The Big Idea

Q: How does one bridge the gap between the complex languages of English and Chinese?

A. By combining an ancient solution with modern technology.

By Chip Minty

Jonathan Stalling is a bridge builder. He may not have realized it at the time, but his bridge-building journey began when he was a teenager studying martial arts with his stepfather at their home in Eureka Springs, Ark.

The University of Oklahoma International Studies professor may have been studying the ancient traditions of self-defense, but he was really learning language and culture from the Chinese friends and acquaintances he met along his path. That was the first step in what has turned out to be a decades-long mission to bridge the language barrier between China and the English-speaking world.

His journey has led him through a labyrinth of disparate universes, from poetry, opera and ancient Chinese linguistics to digital algorithm development and entrepreneurialism. Now, Stalling stands at an intersection of art and technology, academia and commercial enterprise, hoping to unify them all, just like the languages he so dearly loves.

Stalling's curiosity about the Chinese language bloomed amid his study of Chinese poetry and how it relates to the English language. His work resulted in a new way of teaching the unique formulations of Chinese poetry to English speakers. Along the way, his focus shifted to opera, which he used to create another connection between Chinese and English.

Stalling wrote his opera in English, using Chinese characters instead of letters. Because rules of pronunciation between Chinese and English frequently collide, the opera's dialogue does not sound exactly like Chinese or English, he says, and that was his intention.

The opera, *Yingelishi*, which translates to "chanted-songs-beautiful-poetry," took years to develop before being performed at China's Yunnan University in 2010. Stalling created the opera as another form of artistic expression, but it eventually led to the next step in his bridge-building journey.

The opera is about a protagonist who comes to America, using an English phrasebook that employs Chinese characters to "spell" English, Stalling says. With this phrasebook, "She travels to America, but experiences a lot of tragedy because she's speaking a language that people don't understand, speaking English and Chinese at the same time. And so, in that sense, the story is a poetic tragedy about being caught between two languages."

Stalling says the opera was well received but misunderstood by some.

"When I created the opera, I didn't think of it as a practical tool. I just thought of it as art," he says. "When the opera was put online in China, I started getting emails from students and teachers, thanking me."

As it turned out, they were using it as a tool to help them learn English. But that was not what the opera was intended for, Stalling says. In fact, the opera clearly shows why using Chinese characters to spell English is not a good way to study the language. When conventionally pronounced, Chinese characters distort English pronunciation, making it even more difficult to learn.

"The word 'please,' for instance is spelled as three Chinese characters and transforms the single-syllable English word into three syllables (pu-lee-suh) forming an English word sound while remaining Chinese," says Stalling.

"The opera explores the space between our languages and attempts to reveal how beautiful, interesting, sophisticated and full of meaning this space is, but it wasn't meant to be practical. So, I was quite surprised that people were using my opera to learn English. It made me think about developing a more practical application of what I know about English and Chinese."

From that point, Stalling, who is OU's Harold J. and Ruth Newman Chair of US-China Issues, began moving down a new path into a world that melded an ancient linguistic method with modern technology to create a new solution for English learners in China.

Stalling began to experiment with a long-abandoned Chinese learning system known as "fan-qie" to create a new way to help

English learners use building blocks from their own language to better understand how to pronounce English words.

He reached back more than 1,000 years to the Tang Dynasty, when the ancient system was developed to use Chinese characters that represent distinct vowel or consonant sounds. Stalling chose a simple set of 42 common Chinese characters that could be used in this ancient way to represent even the smallest sounds in more than 120,000 words in the English language.

Fan-qie, which amounted to a Chinese alphabet, was never finalized and never adopted officially, but it had been used for hundreds of years to essentially "spell" the Chinese language until the system was finally dropped a century ago, Stalling says.

He used the method to create a new process of "spelling" English words with the Chinese characters included in the fan-qie system. He tested his experiment with several Chinese speakers on the OU campus and demonstrated that his tool could make learning English significantly easier for Chinese speakers.

Nian Liu, OU associate professor of Chinese language and linguistics, says Stalling's method creates a solid foundation for learning English.

"I don't think there is a current good way for Chinese speakers to learn English," she says. "So many people have invested so much in this process, but it doesn't work."

Liu called Stalling's invention revolutionary, saying it has the potential to breathe life into the English language in China. She says hundreds of millions of people study English in China, but only a few use it in daily life.

She says Stalling has "de-Romanized" English by creating a key that exists within the Chinese language, and it is a key that could help Chinese speakers learn any language in the world, not just English.

"Stalling's method changes the way Chinese speakers use characters, it gives them a tool they can use to learn English, and it's a tool they already know how to use. This has really good potential and it's a good market."

Stalling's success in working with Chinese speakers has led to development of an app that can be downloaded to smartphones. He also has obtained a patent from the Chinese government, conducted market research and taken steps toward commercialization.
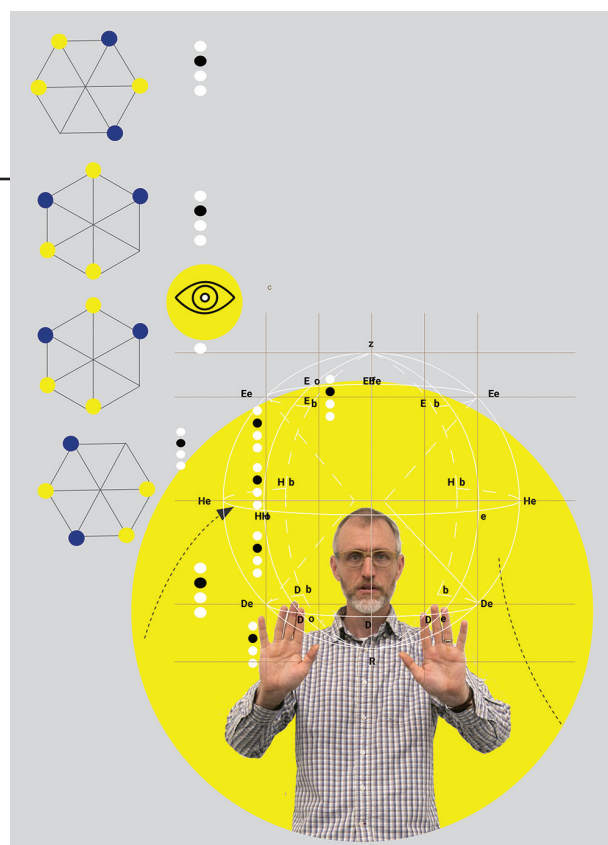
OU professor Jonathan Stalling has found a way to make learning English easier for Chinese-speakers by applying algorithms to phonics from the Tang Dynasty.
Image from "Ying-ge-li-shi: The Interlanguage Art of Jonathan Stalling," Hong Kong University Art Museum Press, 2021

Stalling found himself working shoulder to shoulder with entrepreneurial experts within OU's Office of Technology Commercialization and, with support from the Ronnie K. Irani Center for the Creation of Economic Wealth, he spent a semester working with a team of nearly 20 interns from colleges across the OU campus.

"From computer science to art, humanities, philosophy, you name it. The students on this team were really quite amazing, and they took that prototype app and created a high-functioning beta app that we could actually launch on the iPhone app store," Stalling says.

The app, called Pinying, is available for people to download free of charge. The professor continues to fine tune, but he says the greatest challenges may still lie ahead.

"Most English-learning companies in China are simply not very open to adopting experimental methods. It's going to take many years, not months, for them to do so," Stalling says.

So, the professor finds himself at a crossroads as he embarks on what could be a painstaking process of penetrating a market heavily anchored in tradition.

"While this work is important to me, I see myself as an inventor and entrepreneur second to my work as a teacher and someone committed to bridging culture and language in the capacity of being a professor."

Stalling has begun collaborating with Professor Liu to improve the Pinying system further and is working on building an entrepreneurial team that can one day bring Pinying to China. Going forward, Stalling intends to stay involved as a consultant and a member of the team but will not be leading such an effort himself.

"The easy part was inventing it," Stalling says. "The harder part is creating the product market fit, especially when the invention is so unusual. I'm going to stay with it and keep learning and expanding its footprint, but I'm playing the slow game. I've been working on this project in one way or another for over 20 years, so I'm not going to rush it now. The beauty for me is that I can be a committed professor at OU while keeping the flame lit and developing this project, bit by bit."

Because, after all, that is how bridges are built.

Chip Minty is a Norman-based writer and the principal of Minty Communications, LLC.