

# Harmonizing technology and art

## The innovations of Hugh Sung

BY TOM DI NARDO

Spend some time with pianist Hugh Sung, and discover just what being busy really means. The quality that makes him more than just another of the city's master musicians is one that has endeared him to a generation of players: a commitment to providing tools for their development. His passion has allowed hundreds of Curtis students, and musicians throughout the world, to advance their artistic creativity. His methods are philosophical, demonstrative, and technological, and have the extra advantage of being easily accessible.

Through seminars on teaching and piano performance, ideas on technological innovation and experimentation with inventions, Sung has attracted hundreds of thousands to blogs on his website, [www.hughsung.com](http://www.hughsung.com), and many more have seen his YouTube interviews on [www.utube.com/hughsung](http://www.utube.com/hughsung).

Sung didn't start out as a technological pioneer, being hired at Curtis Institute eight years ago to

take over chamber music concert scheduling after graduating from the famed conservatory, where he was accepted at age 13. (His title is Director of Instrumental Accompaniment and Student Recitals.) Sung's predecessor, Howard Kornblum, had kept records in drawers full of 3x5 cards, during a period when students had to be begged to perform. Sung found that placing the repertoire on an easily accessible Microsoft Access Database program simplified the process of choosing repertoire by type of piece, nationality, length, instrumentation, and other factors. It eliminated duplication, and allowed discovery of unfamiliar pieces played in previous years. Since students now have performing desire "in their DNA," Sung has to encourage students to hurry and sign up for recital dates before they run out.

To assist students in these recitals, Sung is a frequent accompanist and, when pressed, will admit to playing at least a thousand orchestral reductions for concerto soloists, as well as many backings for sonatas and miscellaneous chamber pieces.

Along the way, the volume of paper music became onerous enough to spur a breakthrough — the scanning and downloading of music into a laptop, so it could be read from the monitor screen with pages advanced by a foot pedal.

In between, he has performed as concerto soloist with many orchestras, and performed on recordings with such artists as master violinist



*Hugh Sung uses a laptop for his music and turns the pages with a foot pedal.*

(and Curtis instructor) Aaron Rosand, composer Jennifer Higdon, and Philadelphia Orchestra principal players like flutist Jeffrey Khaner and bass trombonist Blair Bollinger.

For the Philadelphia Orchestra, he has played piano accompaniments in auditions for years, and recalls playing for current concertmaster David Kim, principal viola Choon-Jin Chang, and principal cello Hai-Yi Ni. He has been seen as celesta and piano player this season in programs led by Leonard Slatkin and Charles Dutoit, and has accompanied soloists in preliminary rehearsals for Christoph Eschenbach and Vladimir Jurowski.

As busy as this schedule may sound, it's only the beginning of responsibilities for this diminutive dynamo. Sung and his wife, Kyungmi, an eminent doctor of internal medicine in South Jersey, have three sons, Paul, 14, Eric, 11, and Timothy 7, who are growing up with cutting-edge technology as a given.

"I'm so thankful that my solo career took a nose dive," explained Sung, "because suddenly my musical perspective widened, my mistakes became precious tools, and I found there were many ways to play depending on my collaborator. Perfection can be inhibiting, and can cripple students if they try for it too soon. We go over the music, and I show them that there are a hundred ways to play it, to just have fun and a clear focus, and there are immediate results."

Sung is hopeful that Curtis will expand a collaborative music program, which is highly developed in several schools to assist vocalists and instrumentalists. "If a musician hasn't had collaborative training, it's a lonely business. Solo pianists, for instance, lead very insular lives, and collaboration connects them socially and puts them at the service of other people in a supporting role. They find they can express everything more freely. Personally, I've found it's more satisfying than just playing myself."

Sung has been a paperless pianist for the past six years, and is never without a laptop with those six thousand scores, most of which he has played. He reads from the laptop's screen, with the music advanced by a newly designed foot pedal. For years, he experimented with a court transcriber's foot pedal and a wire connection to a USB port to turn pages. It was imperfect, because it clicked and the computer could freeze.



*Sung's page turning invention: the AirTurn*

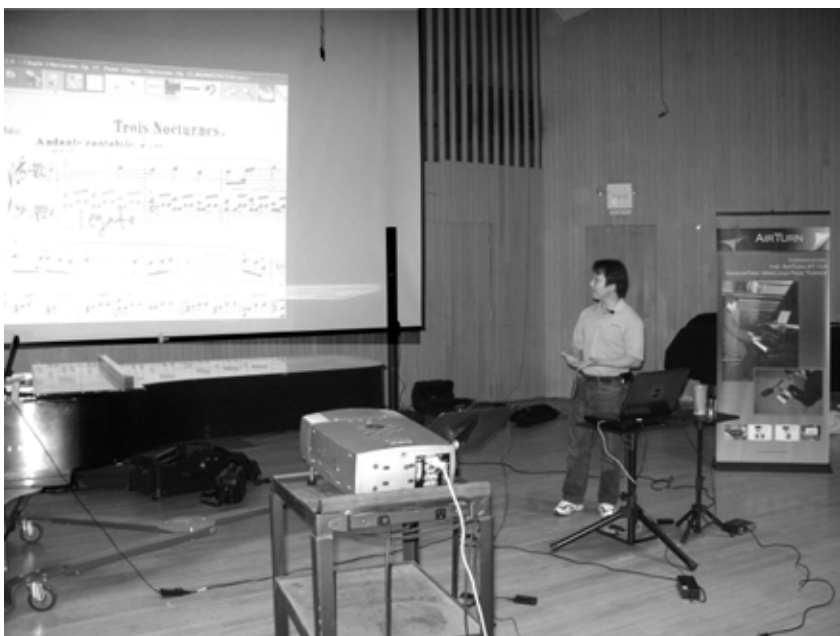
"A friend who is a chip designer built a prototype with everything I needed," said Sung, "and suggested exploring a business. I was dead set against it, having no knowledge of how to approach manufacturers. But, one day, a pianist named SoYoung Lee came to Curtis and happened to notice me playing with just a monitor screen and pedal. After the recital, she ran into the common room and insisted I meet engineer Lester Karplus, who lives in Colorado, and who has become my business partner. He said he'd put up the capital for a new pedal invention, and we'd invest sweat equity in promotion and marketing. We found a company in Korea which could make it, and found guitar pedals off the shelf which allowed us to keep the cost low."

Their invention is the AirTurn, a wireless foot pedal device that has a transmitter and works with a receiver that plugs into a wide variety of foot pedals and works with any computer. Some models have two pedals, which can move the music forward or backward. The cost is amazingly reasonable, from \$60 to \$110, depending on the model, which can be investigated at [www.airturn.com](http://www.airturn.com).

"We also partnered with a programmer in the Netherlands who came up with a software program called MusicReader (\$99). It offers a way to catalog your library, instantly search for scores, and turn pages in multiple ways. You can annotate with different colors, non-destructively, using a stylus or mouse, then either erase the notations or save the pages as a file.

“Musicians, who spend four to six hours a day practicing, sometimes have fear and confusion about technology, which seems alien to what they do. We’re not exposed to technology the same way an English or a math or science major would be. We’re still working with a paper medium, which has a certain romance, and it’s an example of how stuck the musical conservatories are in training and lack of exposure. But younger students get it right away; they’re enabled by their understanding, and they understand that these aids can exponentially help performance as well. People love technology, but musicians haven’t yet seen how it can transform their artistic life.”

The software can assemble play lists or programs



*Playing with technology*

with any number of pieces for instrumentalists, singers, or church musicians like a huge searchable book. It can be used for jazz musicians like a giant fake book, with requests and lead sheets, programmable in any combination or order.

I wondered about how easily music could be scanned and downloaded into my laptop. He suggested two sites, [www.IMSLP.org](http://www.IMSLP.org) and [www.every-note.com](http://www.every-note.com), to investigate the cost of downloading the complete piano score of Ravel’s “Le tombeau de Couperin”— which turned out to be \$3.49.

Last March, I attended a technology seminar Sung gave in Malvern that astonished a roomful of music teachers, and featured three young piano

students. The first played Debussy’s “Reverie,” and Sung projected the score plus the audio waves of her performance on a screen. Though the score showed the theme played once *piano* and then *pianissimo*, the amplitude of the audio waves didn’t change. After she adapted to that realization, a camera in a small laptop then made a video of her playing. It showed a gradual slump over the keyboard, with her elbows moving outward, and an obvious degeneration of keyboard control. Of course, not all teachers have this equipment. Yet through a 15-minute visual demonstration of dynamics and posture, the student’s eventual performance was startlingly improved enough to bring gasps from the teachers.

Another activity that has generated enormous response from a wide musical community is his blog, [www.hughsung.com](http://www.hughsung.com).

“The blog started as an experiment, and I had no idea what to talk about. My passion was with music and technology, meeting other people, seeing what they were writing, and learning what nobody else was mentioning. Sometimes writing can help people discover their own voice as they work through their own identity and purpose. Over 340,000 people have come through to connect, and I’m told it’s one of the top fifty musical sites on the web.

“My goal is to somehow inspire other musicians to rethink their music constructively in new or innovative

ways, instead of being defeatist or discouraged. Unfortunately, just being good enough will not necessarily give fame, success, or a job. They’re trained to be so rigid, but they need to be entrepreneurs, to know how art, marketing, organization works. Instead of just hoping for a post in an orchestra, why not create your own music festival or chamber music group?”

One example is Dolce Suono, a chamber group founded by flutist Mimi Stillman, a superb Curtis alumna who has been able to develop funding and offer five seasons of imaginative free programs.

Sung gives a few private lessons. But when there’s time, which is becoming ever more precious, he also gives lessons through the internet, listening

to submitted audio files and responding with a .pdf file with commentary on a marked-up score.

In another innovative effort, Sung's team has collaborated with piano manufacturer Mason and Hamlin for a partner company called Sync-A-Vision. Originally designed to show synchronized video, this piano now has a computer with a screen built into the music rack for reading scores.

I asked Sung how technology could also be used for orchestral musicians and chamber players. "Let's say there are five horn auditions for the Philadelphia Orchestra. Each player wants a different interpretation, so it's easy to save each marked-up, customized performance as a file just for them. To minimize page turns, string quartets or chamber players have only their part, but seeing everyone's part opens up a world of understanding and a more comprehensive view of the entrances and harmony.

"In playing with an orchestra, your part has only your one line and, if you don't like to count rests, having the whole score helps you know when to come in. Here in Philadelphia, suppose Charles Dutoit requests certain markings and bowings custom-tailored to his interpretation of a piece. Instead of having the librarians hand-copy the markings for a hundred players and then erase them later, it could be saved as a specific file, his version of that music. Imagine having the whole year's repertoire preloaded into every player's machine, and able to be taken home. And it eliminates the stand partner's taking half a measure pause every time there's a page turn. Also, I've seen some of these amazing old scores in the library, originals by Rachmaninoff, literally falling apart. We must digitally scan these great original scores to save them."

Sung has also been giving visual recitals, with pre-programmed images triggered by a microphone and projected onto a screen. The images react to the sound of the piano and trigger different scene changes. And another long-term project is a Psalmody, written for his parish, the Christ Covenant Presbyterian Church in Warminster.

"I encourage bringing classical music back as fun, as a recreational activity. Making reading it a pleasure without obsessing over perfection may bring it back to social gatherings, just for the sheer joy of doing it. The object is to increase musical literacy, to make our language as accessible as possible, which simply expands our art form."