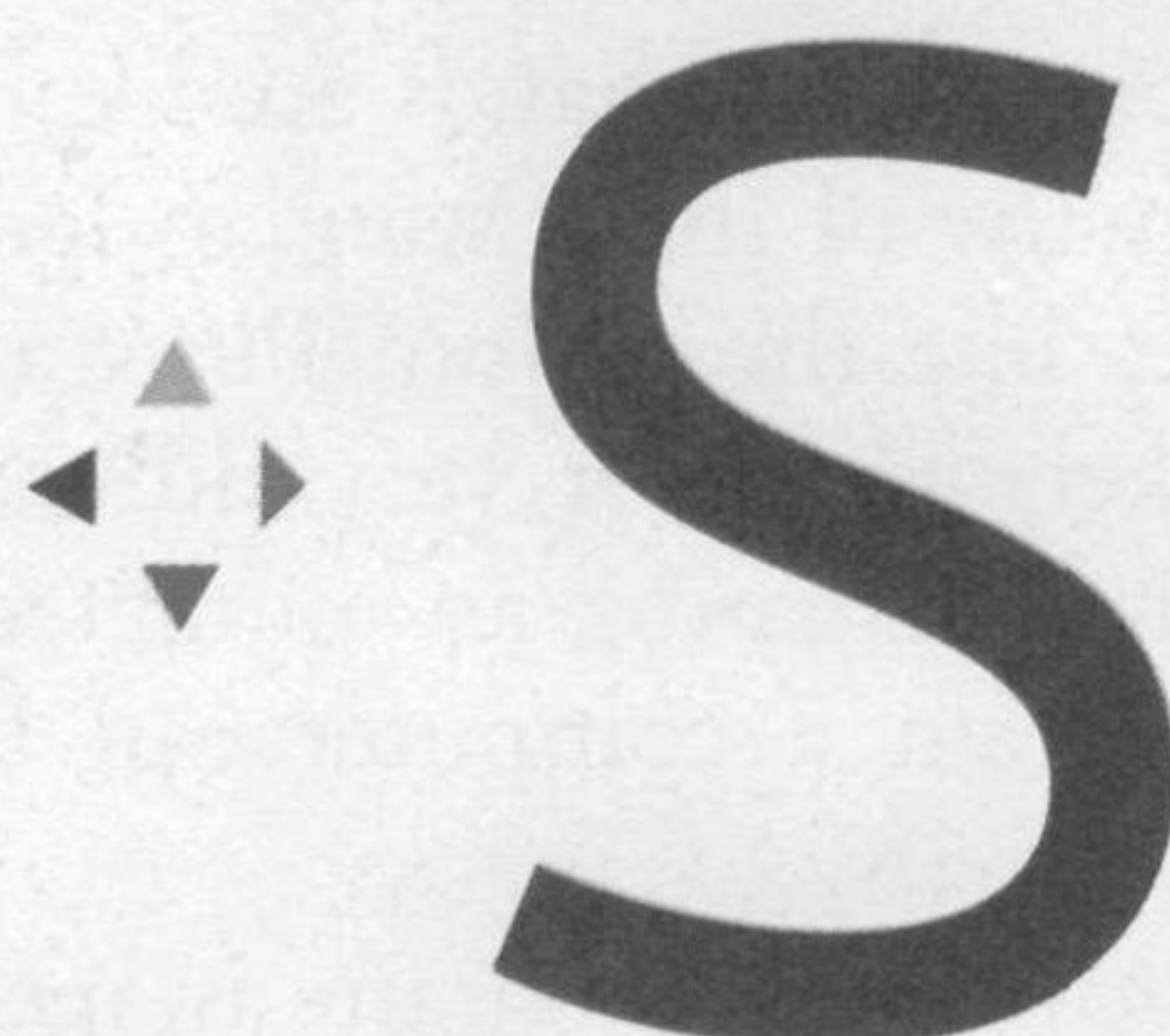# USING STORYTELLING TO MOTIVATE PROGRAMMING

Using the Storytelling Alice programming environment to create computer-animated movies inspires middle school girls' interest in learning to program computers.

By **CAITLIN KELLEHER** and **RANDY PAUSCH**

S tudent interest in computer science is falling in the U.S., as well as in other countries worldwide. The Higher Education Research Institute found that between 2000 to 2005 the number of college freshman listing computer science as their probable major dropped by 70% in the U.S., and the Taulbee Survey found that computer science enrollment at research universities dropped by 50% [10]. Meanwhile, we have found that presenting computer programming as a means to the end of storytelling motivates middle school girls (ages 11 to 15) to learn to program, potentially increasing the number and diversity of students studying computer science.

There is also still a strong and growing need for computer scientists in many countries. The U.S. Bureau of Labor Statistics predicted in 2005 that 65% of job

Student programs created with Storytelling Alice. (Carnegie Mellon University, Pittsburgh, PA.)