### WISCONSIN BRAILLE

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# It All Started with the Braille 'N Speak By Kevin Jones

Until college, I lugged around a Perkins braille writer. Besides being disruptive in class, it was quite heavy. I can remember the 30 minute rides to and from school, wishing that I had a small and lightweight typewriter with batteries so I could do homework on the bus. Instead I had the Perkins which was not conducive to getting homework done on a bus. I had no idea where technology would go; but Deane Blazie did.

Deane Blazie was born in Maryland, but his family moved to Kentucky when he was 6. While in High School, Deane met Tim Cranmer. They became vast friends when they met at a local ham radio club meeting. From Tim, Deane learned a lot about the current state of adaptive technology for the blind. Tim Cranmer had invented the first braille embosser. Deane Blazie, upon returning to Maryland, founded Maryland Computer Services. Later he founded the company some of us still remember, Blazie engineering.

In October of 1987, a mere 30 years ago, Blaize Engineering released the first model of the Braille 'N Speak. That Braille 'N Speak, something that was way beyond any small typewriter with batteries that I had imagined, was designed to be similar to a Perkins brailler. Its keyboard layout was almost identical. Deane must have learned a lot from hanging out with Tim and listening to Tim bemoan having to carry his Perkins around!

The Braille 'N Speak had 192k of memory, and could hold about 35000 words of text which it managed in 45- 4k blocks of memory. It could support up to 30 files. Each file had 1 or more of those 4k memory blocks. One k, or kilobyte, of memory is 1,024 characters of text. Not much by today's standards, but back then it was a huge game changer for blind students and professionals.

The Braille 'N Speak did not have a braille display, but did have a 6 key Perkins style keyboard. It was only 4 by 8 by 1/2 inches and weighed less than one pound. I strapped it around my waist and took it to classes all over the Edgewood College campus. I could take serious notes in class and, although it was still a bit annoying to some of my classmates, it was still much quieter than the old Perkins. (When I asked Deane once if the Braille 'N Speak keyboard could be any quieter, he told me to take it apart and add an extra piece of felt under the key caps. I did and it worked.

As time went on Dean Blazie's company also developed a disk-drive for the Braille 'N Speak which made spell check and third party programs possible. When the Braille 'N

Speak memory was increased to 640k of RAM, I wasn't the only person to start using it as a e-book reader. With 640k of RAM I could store 300 pages of an average sized paperback book, that had been OCR scanned, and still have enough room to write almost 10,000 words of personal notes.

Deane Blazie's next project was to develop a portable braille display. In 1994 the Braille Lite was born. It was the first portable note taker with refreshable braille. Since its inception, more than twenty years ago, other companies have developed refreshable braille devices...

In October 2017 Caryn Navy invited me to participate in an online conference call comprised of people who owned the Braille 'N Speak way back when. We shared our memories of how the Braille 'N Speak improved the world for many blind people. As I listened to the conversation I realized that, even though the Braille 'N Speak didn't have a refreshable braille display, it still deserved mentioning in the Wisconsin Braille newsletter. It was the device that initiated the process for developing the refreshable braille display. Without it, we may never have had as much braille at our fingertips as we do now.

By the way, this article was just over 650 words, so it would have taken up about 75% of one of those 4k memory blocks. We have come such a long, long way since then!

National Braille Press

By PHILIP MARCELO, Associated Press

BOSTON (AP) — For nearly a century, the National Braille Press has churned out millions of pages of Braille books and magazines a year, providing a window on the world for generations of blind people.

But as it turns 90 this year, the Boston-based printing press and other advocates of the tactile writing system are wrestling with how to address record low Braille literacy.

Roughly 13 percent of U.S. blind students were considered Braille readers in a 2016 survey by the American Printing House for the Blind, another major Braille publisher, located in Louisville, <u>Kentucky</u>. That number has steadily dropped from around 30 percent in 1974, the first year the organization started asking the guestion.

Brian Mac Donald, president of the National Braille Press, says the modern blind community needs easier and more affordable ways to access the writing system developed in the 1800s by French teacher Louis Braille.

For the National Braille Press and its 1960-era Heidelberg presses, that has meant developing and launching its own electronic Braille reader last year — the B2G.

"Think Kindle for the blind," Mac Donald said as he showed off the portable machine — which has an eight-button keyboard for typing in Braille as well as a refreshable,

tactile display for reading along in Braille — during a recent tour of the press' headquarters near Northeastern University.

The venerable press, which started as a Boston newspaper for the blind in 1927, has also looked beyond printing Braille versions of popular books and magazine titles.

Educational materials like school textbooks and standardized tests, as well as business-related publications like restaurant menus, instruction manuals and business cards, comprise an increasingly larger share of revenues, Mac Donald said.

"Braille isn't dead by any means," he said. "But it needs technology to adapt and evolve."

Waning interest in Braille has been a challenge since the 1970s, when school districts started de-emphasizing it in favor of audio learning and other teaching methods, said Chris Danielsen, spokesman for the National Federation of the Blind in Baltimore.

New technology has allowed people with visual impairments to live more independently than ever, but they're also playing a role in eroding Braille's prominence, said Cory Kadlik, a 26-year-old <u>Massachusetts</u> native who lost his sight as an infant.

Kadlik said he is "not the strongest Braille reader," in large part because of what technology allows him to accomplish.

Computer software reads aloud emails and other digital documents for him, and his smartphone helps him complete everyday tasks like sorting the mail.

"I have an application that can read the print on the envelope to me," said Kadlik, a technology specialist at the Braille & Talking Book Library in Watertown, part of the Perkins School for the Blind, the nation's oldest such school, where Helen Keller was educated. "That's crazy. That's unheard of."

But while technology has opened up a new world not dependent on Braille, it also presents its best chance at survival, said Kim Charlson, the library's director.

Electronic Braille computers allow users to digitally store hundreds of Braille materials that would otherwise be large and unwieldy in print, not to mention access the internet and complete other computer-based tasks in Braille.

Such machines have been around for years, but their average cost of \$4,000 to \$5,000 has so far kept them out of reach for most, says Charlson.

That is starting to change. The Perkins Library, for example, will soon start loaning out 200 devices that normally retail for about \$475, and the National Braille Press' Braille computer costs \$2,495.

"Technology is the key to making Braille more relevant by getting it into the hands of more people," said Charlson, who began losing her vision as a child and is now totally blind.

Another key is overcoming perceptions that Braille is hard to learn and inefficient to use, said Joseph Quintanilla, the vice president of development at the National Braille Press.

Quintanilla, who has been legally blind since age five, said he regrets shunning Braille growing up. He started to appreciate its role in imparting crucial grammar and communication skills only when he entered the working world and had to play catch up.

"I don't think we would ask sighted people to go through life without reading," Quintanilla said. "So we shouldn't do that for blind people."

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#### What Is Visible by Kimberly Elkins

This is a fascinating novel for adults, about Laura Bridgman. It is available in braille and in audio versions. William James wrote in an essay for the *Atlantic* "that without Laura Bridgman there could never have been a Helen Keller". Annie Sullivan lived at Perkins after her rescue from the almshouse. Laura helped teach Annie the manual alphabet which, later, helped made her an excellent teacher for Helen.

Kimberly Elkins spent two years researching Laura Bridgman at Perkins and elsewhere, and she feels that Laura was the nineteenth century's greatest educational, philosophical, and theological experiment. In writing this piece of historical fiction, Elkins wrote about what might have happened "as well". In the afterward of the book, she details much of what she added to the true life story she researched.

"At age two, Laura Bridgman lost four of her five senses to scarlet fever. At age seven, she was taken to Perkins Institute in Boston to determine if a child so terribly afflicted could be taught. At age 12, Charles Dickens declared her his prime interest for visiting America. And by age 20, she was considered the 19th century's second most famous woman, having mastered language and charmed the world with her brilliance."

Ha Jin, a National Book Award Winner for <u>Waiting</u> gave this praise for the book: "What Is Visible is remarkable at many levels. It is written in an intelligent, intricate style, populated with many true historical figures, and teeming with convincing period details. Above all, the novel has a unique narrative structure, which illustrates the art of fiction at its best in presenting the interior. A splendid debut indeed."

Joanne Wilkinson from <u>Booklist</u> has this to say about the book: "In this fictional treatment of the life of Laura Bridgman, the first deaf and blind person to learn language, Elkins aims to show "how little one can possess of what we think it means to be human while still possessing full humanity." After a raging bout of scarlet fever at the age of two, Laura loses her eyes, her hearing, and her ability to taste and smell. Taken from her family home by Dr. Samuel Howe and taught to communicate via hand spelling, Laura soon becomes a celebrated figure attracting

hundreds to exhibitions at Howe's Perkins Institution, including Charles Dickens and Dorothea Dix. But Howe has his own agenda, using Laura to push both the causes of phrenology and anti-Calvinism. When Laura embraces the Baptist faith, she loses Howe's favor but never loses her fire. Told in alternating chapters by Laura, Howe, his poet wife, and Laura's beloved teacher, this is a complex, multilayered portrait of a woman who longed to communicate and to love and be loved. Elkins fully captures her difficult nature and her relentless pursuit of connection."

#### Following the Signs Along My Journey to Braille

#### © The Outlook From Here: Stories about Blindness and Visual Impairment

By Katherine Corbett

When I was five, my mom decided I should start learning to read. Since I was totally blind, she knew that would have to be in braille.

"Everyone your age sees print all the time," she told me. "There are stop signs, signs at the bank and the grocery store, menus in restaurants, and kids your age are seeing all of that. Why shouldn't you?"

So she bought a braille labeler and started to label things in our house. She wrote labels for "counter" and "refrigerator" and "Mom and Dad's Bedroom". I don't remember her sitting down with me and telling me which letters were which, as I'm sure she must have done, but I do remember her taking my hand and putting it on the braille labels she'd stuck throughout our home, explaining to me what the signs said.

As I became more familiar with braille, I started to help with the labeling. We labeled the washer and dryer controls so I could do laundry. We labeled a big cardboard clock so I could practice telling time. We labeled the microwave so I could make hot dogs for my younger sister. With each day, with each activity, with each time I felt those bumps under my fingertips, braille became easier and more comfortable for me to read.

My mom included my younger siblings in my learning. She bought some magnetic letters that had both print and braille on them. By then, I was eight and had started learning Grade 2 Braille contractions. Grade 2 braille is such that a single letter can stand for a whole word.

One of my siblings or I would pick a magnetic letter out of the box, like C or Z or P. My job was to say the words the letters stood for in braille, such as "can" or "people," respectively. It was my six-year-old sister's job to say what the letter was, and my three-year-old brother had to say the sound that the letter represented.

Around that time, I started reading my first "big braille book", **Charlotte's Web** by E.B. White. I remember my mom standing at the kitchen sink washing chicken while I read out loud to her. I don't remember how far I read in **Charlotte's Web**, but I soon discovered I liked reading other books. When I was eleven, I realized I didn't need light to read, so could read in the dark. This led to many late nights reading **The Chronicles of Narnia** and **Harry Potter** books.

To this day, I'm an avid reader. I do often choose to listen to audiobooks because I don't have a lot of space in my apartment for braille volumes, but braille will always be near to my fingertips and dear to my heart. I think this is because my mom made signs for me just like everyone else was seeing. These signs led me on a path to a hobby I'll never give up, and literacy that has enabled me to study, have a job and lead an independent life.

Here are some suggestions for how you can learn braille, and how you can teach someone else:

- 1. Find the braille alphabet magnets at The Braille Superstore at <a href="http://www.braillebookstore.com">http://www.braillebookstore.com</a>. They are great for learning braille, and can help a person who is blind learn the shapes of the print capital letters. There is a set of magnetic numbers, too, which my family used when solving basic math problems.
- 2. The handheld braille labeler mentioned in this article can be purchased from the Braille Superstore as well, and requires no knowledge of braille to operate. It contains both print and braille on its letter wheel.
- 3. The Hadley Institute for the Blind and Visually Impaired offers courses for people to learn braille through its distance education program. Visit <a href="http://www.hadley.edu">http://www.hadley.edu</a> to learn more.
- 4. The Braille Library and Transcribing Services, Inc., is a Madison, Wisconsin-based organization which provides braille classes, embosses books and other materials upon request, and has an extensive lending library. Visit them online at <a href="http://bltsinc.org">http://bltsinc.org</a> or call (608) 233-0222.

#### **Unified English Braille**

#### **Numeric Mode (Part 1)**

Dear Ms. Perkins,

I'm getting used to UEB now, but there's something about numbers that confuses me. I can't quite put my finger on it, so to speak. Can you explain what's different? Sincerely,

Gigi Non

Dear Gigi,

In UEB, numbers are in *numeric mode*. There are indeed a few differences from the old English Braille American Edition code that we used to use.

The following symbols are included in numeric mode:

- the ten digits, 0-9
- decimal point (now dots 256)
- comma (also used as a decimal point in many countries)
- · simple numeric fraction line
- the numeric space (something new)
- line continuation indicators (something new)

#### Examples:

**Numeric Mode Termination** 

Anything else stops numeric mode.

- 9-10 : : : : : : (Hyphen stops numeric mode so "10" needs another numeric mode indicator.)
- 7(2) : (Left parenthesis stops numeric mode so "2" needs another numeric mode indicator.)
- 7(b) :: :: :: (Left parenthesis stops numeric mode so the next cell is not read as a number.)

#### **Grade 1 Mode**

A numeric indicator also sets grade 1 mode. Grade 1 mode, when set by a numeric indicator, is terminated by a space, hyphen, dash or grade 1 terminator.

While grade 1 mode is in effect, a grade 1 indicator is not required unless a lowercase letter a-j follows a digit, decimal point or comma.

While grade 1 mode is in effect, contractions may not follow a number.

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houses4lease He came 4th in the race.
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Since grade 1 mode is terminated by a hyphen or dash, a letter or letters that could be read as a contraction after a hyphen or dash will need the grade 1 indicator.

I'll write more about numbers in the next newsletter.

Sincerely, Ms. Perkins

## Wisconsin Braille Board of Directors 2018-2020

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# Wisconsin Center for the Blind and Visually Impaired (WCBVI) 1700 W. State St. Janesville, WI 53546

Saturday, March 17, 2018

From 10:00 a.m. – 3:00 p.m.

If you are interested in joining Wisconsin Braille, or have not paid your membership this year, please be sure to complete the membership form at the back of this newsletter and mail it to the address listed. The WISCONSIN BRAILLE newsletter is published three times a year. Deadlines are: Spring/Summer - April 15, Fall - August 15, Winter - December 15 The purpose of Wisconsin Braille Inc. is to advance communication and coordinate the efforts of all persons concerned with the availability, quality, and distribution of brailled materials in the state of Wisconsin thereby encouraging braille literacy. The purpose of this newsletter is to disperse information. Wisconsin Braille Inc. does not endorse or vouch for the reliability of any of the persons, organizations, or products appearing in this publication. This version of the Wisconsin Braille newsletter was prepared by the members of the

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