effectiveness of his contributions. Since he found that auction organizers were sometimes quite harried in organizing and displaying the



items, he created an "auction box" that organizers could pick up at his studio that functions as a complete display kit.

It includes a sample album and digital picture frame that display examples of his work in addition to brochures, business cards, the actual gift certificates,

and a sheet for recording the name and contact information of the winners. Vincent asks that the auction organizers return this last item with the auction box so that Genesis can follow up with all winners to discuss how and when they might want to redeem their certificates.

"If we didn't follow up right after the event, a few weeks before the holiday season there would be a rush of people trying to redeem

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stunning, accessible visual images and maps running on the Google Earth platform.

"Mars in Google Earth" was released in February 2009, and "Moon in Google Earth" debuted five months later on July 20, commemorating the 40th anniversary of Apollo 11.

"We're taking the NASA data that was collected and representing it into an immersive environment," Montague said. "It's a three-dimensional, engaging experience for teachers and students and parents."

Fong described how these technologies are combining and building on each other. GigaPan, for example, was inspired by the panoramic images that NASA's twin Mars Exploration Rovers, Spirit and Opportunity, sent back to Earth. One of Fong's engineers working on the Mars rovers created a program to let scientists interactively explore and immerse themselves in the images. "Then we thought: 'If we can do this for Mars, why can't we do this on Earth?'"

Disaster response

A third project, still in the works, is the "GeoCam." The endeavor draws upon cell phones with built-in cameras and GPS, such as the Android, to improve disaster response.

"After a hurricane, fire or earthquake," said Fong, "there are no street signs. But all you need is a camera, GPS and a little bit of software. With GeoCam, you can take pictures, upload them,

and they will show up instantly on Google Earth. You will know exactly where you are."

The local application? Helping Cal Fire improve its response to those infamous California wildfires, like the ones that ravaged the Santa Cruz Mountains two years ago.

"GPS cell phones are very cheap," Fong said. "You don't have to be a professional responder" to provide accurate and up-to-date information.

Close neighbors

"We can see Google's buildings from Ames," said Fong. "We at Ames understand the culture (at Google). It's a bit of a different culture from the other software companies here in Silicon Valley."

He went on to describe the two sides' "common corporate culture" and stated: "Both NASA and Google have benefited immensely by marrying NASA data to Google platforms."

"Both organizations have common interests," Montague agreed. "We want to get people interested in space. We want to be better global citizens. We are so in love with technology.

"NASA has the same ideals," she continued. "We hang out on each other's campuses."

To illustrate, Montague related an anecdote about NASA's LCROSS mission last year: As the lunar probe prepared to crash into the Moon on Oct. 9, Google hosted "a well-attended sleepover viewing party" at NASA Ames, open to all citizens of Mountain View and surrounding areas.

"We love to reach out to Mountain View," she said. ▀

El Camino Hospital unveils new 'cyberknife' treatment center

A new tumor-treatment facility at El Camino Hospital could help address the hospital's recent budget woes by attracting more patients, hospital officials said.

The hospital's Radiotherapy CyberKnife Center, which opens on May 3, will feature three new precision tumor-treatment technologies, hospital spokeswoman Chris Ernst said Tuesday. These technologies make El Camino Hospital an attractive option for cancer patients, she said.

"Patients with cancer, they research carefully to try to find the hospitals that offer the most advanced, cutting edge treatments ... it's a way to try to attract more patients who are not at El Camino," Ernst said.

The hospital announced April 14 that it is running more than \$11 million behind on its budget for the current fiscal year. Hospital officials said the budget shortfall was caused by a decrease in higher-revenue treatments and an \$8 million write-off of uncollectible bills.

Ernst said funding for the Radiotherapy CyberKnife Center came from the hospital's budgets for the 2009 and 2010 fiscal years. ▀

Martin Sanchez

ANNUAL Water System Flushing

The City of Mountain View will begin its annual flushing of the water system in March, 2010. Flushing the system clears water lines of sand and sediment that may have accumulated during the year. Signs and barricades will be posted in neighborhoods the day before flushing, and the flushing is anticipated to be complete by approximately July 1, 2010.

If you would like more information about the City's water system flushing program or have questions or concerns while City personnel are in your neighborhood, please contact the Public Services Division at (650) 903-6329 or visit the City's website at www.mountainview.gov.




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