

EdgeWrite: A New Text Entry Technique Designed for Stability

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Summary

EdgeWrite is a new design for text entry.

Devices

- Palm OS PDA
- Trackball
- Touchpad
- Game controller
- Wheelchair joystick
- Isometric joystick
- Four buttons or keys
- Mobile phone

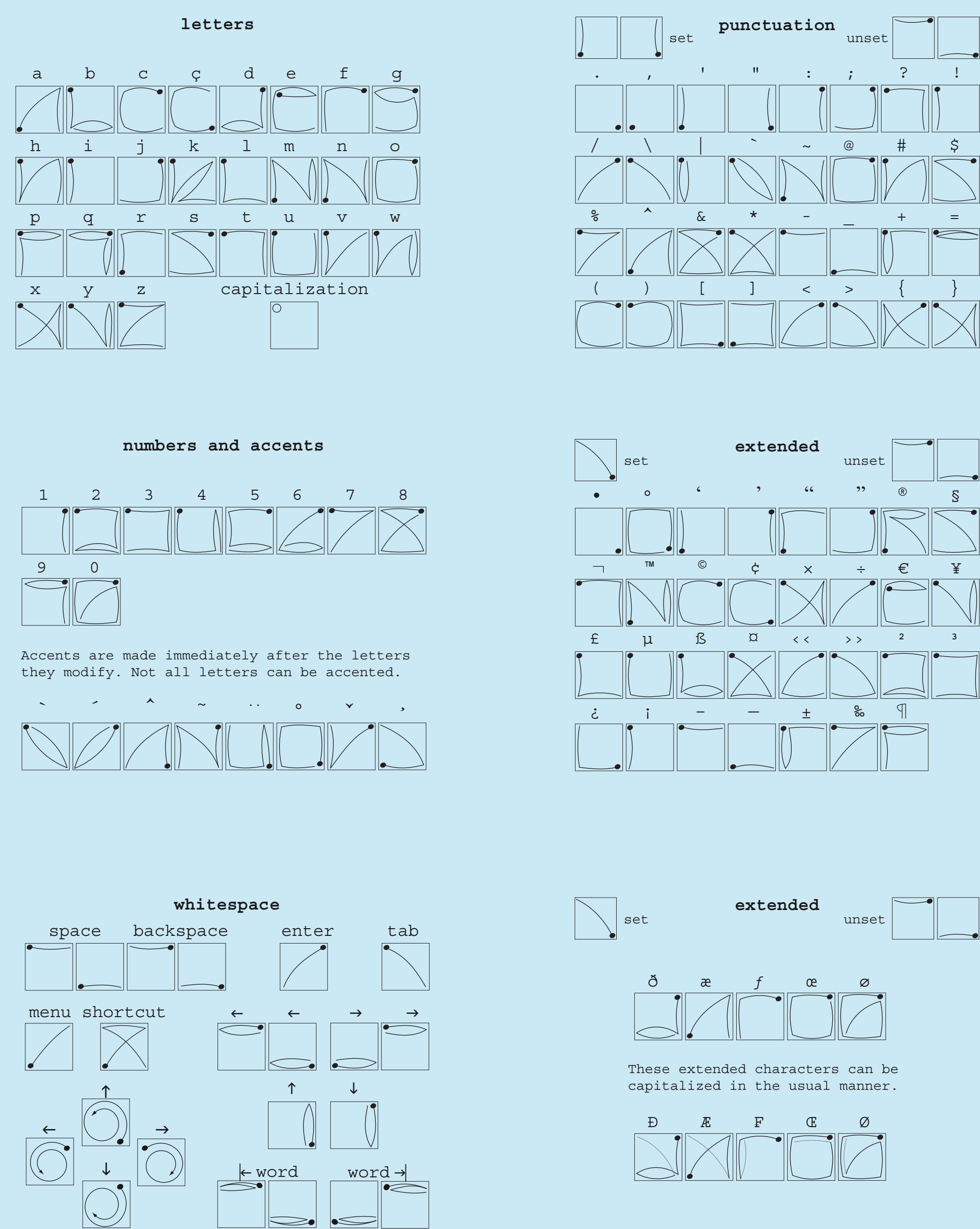
Features

- Physically stable
- Highly tactile
- Spatially compact
- Quickly learnable
- Highly guessable
- Consistent
- Versatile

EdgeWrite is good for some people with motor impairments, and for "situational impairments" induced by using mobile devices "on the go."

Alphabet

EdgeWrite uses the same alphabet on all devices. Bowed segments are for illustrative purposes only; all strokes are in straight lines. Most characters have many alternate forms, not shown here.



EdgeWrite for the Palm OS

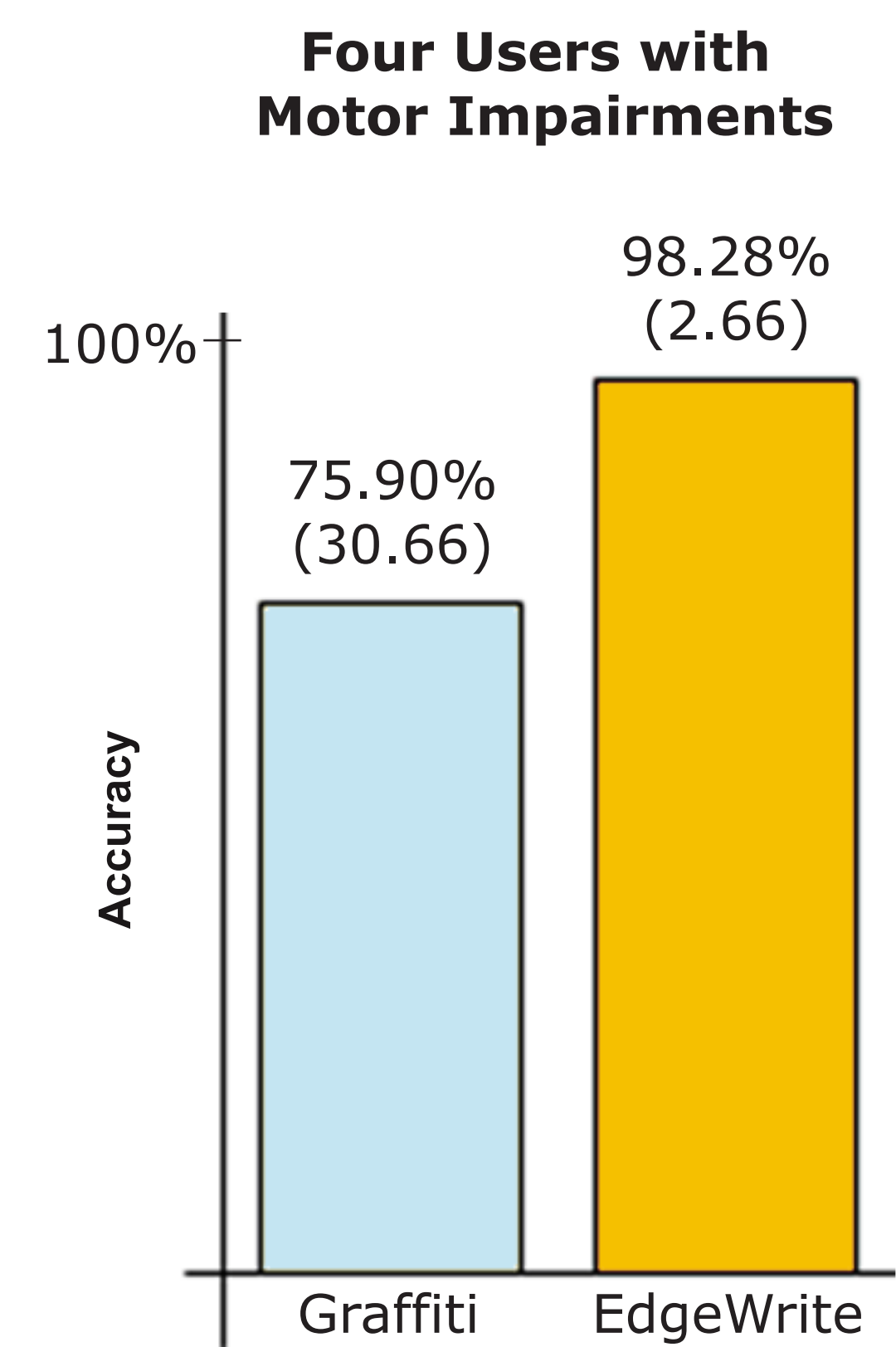
Looking for a more accessible means of entering text on a Palm PDA? Stylus keyboards and freeform alphabets can be difficult for people with motor impairments (and everyone else!).

EdgeWrite is over 18% more accurate than Graffiti for able-bodied users, and 2-4 times more accurate for some people with motor impairments. Download it for free from <http://www.edgewrite.com>, and order a plastic template or make your own.



24.0 WPM*
2.8% Errors

*Able-bodied expert rates provided for comparison.



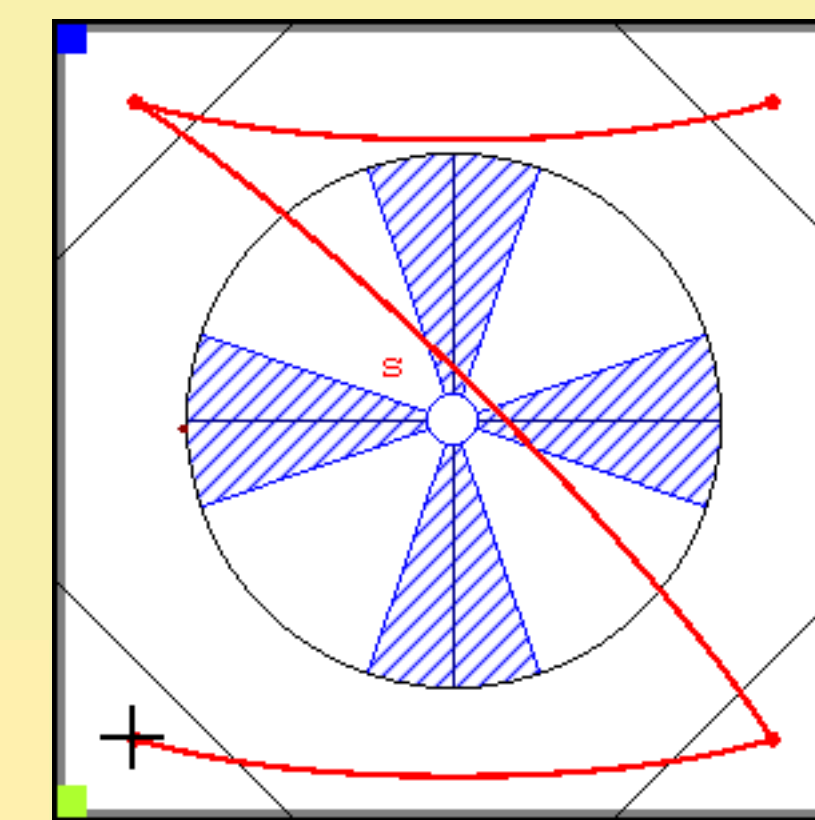
Human-Computer Interaction Institute

Carnegie Mellon University

EdgeWrite for Input Devices

Tired of using on-screen keyboards? Many people with motor impairments use on-screen keyboards, but text entry with on-screen keyboards can be tedious. Desktop EdgeWrite works well with trackballs, game controllers, and touchpads, allowing users to make gestures and rely more on feel than sight.

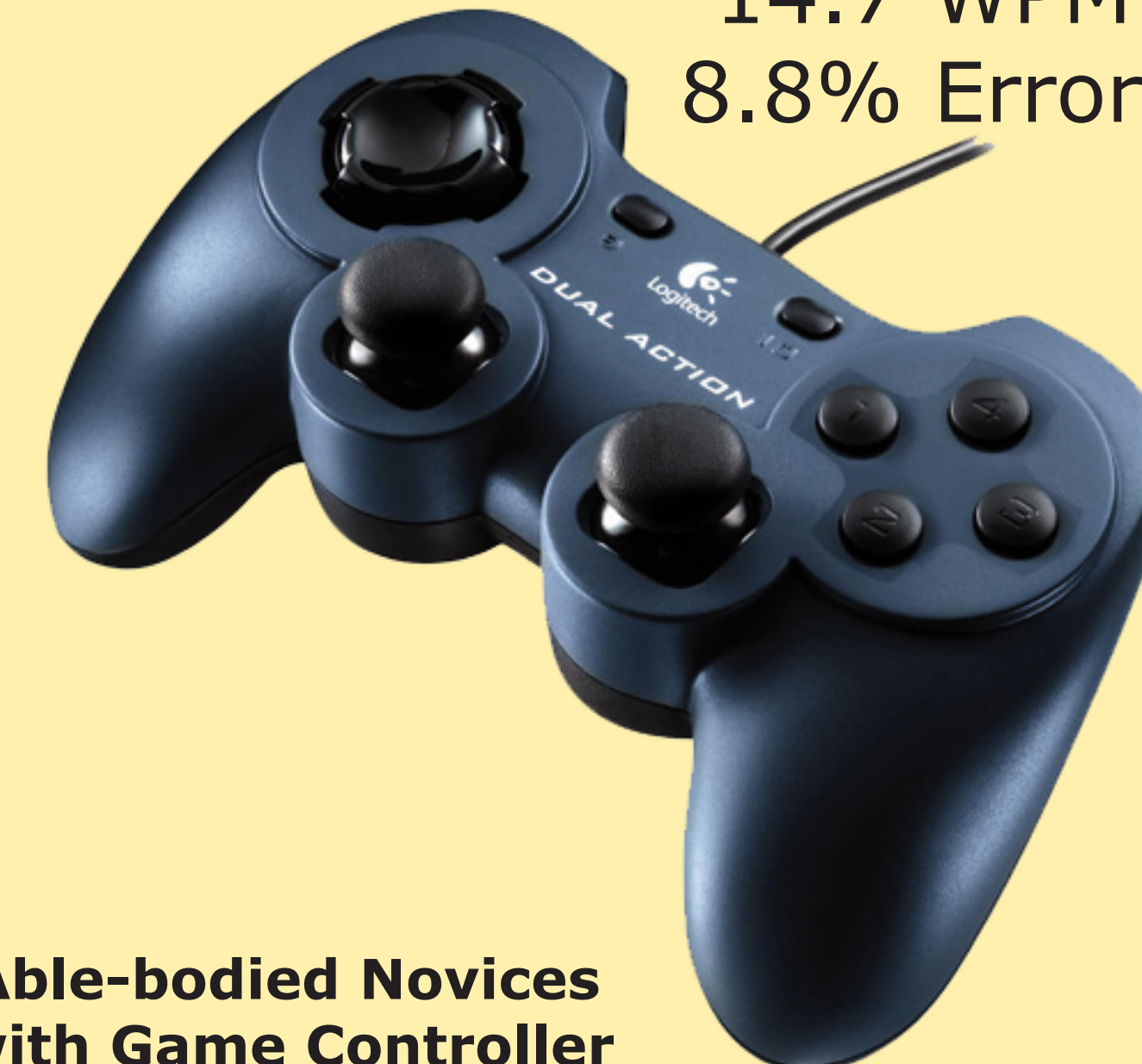
"With an on-screen keyboard, there is just too much visual scanning and concentration. In EdgeWrite, if you know the letter, you just bang it out by feel, and you can keep your eyes on your document."
- Expert trackball user



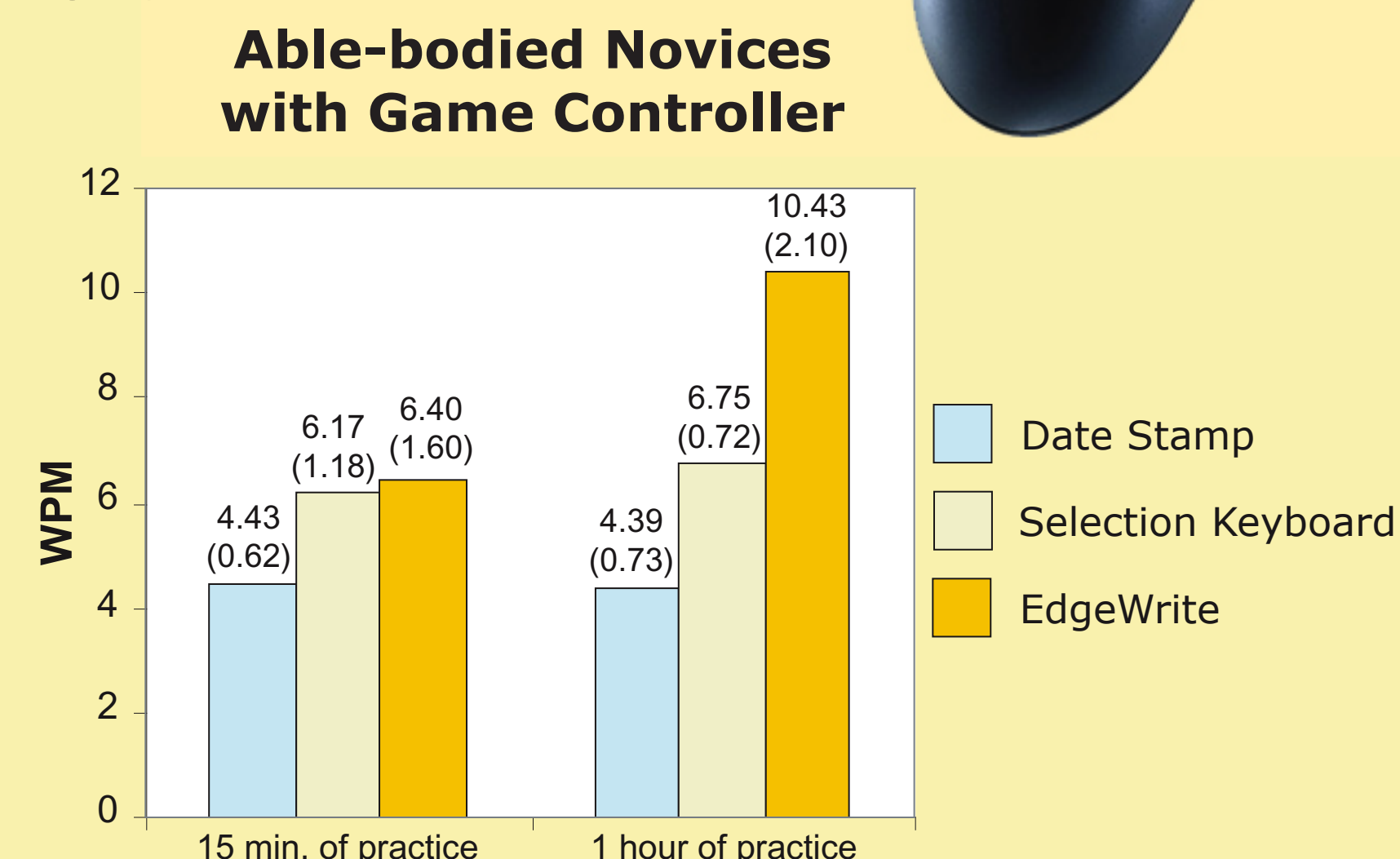
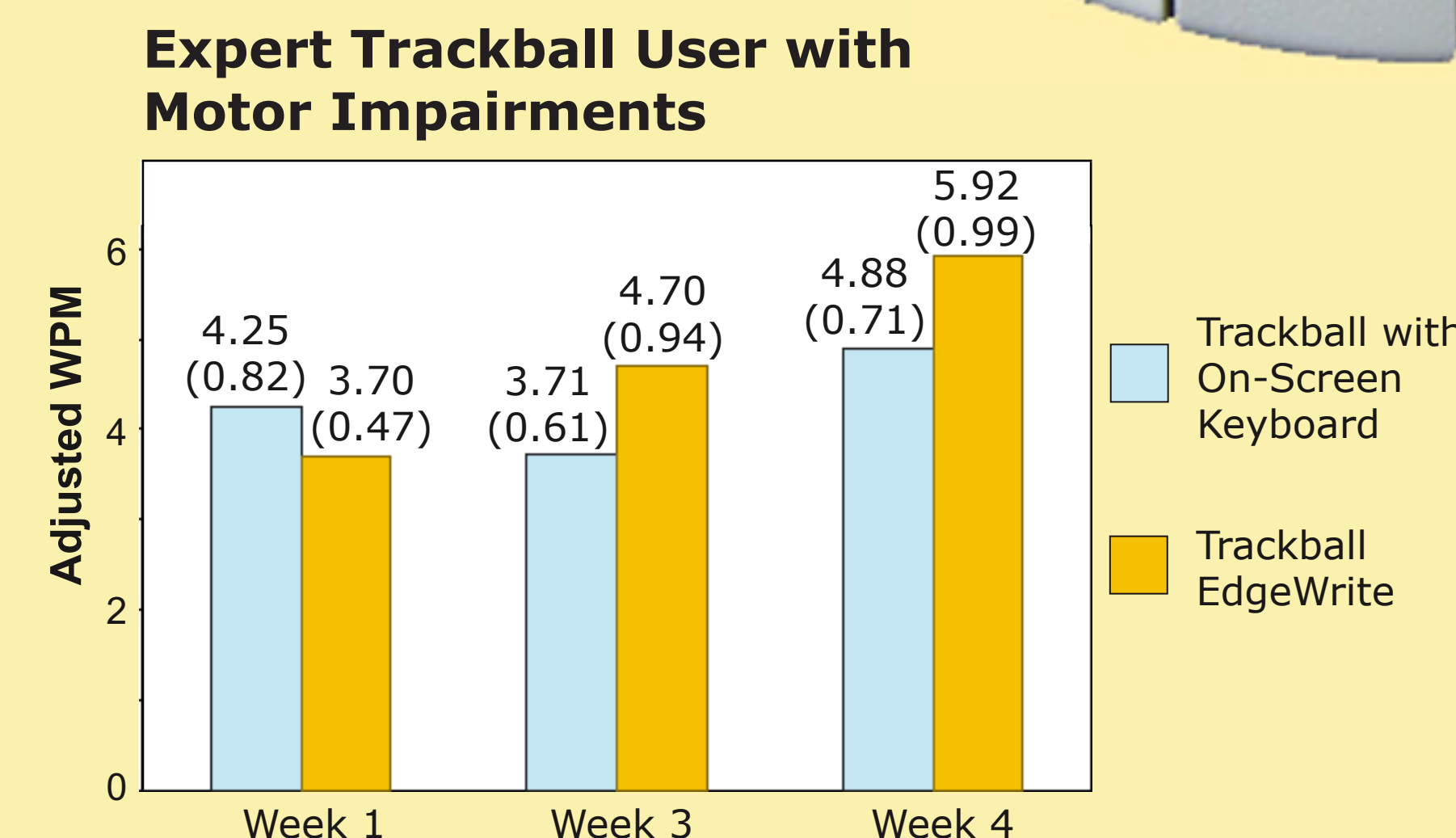
12.7 WPM*
6.6% Errors



19.1 WPM*
4.7% Errors



14.7 WPM*
8.8% Errors



EdgeWrite for Power Wheelchairs

Technology already exists to enable mouse control from a power wheelchair joystick. But no integrated text entry solutions exist. EdgeWrite provides a gestural means of entering text from a power wheelchair joystick. Our prototype was used in studies but is not available commercially. Talk to us if you have interest!



12.9 WPM*
8.4% Errors

We imposed a plastic template over the joystick to provide a square boundary for EdgeWrite.



EdgeWrite offers a gestural means to do text entry from a wheelchair joystick, instead of selection with on-screen keyboards.

Try it!

We are looking for people to try out our software. Let us know if you'd be willing to help in user studies.

EdgeWrite is part of the Pebbles Project at Carnegie Mellon University. Visit <http://www.pebbles.cs.cmu.edu>.

