

IQsonics LLC Annual Report – 2017

Our Mission



iQsonics integrates sound and neuroscience for health, education and fun. Our team of researchers, neuroscientists, programmers, musicians, artists, therapists, educators and entrepreneurs design products and services that reach the target population in clinics, schools and families at home.

Outreach and Pilot Tests



This year we leaped forward with the development and testing of ***Sing and Speak 4 Kids***, our flagship program to help preschool children with speech delays. We've received validation from clinicians, teachers and parents who described specific positive outcomes using SS4Kids, and built a team of experts to support our evidence-based research projects to come in 2018.



Through monthly networking meetings with **Santa Monica Early Childhood Task Force** (SM City, College, Unified School District, Connections for Children, Rand Corporation and many local private schools and educators), iQsonics developed an ongoing relationship with **Step By Step EDU-Play**. Their teachers and students tested SS4Kids while we documented in video and used their feedback to increase the program's effectiveness, and they will continue to participate in our clinical research studies planned for 2018.

One of our premier SS4Kids trainers is **Susan Curwen**, a special education early-intervention teacher in San Bernardino County who has supported many kids and families, as well as offered valuable feedback to improve the program. Here are three examples of her students' progress with SS4Kids:

- 1. Girl with Down Syndrome, 33 months** when first introduced SS4Kids. Initially mom and teacher would sign and sing along as models. Three months later she was observed to spontaneously sign and sing making verbal vocalizations and approximations to the key words in SS4Kids songs.
- 2. Girl hard of hearing, approximately 36 months.** When SS4Kids was initially introduced she attended to the songs and seemed to enjoy them. Two months later she verbalized "dog jump" [SS4Kids lyrics]. Mom shared that she is very engaged and is saying words more clearly after using the SS4kids app. Now when she sees a picture of a familiar object and/or action from the vocabulary of the SS4Kids songs in a children's book, she will name the picture spontaneously.
- 3. Boy with language delays, 31 months.** Very engaged in the songs, over time he would respond and verbalize the response to the songs, able to understand the concepts "loud and soft" from one of the songs. Learned to generalize the concept, now will indicate his awareness when his baby brother is sleeping. He knows to use a softer voice and will whisper to his mom.

Team Building

Many thanks to new iQsonics team members and volunteers! In the process of formulating our 2018 research studies, we've been joined by a powerful group of individuals who are contributing their expertise as iQsonics' co-investigators and advisors:

Hayoung Lim, PhD Music Therapy, Oral Roberts University
Erica Ellis, PhD Communication Disorders, Cal State University Los Angeles
Brooke Ingersoll, PhD Psychology, Michigan State University
Laura Jana, MD, Dir. of Innovation, Epidemiology, U. of Nebraska Medical Center
Anthoula Poulakos, PhD Developmental Psychology, NYC Dept. Mental Health
Laura Dilley, PhD Communication Disorders, Michigan State University
Christopher Harz, EdD Educational Technology, Harz Associates International
Elaine Hall, Director, The Miracle Project, autism consultant
Alix Generous, Behavioral Interventionist, autism consultant



Earth Rights Institute, our non-profit sponsor led by **Annie de la Bouillierie Goeke**, has helped recruit volunteers to support academic research (**Nate McCabe**), Spanish translation and Latino community liaison (**Leslie Valencia**) and marketing research (**Peter Baek**).



WESTSIDE
REGIONAL CENTER

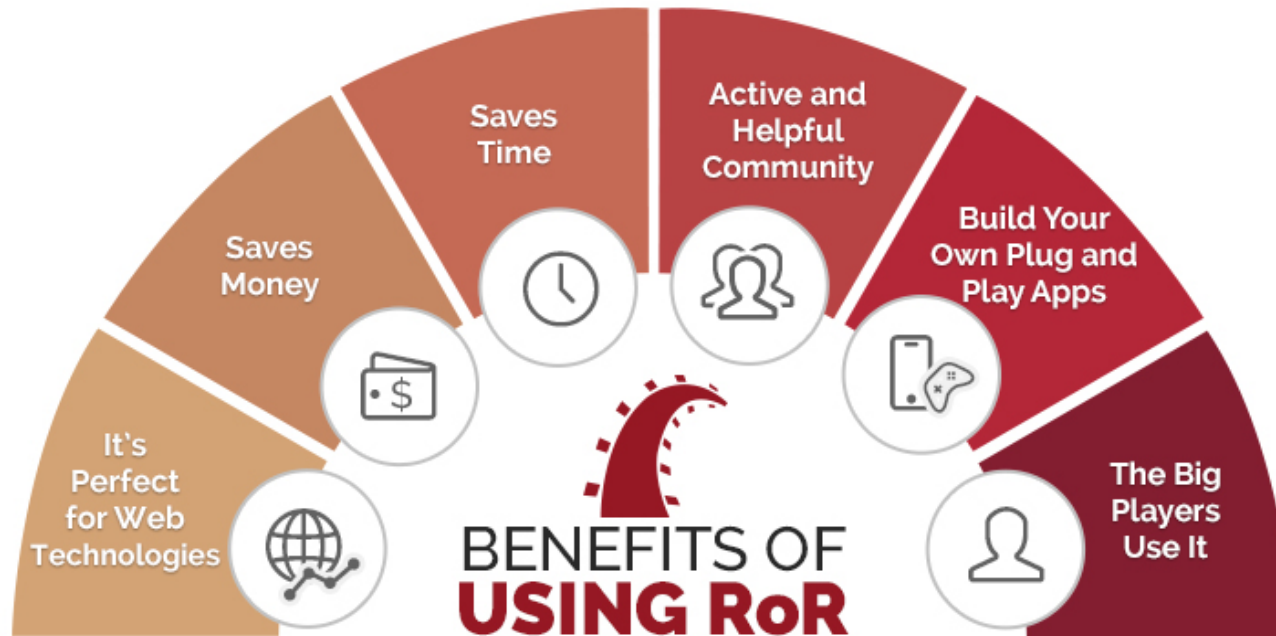


San Bernardino County
Superintendent of Schools

Westside Regional Center, which serves over a million residents in West Los Angeles, and **San Bernardino County School Superintendent**, are committed to supporting the ongoing testing of SS4Kids. In addition, **Stuart Fordyce**, autism educator, and **Devorah Cohen**, Occupational Therapist, contributed insightful feedback towards SS4Kids.

Tech and Biz Development

SS4Kids is currently built on the Unity game platform with six songs, available to play on iOS, Android, Mac and PC. After refining the code and user interface over eight versions, we are now preparing to migrate the program to a web-based platform **Ruby on Rails (RoR)** for several reasons: a) More songs we're producing will need a more robust database; b) child's progress tracking and reporting require additional types of program systems; c) future features will need to be web-based, including remote trainers, user-generated songs and community activities.



Tech Team

Our tech team consists of **Kyle Hillbrand**, **Chakrit Prasatwattana** and **Anthony Salgado**, with IT expert advisor **Jay Crouch**. In addition, our website development is supported by **Kevin Lee**, **Joanne Manzella**, and **Sophia Lee**.



**GENERAL
ASSEMBLY**

**EXPERT
DOJO**



LAVA
LOS ANGELES VENTURE ASSOCIATION

Santa Monica IT training center **General Assembly** and business accelerator **Expert Dojo**, have been significant resources of our tech and marketing talent, with much appreciation for Expert Dojo Sensei's **Brian McMahon**, **Dustin Dye** and **Jonathan Wallace**. SS4Kids entered the worlds of Edtech and Healthtech, as David attended an Expert Dojo 15-week hands-on coaching bootcamp for startups, leading toward investor pitch festivals and networking with professionals in business planning, finance, management, marketing, media, law and accounting. Seeds for several potential joint ventures and affiliates were planted, with additional introductions facilitated by **LAVA (Los Angeles Venture Association)** with gratitude for Exec Director **Len Lanzi**.

Funding Opportunities



We have a hybrid business model that joins our for-profit business iQsonics LLC with our non-profit sponsor **Earth Rights Institute**. This allows us to receive grants from foundations for research, education, training, scholarships and marketing for SS4Kids, identifying non-profit resources available through listings with **Grant Station**. Our focus for grant proposals includes the areas of early childhood education, special needs, speech-language development, music therapy, edtech, training the trainers and family-inclusive interventions.

At the same time, iQsonics aims to raise funds from angel investors, debt-equity, crowdfunding, sponsors and government stimuli to Small Business Companies, in particular SBIR (next page).

Funding Opportunities



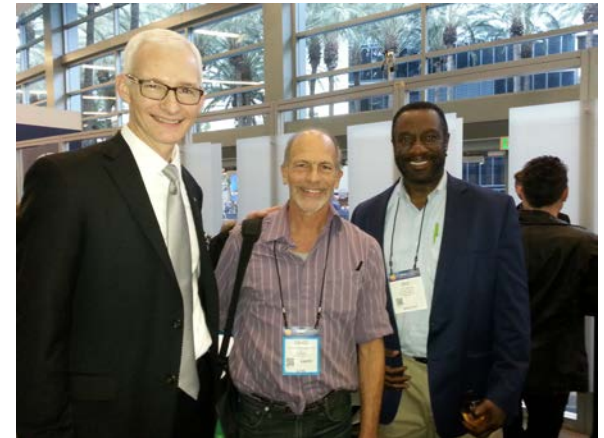
After attending an all day seminar at UCLA on **Small Business Innovative Research (SBIR)** funding by the Federal Government, iQsonics launched a 5-month intensive to submit proposals to **NIH-NIDCD (National Institute on Deafness and Other Communication Disorders)** and **IES (Institute of Educational Sciences in Dept. of Education)**. We gathered our team of experts (listed in Team Building) and designed two distinct research studies for SS4Kids. Budgeted at \$225,000, NIH study compares the efficacy of SS4Kids to other speech-language interventions for 3-5 year olds with autism. Budgeted at \$200,000, IES study compares the efficacy of SS4Kids when delivered at school, at home or at both, for 2-6 year olds with any type of speech delay. Both include upgrading to the RoR web-based platform and comprehensive Training the Trainer interactive video modules. Awards will be announced in May 2018, and if funded will take us through 2019 with plenty of work ahead.

From 2015 through 2017, our funding has been through personal loans, covering costs of travel, conferences, research, equipment, licensing and business fees, administration and materials. Labor and consultation fees have been deferred until external funding is obtained. Over three years 66 volunteers have donated in-kind services toward product development and testing, marketing and administration. Total expenses to date including deferred fees and in-kind donations are approximately \$240,000.

Activities in 2017



January



NAMM Show, Anaheim CA

The **National Association of Music Merchants** Show brought together 100,000 people and music of all types, classical, pop, jazz and music therapy, with equipment, teachers and talent. David met with **Mark Goff, NAMM Chair** (photo left) and **Eric Martin, Music for All** (photo right), to introduce SS4Kids, as well as Kids Rock Studio, VH-1 Save the Music Foundation, Make Music LA and Music for Life foundations. Meeting possible sponsors for SS4Kids was also a big focus, including Alfred Music publisher, and equipment manufacturers Yamaha, Rode, Shure and Sennheiser. Networking continued with King Salamander Showcase, benefitting The Music-Heals Project and the Los Rios Rock School.

February



Autism and Asperger's Syndrome Conference, Los Angeles CA

This full day conference highlighted presentations by **Dr. Temple Grandin**, renowned autism expert, **Dr. Raun Melmed**, medical director of the Southwest Autism Research and Resource Center, and **Britt Collins**, author “Sensory Parenting”. David consulted with Temple Grandin about benefits and implementation of SS4Kids, and she was very encouraging, emphasizing the need for evidence-based research to establish this as an accepted protocol for professionals. We’re on track!

March



32nd CSUN Assistive Technology Conference, San Diego CA

This conference presented state-of-the-art technology to support disabilities, including hearing, sight, movement and cognitive skills. Our training program SS4Kids aims to help some of the same demographics as assistive and augmentative communication (AAC) technology. David networked with Microsoft, Google, Amazon and many other providers and distributors, as well as amazing inventors including **Dr. Sabrina Kemeny** (photo) co-founder **TAP**, who created a revolutionary one-handed wearable which allows you to type by tapping your fingers on any surface: a table, a chair, or even your body.



Infant Development
Association of California



IDA Southern California Regional Conference, Costa Mesa CA Effective Collaboration: Together We Are Unstoppable

Keynote speakers **Karis Johnson**, A Parent's View of the Power of Early Intervention, and **Dr. Kiti Freier Randall**, Pediatric Neurodevelopmental Psychologist highlighted the conference. David presented **SING AND SPEAK – Using Evidence-Based Music Therapy to Assist Children with Relationships and Communication** to over 30 early intervention and special education teachers. With IDA organizers (photo) **Lisa Dittbenner, Michelle Oliver, Delora Slattery, and Julie Taren**.

April



Arts & Literacy Festival, Santa Monica CA

Promoting **Santa Monica Cradle to Career's Kindergarten Readiness Campaign**, the festival brought together over 1000 people to learn and play in promoting children's health and development. Lots of music, art projects for kids and a magical Secret Garden with book reading activities. **Earth Rights Institute** and **iQsonics** organized a booth and trained dozens of kids to play **Sing and Speak 4 Kids**. We saw that the Latino dual language-speaking families and children were just as engaged with SS4Kids as the English-speaking kids, a good sign for the multiple populations who can benefit.

May



The
California
Endowment



IDA South Chapter Annual Vivian Weinstein Leadership Day: Best Practices in Home Visiting

Keynote speaker **Dr. Marie Poulsen** of **Children's Hospital Los Angeles** led the conference at The California Endowment with "Aspects of Social-Emotional Development to the Wellbeing of Young Children". Topic areas included service delivery, program development, research, and policy addressing the needs of vulnerable infants and young children and their families. David networked with presenters and sponsors including **Lakeshore Learning**, one of the largest suppliers of educational materials to preschoolers.



RAND Community Conference on Early Childhood Issues

Home visiting programs were highlighted as an important part of early childhood development by **Jill Cannon**, RAND policy researcher, **Diana Careaga**, First 5 LA program officer and **Lara Sando** and **Tasha Boucher** of St. John's Child and Family Development Center. **Michele Sartell** of Los Angeles County Child Care Planning Committee presented key findings from *"The State of Early Care and Education in Los Angeles County: The 2017 Needs Assessment"*. Key contacts were made by David for developing home delivery of SS4Kids.



California Early Childhood Mentor Program (CECMP) at Santa Monica College Education Early Childhood Development

Ellen Khokha, Coordinator California ECE Mentor Program, facilitated a presentation given by David on the use of Music Therapy to preschools directors, teachers and Early Childhood Development students at Santa Monica College, highlighting SS4Kids in the interactive session.

June



IDA Workshop / Braille Institute, Los Angeles CA
SING AND SPEAK – Using Evidence-Based Music Therapy to Assist Children
in Early Childhood Programs, Clinics and Home Settings.

David presented the history and application of music therapy, followed by the development and hands-on training of SS4Kids, offering practical tools to a focused group of special education teachers so they can begin implementing in their schools.



UCLA Arts and Healing:
Good good good good Vibrations, Healing through Music and Sound

Combining academics, art, healing and audience participation, with Tobi Fishel, PhD – Finding Your Rhythm: The Science and Practice of Music & Sound Healing; **Jahna Perricone (SS4Kids singing talent)** and Michael Perricone – Savoring the Sound Scape to Enhance Awareness: A sonic immersion of Ancient Himalayan Singing Bowls, Mindful Meditation, Vocal Toning Song; Omni-Musicality Group (OMG), an intercultural improvisation ensemble from the UCLA Department of Ethnomusicology; Giavanni Washington, PhD, MPH – Across the Threshold: Transformation Through Rhythm, Ceremony, and Community.

September



SBIR Road Tour – UCLA

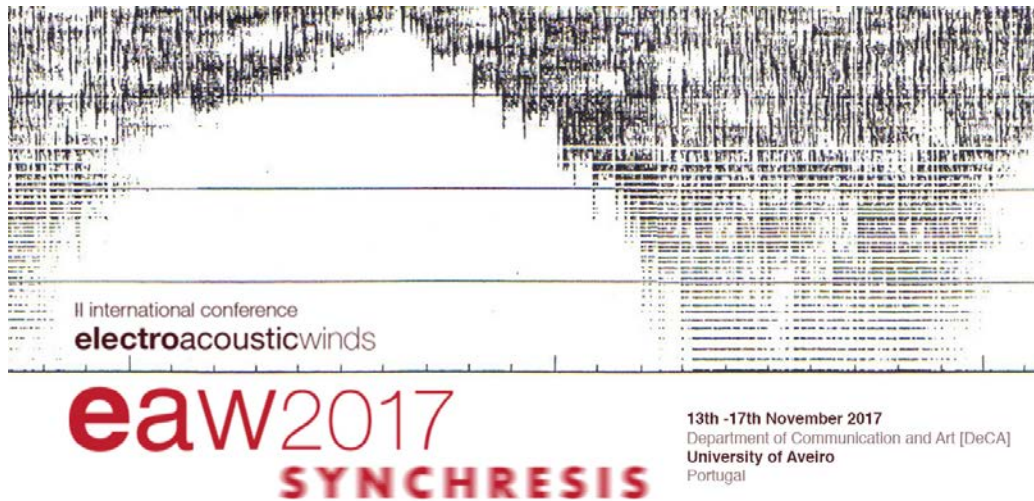
Over a full day of conference and seminar presentations at UCLA, federal government funding for **Small Business Innovative Research** experts invited university researchers and private company entrepreneurs to submit proposals for grants and contracts. David met with specialists in **NIH (Natl. Inst. of Health)**, **IES (Inst. of Educational Sciences)** and **NSF (Natl. Science Foundation)**, preparing iQsonics research study proposals for SS4Kids.

November



ASHA Convention

The **American Speech Language Hearing Association Convention** showcased latest services and tools featuring cutting edge technology, professions of speech-language pathology, audiology, and speech and hearing science in the IT & Technology industry. David met with specialists in autism, edtech, music therapy for speech, teacher training and parent-mediated interventions, including current iQsonics advisors **Erica Ellis PhD Communication Disorders**, Cal State LA, **Mara Culp PhD Music Education**, U. of Rochester and **Laura Dilley PhD Communicative Sciences and Disorders**, U. of Michigan.



EAW2017 Synchresis, University of Aveiro, Portugal

Electroacousticwinds conference united an international team of artists, musicians, technologists and thought leaders to synergize their many talents and perspectives. David's keynote topic was **Film Dialogue and Lyrics as Catalysts for Speech Production**, uniting popular movie quotes, Rocky Horror Picture Show, film sound theory from his book "**Sound Design: The Expressive Power of Music, Voice and Sound Effects in Cinema**", the science of mirror neurons, memes and neuroplasticity, and how these support the benefits of **SS4Kids**.



AMTA Conference, St. Louis Missouri

The annual **American Music Therapy Association** conference offered a platform for **Dr. Hayoung Lim** and **David** to present **Developmental Speech-Language Training through Music for Children with ASD: Theory, Research, Application**. Networking and learning from music therapy professionals added a substantial foundation to the therapeutic and marketing potential of SS4Kids.

THANKS FOR YOUR SUPPORT – ONWARDS TO 2018!