



## Hi-Tech Tunes: Stanford Taps Into Music's Future

By Jessica Greene

**NBCBayArea.com**

updated 3:49 p.m. PT, Thurs., March. 19, 2009

If you think the symphony is old fashioned, this might be the time you give it a second thought. A Stanford researcher is changing the tune of the multi-instrument arrangement and bringing it into the new millennium.

Ge Wang created the Stanford Mobile Phone Orchestra (MoPhO) as part of a "mobile renaissance."

Wang is an assistant professor of music at Stanford's Center for Computer Research in Music and Acoustics (CCRMA). Pronounced karma, the center is known around the world for its work in computer music research.

Wang, 31, grew up in music. The Beijing native was raised in Atlanta and Kansas and learned how to play the accordion and acoustic guitar as a youngster. But with his love for computer code, he's taking music to a whole new level.

He received a bachelor's degree in computer science in 2000 from Duke University and a PhD in the same area from Princeton in 2008. He is the chief architect and co-creator of an audio programming language designed specifically for computer music.

The introduction of the iPhone gave Wang the perfect platform to expand the medium.

With an estimated four billion cell phones in the world, there's bound to be a music star just waiting to shine through their high-tech device.

"Mobile phones are becoming so powerful that we cannot ignore them anymore as platforms for creativity," Wang said. "We're having a blast exploring what that means for us, but I think that could have a different meaning for everyone."

Imagine being able to call a friend, send them an e-mail, check out their Facebook page and play a tune all in one handheld device. Now you can, thanks to Wang.

It's called Ocarina and Wang developed it.

In 2008, Wang co-founded Sonic Mule (SMULE) and offered Ocarina to the masses. It turns your iPhone into a sort of harmonica sensitive to breath and touch.

Ocarina has been downloaded more than 600,000 times, according to Wang.

"Most of these half-a-million users, we don't think they are professional musicians or performers or people who would think of themselves as artists or musicians," Wang said. "They are simply people who like music."

The genius of Ocarina doesn't stop there. A social media aspect of the app lets users share their talent with other Ocarina users anywhere in the world. Just tap one of the dots on the globe and you'll hear another Ocarina user's performance.

Wang also founded the Stanford Laptop Orchestra, which combines conventional music with the precision of computer technology. The end result is a sophisticated sound hard to tell apart from the traditional-style instrument ensemble.

The possibilities are endless for Wang and his high-tech take on tunes.

"One vision for the future is that more people would use phones to make music—to perform it, to compose it, but also to share it and to play together."

The next place Wang will share his music is in Southern California at the Beckman Center when the Stanford Laptop Orchestra performs there Friday, March 20 at 7 p.m.

URL: <http://www.msnbc.msn.com/id/29741363/>

[MSN Privacy](#) . [Legal](#)  
© 2009 MSNBC.com