Mark Bresler, An Autobiography of Sorts So Far.

This document got started because <u>Jerry Weisman</u>, RESNA president at the time invited me to a summit on Rehabilitation Engineering in 2011. To familiarize attendees with other participants, everybody was asked to write a short bio. Mine was about 1600 words, when it should have been 1600 characters so it needed to be shortened for the summit, but I thought would be a good starting point for this document.

I got an early start in Rehabilitation Engineering. Growing up with right-sided cerebral palsy, I got tired of having to ask my parents to cut the fingernails on my left hand. I worked with my father to mount a nail clipper to a wooden board, along with a wooden extension for the handle. I continue to use this on a regular basis.

For my summers during high school, I was a camp counselor at Camp Sea Haven, at the US wildlife refuge at Newburyport, Massachusetts. This was a camp run by United Cerebral Palsy of Greater Boston for campers with disabilities of all ages.

My father was Assistant Provost at Tufts University; therefore I was able to attend for free tuition. During my first weeks at Tufts University, I met a freshman occupational therapy student who started the Tufts Recreation Center for Handicapped Children, an after school program for neighborhood kids with disabilities. For one of these children, I constructed a motorized cart with servo control steering.

As the Assistant Provost, my father was in charge of research grants and told me of work being done on electronic communication. Rick Foulds, the developer of the Tufts Interactive Communicator, graduated a few years before me and taught a Winter Study course, where as a field project, I assisted in preparing children at the Canton Hospital School to develop switch skills necessary to operate the TIC. Greg Vanderheiden was another electronic communicator pioneer and mentioned the TIC in his review article.

After college, I worked at the US HEW (Health Education and Welfare Department) in the office funding Rehabilitation Engineering Centers, (now termed Rehabilitation Engineering Research Centers) in the US and internationally with Joe Traub, Dick LeClair, and Gladys the secretary. This was a wonderful opportunity to meet a lot of the early leaders in RE. Anthony Staros, Ben Wilson, Jim Reswick, and Steve Jacobsen come to mind. Joe analyzed my gait one day and suggested I carry my briefcase in the right hand to improve my walking, a technique I continue to this day. This was a 700 hour temporary assignment, the paperwork for an extension got delayed and I was sent to Moss Rehabilitation Hospital in Philadelphia for 6 weeks where I lived in the nurse's quarters. During this time I was introduced to CMOS integrated circuits and built a communicator. Returning to HEW, I realized I wanted to do engineering rather than the paperwork behind engineering, and Joe and Dick arranged for me to have a job at the University of Virginia Rehabilitation Engineering Center. While at UVA, I worked with Colin McLaurin, and Cliff Brubaker, along with Jim Kaulzurich to build instrumentation analyzing batteries, and testing electric wheelchair usage. During this time, UVA started a Masters program in Rehabilitation Engineering and used my picture on the front cover of the brochure. Figuring my picture was being used; I applied to the program and was accepted.

Graduating UVA in 1982, my mother was good enough to type up cover letters and I applied to a 6 month old job opening in Oklahoma City. The O'Donoghue Rehabilitation Institute had been open about a year and offered me 4/3 of my requested salary. Starting in March 1982, I worked exclusively at ORI, several years later, an Occupational Therapist from one of the state schools requested my help and I started going to Paul's Valley every Wednesday, this metamorphosed into spending Mondays at the Hissom Memorial Center in Sand Springs, a suburb of Tulsa, Tuesdays at ORI, Wednesdays in Paul's Valley, every other Thursday morning at the George Nigh Rehabilitation Institute (at the time, part of the teaching hospitals), with afternoons at Hissom and Fridays at Enid State School. This continued for quite a few years until a federal judge closed the Hissom Memorial Center. To mark the last time I would be at all three schools, I decided to start very early and visited all three in one day. I never did get questioned on my travel reimbursement for this.

http://www.paulsvalleydailydemocrat.com/x1095520301/Governor-praises-vote-to-close-centers/print

During my time at ORI, I wrote several papers for presentation at the RESNA conferences, and had a friendly competition with Aimee Luebben, OTR, FAOTA, a professor of occupational therapy at the University of Southern Indiana, as to how many papers we submitted that year. Also, I was the chair of the consumer affairs committee of RESNA.

ORI was part of the Oklahoma Teaching Hospitals, and had a nice auditorium and conference center. I used this for a series of Oklahoma symposium on assistive technology and had some notable people as speakers. These included Richard Dodd from United Cerebral Palsy of New Jersey, <u>Leonard Anderson</u> from United Cerebral Palsy of Kansas, <u>John Leslie</u>, also of United Cerebral Palsy of Kansas. <u>David L. Jaffe</u> and <u>DJ</u>, spoke at the 4th symposium in 1990. ORI closed in March of 1995, but my contract with the state schools continued until June of 1995, so I figure I was the last employee.

I had started a small company, Southwest Assistive Technology to market the Turtle Trainer, a motorized cart to assist in evaluation of clients you not sure can use power mobility http://www.medcatalog.com/R_S/southwest_assistive_technology.htm, and the LiteMaker, an LED alternative to laser pointers for communication.

From November 1999, until Jan, 2001, I worked at the <u>Helen Hayes Hospital</u>, West Haverstraw, NY, under <u>Stephen Sprigle</u>, <u>PhD</u> to determine how cushions and seat height affected the seated posture of wheelchair users.

In 2002, I took the Assistive Technology Provider (ATP) exam, proctored by Jean Minkel.

I next spent a year and a half working at a special education co-op for 2 counties in New York. It was not a good match between my skills and their needs.

I started at my current position in August 2006. <u>Woods Services</u>, (Langhorne, PA, near Philadelphia) is a private, residential facility for individuals with disabilities ranging in age from

8 to more than 70. As the Assistive Technology Specialist, I have been working in AAC, specialized power mobility controls, environmental control, and computer access. Rick Foulds was monitoring the RESNA listserve and responded to one of my postings, "You're in Langhorne!!! "It turns out he is living in Langhorne and is a professor at New Jersey Institute of Technology. I gave a lunchtime lecture about Assistive Technology to his department, and have had two student projects started by his students.

In October 2009, the school building I work in had a power failure. After the teachers met their students at the residences, the power resumed and I took the opportunity to have my robot deliver <u>Albert Cook's</u> paper on using robots with children to my boss. This video and others are available at https://www.youtube.com/user/woodsATvids

Leading up to the 2011 RE Summit, <u>Barry Romich</u> asked if we could room together, ultimately, his parents needed his help and he was unable to attend at the last minute. I was looking forward to spending some time with him recounting Rehab Engineering history, and getting some advice for the future.

Currently, I am chair of the RESNA <u>Special Interest Group on Communication Technology and Computer Access</u> (CTCA). I have been judge for the <u>Student Design Competition</u> for several years and this year reviewed workshops and scientific papers for the annual conference.

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