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JIMS VIRTUAL WORLD

A WEEKLY NEWSLETTER BY THE MCA DEPARTMENT

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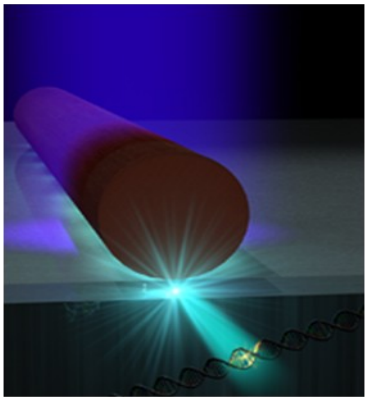
Computing faster than electricity



AT&T first started spinning optical fibers from glass and the great unanswered question was how you connect the fibers together. For a long time the answer was a simple switch. Data would be turned from light to electricity, run through the switch, then get turned back into light.

Today we have all-optical switches, so even though fibers no longer send a single beam of white light, but a stream of signals in a rainbow of colors (seen and unseen) our networks can handle the load. There remains the problem of scaling that down. How do we move data between chips, within systems, at the speed of light rather than the speed of electricity?

Scientists at UC San Diego say they now have the answer — a laser measuring one micron in size, built with super-thin layers of silica and aluminum, that works at room temperature and emits a beam whose wavelength is 1.4 microns, larger than the laser itself. These nanolasers can be packed onto a wafer with the aluminum acting as a heat sink. Lasers can be run as close together as circuit lines on current chips. The pulsing of the light can represent 1s and 0s, read on either side of the junction by a diode. Nanolasers like those made at UC San Diego could hit commercial production in just a few years, built into optical networking gear or, perhaps, directly onto chips, reducing that bottleneck between electricity and light still further. So no matter how fast you think you think tomorrow's chips and networks will think faster, because our chemical brains are still running on electricity while tomorrow's networks will run on light.

Facebook fallout: survey finds 60 percent may quit over privacy

A survey by security firm Sophos shows that 60 percent of Facebook users are considering quitting over privacy concerns. Apparently, Facebook has crossed a line with its last round of changes to the privacy policy and settings. The changes - which largely require users to opt-out, instead of opt-in have not been well received. Facebook reportedly called an all-hands meeting last week to discuss privacy concerns and there's been buzz that revisions to the nearly 6,000-word privacy policy (longer than the U.S. Constitution) are coming (again). Are they really willing to jump ship or are they too locked in to a Facebook world? Well, consider this: Just last week, one of the top trending searches on Facebook was "delete facebook account," Sophos reported. And Danny Sullivan over at Search Engine Land has put together a pretty compelling report that suggests that Facebook;'s active user growth has dropped 25 percent to 50 percent over the privacy concerns. While it's true there's a pretty strong commitment to Facebook among its users, there was also the same sort of commitment toward AOL and MySpace at one point, too. It's hard to believe that Facebook has once again botched a privacy setting

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