

## START

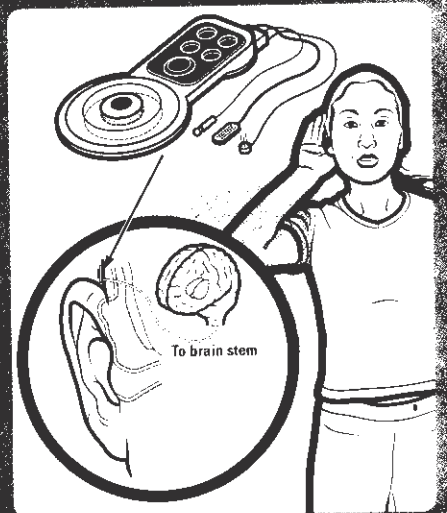
◀ There is a clear parallel between the excitement of the PointCast days and the enthusiasm for RSS today, one that goes further than easy harvesting of news headlines. Search engine results, product information, new music, notification of recent blog comments, and many other types of digital information are becoming available through RSS. This dialect of XML brings us the Web as an evolving environment: customizable, variable in intensity, and always on. This is the old promise of push. We can see the potential for radically new types of media – again.

But while the vision has become vivid once more, the seamless Web of the original push fantasy is almost as far away as ever. This is because the Web has grown far bigger, more diverse, more open, and messier. It cannot be unified by a single easy-to-learn, concretely useful specification like RSS.

As a dramatization of this case of “success within limits,” you might read some

what it is today: a tool for syndicating news and navigating frequently updated blogs. And this might be a good thing, because a huge number of other interesting push tools are coming online. For instance, Yahoo! can send stock alerts at customized thresholds to your PDA; Intuit will find the average going eBay price for an item you intend to donate to charity; Google lets you check prices for products across the Web from your cell phone.

I recently had a short email conversation with Meg Hourihan, cofounder of Pyra Labs (of Blogger fame), and, most recently, Kinja, which is producing a new Web-based blog reader to compete with Bloglines and other popular tools. The idea is to bring updated news and weblog headlines onto the desktop, allowing users to go through them without browsing dozens of individual sites. This is push. But RSS is only one piece of it. Hourihan points out that RSS depends on a “polling” system in which aggregators automatically visit blogs and see what’s new.



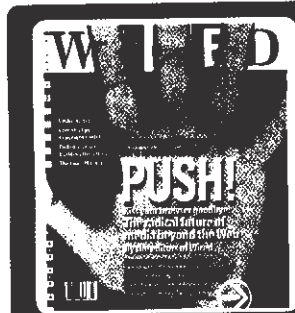
IMPLANTS

## Bionic Ears

The brain stem, responsible for important jobs like regulating breathing and heart rate, is a delicate area to muck around in. But plug in the right kind of electrodes, and it becomes an excellent human-machine interface.

“I went from absolutely nothing to hearing what seems like everything,” says Molly Brown, one of two deaf patients who’ve gone cyborg. Both women had tumors removed from their auditory nerves during treatment for a rare genetic disorder called neurofibromatosis type 2. To restore their hearing, the House Ear Institute in Los Angeles outfitted each with a penetrating auditory brain stem implant, a gadget that connects an external microphone to eight microscopically thin electrodes jacked directly into nerve tissue. Older auditory brain stem implants hugged the outside of the brain stem and provided less precise sound. (Cochlear implants, which stimulate auditory nerves in the inner ear, weren’t even an option – the neurological damage was too far upstream.) Seven of the eight electrodes worked for Brown.

Early results bode well for other types of neurosurgery: “Microelectrodes will be used in the retina for visual stimulation, in the spinal cord for pain control, and to help alleviate paralysis in quadriplegics,” says Bob Shannon, a biomedical engineer at the institute who hopes to implant at least 25 more of the experimental devices. — Jesse Freund



The March 1997 cover story

## OUR ORIGINAL STORY WAS WRONG – AND PRESCIENT

of the hot posts flying between Dave Winer, one of the creators of RSS, and the developers advocating a new syndication specification called Atom. The evidence of their passionate antagonism can be tracked across hundreds of blogs. And the essence of their disagreement says a great deal about RSS and push.

One of the virtues of RSS is its simplicity. (The abbreviation stands for “real simple syndication.”) But with this simplicity comes a certain crudeness. To Atom’s advocates, RSS is confining and arbitrary because all it’s really good for is syndicating news feeds. The Atomites argue that if RSS were replaced by a more rigorous and more general specification, it could surmount some current difficulties and go a lot further. But Winer wants to keep it simple and easy to use, and he has argued against all attempts to elevate RSS to a “higher” level.

As long as Winer has anything to say about it, there is little chance that RSS will become anything but a better version of

“Can you imagine 1 million news readers all checking 300-plus sites every 15 minutes?” Hourihan asks. “Or even every hour? It’s so horribly inefficient.” She hopes to see some sort of peer-to-peer solution.

Meanwhile, there are countless examples of independent applications doing little pieces of the work we originally touted in our terribly incorrect – but also, it turns out, weirdly prescient – story on push. Each day there are new announcements; some are based on RSS, but many are not. There are families of acronyms to explain how these applications can, and sometimes even do, work together. But one of the things we have learned since push is that at the level of real applications, we will continue to live in a world of translations, patches, interruptions, incomplete instructions, neat tricks, false hopes, and a receding universality that’s always almost just as far away.

Paradoxically, this is a sign that the progress is real.

Contributing editor Gary Wolf (gary@aether.com) is the author of *Wired: A Romance*.