A new frontier for wireless medical devices?

Defibrillator on the pitch at Stadio Ennio Tardini on April 21, 2012 in Parma, Italy. An FCC vote this week could allocate part of the broadcast spectrum for a new wave of health care technology.

by John Moe
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It's only one agenda item at a meeting being held tomorrow in Washington, D.C. That one item, however, may have an enormous effect on the future of medical treatment. The Federal Communications Commission is scheduled to vote on setting aside part of the broadcast spectrum for wireless medical devices.

J.C. Chiao teaches electrical engineering at the University of Texas, Arlington. He says the devices could be used to monitor patients with heart conditions, lung problems. "The sensor can be planted inside the body, or the patient wear on the body to detect chemical or physiological parameters."

The device sends out data on how the patient is doing. It's like getting an email from your body. The patient could review that data, share it with a doctor if necessary. The devices could also provide treatment through stimulation. Chiao says, "The stimulation has been proven successfully in control tremor in Parkinson's Disease and bladder controls."

A wireless device means more mobility for the patient, which Chiao says could help in a few different ways. "The patient will not be tethered to the bed. Wireless can also provide charging, so the battery inside the body can be wirelessly charged, so the patient doesn't have to suffer another surgery to replace the battery of the implant."

According to the FCC's estimates, these machines could save over a billion dollars in health
care costs. "There's a lot of patients who have to stay in hospitals to do tests," says Chiao. "So, if the device can be worn by the patient, or implanted inside the patient, after outpatient procedure, for example, endoscopy procedure, the doctor can send the patient home, and all the data will be continuously monitored."

Now this all sounds great but there are some issues here. Like what if the wrong person gets hold of the information your body is beaming out?

Sandep Gupta is a professor in the School of Computing, Informatics, and Decision Systems Engineering at Arizona State University, and says, "There might be possibility of discrimination based on whether a person has cancer or diabetic and maybe that person may not get hired."

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Occasionally we ask, O INTERNET WHAT HAST THOU WROUGHT? And in this case it hath wrought tigers.

Zynga, maker of the popular online game Farmville, has partnered with American Express. And they're running a promotion that breaks my head.

Farmville players can sign up for a prepaid American Express card and earn currency in the game. So by spending real money, you, the player, get a bonus of make-believe things. Are you with me so far?

From there, you can visit American Express's virtual farm within the game where you are given a virtual tiger for you to take back to your own make-believe farm.

Now, I don't know a LOT about farming. But it seems to me that on a farm, the introduction of a predator, a killing machine, would be bad news for the chickens, pigs, and other herbivore victim animals that traditionally live there.

That's why, American Express, very few farms have tigers.

Since this offer has been introduced, half a million people have received tigers. I don't understand the world anymore.

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About the author

John Moe is the host of Marketplace Tech Report, where he provides an insightful overview of the latest tech news. Follow John on Twitter @johnmoe

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