



# State Secrets

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**W**hen I snapped a photograph of an old computer on display at Shanghai University, a security guard threw his hand in front of my cell phone and admonished, “state secret.”

I protested: “It can’t be a secret. It’s an old IBM 601 computer. It says so on the front panel.” My argument held little weight with the guard, who was armed with a nightstick and handcuffs. Wanting to keep my photo of the device, I retreated.

After analyzing the photo, I concluded the guard might have been right. The machine wasn’t an IBM product. The characters on the control panel dated to 1959, suggesting it was perhaps a digital differential analyzer, a machine similar to the ENIAC in design. But because some labels didn’t correspond to a differential analyzer’s structure, I wondered if I had found the fabled “microwave computer”—a device the Chinese government promoted in the late 1950s as being a hundred times faster than present electronic computers, although they never demonstrated the machine nor indicated where one might be found. Perhaps this old gray box was indeed a “state secret.”

The alleged microwave computer was part of a golden age for Chinese computing that lasted from

1958 to 1960—a period referred to as the Science of Programming and Operations Movement (see Donald Audette’s 1966 article in *CACM*). Officials tried to raise computing proficiency in China “to a level equal with that of the rest of the world in as short a time as possible.” This era ended with the Sino–Soviet split, which slowed the flow of technology into China. After 1960, “little was heard about specific kinds of machines.”

Some 50 years later, China seems to be in the midst of a second golden age. This past fall, about 3,000 people attended the China National Computer Congress, which covered the full range of current technical subjects in computing but left the feeling that the conversation is going one way. The speakers were generally familiar with research published in American or European journals, but they also seemed to believe that Americans and Europeans weren’t aware of what’s happening in China.

Admittedly, conference presentations aren’t always a fair measure of a presenter’s involvement with the technical community. In their brief moments onstage, speakers tend to advance their own ideas, sometimes claiming a special value for their research even though the same results can be achieved through simpler means or cheaper

methods. They aren’t offering credit to strangers.

Most of the conference papers dealt with current topics: big data, cloud-management strategies, power conservation, and parallel algorithms. However, the papers often referenced technologies or companies little known outside China, such as TD-SCDMA or TenCent. The conference reached its emotional peak during a presentation by Lei Jun, CEO of Xiaomi Tech. Jun commanded the audience the way Steve Jobs commanded the Apple Worldwide Developers Conference. Yet he serves as the face of technology only in China, not the face of technology anywhere else. “Why is he not known in America?,” asked one conference participant.

**O**f course, computing has greatly benefited from the support of other nations. We also tend to cite computing skill as a measure of national strength. Yet if computing is truly a universal technology, a tool that transcends borders and languages, we need to disentangle it from national secrets. ■

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