John’s First Communion

John Bottone is nine years old and in the third grade at the Florence M. Burd School. John was born with Spinal Muscular Atrophy Type 1, which limits his ability to move, speak, and eat. However he is totally mentally alert. He has been using EagleEyes technology for four years at his home and at school.

John has been using EagleEyes as a way to learn more about Catholicism. John is preparing for his First Communion, which is planned for May at the Lady of the Lake Church in Sparta, NJ. This idea occurred to his mom, Patty, when she was signing up her son Chris for his First Communion, “I felt sad that I was signing Chris up, but John was going to miss out. Why should he miss out on it?” Patty didn’t want First Communion to be another part of life that John was excluded from. She explained her thoughts to Monsignor Knauer, a priest at Lady of the Lake Church.

With Monsignor Knauer’s support, John began preparing at home with the help of Gen Miller, John’s wonderful nurse and Catechism teacher. Patty notes, “John has been studying the same books as all of the other students for two years now.” After reading the lessons in these books, John uses EagleEyes to answer questions in order to show that he is grasping the material. His learning is progressing right on schedule.

At one point, Monsignor Knauer stopped by the Bottone house to visit with the family. He watched John use EagleEyes to answer questions from the First Faith book he was studying. He could see John understands exactly what he is being taught. Monsignor Knauer explained, “It is an impressive machine. It really opens up a new way to communicate.” Monsignor Knauer is thrilled that EagleEyes will allow John to take this vital step in his religious life.

When the big day arrives, John will receive First Holy Communion. With the approval of the Church and John’s pediatrician, a small amount of wine will be transformed into the Blood of Christ through John’s g-tube in order to complete the sacrament.

From a letter from Patty Bottone:

John’s life has been enhanced socially, intellectually and personally due to his utilizing the EagleEyes system. It has truly been a godsend and enables miracles to happen every time John is on it. I am not exaggerating when I call them miracles since John was never able to independently answer a question, make a statement, play a game, or do anything independently for that matter until he used an EagleEyes system four years ago …

John’s social life has been enhanced in that he now can play a game of Tic-Tac-Toe with a friend or one of his brothers. He can now communicate and make a statement to a friend, family member or at school using his system …

As far as intellectual enhancement, EagleEyes has enabled him to show that he retains what he reads and learns and is able to do well on quizzes on the material. Up until the time John was introduced to EagleEyes, he was able to receive information and retain it, but unable to show everyone exactly what he had truly learned and how well. Now with EagleEyes there is no question as to how intelligent John is, and he is able to prove what he knows. John reads and then takes quizzes in Spelling, Math, History, and Science. He performs at a 3rd grade level which is amazing considering the limited exposure he has had in certain areas of study …
The Opportunity Foundation of America continues to help people with disabilities by manufacturing and distributing EagleEyes systems and by supporting their use, all at no charge.

On December 13, Jordan Valley School in Midvale, Utah, hosted a presentation on EagleEyes. They had received a system from OFOA in June. Chase MacKay and Laura White, students at Jordan Valley, donned the electrodes and showed their skill, to the enthusiastic response of the audience. Britta Scullion, occupational therapist, ran the demonstration. Britta and Rita Bouillon, principal, hope numerous children at Jordan Valley will benefit from EagleEyes.

Debbie Inkley, Executive Director of the Opportunity Foundation, announced that the Foundation has received grants from American Express Community Development and The Craig H. Neilsen Foundation. Funding will be used to provide EagleEyes systems to special needs schools and non-profit organizations including: Oakridge School, Castle Valley Center, Hartvigsen School, Con Amore Training Center, Dan W. Petersen School and United Cerebral Palsy of Utah, in 2006.

The Oakridge School in Midvale, Utah, recently received two systems, which students will be able to use daily. Maureen Gates, of the Boston College Campus School, visited Oakridge on January 30 and 31 to conduct initial training sessions. Oakridge will become the EagleEyes training center for other schools and non-profits in Utah.

Britt Allen, Salt Lake Community College student and Foundation volunteer, continues to play a key role assisting OFOA in moving the EagleEyes project forward. Britt is quadriplegic, but has voluntary control of one finger that allows him to communicate through his DynaVox and his laptop. The first time Britt saw EagleEyes he noted that able bodied people should not be demoing the technology. Britt felt that he could demonstrate the technology more effectively, and has been ever since.

In the spring of last year, Britt initially demonstrated the technology at the Jordan Valley School and continues to help the school with special events. In December, Britt helped deliver an EagleEyes presentation to the Utah Department of Health. And, just recently, he assisted Maureen Gates in EagleEyes training at Oakridge School.

Under the exclusive technology licensing agreement between Boston College and the Opportunity Foundation of America, EagleEyes systems are being manufactured by Sanmina-SCI, a major electronics manufacturer with a strong business in medical systems. Sanmina-SCI has a large network of FDA-registered, ISO-compliant manufacturing facilities and very kindly is donating its services.

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Wendy Bills, Principal of the Jordan Resource Center, stated, “In all my years of working in Special Education, EagleEyes is the most amazing technology I have ever seen.”

For more information please contact Debbie Inkley at debbieinkley@ofoa.net and visit the Foundation’s website at www.ofoa.net.
Helping “My Girls”

In December 2005, Susan Seekatz from HealthBridge Children’s Hospital in Orange, California visited Boston College to try out EagleEyes to see if it would work for “my girls.” She later wrote the following letter to the Opportunity Foundation of America requesting an EagleEyes system:

I am 3. I am 4. My name is Nubira. My name is Brianna. I have Spinal Muscular Atrophy Type 1. I breathe through this thing in my throat. I eat through a tube in my tummy. This is all I have ever known, so I guess it’s OK.

I live in a place called HealthBridge. I have my own room. That’s good, but I get real bored all by myself.

I want to talk. I want to play. My body won’t let me. My family comes to see me all the time and they keep trying to get me to do things. Don’t they know I want to? I just can’t. They get real sad. I wish I had a way to tell them things, to learn to read and to play Barbie.

I heard my teacher say I need a computer. She said I could work it with my eyes. That’s good cuz I move my eyes all the time. I know how to look at things when people ask me to. The problem with that is it’s NO FUN!

My teacher, Miss Susan, says she wants to get me this computer thing, but needs to find someone who will pay for it. I don’t know what that means. I just want to start using it!

So…could you get me the thing I need to talk with my eyes? It would make my family happy. It would make my teacher happy. And I would be REALLY happy too!

Thanks a bunch and xoxoxoxoxox...

EagleEyes Videos Available on the Web

Several videos about EagleEyes are available for free viewing on the web. Just go to the EagleEyes website at www.EagleEyes.org, click on EagleEyes and then on Videos.

Also available are manuals, press articles, photographs, and applications software.
Accenture
Accenture is a global consulting firm with many Boston College alumni throughout its ranks. The Accenture Fund has supported the EagleEyes Project from the beginning, recently by funding Computer Science and Information Systems students to serve as research assistants on the project. These students have worked with the children and developed much of the software they use. We are most grateful for Accenture’s continuing support.

Campus School Volunteers
The Campus School Volunteers is one of the largest student organizations at B.C. They raise money and volunteer time for the Campus School and for the EagleEyes program. They serve as buddies for many of the children and financially support educational and social activities. Campus School Volunteers: You’re fantastic!

Christopher Reeve Foundation
“What I do is based on powers we all have inside us; the ability to endure; the ability to love, to carry on, to make the best of what we have – and you don’t have to be a ‘Superman’ to do it.” – Christopher Reeve

The Christopher Reeve Foundation is committed to funding research that will help find a cure for paralysis and to fund projects that will “improve the quality of life for people living with disabilities.” The Foundation recently provided a grant to the Campus School EagleEyes Project to “train parents, teachers and other direct care providers to use EagleEyes technology as an instructional tool to help non-verbal students with quadriplegia access the regular school curriculum.”

Mary Kaye Waldron Quality of Life Foundation
The Mary Kaye Waldron Quality of Life Foundation has provided a grant to allow children with disabilities in Massachusetts to use EagleEyes to continue their schooling. Mary Kaye Waldron was an undergraduate at Boston College who passed away shortly before her graduation in 1995, after battling cancer for six years. Her joyous approach to life was an inspiration to everyone who knew her. Through the Foundation’s generous support, a number of students at the Campus School at Boston College and elsewhere in the state are able to use EagleEyes in order to improve the quality of their life.

Mitsubishi Electric
Mitsubishi Electric Research Laboratory (MERL) in Cambridge, MA is one of the outstanding corporate research laboratories in the world in computer and communication technologies. After a technical talk at MERL on EagleEyes by Prof. Gips in 2002 and visits to B.C., The Philanthropy Committee of MERL has very kindly been making donations to the EagleEyes Project at Boston College. The donations are matched by the Mitsubishi Electric America Foundation. MERL and MEAF have been consistent supporters of EagleEyes, for which we are most grateful.

Reebok
Casey Dunn is a senior at Boston College with a major in Finance and Accounting. Last September, Casey went to an event hosted by Reebok, at the company’s headquarters in Canton, MA. At the event, students had an opportunity to participate in Reebok’s “How Can I Make A Difference” essay contest. Casey wrote about EagleEyes. Casey first learned about EagleEyes during his freshman computer course with Prof. Gips. During the course Prof. Gips discussed his research and Casey recalled “being fascinated by the idea that people with limited motor skills would be able to operate a computer.” The essay was a winner and as a result Reebok made a donation to the EagleEyes Project. Thanks, Casey and Reebok!

Boston College
Boston College has been most generous in supporting the EagleEyes Project from its inception. Most of the funding for the project comes from the university.

Faculty from Computer Science, Education, Fine Arts, Management, Nursing, and Psychology have participated as have undergraduates and graduate students from many disciplines and administrators and staff from throughout the university.
Judie and Mike Tripoli are thrilled now that their son, Mike Jr., is back in the family fold, along with his twin brother Sal and younger brother Jonathon.

They are particularly happy because he will also have the help of a new invention, "EagleEyes," to help him communicate again.

In late July of 2004, Mike junior suffered the incomprehensible - an almost deadly episode shortly after a routine workout. This parish altar boy, honor student at Bishop Fenwick High School, member of the junior varsity hockey team and Danvers Youth Soccer suffered, in technical terms, an episode of prolonged rapid heartbeat, leaving his brain oxygen deprived, which left him first, in a coma and now in a semi-responsive state.

With the constant care of his family and the prayers of his many friends, Michael has made notable strides in the last year. He can now swallow on his own, track items with his eyes and has become more responsive to his environment.

Three months ago Michael Jr. was tested on "EagleEyes," the invention of Boston College Professor James Gips. This innovative technology enables communication and learning, by allowing the user to use his or her eyes to move the computer pointer on a computer screen. Essentially, the eyes replace the mouse.

The Tripolis, Gips, and Debbie Inkley, founder and executive director of The Opportunity Foundation of America, decided Michael Jr. could benefit considerably from this technology. The Opportunity Foundation then decided to give the "EagleEyes" system to the Tripoli family, which they did this Monday, Oct. 3.

The Opportunity Foundation of America (OFOA) was founded in the year 2000 by a group of executives in Salt Lake City, Utah. The foundation's mission is to help improve the quality of life
for people with physical and mental disabilities and to provide services to those actively seeking employment or striving to retain employment.

In 2004, through contacts made while promoting the foundation's mission, the organization was introduced to Boston College Professor James Gips and the innovative technology called EagleEyes. The university has been working to make EagleEyes publicly available, but did not want financial profit to be a consideration. Boston College wanted to find an organization that had the interest and dedication to market, manufacture, and distribute EagleEyes to those who would benefit from the technology. In June of 2005, Boston College and OFOA signed a formal agreement giving the foundation license to market, manufacture and distribute EagleEyes to special needs schools, non-profit organizations, and individuals for free.

Many people with severe disabilities have been unable to communicate effectively. Many speak only in unintelligible sounds. Still others have no movement other than spastic facial or bodily ticks. Most, however, have some control of their eye movement that has been unrecognized as a potential method of effective communication and learning.

Researchers at Boston College capitalized on this eye movement through a technology that measures the user's EOG, or electro-oculographic potential (electrical relationship of the position of the eye relative to the head). The result of their research is called EagleEyes that allows people to control the mouse pointer on the screen by moving their eyes.

With commercially available learning and entertainment software, the ability to evaluate, communicate, and educate is now a reality. The potential benefit to this incredible group of individuals and their families is enormous, said Debbie Inkley of the Opportunity Foundation.

For more information about the foundation, call 801-231-6691 or visit online www.ofoa.net. For more information about the technology, call Boston College, 617-552-3981, or visit online www.bc.edu/eagleeyes.

Information for this report was received from The Opportunity Foundation.
Device brings high-tech to disabled students
EagleEyes: The system translates subtle head and eye movements into mouse-style commands

By Todd Hollingshead
The Salt Lake Tribune

01/31/2006

SPRINGVILLE - Britt Allen is an ace when it comes to zapping aliens - with his eyes.

He may not have laser-beam sight like Superman, but just one glance sends the intruders to oblivion.

On Monday, the 24-year-old - whose cerebral palsy has him in a wheelchair and inhibits his speech - shot down video-game aliens with perfection as he demonstrated a new eye-based technology to faculty at Oakridge School.

The EagleEyes technology enables nonverbal and paralyzed students to play games, type words and even express feelings simply by moving their eyes.

Boston College and the Salt Lake City-based Opportunity Foundation of America teamed up to donate two of the $1,200 devices to Oakridge on Monday, making the Springville school for severely disabled students the second statewide with the tool.

Last June, Jordan District's Jordan Valley School in Midvale became the first school in the nation to receive the groundbreaking EagleEyes devices.

"We were so enamored with what this technology could do," said Debbie Inkley, founder and executive director of The Opportunity Foundation of America. "It is not a magic answer, but it is a means to help young people move on with their life."

EagleEyes fosters communication and independent activity through a computer by translating eye movement into mouse movement.

Several electrodes attached to a student's head detect movement, then send the signal to a small box apparatus, which then relays it to the computer.

Just like that, a paralyzed child can play video games, type out sentences or study on the computer with a flash of the eye.

"It takes a lot of practice and patience," said Rick Olivares, whose 12-year-old son Cameron has cerebral palsy and attends Jordan Valley. "Hopefully, it will open up new windows of communication."

Oakridge landed two of the devices by promising to act as a trainer location for other schools and individuals looking to use the technology.

Boston College recently signed a licensing agreement with The Opportunity Foundation to distribute the devices for free, and five more special-needs schools in Utah are slated to receive the gear this year.

Oakridge Principal Richard Kay believes the device can be used as a tool for autistic children and students with communicative disabilities. He plans to give every one of his 34 students a chance to use it.

"If we can help them with those communication skills, all sorts of other things will open up," Kay said. "I see EagleEyes as a way for students to access themselves and the outer world."

Students at Jordan Valley have made great advances, said teacher Linda Eller. "It has empowered them to be in control."

thollingshead@sltrib.com
Britt Allen sat in front of a computer, blue electrodes attached to his face and multicolored wires running from the electrodes to a small box next the machine. His eyes focused on the screen as he used his left thumb to type out a message to Maureen Gates.

She adjusted the settings on the computer, raised the screen and the 24-year-old Salt Lake City man got back to his activity -- shooting aliens with his eyes. Once the settings were right he was on target, and 10 little green men exploded one after another, each in an average time of 1.7 seconds.

Allen, a spastic quadriplegic with cerebral palsy, is the poster user for Eagle Eyes, a new technology that allows people with severe disabilities to use computer programs by moving their eyes. He demonstrated the process at Oakridge School in Springville, Nebo School District's school for children with severe disabilities.

The Opportunity Foundation of America donated two sets of equipment to Oakridge on Wednesday. The school will be a testing center for students and also will be the training
school for other schools in Utah.

The technology offers a way for people with autism or other communication disorders to communicate. Using their eyes to move the mouse, they can select between food choices, activities, feelings, locations of pain or illness or, in some cases, answers to a medical college admission test. It can teach cause and effect, communication and education.

But its purpose is much simpler.

"The first is fun, first is gratification," said Gates, a project director for Eagle Eyes, which was created by Dr. James Gips at Boston College. "Second is gratification. Third is empowerment. Fourth is education."

The technology was created for people who can only move their eyes. The electrodes track the eye movement and act as a mouse substitute that is set to click after about half a second. Whatever the eyes are focused on, the program selects.

"It goes from fun and excitement to control over your own life," Gates said.

Oakridge Principal Richard Kay said as soon as he found out about the technology he wanted it, and after months of meeting with foundation founder Debbie Inkley and going to Jordan Valley School to see the equipment and go through training he was glad to get it.

"We're going to try every student in the school, whether they meet the physical requirement or not," he said.

Oakridge has a full-time staff member who will assess the progress of students using Eagle Eyes as well as training other administrators. The technology costs about $1,200 per unit and can be used with a regular computer with Windows XP.

Monday was an exciting day for Inkley as well, who has made the goal of her foundation to distribute the technology. She introduced Allen and the technology, visited with Oakridge staff and parents of children who'd used the program and flashed a big smile as she handed the goody bag with the equipment to Kay. She also cheered when Allen hit his final alien and led the applause when he made a big announcement through a computerized voice box.

"I am engaged," he told everyone in the room with a big smile.

"This isn't a magic wand," Inkley said, cautioning every parent that Eagle Eyes doesn't cure disorders.

But it is something.

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