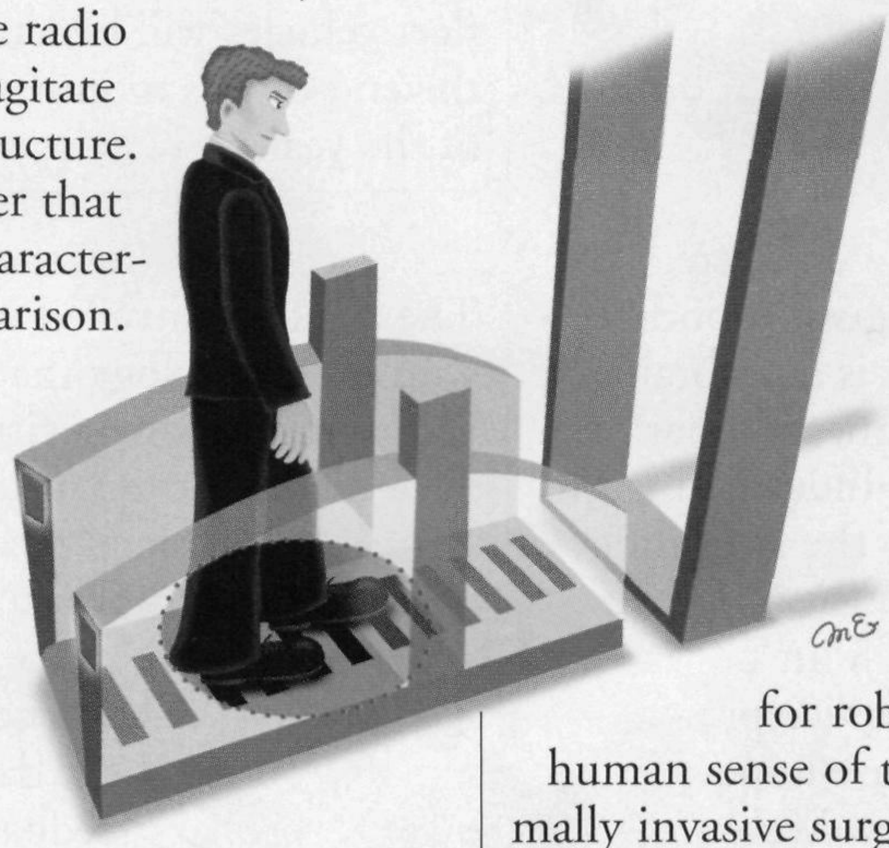
News Track

Airport Security Afoot

A promising scanning device that would allow airline passengers to keep their shoes on while walking through security checkpoints is now being tested, reports *USA Today*. The ShoeScanner uses technology similar to an MRI to detect explosives in five to eight seconds. Rather than remove shoes and jackets, travelers stand in a kiosk where radio waves are targeted at shoes to agitate molecules and analyze their structure. Readings are sent to a computer that holds a library of explosives characteristics and makes a quick comparison. Kip Hawley, head of the U.S. Transportation Security Administration, says the technology must pass tests in real airport settings before he would discuss a timetable for deploying the machines. "The question is: Can you operate and deploy (the machine) and have people walk on it without it breaking down. It's sensitive electronic equipment."



Air Fare

In other "flight news," the move to turn airplanes into Wi-Fi havens allowing passengers to send email from laptops, monitor BlackBerrys, or surf the Web on domestic flights may be realized by 2007. AirCell and JetBlue's LiveTV unit were the top two bidders in a Federal Communications Commission auction of air-to-ground airwaves. AirCell agreed to pay $31.3 million for 3MHz of spectrum; JetBlue bid $7 million for 1MHz of airwaves. The Federal Aviation Administration must first approve the Wi-Fi services to make sure they do not interrupt airplane navigation equipment. The CEO of AirCell, however, says such service could roll out next summer and passengers could expect to pay about $10 a flight for Wi-Fi access. Although technologically available, in-flight cell phone usage still faces stringent regulatory hurdles and consumer resistance.

ILLUSTRATIONS BY MASAKO EBATA

The Human Touch

A device that can feel the texture of objects with the same degree of sensitivity as a human fingertip has been created by researchers at the University of Nebraska, Lincoln. *BBC News* reports that the sensor may pave the way for robotic hands that can replicate the human sense of touch and possibly aid in minimally invasive surgical techniques by giving surgeons a touch sensation. The researchers achieved this high level of sensitivity by creating a very thin film of layers of metal and semiconducting nanoparticles flanked by electrodes. When the film touches a surface, the press or stress squeezes the layers together causing the current in the film to change emitting light from the particles. The visible light is detected by camera. The amount of light emitted is exactly proportional to the stress applied. Richard Crowder, a robotics expert from Southampton University in the U.K., says this unique sensor "could prove to be a key advance in technology for reasons including relatively simple construction, apparent robustness, and high resolution."

Luddite Politicians Seek Help

Many veteran politicians, bowing to technology benefits beyond their personal expertise, are recruiting computer whizzes to help them navigate the new world of blogs, podcasts, and the Web to better con-