

# THE BOLD DYSLEXIC BEHIND INTEL'S READER

**BEN FOSS '95, HELPS INTEL DEVELOP ITS HANDHELD READER**  
**BY CYNTHIA E. ROCKWELL**

When Ben Foss '95 was majoring in the College of Social Studies, he always stayed for the full three hours of weekly tutorials—debating, listening, and asking questions.

When he went to a restaurant with friends, he would be the last to give his order. “It all looks good—what are you going to have?” he’d ask his companions.

If you’d think these two behaviors are unrelated, then Foss had achieved his objective: he’d hidden his disability.

However, it’s no longer a secret: Foss is dyslexic. As director of access technology at the Intel Digital Health Group, part of Intel Corp., he’s ready to talk about his own disability as he helps those with all kinds of challenges use technology to overcome roadblocks in daily life.

The group’s first product, the Intel Reader, developed in 2009, is a handheld text-to-spoken-word device for which Foss was the creative force. This one gadget makes obsolete the many subterfuges he’d used to navigate his world without admitting to friends that he had difficulty comprehending text.

The Reader was Digital Health’s first consumer product, a portable device that can take a picture of text and read it back, at its owner’s convenience. It offers self-reliance—no need to wait for a parent’s phone call or a learning center’s schedule, no need to plot a way to tease out information from friends.

The Digital Health Group hadn’t been on Intel’s roadmap—but then, again, telling his secret to the world and developing the Reader hadn’t been in Foss’s plan, either.

Foss learns aurally, by hearing someone read a text or speak to him. When he was

growing up, his parents and school system provided supportive services and he learned to play to his strengths. “I constantly had to find ways of getting information that were not the conventional way,” he says.

At Wesleyan, the text-heavy College of Social Studies may have seemed a counterintuitive choice, but the colloquium-based program suited Foss well: “It was so much work that a supportive infrastructure was already in place. And there were no grades on weekly papers, so I could experiment and learn.”

For the twice-weekly writing assignments, he’d fax a draft to his mother, so, in a phone call, she could read it back and he could edit.

“That sort of support is hard to come by; at the same time, it was a loss of independence for us both,” he admits.

As for having a hidden disability in college: “It was lonely. I wasn’t willing to turn to roommates or friends to ask for help; I hadn’t yet developed the skills to have conversations that I can now have.”

As a graduate student in Stanford’s joint MBA/law program, a couple of factors led Foss to begin these conversations. One was a fellow student who excelled at helping others talk about disabilities: He introduced himself to classmates via e-mail, instructing them on how they should treat him (“It’s okay to notice that I don’t have hands”) and organized panel discussions on disabilities. Through these, Foss began to see that the separateness he felt was similar to the isolation that faces the larger disabled community.

The second factor was a disastrous first day in a course for which Foss arrived unprepared and attempted a bluff.

“In the 1980s, why did Intel give up memory chips and go into microprocessors?” asked former Intel president and CEO Andrew Grove, the professor.

Foss gambled: “Seems to me Intel was in the horse-and-buggy business and then the car came along.”

The rest of that class is etched in Foss’s memory:

“He looks at me—it was a decision that he, Grove, had personally made and it had required him to fire many, many employees—and says, ‘Horse and buggy? Horse and buggy? D-Ram—distributed random access memory chips—are horse-and-buggy technology? You have a laptop sitting in front of you. How many D-RAM chips are in it?’

“I said, ‘I honestly don’t know.’

“He said, ‘Eight. What do you call that? Horse and buggy?’”

“‘I call it a mistake,’ I said, and at that point, 66 people in the class are looking at me. He proceeded to refer to me as ‘Mr. Horse-and-Buggy’ for the rest of the day. He came back to me six different times, like ‘Mr. Horse-and-Buggy, what do you think of the Japanese financials?’ and just pistol-whipped me.”

Later in the semester, Foss told Grove the backstory of that first-day debacle, admitting that he had a learning disability. Grove was intrigued and asked him a lot of questions.

On the final day of the class, Grove had a key query for this student he had come to know as outstanding: “Why don’t you come to work at Intel?”

The corporation, with its innovative teamwork approach, suited Foss well. As director of access technology, a subset of Intel’s Digital Health, Foss leads a team of industrial designers, mechanical engineers, and software architects to develop mobile computing systems for people with disabilities. Their goal is to allow technology to increase an individual’s independence.

Through discussions with early testers—from the elderly with macular degeneration to young dyslexics—Foss has come to know the people who cherish the device: It’s the father who can take his family out to dinner without asking for help reading the check; it’s the sixth-grade boardgame-geek no longer

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scammed by friends’ made-up rules.

“How much better for this kid to say, ‘I read the rules and you’re cheating,’ than, ‘My mother read me the rules,’” says Foss. “It’s empowering.”

That sense of empowerment is also what Foss is forging with Headstrong, the nonprofit he founded in 2003. Geared to forming a dyslexic community and encouraging the learning disabled to join the disability rights movement, the group also produced a film, *Headstrong: Inside the Hidden World of Dyslexia and Attention Deficit Disorder*, which was recently broadcast on public television stations.

The irony about having a learning disability, Foss has found, is that, while seemingly “invisible,” it causes profound embarrassment: as a society, we equate reading speed with intelligence. “I’ve had people who are C-6 quadriplegics say to me, ‘I’m dyslexic, please don’t tell anyone. I don’t want people to think that I’m stupid.’”

“‘You’ve got a point,’ I tell them. ‘But I really hope that you start talking about it, because, frankly, it gets a little lonely out here, talking about my dyslexia.’”

Foss is hoping that the Intel devices he is helping to create will free the disabled and allow their natural abilities to shine.

“People with disabilities are entrepreneurs,” says Foss. “They have to change the world around them every day, just to get through.” **UPFRONT**

See Foss with the Reader at [youtube.com/watch?v=aYB24njwBW8](http://youtube.com/watch?v=aYB24njwBW8).



Ben Foss '95 holds Intel's Reader, the portable device that will “read” aloud to those with vision and processing disabilities.

CHARLES BARRY