American universities’ culture of openness attracts students — and spies

By Daniel Golden / Bloomberg News

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BOSTON — Michigan State University President Lou Anna Simon contacted the Central Intelligence Agency in late 2009 with an urgent question.

The school's campus in Dubai needed a bailout and an unlikely savior had stepped forward: a Dubai-based company that offered to provide money and students.

Simon was tempted. She also worried that the company, which had investors from Iran and wanted to recruit students from there, might be a front for the Iranian government, she said. If so, an agreement could violate federal trade sanctions and invite enemy spies.

The CIA couldn't confirm that the company wasn't an arm of Iran's government. Simon rejected the offer and shut down undergraduate programs in Dubai, at a loss of $3.7 million.

Hearkening back to Cold War anxieties, growing signs of spying on U.S. universities are alarming national security officials.

As schools become more global in their locations and student populations, their culture of openness and international collaboration makes them increasingly vulnerable to theft of research conducted for the government and industry.

“We have intelligence and cases indicating that U.S. universities are indeed a target of foreign intelligence services,” Frank Figliuzzi, FBI assistant director for counterintelligence, said in a February interview at Washington headquarters.

While overshadowed by espionage against corporations, efforts by foreign countries to penetrate universities have increased in the past five years, Figliuzzi said.

Attempts by countries in East Asia, including China, to obtain classified or proprietary information by “academic solicitation,” such as requests to review academic papers or study with professors, jumped eightfold in 2010 from a year earlier, according to a 2011 U.S. Defense Department report. Such approaches from the Middle East doubled, it said.

Welcoming world-class talent to American universities helps the U.S. sustain global supremacy in science and technology, said University of Maryland President Wallace Loh. He chairs the Department of Homeland Security's academic advisory council, which held its first meeting March 20 and is expected to address such topics as federal tracking of international students.

Foreign countries “can never become competitive by stealing,” he said. “Once you exhaust that technology, you have to start developing the next generation.”
Coming to America

Foreigners on temporary visas made up 46 percent of science and engineering graduate students at Georgia Institute of Technology and Michigan State and 41 percent at Massachusetts Institute of Technology in 2009, according to a federal survey.

China sent 76,830 graduate students to U.S. universities in 2010-11, more than any other country and up almost 16 percent from the prior year, according to the Institute of International Education in New York.

While most international students, researchers and professors come to the U.S. for legitimate reasons, universities are an “ideal place” for foreign intelligence services “to find recruits, propose and nurture ideas, learn and even steal research data, or place trainees,” according to a 2011 FBI report.

In one instance described in the report, the hosts of an international conference invited a U.S. researcher to submit a paper. When she gave her talk at the conference, they requested a copy, hooked a thumb drive to her laptop and downloaded every file.

Under the radar

A foreign scientist’s military background or purpose isn’t always apparent. Accustomed to hosting visiting scholars, professor Daniel Scheeres granted a request several years ago by Yu Xiaohong to study with him at the University of Michigan. She expressed a “pretty general interest” in Scheeres’s work on topics such as movement of celestial bodies in space, he said.

She cited an affiliation with the Chinese Academy of Sciences, a civilian organization, Scheeres said. The Beijing address Yu listed in the Michigan online directory is the same as the Academy of Equipment Command & Technology, where instructors train Chinese military cadets and officers. Scheeres said he wasn’t aware of that military connection, nor that Yu co-wrote a 2004 article on improving the precision of anti-satellite weapons.

Once Yu arrived, her questions made him uncomfortable, said Scheeres, who now teaches at the University of Colorado. He stopped accepting visiting scholars from China.

“It was pretty clear to me that the stuff she was interested in probably had some military satellite-orbit applications,” he said. “Once I saw that, I didn’t really tell her anything new, or anything that couldn’t be published. I didn’t engage that deeply with her.”

Yu later wrote a paper on the implications for space warfare of the NASA Deep Impact mission, which sent a spacecraft to collide with a comet. She couldn’t be reached for comment.

American universities have also trained Chinese researchers who later committed corporate espionage. Hanjuan Jin, a former software engineer at Motorola, was found guilty in February in federal court of stealing the Schaumburg, Ill.-based company’s trade secrets and acquitted of charges she did so to benefit China’s military. She is scheduled for sentencing in May.

Jin joined the company, now known as Motorola Solutions, after earning a master’s degree from the University of Notre Dame in South Bend, Ind. While at Motorola, she received a second master’s, in computer science, from the Illinois Institute of Technology in Chicago. IIT’s own research wasn’t compromised, institute spokesman Evan Venie said. A Notre Dame spokesman declined to comment.

Learning to be wary

Michigan State’s Simon learned to be wary of front companies by serving on the National Security Higher Education Advisory Board, established by the FBI and CIA in 2005.

It “makes you more aware that you need to look below the surface of some of these offers,” she said. “A short-term solution may turn into an institutional embarrassment.”
Arizona State University President Michael Crow also sits on the board.

"It's all a little perplexing and overwhelming," he said. "We're in the business of trying to recruit more students from China. We're operating at a total openness mode, while we recognize there are people working beyond the rules to acquire information."