Segway Soccer

The Segway Human Transporter may not be the world-conquering transportation device envisioned by its founder, Dean Kamen, but researchers at the University of Alberta and Carnegie Mellon University have found a new use for it: playing soccer. They are using Segways for a new kind of soccer-playing robot that will, they hope, help an international robot soccer initiative defeat a human team in a game of soccer by the year 2050.

Many different kinds of robots have been developed to meet this challenge, and several different competitive leagues will play in the 2005 RoboCup tournament to be held in Osaka, Japan, from July 13 to 17. Entries range from tiny teams of miniature robots that play with ping-pong balls on a field the size of a ping-pong table (the little league?), to a new mixed-mode version of the game with two-player teams, each consisting of a human riding on a two-wheeled Segway, and a robot teammate. The robotic teammate is also a Segway-like device, but instead of being controlled directly by a rider, it is controlled independently by a computer.

The goal of these pairings (and of the RoboCup altogether) is to further artificial intelligence. The University of Alberta's lead researcher, Dr. Michael Bowling, hopes that the mixed teams will help researchers develop robots that are capable of learning which strategies work in various settings and with differing types of teammates and opponents, a crucial step in helping the robots adapt their strategies as needed during a game. This ability to learn is key to developing robots that can take on more sophisticated "human-like" challenges. While a robot may have recognized that a feint to the left before kicking the ball towards the goal usually tricks the goaltender, it has to learn to try a different strategy once the goaltender has recognized the pattern and has started responding more effectively.

Developing robots that adapt to humans, instead of forcing humans to adapt to robots, represents a major step forward in the usability of robotic devices. This approach will be crucial for many applications currently being developed, such as robotic aides for the elderly or infirm.

—*Tema Frank*

Tweeny Testers Tweak Teeny Computer

When LeapFrog Enterprises, Inc., decided to leap from the early childhood market into the "tweeny bopper" set, it knew that usability would be crucial for success. Rather than guessing what children this age would want, it recruited 50 eight- to thirteen-year-olds from the San Francisco Bay area to help develop the FLY™ pentop computer. A FLY user will be able to write on a special piece of paper and then interact with the writing directly on the paper. For instance, the user can draw a calculator, then touch the handwritten digits and functions to perform an operation and then hear the answer announced by the FLY pen. A user also can write a word in English and hear it translated into Spanish, or draw a piano keyboard and play it.

The software designed into the pen and paper can help tweens with math, spelling, and language translation. It includes baseball games with interactive collectible playing cards, a special journal-writing program, a music composition unit, and more.

The students met weekly to test out new ideas and prototypes, give feedback, make suggestions, and offer a "reality check" on what tweens want and need. They helped choose the product's color and its voice, and helped design some applications, including the *Aliens* game bundled with the FLY.

The FLY pentop computer will be sold in consumer electronics sections, with a planned release date of fall 2005. The suggested price is $99, with applications ranging from $4.99 to $29.99. **UX**

—*Tema Frank*

When the Spring UX arrived, it immediately became my morning coffee (Starbucks) reading for the next three days, pushing everything else off the queue. I have to say that it's only once in a blue moon that I find any publication where I want to read *every* article. (And illustrations that actually convey points: what a concept!) It's still sitting on my "to read" stack, because now it's so covered with marginal notes I have to go back and reread it.

And now I'm dying to see the Summer issue to find out whether you've shot your bolt, or you can actually do it again. I can only hope. Anyway, congratulations. Keep up the good work. (If you can.)

—*Steve Krug*

Call for Participation

User Experience magazine needs you. Do you estimate projects for your internal or external clients or for your work as an employee in a usability group? What works best for you? Do you use standard project management techniques like Gantt charts and the project-management triangle or do you just wing it? Send your answer to ux@upassoc.org, and then look for your responses in an upcoming issue.