Virtual Maestro

By Jacob Dagger

With a series of popular mobile apps that turn the iPhone into a musical instrument, Ge Wang hopes to change the way we think about music.

Smith shared the idea with Wang, whose programming and musical skills would lend themselves well to the project. The timing wasn’t perfect for either one of them—Smith had his Ph.D. work to keep him busy, and Wang was rushing to wrap up and defend his own Ph.D. thesis and adjusting to his new teaching duties. But after much discussion, they decided the opportunity was too good to pass up. “Wow,” Wang recalls thinking about the iPhone. “This is going to change how people do music, this device. But someone will have to actually be there to effect that change. And we might as well be part of that.” That summer, the pair launched SonicMa (later shortened to Smule), a start-up dedicated to developing interactive “social/sonic” media.

Over the past three years, the growing start-up has released nearly a dozen music-based apps for the iPhone and iPad, almost all of which have been unquestionable successes, commercially and critically. Collectively, its apps boast more than ten million active users. The staff, originally a bare-bones team of six, has grown to twenty-five, with a wave of additional new hires expected this fall. And it’s part of a growing industry. In April, Forbes reported that the mobile app market totaled around $22 billion last year, up 160 percent from the year before.

But Wang hopes to accomplish much more than simply establishing a successful company. His goal, audacious as it sounds, is to help change the way that music is produced, listened to, and shared around the world.

“I think the future of music-making is one where we might see more people who are producing music versus who is commonly changing,” Wang told the BBC last year. “Where you have a few performers performing [embs] that might actually be a model where one’s performances represent a more widespread way to actually that vision,” he added. “It’s perhaps a more intimate computer that we’ve ever had.”

DUKE MAGAZINE

July-August 2011

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I realized that in the vein of ubiquitous computing, just building something is not enough," Wang says. "It needs to be used. It needs to be in the hands of not hundreds, or thousands, but millions, or hundreds of millions."

The office, located on the second floor of a two-story building just off Scotland's campus, consists mainly of one large room with a wall of windows facing down a quiet street and desks for groups of four arranged in what Wang describes as "stair-step formation." Wang sits in one seat, Smith in the opposite.

The walls are decorated with colorful slides of design students and students working on the popular game Rock Band, among others. Next to Wang's computer, a stack of books on various topics, including music and technology, are neatly piled.

tuneIn, an electric guitar-like instrument that was designed by Wang for students in his Lab, is plugged into a computer and amplifies sound.

TuneIn, named ORC, is a collaboration between Stanford University and the University of Michigan. ORC is a real-time, software-defined audio system that allows users to control musical instruments remotely.

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delicious programming, music composition, and live performance. "People learned programming because they had to go create a musical instrument and a performance, and they were going to perform it in front of the classes in 10 or 12 at a time," Wang says. "The programming became a tool and not the end goal."

The class comprised thirteen college freshmen, none of whom had any significant programming experience, the experiment was a great success, Wang says. "They rocked it. We were scared."

Wang says that when he founded the Summer School for Computer Music and Performance, he set out to create an environment where students could learn to code and create music without fear of failure.

Wang's hands-on, interactive approach to teaching has earned him respect from colleagues in the field of computer music.

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