"SMART TECHNOLOGIES": A SMART CHOICE FOR OTs

By Leslie Goldberg

Samantha* is a bright, well-adjusted middle school student with significant physical disabilities. Because she cannot hold a pen or click a mouse, Samantha uses eye gaze technology—which employs infrared cameras to track a person’s eye movement and operate a computer—to read, write papers, and surf the web. According to Jennifer Buxton, MA, OTR/L, ATP, G03, an assistive technology consultant who works with Samantha and also lectures at Tufts, this young lady is “not only able to participate in school, but can also read The Hunger Games and go on Facebook, just like her friends. It’s really important for teenagers to be able to participate in the ‘social media’ community.”

“Helping clients participate in the community” is the mission of occupational therapy, and new ‘high-tech’ assistive technologies, such as iPads, smartphones, and the many apps that go along with them, appear to be occupational therapists’ new best friends. A recent article in OT Practice (July 2, 2012) titled, “App’titude: Smart Gadget Applications Showing Their Worth in Practice” touted the benefits of mobile phone and tablet apps stating that, “It’s no wonder that occupational therapy practitioners, like many other professionals, are finding innovative ways to incorporate apps into their work and are making serious differences in the way clients are able to function in the world” (page 10).

The Tufts alumni and faculty interviewed for this article agree. Peggy Morris, OTD, OTR/L, G11, a Tufts lecturer and pediatric specialist, points out that “OTs have always used ‘assistive technologies’ to adapt environments for their clients, even if some of those technologies are now considered ‘low-tech’ by today’s standards. What apps and other ‘new’ technologies allow us to do is broaden our arena; they give us many more opportunities to help clients participate in their environment.”

Although Buxton and Morris work primarily in schools, it’s not only students who benefit from using apps, mobile devices, and web-based assistive technologies to address special needs. People with motor impairments, older adults with poor vision, those with challenges as diverse as amyotrophic lateral sclerosis (ALS) and executive function dysfunction, are using these tools to control their environments,” Buxton said. “From turning on the lights to programming your television, new technologies allow those with disabilities to participate more fully in the world.”

For example, Morris works with a nonverbal child who has a smartphone app that tells jokes. “She loves getting a laugh from her peers. So even though she cannot participate verbally, she can use her joke telling to engage with her classmates.”

Of course, new assistive technologies can take people way beyond joke-telling and web surfing. Jan Hollenbeck, OTD, OTR/L, J84, G09, an assistive technology specialist in the Medford, Massachusetts public schools, uses many different types of apps and software to support students with a range of disabilities, including those with
physical disabilities; autism; attention deficit-hyperactivity disorder (ADHD); and cognitive impairments. At the 2012 AOTA Tech Day, Hollenbeck gave a presentation on “Enhancing Student Participation with Mobile Devices,” pointing out how these tools can help students get and stay organized, communicate with others, collaborate with peers, and access and produce assignments.

“One great thing about these new technologies is that they are portable; students can take them wherever they go. And since many apps and web-based programs are free, mobile devices and wireless environments allow students and teachers access to so much more information and resources,” she said.

From calendars to “to do” lists, from timers/reminders to text-to-speech or speech-to-text technology, there are literally thousands of free or inexpensive apps and web-based software that can support students in school. But finding just the right technology can be a challenge. Many occupational therapists can spend hours finding the right app to fit a particular client’s needs. “How do you figure out which one is the right one? How do you know if it will work for your client?” Morris asked. While there is no quick solution, “the advantage of bringing an "OT lens" to the task is that occupational therapists are skilled at making a good match between the client and the environment.”

According to the OT Practice article, while the world of apps can be overwhelming, it is also exciting because new assistive technologies “allow therapists to think about clients more individually—instead of having to purchase bulky equipment that will work for many, practitioners can instantly and affordably download something that might work for only one client—and try something new if it doesn’t.”

New assistive technologies are also versatile. “I might recommend the same software, such as electronic books, for four different students each of whom has individual strengths and limitations—one may have a visual impairment and need the text-to-speech function, another may have physical access issues and be unable to hold a book, while another may require reading and writing support because of a learning disability. It’s all about matching the person to the tool,” Buxton said.

Michelle Marques, A08, G11, an assistive technology specialist in the Cambridge, Massachusetts public schools, agrees. She describes Word Q (software focusing on word prediction and text-to-speech); Ginger (a contextual grammar/spellchecker); and Bookshare (a web-based online book repository), as examples of software that can support students with physical, cognitive, and/or learning disabilities. “The key is that all of these solutions—and many others—are not only either free or reasonably priced and mobile, but they also reduce students’ dependence on the teacher and other people for help.” Therefore, they increase occupational therapy’s aim of promoting a more accessible school curriculum and learning environment.

And because the field of assistive technology is “a natural fit for occupational therapists,” said Hollenbeck, many OTs are drawn to assistive technology certification to earn Assistive Technology Professional (ATP) credentials. While this certification also attracts engineers, software makers, and rehabilitation specialists, “occupational therapists are perfect for this certification because it emphasizes an important subset of our skills—finding adaptations to help the environment meet the clients’ needs and goals,” Morris explained.

Hollenbeck added, “OTs are best at compensating, and assistive technologies help us do that.”

*Name has been changed to protect the individual’s identity
Susan Hernandez, an OTS who will graduate in February 2013, dreams of some day running an occupational therapy clinic in a developing nation. That’s why this past May, she travelled to Santiago, Chile, for a “summer of service” experience. After speaking with an AOTA member and reaching out to a colleague at the University of Chile, Susan connected with a foundation (Fundacion Coanil) in Chile, which runs a center (Centro de Capacitacion Laboral) that provides vocational training for adolescents and young adults with intellectual disabilities. All Hernandez knew about the program was that she would be working with an experienced occupational therapist at the center. Hernandez headed off to Chile, not really sure where her travels would lead.

Hernandez’s trip proved to be the experience of a lifetime. At the center, she observed the OT and special education teachers at work and helped the students, many of whom were autistic, with a range of activities which included themed-based games and gardening. One of the biggest challenges? Doing it all in Spanish! Although Hernandez is bilingual, she hadn’t practiced using “OT language” in Spanish. “I know that I will have many Spanish-speaking clients throughout my career and I felt that it was important to have experience speaking Spanish in my role as an emerging practitioner,” she said.

In fact, Hernandez’s Spanish fluency led to one of the most serendipitous experiences on the trip. One day at a museum, she started talking with a group of adult students with acquired vision loss who were taking a “tour for the senses.” “They [the museum staff] invited us to touch the sculptures and describe what we were feeling and seeing, so that they could also experience the art. Because of my ‘OT lens’ and my fluency in Spanish, I was able to connect with them,” she recalled. And because Hernandez had worked on a project for a child at the Perkins School for the Blind in Watertown, Massachusetts, she felt an immediate affinity for the group. These positive interactions led to an invitation to visit the school, during which she experienced a typical day. Hernandez attended vocational workshops and community gatherings for adults with acquired blindness and enjoyed a traditional Chilean lunch. “It was one of the most incredible opportunities of the whole trip—and I was able to connect with them not only because I could understand the language but because I had an OT perspective.”

Hernandez’s “OT lens” expanded considerably while she was in Chile. “I had to be flexible, grade activities, and give individuals the chance to be successful while also challenging them to learn new skills.” She said the opportunity to do all of that—in a foreign country and in her native language—will remain with her for a lifetime.

Cybil Ransom-Joyce, an OTS who plans to graduate in May 2013, is no stranger to the poverty in Africa. Since 2008, she and her husband have volunteered for Poverty Reduction, Education, and Family Empowerment of Rwanda (P.R.E.F.E.R.), a Canadian nonprofit that runs a preschool and other programs in the ravished nation.
Ransom-Joyce has spent up to three months at a time in Rwanda, working in the preschool, teaching English to adults, and assisting in the “Street Kids” program. A seasoned traveler, Ransom-Joyce has always enjoyed visiting new places and experiencing new cultures, but until her work with P.R.E.F.E.R., she had never volunteered. “It has made such a difference in my outlook now that I’ve gotten to know these families and be involved in their lives,” she said.

Ransom-Joyce’s initial volunteerism with P.R.E.F.E.R. seeded her desire to become an occupational therapist; her work there this past summer was particularly eye-opening because it was the first time she had been back to Rwanda since starting the occupational therapy program at Tufts. “It was interesting to return to Rwanda after being in school for a while. Now I understand how tasks that may seem commonplace are really therapeutic in how they contribute to cognitive and motor development,” she said. “Volunteering is the perfect opportunity to apply OT concepts in a way that contributes to positive change.”

For example, Ransom-Joyce engaged the children in meaningful leisure and social activities like arts and crafts and soccer, played ball with street children, and helped preschoolers grasp scissors and pencils. “I came to realize how something like kicking a ball enhances coordination and balance, and cutting with scissors supports fine motor skills.”

Ransom-Joyce says that volunteering in Africa has enriched her occupational therapy education and deepened her commitment to her chosen profession. “Many of us choose OT because we have a desire to help other people. Engaging the people of Rwanda in occupational therapy opportunities was a fulfilling experience because as a student of OT, I now understand the vital relationship between occupation, health, and happiness.”

**MESSAGE FROM THE CHAIR**

This semester has been full of changes—two of which will probably be obvious as you read this issue of News & Notes. First, I am back from my sabbatical; second, News & Notes has a new online presence and design. This online format aligns us more closely with the Tufts School of Arts and Sciences and better reflects our position within the interdisciplinary Arts and Sciences environment.
Our field is also rapidly evolving. After a two-year process of surveys and hearings, the Accreditation Council of Occupational Therapy Education (ACOTE) has adopted new accreditation standards, effective July 2013, to better prepare practitioners for the world in which they will work. Among other focus areas, these standards emphasize program evaluation/outcomes; the need for doctorate-trained practitioners; advocacy opportunities around social injustice; group work; emerging practice areas (http://www.aota.org/Practitioners/PracticeAreas/EmergingAreas.aspx); and the expansion of assistive technology.

Tufts is already deeply committed to these educational standards. Our group work, a well-known strength of our program, and our many conference presentations illustrate the emphasis our faculty members place on evaluations and outcomes (Bardo, et al., 2012; Amo, et al., 2012; see our Accolades section for the full reference). In addition, our curriculum and scholarly research focuses on many emerging practice areas such as, social self-management of chronic conditions, participation of youth and children, and aging in place.

In this issue of News & Notes, we look closely at one emerging area—assistive technology (AT)—and what AT breakthroughs mean for the education of our students. Our feature story illustrates how faculty members and alumni are immersing themselves in this exciting new arena. In addition, strong interdisciplinary scholarship at Tufts facilitates our collaborations with faculty members from the School of Engineering and the School of Arts and Sciences Department of Psychology to explore AT from many perspectives.

If you are an alumnus/a working in the field of assistive technology—or otherwise engaged in emerging practice areas—we would love to hear about the changes you are bringing to the ever-evolving field of occupational therapy.

CATCHING UP WITH LINDA TICKLE-DEGNEN

By Leslie Goldberg

During her 2011–2012 sabbatical, department Chair Linda Tickle-Degnen, Ph.D., OTR/L, FAOTA, immersed herself in occupational therapy across the globe. As Visiting Professor in Occupational Therapy at Umeå University, a leading clinical and research facility in northern Sweden, Tickle-Degnen collaborated closely with faculty on Parkinson’s disease research, particularly on how people with the disease and their family members manage the social aspects of their lives while also handling physical symptoms. During her one-month visit, she presented several lectures, visited labs, and exchanged information about occupational therapy curricula and the role of occupational therapy in American and Swedish health care systems. Professor and Chair Birgitta Bernspång and the faculty graciously introduced Tickle-Degnen to the vibrant culture, excellent cuisine, and friendly community of Umeå. “It was truly an adventure in the exciting world of occupational therapy!” said Tickle-Degnen.

Tickle-Degnen has been consulting on movement disorders and evidence-based neuro-rehabilitation for many years, and is now excited about the “increasingly international presence in the field of occupational therapy. Given all the new communication technologies, OT is becoming much more collaborative worldwide,” she said. After her time in Sweden, Tickle-Degnen presented her research at the 16th International Congress of Parkinson’s Disease and Movement Disorders in Dublin, Ireland. She met with OT’s, PT’s, nurses, and neurologists from around the world, including one of her new colleagues from Umeå, Gun-Marie Hariz, to advocate for the role that rehabilitation and community intervention can play in relation to Parkinson’s disease and to advocate for international collaboration on evidence-based practice guidelines for the disease.
In addition, interdisciplinary collaborations across Tufts have always been paramount to Tickle-Degnen. Both during her sabbatical and since her return, she has continued to build those relationships through the Tufts Health Quality of Life Laboratory (HQLL) http://ase.tufts.edu/hql, which she directs. Tickle-Degnen says her engagement in international and interdisciplinary study has not only broadened her perspective on the vitality and growth of occupational therapy as a profession, but also her sense of how the department can become more immersed in research and education throughout the university.

Since returning to her post as department Chair, Tickle-Degnen and the Occupational Therapy Department faculty have met with Tufts University President Anthony P. Monaco to discuss how the “OT lens” can offer insight and add value to programs and research across Tufts. In her interactions with President Monaco, Tickle-Degnen has found him “very interested in our teaching initiatives and how our skills can translate to other departments. Tufts clearly understands the importance of occupational therapy, and that we should be participating in that conversation,” she said.

HIGHLIGHTS

Accolades
Professor Sharan L. Schwartzberg was the first occupational therapist to be named a certified group psychotherapist by the International Board for Certification of Group Psychotherapists. She was also recognized as an instructor designate by the American Group Psychotherapy Association Institute, Process Group Experience for entry-level therapists with fewer than four years of group psychotherapy experience at the American Group Psychotherapy Association Annual Meeting in New York City.

Associate Professor and Tufts alumnus Gary Bedell, A82, received funding from five different organizations to pursue several research projects related to children with disabilities. Bedell was also a coauthor, with Professor and Chair Linda Tickle-Degnen, Dr. Laurie Miller, a professor of pediatrics at the Tufts Medical Center, and occupational therapy graduate alumna Linda Tirella, G10, of a Physical and Occupational Therapy in Pediatrics article titled, “Parent Strategies for Addressing the Needs of Their Newly Adopted Child.” Bedell was also the keynote speaker and workshop coleader at the Pediatric Rehabilitation Conference, which was sponsored by Israel’s Alyn Hospital and held in Jerusalem in September 2012; Bedell presented “Measuring and Promoting Participation of Children and Youth with Acquired Brain Injuries: How to assess and facilitate participation of children in social, family, and educational environments using the Child & Adolescent Scale of Participation (CASP) and the Participation and Environment Measure for Children and Youth (PEM-CY).”

Faculty Publications

Faculty Presentations


Presentations at the Massachusetts Association of Occupational Therapy (MAOT)

Mary Alicia Barnes; Svea (Van Langenhoven) Hall, MS, OTR/L, G12; and Fiona Jensen, OTR/L, ‘85, presented “Mindfulness in the schools: An Outcomes Approach.”

Mary Alicia Barnes and Sharan L. Schwartzberg presented a workshop on “Manualization of the Functional Group Model.”

Students presented posters at the Massachusetts Association of Occupational Therapy conference in October 2012. Presenting students included:

Wei-Chang Chen, a current occupational therapy doctorate (OTD) student and former student in the department’s post-professional graduate program, presented her scientific posters coauthored with Gary Bedell and colleagues at the American Congress of Rehabilitation Medicine’s (ACRM) annual meeting, “Progress in Rehabilitation Research” in Vancouver in October 2012. Chen’s posters were on:
“Participation of Taiwanese children with disabilities in home, school, and community”
“The Child and Adolescent Scale of Participation: Traditional Chinese version and its psychometric properties”

Nirzari Babre, Priyanka Khuje, Erin Kirsch, Prafulla Patil, and Jennie Schofield who presented “Parent strategies and disability effects on childhood participation” (Gary Bedell, faculty mentor).

Tai Frater, Jennifer Iassogna, Vinky Makwana, Ulka Singh, and Priyanka Thakkar who presented “Childhood participation: Differences by setting and diagnosis” (Gary Bedell, faculty mentor).

Johanna Bardo, Tamara Brown, Christina Khal, and Amy Roder who presented “Fieldwork performance evaluation scores: Determining competency as a generalist upon graduation” (Mary Barnes and faculty mentor Michael Roberts).

Jillian Amo, Adrienne Crombie, Emily LoDolce, and Caitlin Mahler who presented “Factors that impact fieldwork performance scores” (Mary Barnes and faculty mentor Michael Roberts).

David Bernabei, Cybil Ransom-Joyce, Simon Levin, and Shirley Lynch who presented “Social impact of oral health on psychiatric inpatients” (Sharan L. Schwartzberg, faculty mentor).

Student Presentations for OTS 105 Assistive Technology
Students in Jennifer Buxton’s, MA, OTR/L, ATP, G03, class (OTS 105 Assistive Technology) presented a range of projects developed for members of the community. Presenting student projects were:

“Samantha’s Tilted Chair”: Siena Artuso, OTS, and Audrey Nguyen, OTS
“Mila’s Manor Little (Sensory) Room”: Caroline Flint, OTS, and Poornima Kamath, OTS
“The BEAD-dazzling Paper Roller”: Cailin Donahue, OTS, and Tabitha Solomon
“Arm Caddy”: Johanna Bardo, OTS, and Sarah Studley, OTS
“Spin Again Chin Switch”: Tamara Brown, OTS, and Joanna Balogh, MS, OTR/L
“Therapy Ball Solutions”: Rebecca Wood-Spagnoli, OTS, and Adrienne Crombie, OTS
“Nick’s Magic Rabbit W/C Tray”: Emily LoDolce, OTS, and Samantha Moore, OTS
“Sabrina’s Super Supportive Seating”: Sophie Billings, OTS, and Shantelle Carmichael, OTS
“Jake’s Sensation Station”: Sarah Euler, OTS, and Molly Storer, OTS
“iPad Stands for LABBB Collaborative”: Fiona Smith, OTS, and Akash Gupta
1946 Classmates Share Friendship and Stories

Claire (Wright) Brown and Susan (Decatur) Puffer were classmates in the Boston School of Occupational Therapy (BSOT) class of 1946. Self-proclaimed as “two of the oldest living OTs,” the pair has stayed in touch and continue to share fond memories of their years at BSOT before it became part of Tufts. Here, they share their unique perspectives on their profession.

One day in the early 1940s, Claire (Wright) Brown spotted a photograph in the Boston Globe of a young woman in a white uniform seated at a loom, weaving. The image got her attention, as did the article about the woman’s job as an occupational therapist. “I was convinced that, since I had enjoyed doing crafts at summer camp and on my own, and had imagined working in a hospital setting, this might be for me,” Brown recalled. After researching the field, she soon joined the BSOT class of 1946.
Today, the profession looks quite different from the “arts and crafts” focus Brown remembers from her schooling. Although she learned about anatomy and physiology, psychiatry, neurology, kinesiology, and other medical topics, she also took courses in art, weaving, bookbinding, needlework, leatherwork, basketry, woodworking, jewelry-making, and printing. She remembers learning to set type, painstakingly arranging the letters by hand. When she printed her project, however, she discovered that she should have placed the letters in backwards, in order for the type to print correctly!

After completing her coursework and affiliations at Massachusetts Eye and Ear, Robert Breck Brigham (now Brigham and Women’s Hospital, Boston), Danvers State Hospital, and Salem Hospital, Brown joined the staff at Danvers, which was a psychiatric hospital. Along with getting married, raising children, and volunteering at a local museum in Wenham, Massachusetts, she spent her entire career at Danvers State Hospital, eventually earning the title of director of occupational therapy.

Now in her 90s, Brown says she enjoyed working with psychiatric patients and in administration throughout her twenty-five-year career, but didn’t realize how much her profession had changed until she fractured a hip a few years ago and had to undergo rehabilitation. “I have spent a great deal of time working with occupational therapists in the fitness center at Brooksby (the retirement home where she lives), and nowhere have ‘crafts’ been mentioned,” she said. “I’ve been amazed!”

Although the OTs at her retirement community may no longer focus on printing and weaving, Brown feels an affinity toward their creative approach. They are “cheerful, friendly, and helpful. I think perhaps those are the same qualities that I aspired to when I was in this profession,” she said.

Susan (Decatur) Puffer also enjoyed arts and crafts as a child, and was inspired to pursue a helping profession by her sister, who was a nurse. At the time, World War II was winding down, and veterans’ hospitals were overflowing with patients. “There was a huge push for women to be trained as occupational therapists,” Puffer recalled. “Programs were accepting all ages and types of women—debutants, college-educated, some with experience and some without—to fill the need.”

Puffer was only in her teens when she joined the BSOT Class of 1946 in June of 1943. She described the program as “intense”; she completed what amounted to three years of study in just two years, with no break between semesters. But she "loved everything about it. What appealed to me was the combination of skills we learned—how the body worked and how to apply what I already knew about crafts, such as woodworking, leatherwork, and jewelry-making."
After completing affiliations at Massachusetts General Hospital, Children’s Hospital, and the Liberty Mutual Rehabilitation Center, among others, Puffer worked with psychiatric patients at the Brockton VA Hospital. She spent much of her career with the Visiting Nurses Association, helping stroke victims, older adults, and others with disabilities adapt to their living environments. Later, in her 60s, she was a part-time consultant to nursing homes.

Puffer has found occupational therapy to be an extremely satisfying career. “I feel I’ve had something to offer my patients. I think I’ve made a difference,” she said. Puffer has also made a difference in the lives of those closest to her. She’s maintained a lifelong friendship with her classmate Claire (Wright) Brown and inspired her granddaughter, Sarah Tucker, MS, OTR/L, to become an OT. Tucker recalls learning about occupational therapy at age twelve and being excited to discover that her grandmother was an OT. “I still remember her description of it, as she crafted her words to fit the mind of a junior high school girl,” Tucker said. “She pulled out old copies of the American Journal of Occupational Therapy and other journals, adaptive equipment catalogues, and related reading material. My hope that one day I would become an occupational therapist never wavered!”

Now the OTA Program Director at Brown Mackie College in Birmingham, Alabama, Tucker notes that she has used her grandmother’s story to capture the history of occupational therapy for students and other clinicians. “My grandmother has always been an amazing mentor and friend, and I am honored to be carrying the torch, continuing the passion of occupational therapy in our family,” said Tucker.
A Life Lived to its Fullest...

As Jane was a valued part of both the Tufts University and Boston University communities, we would like to take a moment of silence to remember her as a colleague, friend, professor, and mentor. We honor her contributions to the field of occupational therapy.

IN MEMORY: DR. JANE Koomar

The Boston University and Tufts University Occupational Therapy Departments join OTA The Koomar Center, the Spiral Foundation and the entire occupational therapy community in remembering our dear colleague, friend and alumna, Dr. Jane Koomar, who died on February 24, 2013. Jane had deep and enduring connections to the Boston occupational therapy community. She received her post-professional master’s degree in occupational therapy from Sargent College in 1980. In 1996, she completed a PhD in developmental psychology at Boston University. She was an Assistant Professor in Occupational Therapy from 1988 to 1991 at Boston University and from 2010 to 2013, was the first Professor of Practice at Tufts University, a highly honorific university position reserved for world-class scholar practitioners. Jane provided lectures for several generations of OT students in both programs. Every year OTA The Koomar Center, which Jane founded and directed, graciously opened their doors to teach OT students about interventions for people with sensory processing challenges. Jane served on dissertation committees, co-supervised thesis projects, and always encouraged those she mentored to strive to provide intervention that genuinely mattered and made a difference for children and families.

Whether a person lived with trauma, sensory processing disorders or any combination of challenges, Jane approached each person with compassion and an intensely focused desire to find ways to improve his or her life. She assimilated traditional neuroscience thought and research with an openness to holistic approaches to develop unique interventions. She taught others to be open to possibilities and in doing so became a respected leader in our field.

Always demonstrating a profound interest in others; whether children and their families, OTA staff, occupational therapy students, colleagues, or people she was meeting for the very first time; Jane was a curious and engaged listener. She asked thoughtful probing questions and continuously reflected on what she learned to better understand another’s experience. Unlike some, when she asked “How are you”, you always knew she sincerely wanted to know the answer. Recently, as she was preparing to pass on her legacy to us, she talked about how deeply grateful she was to have had the opportunity to work with us. We are grateful: Jane was our friend and colleague. She was a gift to our communities: education, practice, research, and society. Through her warm friendship, thoughtful mentorship and passionate teaching, Jane’s legacy endures.

We will miss her.