FOIA Number: 2019-0203-F

FOIA MARKER

This is not a textual record. This is used as an administrative marker by the William J. Clinton Presidential Library Staff.

Collection/Record Group: Clinton Presidential Records

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Subseries:

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FolderID:

Folder Title:
Digital Divide - Tech Demos

Stack:	Row:	Section:	Shelf:	Position:
S	112	1	5	3

Jonathan M. Young
07/14/2000 08:28:55 AM

Record Type: Record

To: John W. McClane/WHO/EOP@EOP

cc:
Subject: Good Story about Success of Digital Divide Initiative in Georgia

pint out for dig div folder
---------- Forwarded by Jonathan M. Young/WHO/EOP on 07/14/2000 08:28 AM ----------

Carol Boyer <CBoyer@resna.org>
07/12/2000 10:39:42 AM

Record Type: Record

To: Jonathan M. Young/WHO/EOP

cc:
Subject: Good Story about Success of Digital Divide Initiative in Georgia

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Hi, Jonathan,

Here's some information passed on to me by Joy Kniskern, Project Director of the Tools for Life in Georgia--the AT Act grant there.

"Reboot placed 938 computer last year with people with disabilities...with 20 hours of volunteer work from each participant, that is significant. We learned one of our Reboot volunteers, a person with severe learning disabilities, got a job at 24K with HP, one of our private industry supporters,..he learned job skills working at Reboot, and passed the A+certification course there."

TECHNOLOGY DEMONSTRATIONS AT DISABILITY NETWORK

September 21, 2000

The technologies on display at the Disability Network for the President's visit illustrate both how mainstream technologies can be made accessible to and usable by people with disabilities, as well as how specialized assistive technologies can enable people with various disabilities to take greater advantage of mainstream technologies. Some of the technologies are cross-disability in nature, while others are targeted toward a specific type of disability.

Eye Gaze, LC Technologies. Eye Gaze is a communication and control system for people with complex physical disabilities, such as Lou Gehrig's disease. By looking at control keys displayed on a screen, a person can synthesize speech, control the environment (lights, appliances, etc.), type, operate a telephone, run computer software, and access the Internet and e-mail. As a user sits in front of the Eyegaze monitor, a video camera mounted below the computer observes one of the user's eyes. The Eyegaze software continually analyzes the video image of the eye and determines where the user is looking on the screen. This technology helps illustrate how people with complex and seemingly very limiting disabilities can fully participate in the Information Age. This technology will be demonstrated by Nancy Cleveland of LC Technologies.

Electronic Books (DAISY), American Foundation for the Blind and Time-Warner. Time-Warner Trade Publishing and the American Foundation for the Blind (AFB) will demonstrate the first commercial title ever to be released to the general reading public using an exciting, new, innovative electronic book technology. Developed in the blindness community, this new publishing technology promises to revolutionize reading and literacy for all people worldwide, including people who are blind or otherwise print disabled. The first publication, Martin Luther King's "I Have A Dream" speech, will be demonstrated using both software on a PC and specialized portable reading appliances. Readers can see the text of the book displayed on screen (or in braille) fully synchronized with a narrated recording; use next-generation web technologies to surf directly to any page, chapter, index entry, topic, or subsection in the book; and annotate the text with their own bookmarks and study notes. This technology is an example of how products designed to benefit people with disabilities often have broader applications for the general public, for example, as assistance to people learning English as a Second Language. This technology will be demonstrated by Janina Sajka of the American Federation for the Blind.

Scan-able, Coded Electronic Books, Intacta Technologies. A new application of Intacta.code technology, in partnership with IDEAL (Individuals with Disabilities: Enabling Advocacy Link) at NCR, allows virtually any document or computer file to be converted into compact, printed, 2D codes. When the printed 2D code is run through a standard scanner, the original file is decoded on a PC. The technology can provide persons who are blind and dyslexic electronic access to the audio or electronic version of any printed document, without having to access the original electronic version of the document. A demonstration can show how a purposely damaged and crumpled paper, printed with Intacta.Code, can be run through a scanner rendering a computer-based, screen-readable, version of a 200-page book, "Equality of Opportunity: The

Making of the Americans with Disabilities Act." With this technology, a wealth of documents can be stored, for easy retrieval, on a simple piece of paper. This shows how mainstream commercial products can be used to increase access to information for people with disabilities if engineers are sufficiently aware of the needs and potential of people with disabilities. Steve Jacobs of IDEAL at NCR will demonstrate this technology.

JAWS for Windows. Jaws for Windows (JFW) is a screen reader that speaks everything on the computer screen for a person who is blind. It will read everything from web pages and email to Excel spread sheets. The Braille Window works with JFW to provide the user the ability to read the screen in Braille. This gives the user a true representation of the screen and allows for better editing of documents, quicker access to information, and is the only way for a deaf-blind person to access the computer. This illustrates how effective integration of third-party peripherals and mainstream technologies enable people with disabilities to command popular software applications with equal dexterity. Sharon Regal of the Visually Impaired Center in Flint and Luke Zelley of the Disability Network will demonstrate this technology.

Web Accessibility & Accessible Distance Learning, Web Accessibility Initiative (WAI) and WGBH's National Center for Accessible Media (NCAM). Accessibility features developed by NCAM and WAI include captioning of audio for people who are deaf and hard of hearing, description of video for people who are blind or who have low vision, and Web design that makes navigation easier for people with physical or cognitive disabilities. These can be applied in the context of entertainment as well as educational materials. For example, NCAM has partnered with MIT to create the MIT PIVOT Project (Physics Interactive Video On-Line Tutor), which makes an introductory physics class accessible on-line by using captions and vide descriptions. This demonstration shows how Web sites and distance learning through the Internet can readily be designed to be accessible to people with disabilities, including individuals with visual and hearing impairments. Judy Brewer, Director of the Web Accessibility Initiative, will demonstrate this technology.

Additional technologies on display at the Disability Network's Access center will include:

Cyberlink Interface, Brain Actuated Technologies. The Cyberlink Interface enables hands-free control of computers and electrical devices. Brain and body signals detected by the sensors in a headband are amplified, digitized and transmitted to the computer to affect feedback displays, control a mouse or an interactive video game, navigate a productivity or business application, use a web browser, control almost any Windows application, play musical synthesizers or sound cards, activate peripheral devices, and adjust environmental controls.

Video Teleconferencing. Video teleconferencing at the Disability Network, using high-speed Internet connections, will enable users of the Access Center to participate in distance learning opportunities. This would also enable people who are Deaf to communicate over the Internet by using sign language, instead of relying upon a telecommunications relay service.

LC Technologies, Inc.

The Eyegaze System Makers

LC Technologies designs, manufactures, and distributes unobtrusive video eyetracking systems. The eyetracker uses a video camera that remotely observes a person's eye to measure where he is looking. In a typical configuration, the camera is mounted below a computer screen, and the eyetracker measures the x,y coordinate of the person's gazepoint on the display.

With the knowledge of what a person is looking at on the computer display, computer programs can analyze visual activity and interact with people in ways not possible with the traditional keyboard and mouse.

Key features of the Eyegaze System eyetracker include:

- speed and accuracy (60Hz and 1/4inch accuracy)
- ease of calibration (takes less than 20 seconds, does not need to be repeated)
- total unobtrusiveness (nothing is attached to the user)

What's New: (last updated on May 18, 2000.)

- A Portable Version of the Eyegaze System is now available!
- The Eyegaze System is now Windows NT-Based.
- Tolerance to ambient infrared light is now improved.
- Eyegaze System price has been reduced in 2000.

Eyegaze Systems are in use in the United States, Canada, Mexico, Peru, Venezuela, Belgium, England, France, Greece, Italy, The Netherlands, Norway, Sweden, PR China, Japan, Korea, Taiwan and New Zealand.

Eyegaze Communication System - For People With Disabilities

The Eyegaze Communication System is a sophisticated device that allows people who have no use of

their hands to communicate, control their environment, use a telephone, operate a personal computer, type, operate a mouse, and access the internet.

Product Brochure

Detailed Technical and Medical Information

Components and Prices Basic PRICE REDUCED to $14,900 U.S.D. from $17,500.

Try Eyegaze at one of our regional distributors, or we can bring a system to you.

Upcoming Conferences Featuring Eyegaze

Video Tapes of People Running Eyegaze

Papers and Presentations on people using the Eyegaze Communication System

Links to Disability-Related Web Sites

Eyegaze Development System - For Human Factors Research

The Eyegaze Development System is designed for researchers and others interested in measuring, recording, and analyzing where someone is looking.

Product Brochure

Components and Prices Basic PRICE REDUCED to $17,900 U.S.D. from $19,900.

Papers and Presentations on research done using the Eyegaze Development System

Eye Movement Mailing Lists

Links to Eye-Movement-Related Web Sites

Contact Information:

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Fairfax, Virginia 22031-4713 U.S.A.

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Keywords: Eyegaze, Eye Gaze, Eyetracking, Eye Tracking, Eyetracker, Eye Tracker
Computer Vision, Vision Systems, Vision Technology,
Assistive Technology, Assistive Devices, AT, Disability Products,
ALS, Brain Injury, Cerebral Palsy, Multiple Sclerosis,
Muscular Dystrophy, Spinal Cord Injury, Stroke

This address is http://www.eyegaze.com


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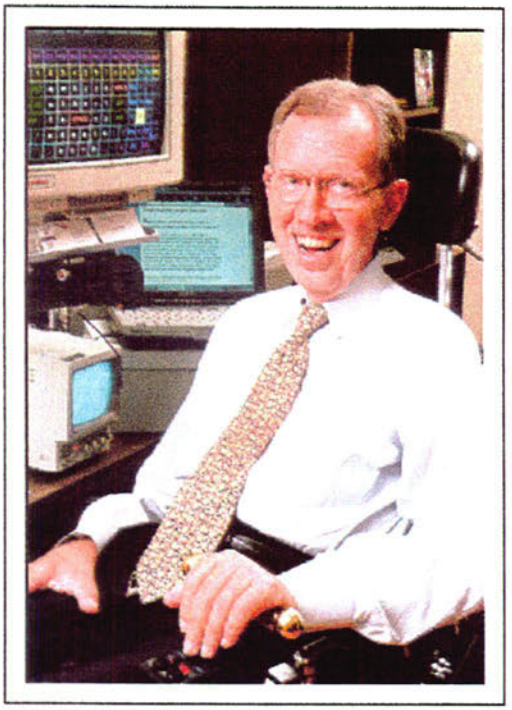


THE EYEGAZE SYSTEM

The Eyegaze System enables people with severe motor and speech disabilities to do many things with their eyes that they would otherwise do with their hands. Simply by looking at control keys displayed on a monitor for a fraction of a second, users can perform a broad variety of functions including speech synthesis, environmental control (controlling lights and appliances), typing, operating a telephone, accessing the Internet and e-mail, and running all Windows software.

To operate the Eyegaze System, the user sits about 22 inches from the screen, with the Eyegaze camera focused on one eye. The camera, located below the Eyegaze screen, continually observes the user's eye, and specialized image-processing software determines where the user is looking on the screen. The System predicts the gazepoint with an average accuracy of better than a quarter-inch, enabling the user to control entire on-screen computer keyboards. Nothing is attached to the head or body.

Eyegaze Systems are enhancing the quality of life of people with disabilities all over the world: in the United States and Canada, Central and South America, Europe, Asia, and the South Pacific.

Eyegaze Systems are enabling children with severe cerebral palsy, muscular dystrophy, Werdnig-Hoffman syndrome, and other motor disabilities to actively participate in their education, giving them a "voice" through the computer that they have never had before. A 7 year-old New Zealand boy with cerebral palsy is using an Eyegaze System in his classroom to write and speak with his eyes, since he cannot use a pencil and has no voice. An 11 year-old boy in California with Werdnig-Hoffman syndrome is participating in his classroom by "speaking" with his Eyegaze System, and 18-year Texas college student with severe cerebral palsy is writing her college papers, sending e-mails and doing research on the Web using only her eyes.

Eyegaze Systems are enabling adults with ALS, multiple sclerosis, strokes, brain injuries, and spinal cord injuries to continue to be productively employed. A physicist, a bank officer, and a newspaper columnist, all with ALS, continue to work, even though they are all paralyzed and unable to speak, using their Eyegaze Systems to do word processing, send and receive e-mails, make telephone calls, and, in one case, "shout for (a) secretary." In France, Philippe Vigand, locked in by a stroke, has written a book, "Only The Eyes Say Yes, a Love Story" published in several countries and multiple languages, using his Eyegaze System. He's now working on a second book, soon to be published as well. A nurse in Texas with ALS, using her Eyegaze System, has written about her experiences living on a ventilator. Her article was published in a nursing journal.

A man in Pennsylvania, who was unable to speak or move for ten years following a massive stroke at age 30, can tell his wife "I love you". A teenage girl in Kansas with cerebral palsy is doing what teenagers do: talking on the phone with her friends, using only her eyes.

Sometimes it takes sophisticated technology to bring about the simple pleasures of life.

LC Technologies, Inc.
9455 Silver King Court
Fairfax, VA 22031

800-EYEGAZE * 703-385-7133 * Fax 703-385-7137
www.eyegaze.com mail requests@eyegaze.com

What can a user do with an Eyegaze System?

SPEAK through a speech synthesizer.

TYPE with one of four keyboards, then print or speak. **(Typewriter)**

TURN pages on the computer screen by looking at "up" or "down". **(Read Text)**

CONTROL appliances anywhere in the home or office from one Eyegaze screen. No special wiring. **(Lights and Appliances)**

SPEAK 100 customized, easily changed, phrases through a speech synthesizer, with a single glance of the eye. **(Phrases)**

RUN A WINDOWS COMPUTER from Eyegaze keyboard and mouse control screens. Run all software, send e-mail, access the Internet. **(Run Second Computer)**

DIAL and answer a speaker phone from one screen. **(Telephone)**

WATCH TV right on his Eyegaze screen **(Television)**

TEACH new users with simplified screens. **(Teach Screens)**

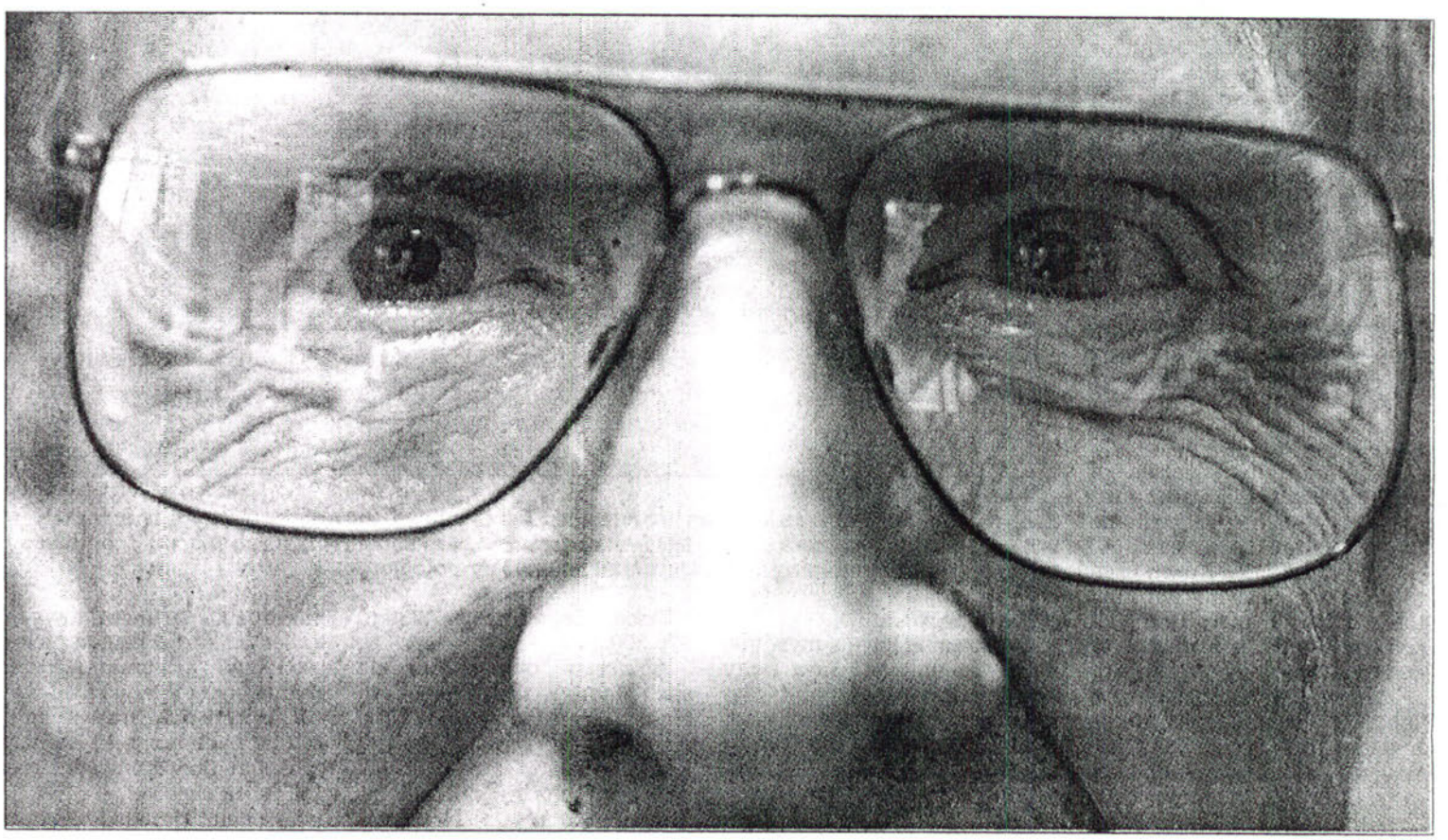
Calibration takes approximately 15 seconds, and need not be repeated if the user moves away from the screen.

21st Century Technology! A new, portable, wheelchair-mountable Eyegaze System is now available. The portable Eyegaze System runs off a battery or electricity. Call us or check our website for more details.

Charlotte Observer - September 9, 2000

VITAL INSIGHTS

Not about to be silenced, Joe Martin beams us a book



JEFF SINER/Staff

Computer technology allows Martin to write. He picks one letter at a time by focusing on it, using his eyes like a mouse.

TOM MURRAY/Staff

Stephanie Ansaldo (right) presents Joe Martin with a scrapbook during Martin's book signing at the Mint Museum of Craft + Design on Thursday.

BY JIM MORRILL/STAFF WRITER

Joe Martin's eyes do more than see. They write and speak.

Martin used his eyes to write "On Any Given Day," a new book co-authored with Charlotte writer Ross Yockey. It describes his six-year battle with Lou Gehrig's disease, and how he and those around him have learned to find in it more hope than despair.

Martin, a 59-year-old Charlotte banker, can no longer walk or talk. About the only body parts that haven't fallen limp are his eyes. On Friday, a day after a party marking his book's publication, he sat in the study of his Eastover home and focused his eyes on a computer screen.

Thirty times a second, a camera mounted just below the screen shot invisible laser beams to his retina. By focusing on a keyboard display on the screen, Martin used his eye like a mouse, aiming at individual letters. He "clicked" by staring at the letter for a fraction of a second. The letters become words and march across the top of the screen.

He activates another button and a mechanical voice

Please see **EYES** / *page* **6B**

JEFF SINER/Staff

Martin used an eye-activated computer system to write "On Any Given Day" about his battle with Lou Gehrig's disease. At right is Martin's assistant, Challie Minton.

Unsilenced by disease, Martin beams us a book

EYES *from 1B*

reads his words.

"The ability to use this system is genetic," his synthesized voice tells visitors. "My mother was able to make the whole world do whatever she wanted with nothing more than a look. As far as I know, this is the same system."

Martin, who can type 30 words a minute, spends about eight hours a day in front of his Eyegaze system. His collaboration with Yockey was largely electronic and involved a painstaking exchange of e-mails.

"It was an excruciatingly difficult project for him to write a book this way," Yockey said. "Every word in this book evolved through e-mail. To watch it is a lot like watching paint dry. It just takes him a long time to do this."

In the book, Martin says he's learned that "some things, after all, are actually better when done slowly and deliberately, with extended anticipation."

The book recounts Martin's 1994 diagnosis with ALS and one doctor's warning that he had just 20 months to live. It tells how he, his family and friends learned to live a day at a time.

"I felt obligated to people who helped us, and thought I could share with other people," he typed when asked what writing the book meant to him.

At Thursday night's book party, he told guests that "the book is a reflection of the people around me. It is about teamwork and the power of community. It is about how we can all take care of each other."

Asked Friday if the book was hard to write – physically or emotionally – he wrote, "This is not hard at all physically. Was hard to relive the tough times."

The book, along with the public library's planned installation of a system similar to his, "will let people know how much is possible no matter what disability," he said.

Martin's wife, Joan, said her husband, a Bank of America executive, has always been comfortable around words.

"It is such a perfect thing," she said. "Before this was communications and speech writing, and he's still doing it, just in a different way."

Martin, who fires e-mails to friends every day, said it's "exciting to be able to communicate" with his eyes.

He's 400 pages into a novel about growing up in the segregated South. His first chapter was published last year in an anthology of local writers.

He's also found that his $25,000 Eyegaze system, developed out of Defense Department research, is not flawless.

"The problem is, I cannot type and smile at the same time," he writes. "When I smile, my eyes close."

That was one of his biggest problems in writing the book.

"Funny parts," he said, "took forever to type."

EXCERPTS

From Joe Martin and Ross Yockey's "On Any Given Day" (John F. Blair Publishing, $21.95)

"The business of being who you are, fully and faithfully, and of doing what you are given to do, despite all temptations and all excuses to do otherwise, provides meaningful purpose for our lives. Without this, no other sense of purpose can ring true."

"... My days are filled with activity, with love and laughter, with purpose and determination – and with anger and irritability at the same things that made me angry and irritable before I ever thought about ALS, things like bigotry and pretense and Duke losses to Carolina."

"Funny thing about love, hope, faith, joy, laughter, festivity, sense of purpose, determination, and will to live: they seem so intertwined, so interdependent, and yet any one of them can crash while the others are still strong. Each requires constant monitoring and tending."

"It is of no consequence to me that the population of one country has longer life expectancy than the population of another. What matters is the life expectancy I have for today. On any given day, it isn't the *length* of our life expectancy but its *strength* that will make a difference."

"How many times will I have to learn the lesson? *We do not know what is possible.* Give up, and the possibilities will vanish."

PERSPECTIVES

TECHNOLOGY

Computers outpace medical advances for ALS patients

BY DAVID FEIGENBAUM

I am writing this column with my right eye. An infrared camera is focused on my pupil as I look at an on-screen keyboard. Whatever letter or symbol I stare at is typed on the screen.

In the 3½ years since my diagnosis, ALS (Lou Gehrig's disease) has left me virtually paralyzed. I can't use my hands and I can hardly speak. I cannot walk or scratch my nose or turn over in bed.

If it weren't for this computer system I would be completely trapped inside my body, unable to express even the simplest thought. But thanks to it, I can communicate with you, my family and the entire world.

Medicine has made great strides in recent years, but some things have remained intractable so far. In particular, those illnesses and injuries that have to do with the spinal cord. Or the nervous system.

Our bodies do not repair nerves once they have been damaged in an accident, leaving victims paralyzed. Likewise, in illnesses like ALS (Amyotrophic Lateral Sclerosis), medicine has so far been of little help. Beyond the diagnosis, doctors can't cure the illness or stop the nerves from dying.

Even if they could stop the disease in its tracks, they have no means of repairing the damage. It seems the best they can do is alleviate some of the pain.

Fortunately, technology is doing much better. Like most ALS patients, I will eventually lose my ability to breathe. In fact, my doctor is already shopping for a respirator for me. We have come a long way from the days of the iron lung; today these "vents" are portable. And because I have trouble swallowing, I get most of my nourishment through a surgically implanted stomach tube.

I envy Christopher Reeve, who was paralyzed from the neck down. He is able to speak.

Such is life with ALS. Though the mind and sense organs remain sharp, there is the insidious side-effect of loss of speech. If you choose to keep going, via vent and feeding tube, then you are without a means of communicating!

If this is not hell, then it is surely purgatory. Besides the obvious needs, it leaves you without the ability to communicate original thoughts — to ask questions in other words — to have meaningful conversation.

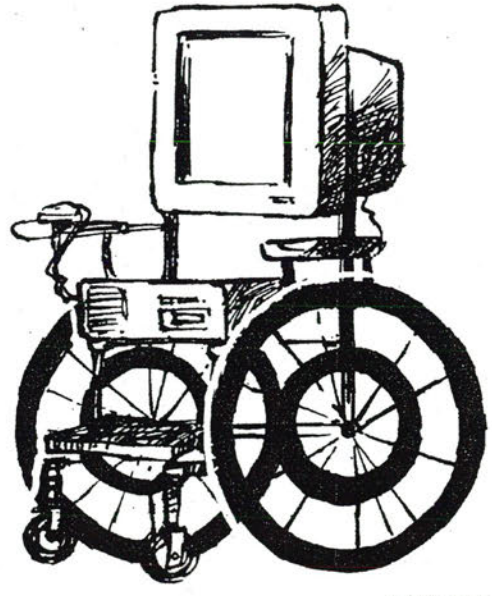
Think about it. Who will visit you for more than a few minutes if there is nothing to talk about? How do you ask about your grandchildren, or inquire of your son about his business, or ask your wife what kind of day she had if you can't talk?

I envy Christopher Reeve, who was paralyzed from the neck down. He is able to speak. As I reach total paralysis, I won't have that going for me. Lately, my speech has gotten so poor that I seldom try, unless it is very important. So my wife thinks I am not interested in her or anyone else, only in myself. This is not true, of course, but I can understand how she gets that impression.

Along comes technology to the rescue, I hope. I just leased this "eye gaze" computer system. Somehow, eye movement seems to be almost unaffected by ALS. I'm not sure if anyone knows why.

How does the eye gaze system work? The system is quite elaborate, using two computers and an infrared camera. I wheel up to the camera and, with the help of my caregiver, we focus the camera on one of my eyes. When it is "calibrated," then I call up a keyboard on the monitor in front of me.

I can use this computer to speak certain phrases or talk to my caregiver or even ring a chime to call for help. But if I want to go online, or use a different software program, then I access the second computer. I can run almost everything with an on-screen mouse, but it is tedious, at least at present. Some of my stock phrases include: "Let's e-mail my wife" or "please feed the fish."



PEDRO X. MOLINA

ALS was first diagnosed in the late 1800s but for more than 100 years, almost nothing was done to find relief. There has been a flurry of research activity in the last decade yet this illness has remained frustratingly incurable.

Thanks to a genetic defect in some PALS ("People with ALS"), we now have genetically engineered mice that mimic ALS. These are useful for screening drugs. However, after more than a half-dozen large-scale clinical trials, and numerous small ones, only one drug has so far been shown to have any real effect. And it prolongs life by just three months.

This has caused "serendipity" to become one of my favorite words, for if people currently diagnosed are to have any hope for a cure, it will have to come from a lucky find.

The way the FDA approval process works, any new drug will require years of testing — too long for any of us. However, a drug that is currently approved for another illness can be used for ALS without delay. We must hope that there is something currently in use that will help us.

We thought we had found one a year ago, a drug called neurontin, approved for treating epileptic seizures. On my doctor's recommendation I started taking nine of these large capsules a day. Recently, a definitive study of this drug on ALS patients showed it was of no benefit! In all, I guess I took about 4,000 of the pills. Of course, I since stopped.

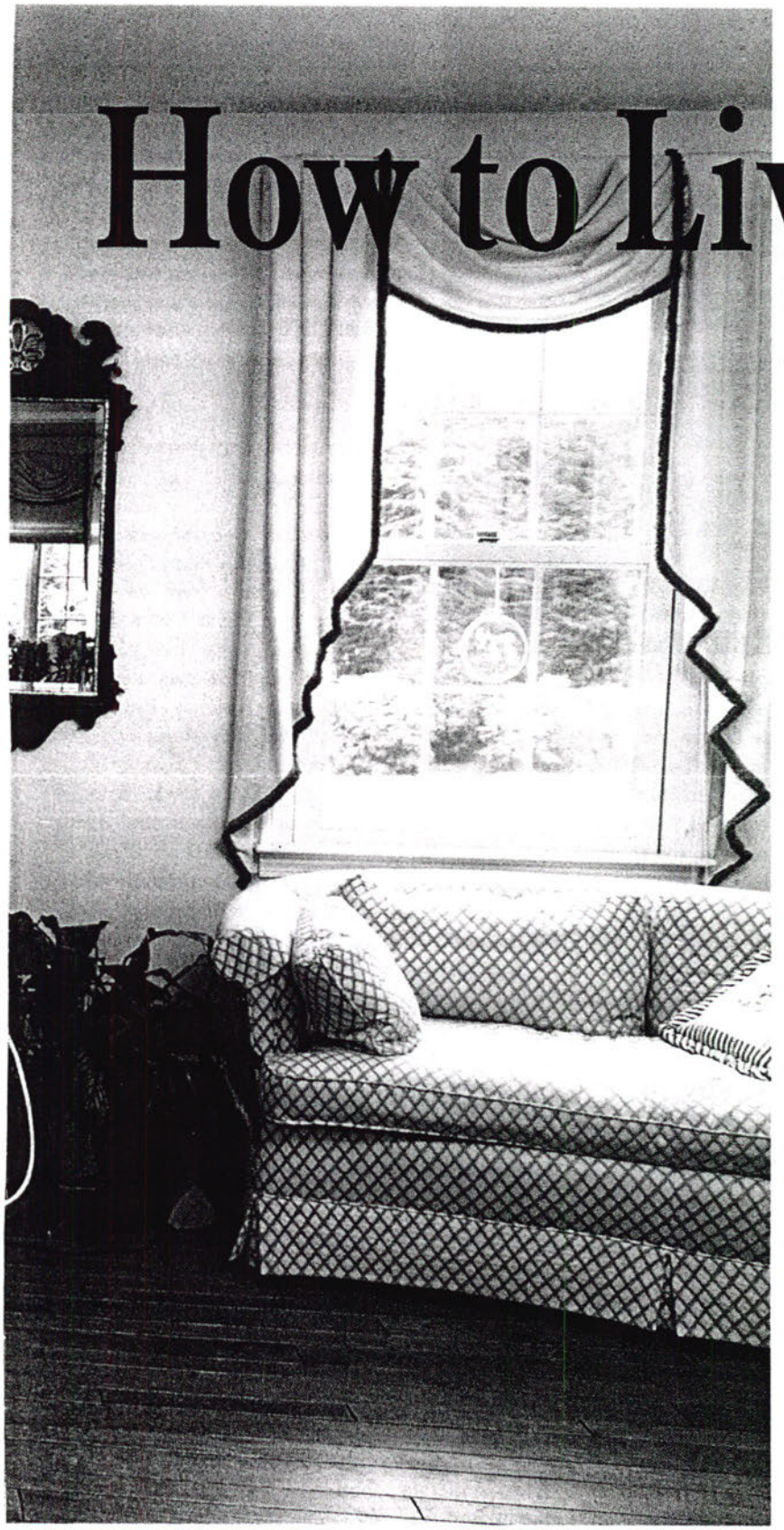
Now I'm trying creatine, a supplement used by many athletes, including Mark McGwire. A preliminary study indicates it may help. And I can't wait for a definitive trial.

So I put all my concentration these days into mastering the Eye Gaze computer. Still, I envy anyone who can speak because, at best, this system will only work for me when I'm at my workstation.

You have to feel for anyone who had this illness before the advent of the personal computer because they were truly trapped. A few years back a PALS wrote a book, *How Will They Know If I'm Dead?*

Without our new advances in technology, he had a point.

David Feigenbaum lives in Virginia Beach. His wife, Lynn, is Commentary editor. He can be reached by e-mail at david@davidlawrence.com.



How to Live

BY GERALD S. GOLDSTEIN

He can't move, talk, or eat. Yet with the help of a computer and his own fierce courage, Brian Dickinson churns out newspaper columns that move and inspire.

It is Christmas Eve, 1995, and the family of Brian Dickinson '76 A.M., long-time editorial columnist for the *Providence Journal-Bulletin*, is toasting the holiday with champagne. Their home in Warwick, Rhode Island, glitters and resounds with trappings of the season: a majestic fir, lush poinsettias, a crackling fire, holiday music.

In the dining room that has always been a family social center, Dickinson's wife, Barbara, and his three grown sons, Matt, Andy, and Jon, raise glasses of Möet & Chandon and drink lustily. Now it's Brian's turn. Carefully tilting her glass, Barbara tips a few droplets of champagne into a spoon and raises it to the lips of her fifty-eight-year-old husband, who sits immobile in a recliner. Brian savors the liquid, which he cannot swallow. Barbara gently dabs his lips with a napkin.

The scene typifies this unusual household, which for more than three years has lived with a devastating turn of events. In December of 1992, a doctor told Brian Dickinson that he had amyotropic lateral sclerosis (ALS), the incurable, muscle-wasting malady known as Lou Gehrig's Disease. ALS, which isn't contagious, strikes victims at random. The prognosis is grim: gradual paralysis, then death in two to five years.

The diagnosis shocked the family, an active clan fond of sailing, skiing, and traveling. In an instant, fate wrenched away Brian's lifestyle, throwing the family into confusion and grief. Since then, the once-robust

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Gerald Goldstein is South County editor of the Providence Journal-Bulletin.

When he stares for a half-second at a letter on the computer screen (far left), Dickinson adds that letter to the text he is composing, visible on the right-hand screen. Each time he begins a computer session, a light beam projected at his right eye recalibrates Dickinson's position relative to the letter grid. The completed columns go directly to the *Providence Journal-Bulletin* via modem. Dickinson's body is now entirely paralyzed, but he can still light up his face – and a visitor's day – with a smile (facing page).

'Illness has forced into the open personal qualities – compassion, patience, self-discipline – that have aided my writing.'

– BRIAN DICKINSON

journalist has lost all movement save the ability to smile faintly and raise his eyebrows. The disease has robbed him of his voice, narrowed his world to a wheelchair, tethered him to a respirator, and forced him to eat and drink through a tube.

Despite it all – including a brush with death from pneumonia last May – Dickinson continues to inspire readers of the *Journal-Bulletin* with a steady stream of op-ed columns. He accomplishes both his writing and "conversation" with the aid of a remarkable new computer activated by eye movements. Previously, when Dickinson could still move a single finger, he was able to tap words into another specially adapted computer. But the process was painfully slow. His columns, which formerly appeared twice weekly, ran less and less regularly.

Just when Dickinson lost the last vestige of movement in his typing finger, technology broadened his horizons. The *Journal-Bulletin*, which had pledged to supply him with whatever he needed to write from home, spent thousands of dollars on an eye-activated computer that is much faster than the old manually operated one. One part of the screen contains a grid of letters; when Dickinson stares at an individual letter for a half-second, it is added to the text he is composing on another section of the screen. The setup, called Eyegaze, is so new Dickinson may be the only journalist in the world using it.

"It can be finicky at times," says Dickinson. But once he gets going, "I can cruise for hours without stopping. It is in a sense my nerve center, supplanting my own central nervous system that has gone on strike." He says his eyes don't get tired as he works long hours in his chair. But with a flash of humor he adds, "The only thing that gets seriously tired is my behind."

Dickinson revels in his ability to work. "Brian is at his computer each morning by nine or nine-thirty, and we have to force him to leave it at six at night," says Barbara. "He can hit forty words a minute when he's on a roll. He's happy as a clam. When he's working he forgets that he's on a respirator and has ALS."

The computer and his illness have combined to improve his writing, says Dickinson. "When I begin writing I immediately feel less isolated. The computer lets me create, communicate, ruminate. And my illness has forced into the open some personal qualities – compassion, empathy, patience, self-discipline – that have aided the process of writing." Dickinson says he has become "more reflective, more inclined to ponder a point, chew it over, before moving on. At the same time, the fact of having ALS has freed me to take risks with style."

So on and on he writes. Last Thanksgiving his column said, "We can gaze at a spectacular sunset, listen with rapture to a Beethoven symphony, or smile in the face of a loved one, and the experience leaves us transformed and enlarged." In a column around Christmas Dickinson listed some of what's still wrong with the world: continuing assaults on human rights, intolerance, problems with the environment. But in a phrase that could easily describe his own perseverance, he added a beam of hope: "Knowing that we have the capacity to achieve mightily if we can summon the will offers real assurance."

Recently the *Journal* printed an admiring letter from eighty-year-old Alec Dyson Brown, a retired corporate executive in Fall River, Massachusetts. Dickinson's columns, said Brown, "have given me a real insight into what being a human being really means – concern for other people as much as for yourself, and the ability to see problems in human terms rather than in statistical terms. He's talking about facing up to problems that are bigger than we are – insurmountable – and going on with your life." Dickinson's friend, Rabbi Leslie Y. Gutterman of Temple Beth-El in Providence, told a *Journal-Bulletin* reporter last year, "This is not an example of how to die with courage; it is an example of how to live with meaning."

'This is not an example of how to die with courage; it is an example of how to live with meaning.'

— RABBI LES GUTTERMAN

Shortly before Christmas the Dicksinson family threw an open house, inviting scores of friends and co-workers for wine, punch, and platters of ham, cheeses, pasta, and smoked salmon. Holding court at his computer terminal was the immobile, voiceless host, plying women guests with outrageous flattery and exchanging quips with the men.

As one guest peered at Dickinson's computer screen, it lit up with, "Hi there! Don't you look terrific!" Dickinson can also choose to speak, after a fashion, using his computer's voice synthesizer, which translates phrases from the screen into digitized simulations of human speech.

Dickinson has never been one to let obstacles deflect his ambition. A Harvard graduate, he didn't pursue his master's at Brown until years later, when, he recalls, his household had become "a noisy family of five." Then an editorial writer for the *Journal*, Dickinson investigated working on a graduate degree part-time by fitting classes into his flexible work day.

He recalls one exploratory trip to the political science department in 1972, just before he enrolled. "I felt like an interloper, meddling where I didn't belong. I had been out of college for thirteen years," says Dickinson. "I had not majored in government, but in English, that welcoming catchall major for the undecided. And I was nearly thirty-five years old."

One seminar at a time, Dickinson got his master's degree in political science in 1976. His association with the University expanded in the 1980s, when he helped organize and launch the annual Brown University-*Providence Journal* Public Affairs Conference, which each year brings to the campus prominent guest speakers for lectures and panels exploring issues such as crime, cities, and the environment. Last year the *Journal* and Brown established a fellowship in Dickinson's honor that annually will bring an experienced journalist to campus for a semester to study an area of interest.

An unabashed liberal at a newspaper known for its editorial conservatism, Dickinson used to write mostly on politics. But occasionally he leavened the mix with wry columns about family life. Now, as his illness progresses, Dickinson writes more frequently on personal matters. Over the winter, when most Rhode Islanders were complaining about snow and cold, he took an op-ed walk on the warm side: "A big snow brings families together," his column pointed out. "It covers up forgotten piles of leaves on the back lawn, thus easing guilt. It invigorates the local economy, boosting the sales of soups, coffee, wine, snow blowers, snow shovels, candles, popcorn, video movies, thick mittens, and long wool scarves that you wrap twice around your neck."

Despite Dickinson's stubborn resolve to accent the positive, his illness has inflicted on him and his family countless moments of anxiety and fear. His bout with pneumonia last spring was only one of a series of medical crises requiring emergency trips to the hospital. His three bachelor sons have all returned to Rhode Island to help care for him.

But this year, the household has enjoyed a renewed surge of hope. The computer buoyed Dickinson's spirits, the family arranged for a twenty-four-hour nursing service that greatly eased their stress, and the latest doctor's report pronounced Dickinson strong and well-nourished.

In fact, says Barbara, while the disease is unpredictable and anything can happen, there is a good chance Dickinson will live well beyond the usual two-to-five-year prognosis. Such longevity for ALS sufferers is not without precedent; famed British astronomer Stephen Hawking has survived with the disease for more than twenty-five years.

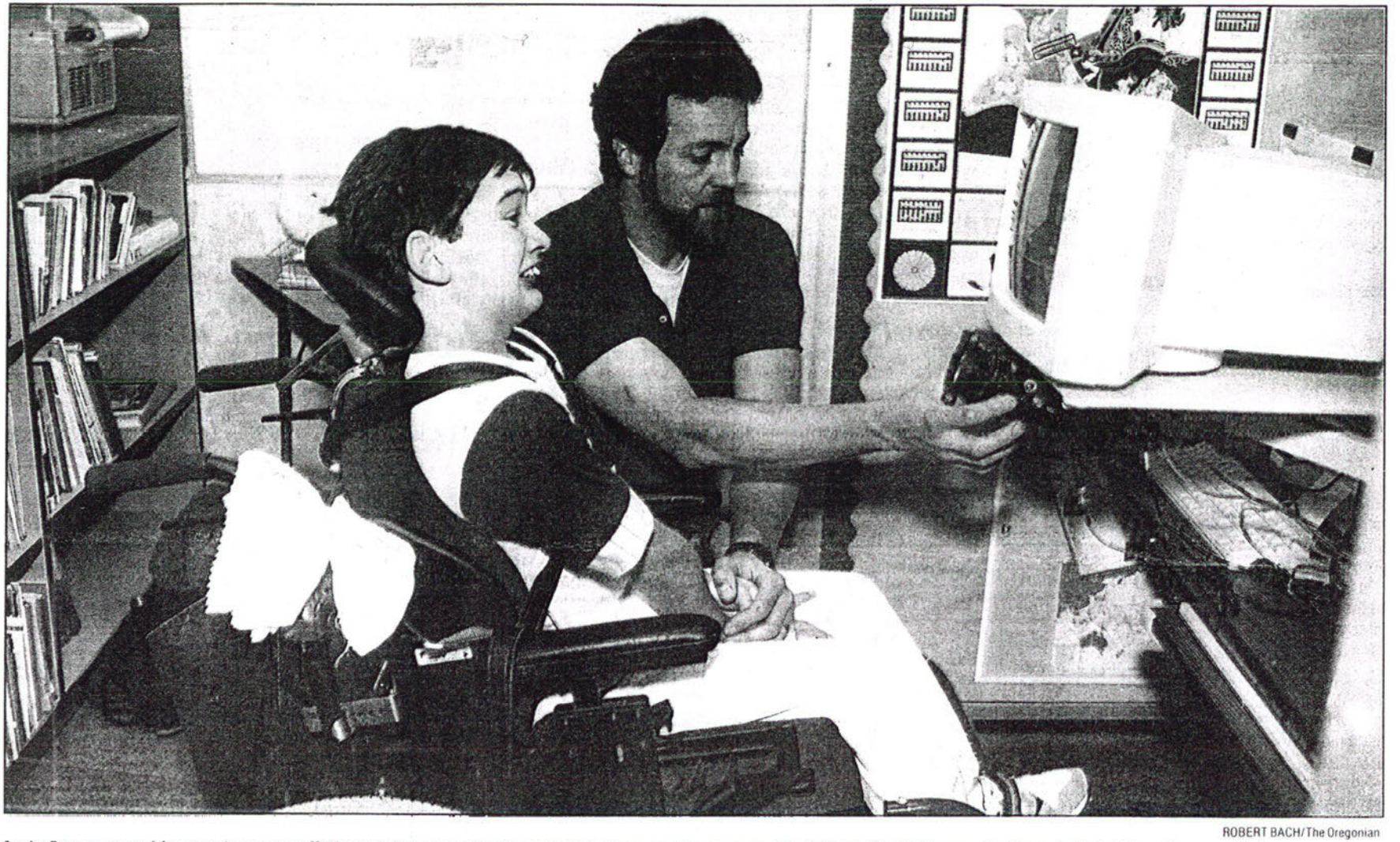
"The window is open," says Barbara. "People have stopped regarding Brian as a dying man. Now they regard him as we do – as a brilliant person with a terrible disease." The family's Christmas party, she says, was "our way of saying to the community, 'Hey, we're the same people we always were. Life is going on.'"

Dickinson at work in his living room. Eye movements enable him to write using a specially-adapted computer.

THE OREGONIAN

Portland, Oregon - November 17, 1994

A voice for Andy



ROBERT BACH/The Oregonian

Andy Owens uses his eyes to move a little red-dot cursor to the correct place on the screen. His father, David Owens, is there to help him when needed.

ANDY P. OWENS

- **AGE:** 14
- **HOME:** Sylvan area
- **SCHOOL:** Sixth-grader at Cedar Park Middle School
- **CLAIM TO FAME:** second person in Oregon to use the Eyegaze computer system, which allows him to synthesize speech.
- **FAMILY:** Mother, Cynthia L. Owens, 39; father, David L. Owens, 37; siblings, Jennifer, 19, Aaron, 17, and Krystyna, 7.
- **LIKES:** Rock music, pizza, horseback riding, girls, dogs, roller skating in his wheelchair at the roller rink.

Voice: A portrait of a personality emerges via the computer system

A new technology that synthesizes speech allows a 14-year-old to communicate with his eyes

By ROBIN FRANZEN
of The Oregonian staff

CEDAR HILLS — "How old is Krystyna?"

Joanne McClelland, an instructional assistant at Cedar Park Middle School, squeezes the hand of the dark-haired boy sitting in a wheelchair next to her as she asks for the age of his little sister.

As she waits for an answer, the boy's eyes dart into action, moving across a selection of numbers lit up on a computer screen in front of him. Before long, his pupils pause on the number seven, holding their gaze until the computer reacts.

"Seven," the machine answers for him, in synthetic tones that mimic the voice of an adolescent boy.

"That's right," McClelland responds, pleased at his success. "And how old are you?"

This time, Andy Owens' eyes, intense with concentration, head for eight and pause for a moment. He's 14, so his choice seems wrong. But, as he tracks slowly over to six next, his strategy becomes clear. The screen doesn't go up to 14, so he's selected numbers that add up to his age.

"Eight and six, that's 14, right," McClelland says in praise.

Turning to an observer, she adds, "He's really improving. He's learning to hold his head steadier."

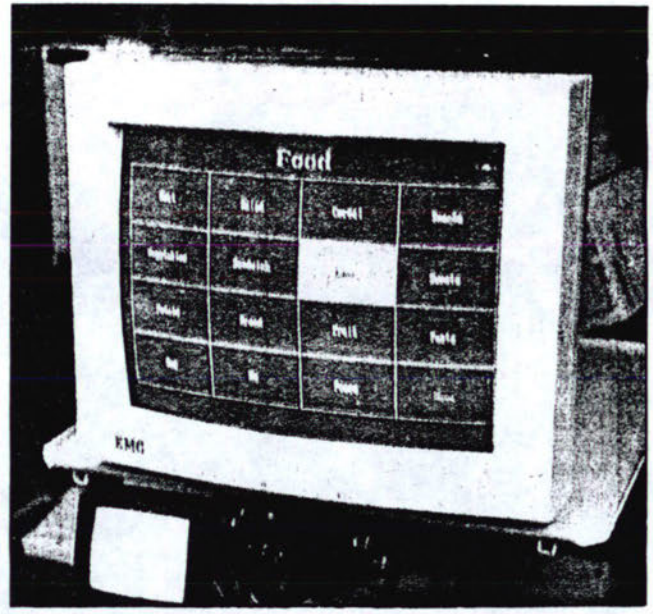
Andy, talking for the first time in his life, beams.

□

Andy developed cerebral palsy at age 2 after nearly drowning in a swimming pool. The spastic condition prevents him from walking, sitting upright unassisted or speaking. But today, he's learning to talk with his eyes thanks to new technology called Eyegaze, which allows him to synthesize speech via computer.

The computer system focuses a video camera on the pupil of Andy's eye and tracks its movement with an infrared beam as it homes in on various on-screen control panels.

Special software continually computes where his eye is looking, predicting his "gazepoint" with accuracy of better than a quarter-inch.



ROBERT BACH/The Oregonian

The computer system focuses a video camera on the pupil of Andy's eye and tracks its movement with an infrared beam as it homes in on on-screen control panels.

The system allows him to select phrases, turn on lights and the stereo at home, and "talk" to his friends over the phone.

Educators and parents hail the invention as the beginning of what they see as a new world of intellectu-

Please turn to VOICE, Page 7

■Continued from Page 1

al and social freedom for Andy, who until recently communicated mostly "yes" or "no" responses by looking at his left or right knee.

The spirited Cedar Park sixth-grader, who is regularly besieged with hugs by his classmates, is only the second person in Oregon to use the technology. Roughly 70 systems, developed by LC Technologies of Fairfax, Va., are in use in the world.

"This is a tool that opens wider horizons for Andy," said Larry M. Spier, a special education facilitator for the Beaverton School District, which bought the $21,200 system for Andy in June. "And it's just the tip of the iceberg."

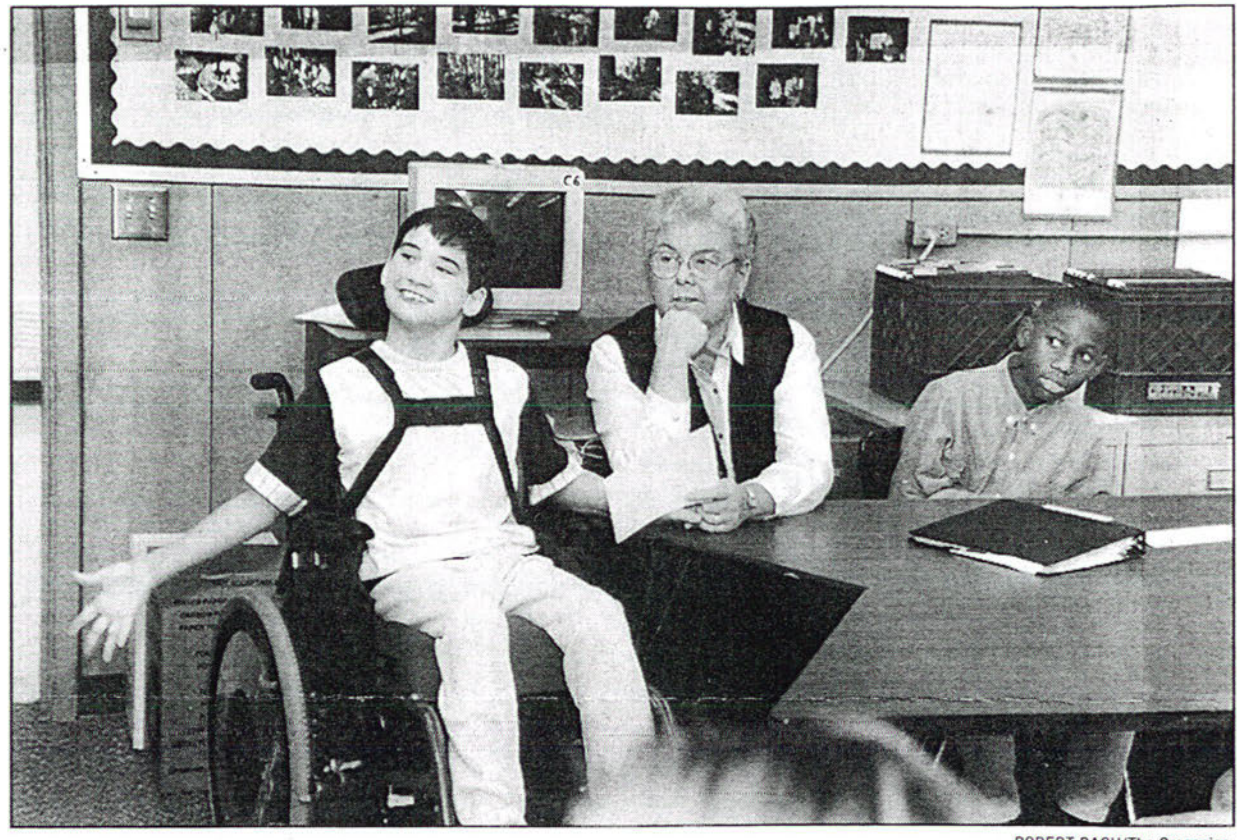
Working with the system two hours a day at school and at home on weekends "has allowed his personality to come out," said Cynthia L. Owens, Andy's mother and treasurer of the executive board of the United Cerebral Palsy Association of Oregon and Southwest Washington. "He's able to get his feelings across better, and it gives him a feeling of freedom that he hasn't had before," she said.

Because of the involuntary movement of Andy's head, learning to accurately select from more than 100 preprogrammed responses on the computer hasn't been easy.

But educators say that since Andy got the equipment, his abilities have improved significantly. Education specialists are working on developing a chin rest that should steady his head and lead to further breakthroughs.

David Owens, Andy's father, said through repetition he has been able to confirm that Andy's computer requests are legitimate. That means if Andy hits the selection that says he wants to play a computer game, it's not just a mistake of the eye. He really does.

Eyegaze also has confirmed Andy's ability to read at some level, something his parents thought he could do but had no way of testing previously.



ROBERT BACH/The Oregonian

Andy Owens' day starts in a homeroom class where, with help from his instructional assistant, Joanne McClelland, he participates alongside other sixth-graders, including classmate Terry G. Robinson, 11.

Eventually, if Andy's eye and head coordination improve, he may be able to make a bigger leap — typing out messages he writes himself by selecting letters of the alphabet on the Eyegaze computer screen. That's the achievement that Andy's parents hope will enable him to someday master all the skills he needs for employment.

"I have no doubt that it can happen," said Cynthia Owens. She thinks that "mainstreaming" Andy with other children is critical to his development.

The family, who live in the Sylvan area of Washington County, bought another $2,000 in Eyegaze accessories for use at home. They're saving up for a $1,500 linkup that will let Andy run a second computer from his Eyegaze screen.

"It would be interesting to see what he has to say," said David Owens. "At this point he can't talk back, and the computer responses are pretty much things that we have programmed for him."

Cerebral palsy is a condition caused by damage to the brain that manifests itself in involuntary movement, speech impairment, decreased muscle tone and other symptoms. The national incidence rate for cerebral palsy is one to four cases for every 1,000 live births.

Because of Andy's inability to take care of himself physically, "I think he'll be living with us for the duration," said David Owens, "but we are always looking for ways to communicate with him."

□

Andy sits in his wheelchair on a stage, poised to demonstrate his Eyegaze computer system at the annual meeting of the United Cerebral Palsy Association of Oregon and Southwest Washington in Portland.

His parents are nervous for him, unsure of whether he'll be able to keep his focus in front of an audience of more than 100 people. But Andy seems pleased by the crowd.

"Thank you for coming to see my computer — I enjoy showing it to you," he begins, using his eyes to select a phrase from the computer menu.

The electronic voice seems small in the large luncheon hall at the Airport Shilo Inn, but it has captured the full attention of everyone gathered around him. Television cameras zoom in as the teen-ager continues his preprogrammed spiel.

David Owens holds Andy's head steady. Even from a distance it's apparent that the boy's eyes are hard at work.

"This is very hard for me," Andy explains. But Eyegaze has been a tremendous gift, he stresses. "When I get better at it, I'll be able to type letters to my girlfriends."

At that, he and everyone else smile. There's a typical 14-year-old boy inside that unresponsive body, struggling to get out.

"I think Bud should get a big raise," Andy adds toward the end, referring to the association's executive director, Bud Thoune. After a pause, he asks, "Isn't that what you wanted me to say, Bud?" The computer sounds monotone, but feigned innocence comes through anyway.

The crowd laughs, and Andy grins. Things have gone well, and he knows it.

□

Bud Thoune is confident that technology such as Eyegaze, and new generations of technology still under development, will help people with severe motor disabilities "reclaim the community" by joining mainstream classrooms and eventually the rest of the work force.

Eyegaze in particular, he says, "will help people like Andy make better choices about their own lives and let people know where they stand on issues."

Cynthia Owens first learned about Eyegaze last year, and she spent weeks tracking down the name of its manufacturer. Special education specialists in the Beaverton School District agreed to take a look at the equipment, were impressed and decided to invest in it. Because of its cost, the family could not have afforded it on their own.

Cynthia Owens credits Larry Spier, a Beaverton special education facilitator, who told her the equipment was just one way the district

could give back to kids such as Andy.

But Spier puts the credit elsewhere.

"It's really through the generosity of the voters that we are able to do this," Spier says, pointing out that passage of a $28.5 million bond measure for technology improvements last May freed enough money in the regular special education budget to buy the Eyegaze setup.

Although Andy still spends most of his school day in smaller special education classes, the technology offers him promise for greater interaction in the future.

"This is helping him get more out of life," said Cynthia Owens.

In the past, if Andy was tired and wanted to go to bed, he tried to tell his parents indirectly by looking at the clock or staring in the direction of his bedroom. And, sometimes, it took a while. Now, using Eyegaze, he can be more direct.

"He can make choices of his own, can be more of a person," she said.

Although the system still has its quirks — its tracking system can be thrown off by extraneous incandescent light — it offers huge possibilities, his mother said.

"Only five years ago I said to Andy's physical therapist, 'If they would just develop something using his eyes, he'd have it made. They are perfect,' " Cynthia Owens said.

"He smiles with his eyes. You can tell that he's upset by looking at his eyes. He communicates with his eyes."

□

Although Andy has not undergone any cognitive testing since getting the computer, his teachers and parents already sense that an intelligent person wants urgently to communicate with them.

"Now he just wants to keep doing his computer. He wants to talk," said Cynthia Owens.

Andy still finds that just moving the little red-dot cursor with his eyes to the correct place on the Eyegaze screen can be a huge challenge, particularly when he is tired or tense.

"He has good days and bad," said McClelland, who is in her third year as Andy's instructional assistant at school. "If he's really relaxed, he does better than if he's excited.

"You don't understand how difficult it is until you try it. We've had different kids try it, and they are amazed."

□

As McClelland watches, Andy's eyes flit aimlessly over the screen, and his mouth contorts in seeming frustration. Suddenly, nothing is going right. His eyes land on phrases he had no intention of choosing, and the Eyegaze computer spews out a nonsensical run-on of aches and ailments listed on the computer's "I hurt" menu.

My throat hurts, the synthesized voice complains.

My back hurts.

My back hurts.

I'm nauseated.

My leg hurts.

My leg hurts.

McClelland wears a sympathetic look, but she withholds her help, hoping Andy can maneuver his way to the "exit" choice. Finally, Andy looks weary, and she touches a button on the computer keyboard that gets him into the game menu.

"This is great," she says, referring to Eyegaze, "but sometimes I don't think the light goes exactly where he's looking. They still need to perfect a few things on this machine."

Andy, calmer now, uses his eyes to pull the lever on a computerized slot machine and watches the little lemon symbols spin into a jackpot. Suddenly the frustration is gone. He's in control, and his trademark smile returns.

EYEGAZE AT A GLANCE

■ **WHAT:** People with profound motor disabilities produced by cerebral palsy, Lou Gehrig's disease, multiple sclerosis, strokes and spinal cord injuries are learning to synthesize speech, use the telephone and control lights, television and other household appliances via the Eyegaze Computer System.

■ **WHO:** Created by LC Technologies of Fairfax, Va., in 1988 using technology originally developed by the military 40 years ago for use in attack helicopters. The system — which uses a 486 IBM compatible microprocessor — is now used by more than 70 people throughout the world, including 14-year-old Andy Owens, a student at Cedar Park Middle School.

■ **HOW IT WORKS:** A video camera below the computer monitor observes one of the user's eyes. A low-power infrared light mounted in the camera lens illuminates the eye and tracks its movement as it moves across the computer screen. Image-processing software computes the user's "gazepoint" with enough accuracy to enable the user to activate onscreen menu choices as small as five-eighths of an inch square. To "press" a key visually, the user looks at the key for a specified time, which prompts the computer to take the action associated with the key.

■ **COST:** Between $18,000 and $22,000.

■ **OPTIONS:** Accessories are also available that allow the user to operate a second computer from the screen of an Eyegaze computer. Eyegaze computers synthesize seven different voices, ranging from that of a young girl to a man.

■ **FOR MORE INFORMATION:** Write LC Technologies at 9455 Silver King Court, Fairfax, Va. 22031; or call 1-800-733-5284.

Tiniest of movements a leap in communication

Every day, I type with my hands. But on one remarkable day last week, I typed my name, slowly and painstakingly, using nothing but my eyeballs.

I had just finished watching Andy Owens put his Eyegaze Computer System through its paces at school, when his father, David Owens, suggested that I sit down and give it a try.

Why not? I plopped down in front of the monitor. How hard could it be?

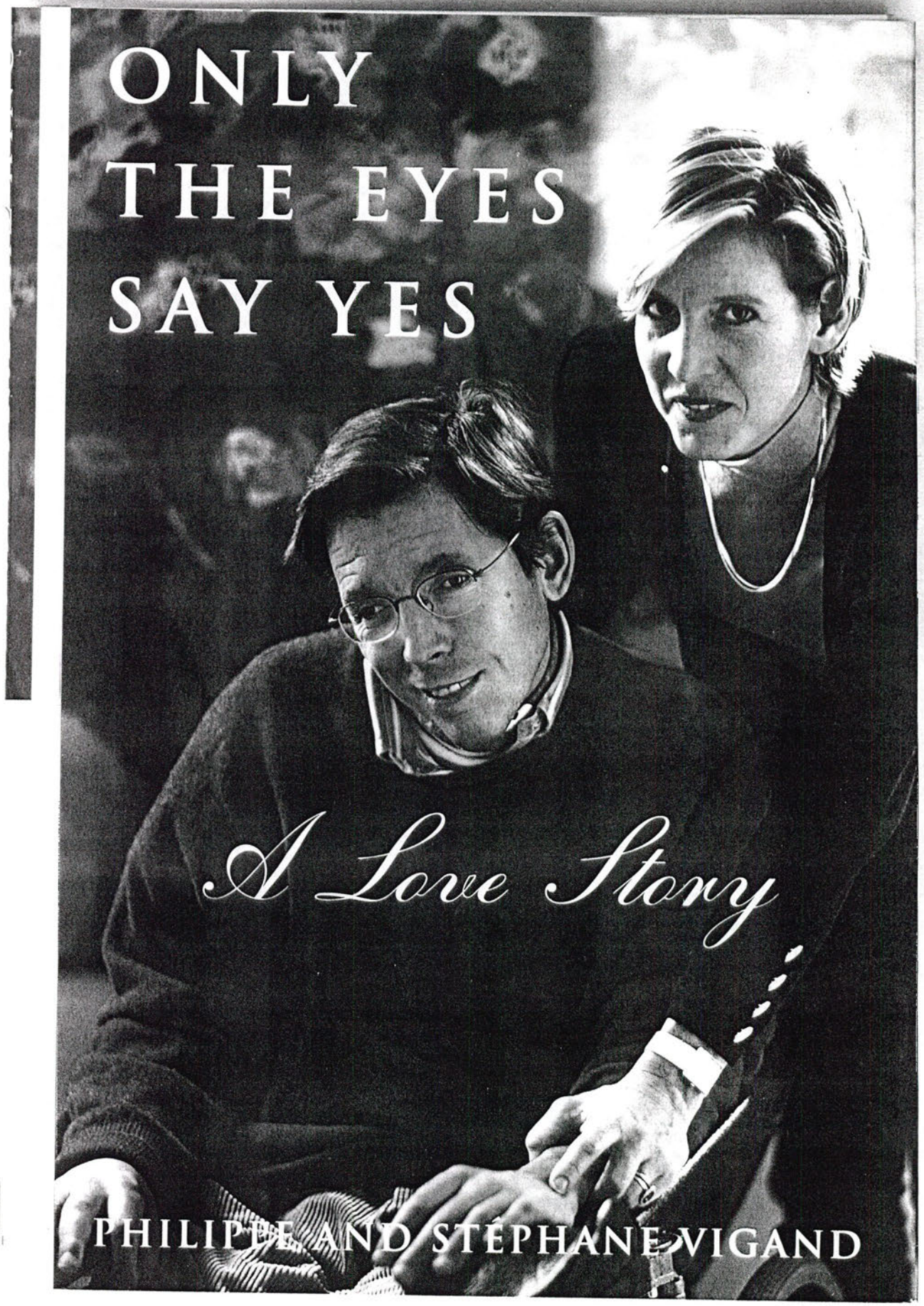
Hard enough to require intense concentration, I soon discovered, but easy enough to suggest that it could be mastered by people with motor disabilities with a lot of regular practice.

Before I started, David Owens calibrated the computer system to my left eye, which required me to follow a cursor around to several points on the screen. Then he basically turned me loose to see if I could negotiate my way around an on-screen keyboard. No equipment was required to connect me to the machine.

At first, I wasn't quite sure what to do. But as I fiddled around by moving my eyes in various directions, I found that I could move the little red-dot cursor anywhere I wanted. First to R. Then to O. Until finally, after several ill-fated attempts, it was all there.

The grand finale came when, using nothing but my eyes, I "pressed" the speak button. A synthetic voice approximating that of an adolescent boy spoke my name.

Then I pressed it again and again, thrilled at what I had accomplished. *Robin Franzen. Robin Franzen. Robin Franzen.*


ONLY
THE EYES
SAY YES
A Love Story
PHILIPPE AND STÉPHANE VIGAND

Philippe and Stéphane Vigand were a handsome, dashing couple in their early thirties with two beautiful young daughters. Philippe was a publishing executive with the French conglomerate Hachette, and his wife Stéphane was an advertising director. On a July morning almost ten years ago, Philippe, young and vigorous, was walking to work when he heard "a gigantic explosion." Strangely, no one else seemed fazed by it . . . for the simple reason that the explosion was in his brain. He managed to summon help before falling into a coma.

When he awoke two months later, he was completely paralyzed. He was diagnosed as suffering from locked-in syndrome. At first, doctors believed he was a vegetable and he was treated as such. His wife, however, eventually realized that he was blinking his eyes unmistakably in response to her comments and questions to him. Clearly, despite all physical limitations, Philippe's mind was intact. After many months of hospital care, Philippe was brought home, where an infrared camera attached to a computer enabled him to "speak" by blinking his eyes, using a code.

Written in two parts, the first by Philippe using the "magic camera" to tell his story, the second by Stéphane detailing *her* experiences—the frustrations and challenges she has faced, and the ultimate triumphs—this moving portrait of a remarkable relationship shows how love and devotion can overcome almost anything. In no way maudlin or sentimental, *Only the Eyes Say Yes* does not flinch from the difficulties and setbacks the family underwent during Philippe's long fight. Despite all hardships and obstacles, however, they have kept their love not only alive but stronger than ever. Once focused, perhaps too solidly, on their careers, the two were forced by Philippe's "accident" to reevaluate their priorities, to rededicate themselves to their family and to each other. The couple even conceived a child after Philippe became paralyzed, welcoming joy into their lives when it might well have seemed most elusive to others in their situation. At a time when keeping any marriage together seems an ever daunting proposition, this tale of an extraordinary marriage and partnership stands as a truly radiant love story.

PHILIPPE AND STÉPHANE VIGAND live in Levallois, a suburb of Paris, together with their three children. They are at work on a new book.

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Jacket design by Abby Kagan
*Front jacket photograph courtesy of Sylvie Lancrenon/*Elle

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Orcutt district wins for helping Cassandra

By Tom Murphy
Times Staff Writer

When the Orcutt Union School District rang the bell for one student with special needs, the community heeded the call and for that response, statewide recognition has been granted.

The California School Boards Association's Golden Bell Award goes to the district for the communitywide campaign it led to give a "voice" to Joe Nightingale student Cassandra Province. A sixth-grader with cerebral palsy who has no control over her arms and legs and is unable to speak, Province was given the chance to "talk" for the first time two years ago, thanks to a high-tech EyeGaze Technology system paid for with community donations and district support.

The EyeGaze system purchased for Province earned the district special Golden Bell recognition for "innovative and creative uses of technology." Based on the same "look-and-shoot" technology used by American fighter pilots during the Persian Gulf War, it enables Province to talk, write and compute by simply gazing at a computer screen.

Since Province started using the EyeGaze system two years ago, educators at Nightingale School have witnessed a remarkable change in her academic and social growth, according to principal Pat Eggleton. When she first started, Province could respond to questions with one or two syllable sentences. Now her responses are entire stories, Eggleton said.

Province is now able to access the school's computer network, allowing her access to the programs that all other students use. Her math skills have improved and Province has become a regular part of school social activities. Eggleton says Province also participates in lunchtime flag football games.

"This was a joint effort by a lot of people who really cared about a bright young lady who didn't have a way to express herself," says Orcutt Supt. Dr. Jack Garvin. "Now we can not only read what she writes, but hear her thoughts as well. It demonstrates the real care for kids that goes on in this valley."

Province, Cassandra
#21

"GRANDPA!"

My Grandpa is short and skinny. He's eyes are blue like the sky. He is a talker. My Grandpa is a big arguer. For example: one time my Grandma said to him, "NO, Joe you worry too much."

My grandpa is big T.V. watcher, He watches it from 5:00 am through 7:30 pm. He loves Football and Oprah! He loves Jeopardy and Wheel of Fortune.

One day, my Grandpa fell. He was on the floor for 2 hours. Then, a next-door neighbor saw him. He called 911 for help. My ex-aunt heard the call. She called my mom. She told my mom that he was shipped to Valley Hospital. My Grandma was coming to my house to visit us and my Dad said, "Mary, Joe was shiped to the hospital." Grandma said, "Thanks Whitey!" He was in there for 3 hours. Then 3 weeks ago he and my mom go to the Doctor's. The Doctor told him, "Write a sentence." He wanted to see if he could hold a pen or not. He wrote Take me home. My mom was sad because my grandpa too old Then he went to the doctors office to have a M.R.I. A man said, "Do you want to hear some music Mr. G." Grandpa said, "What?" My mom said to the man, "Thats O.K."

He teaches me what a good person is. I say, "What is a good person Grandpa," He says, Like your Mom Cassandra." I say, "Yeah right!" My grandpa is a great & awsome person.

MY POOL PARTY
by Cassandra Province

I was 8 years old, and my birthday on October 3, 1993. My mom was excited. I felt happy. I was excited. My mom, my dad, my sister, and me all going to Paul N Pool. My relatives going to be there. My friends going be there.

We was in the pool. I swam. Danielle, my friend, was swimming. Danielle, and me racing. Danielle was winner.

My dad was barbarbarqer. He was bqqing hot dogs, and hamburgers. It look good to eat. I was eating hot dogs. We ate, until was time open my presents. He is good barbarbarer.

Time to open up my presents. I got a Barbie, a book, a doll, and a movie to name a few. I was happy because I got all I wanted.

Everybody was leaving, but my mom, my dad, my sister, and me. My relatives felt happy because they had fun. I felt happy because I will remember this day forever.

Stories written by Cassandra using her Eyegaze System.

LC Technologies, Inc.

Eyegaze Systems

Nancy R. Cleveland, R.N., B.S.N.

Medical and Technical Coordinator

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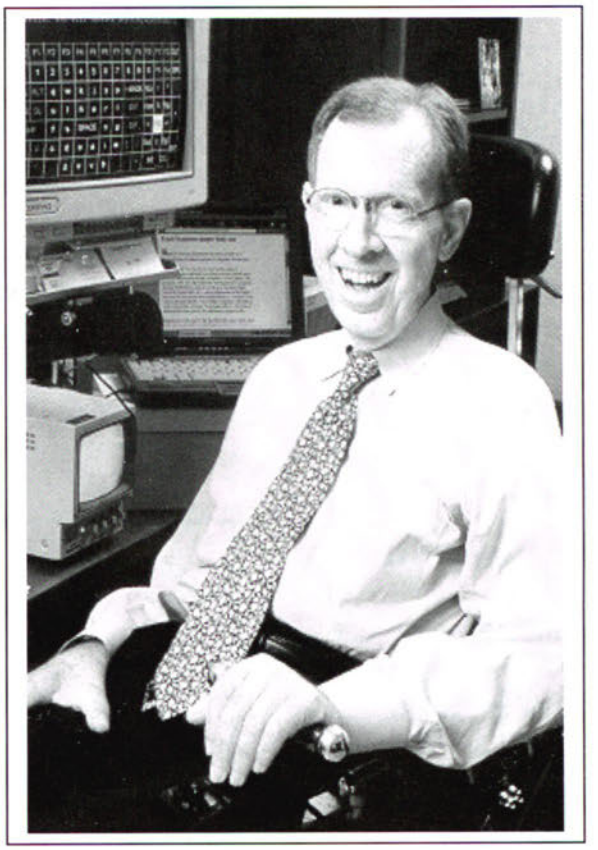
THE EYEGAZE COMMUNICATION SYSTEM



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June 2000

To: Bill Halter, Deputy Commissioner, SSA

Cc: Susan Daniels, Deputy Commissioner for Disability and Income Security Programs, SSA

From: Jonathan Young, White House Disability Liaison

Date: May 16, 2000

RE: Edapta, Inc. "Transformations" project

I enjoyed talking with you on the phone last week and appreciate your interest in the possibility of using SSA's Access Seniors web site as a trial for third-party web accessibility enhancements. Attached is an email from Chris Field of Edapta specifying, per your request, the resources they would anticipate requiring from SSA to complete the project.

You can find valuable information about Edapta on their web site, www.edapta.com. Their general mission: "Edapta provides Internet-based solutions that facilitate human-to-system interaction with computers, wireless devices and information appliances. Our innovative edaptation technology creates a framework that dynamically adapts content and user interfaces to individual user needs." The site also includes examples of the kids of "edaptations" they would provide for the SSA Seniors site.

I look forward to working with you and your staff on the possibility of this public-private partnership.

Jonathan M. Young
07/14/2000 08:45:33 AM

Record Type: Record

To: John W. McClane/WHO/EOP@EOP

cc:
Subject: Digital divide notes

printout for dig div folder
---------- Forwarded by Jonathan M. Young/WHO/EOP on 07/14/2000 08:45 AM ----------

Gregg Vanderheiden <gv@trace.wisc.edu>
07/10/2000 11:00:23 PM

Please respond to gv@trace.wisc.edu

Record Type: Record

To: Jonathan M. Young/WHO/EOP, Thomas A. Kalil/OPD/EOP

cc:
Subject: Digital divide notes

Here were some notes I jotted down one day
Thought I would pass on in case they inspired any ideas for you. Sorry I don't have any examples of these I can think of right now. I'll keep thinking

Gregg

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Legislative Initiatives
More funding for NIDRR and technology research general.

Anything you can do to say that this is good business.

Anybody that you can get from industry to stand up and say that building access in helped them with mobile computing or anything else.
Anybody that you could cite that said something like that.

Be even better would be a string of people that you could cite. So and so at such and such says the following, etc.