

Familiar Words

Plagiarism Cases Stir Controversy at Ohio University

EDUCATION
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To earn his master's degree in mechanical engineering at Ohio University, Vipul Ranatunga aimed to make improvements to a computer-aided design system developed by other researchers.

In the fourth chapter of his 1999 thesis, the Sri Lankan student described that system in detail. He identified one researcher responsible for it as Zhizhong Zhou, a Chinese student who had received his master's degree at Ohio the year before. Mr. Ranatunga didn't, however, use quotation marks or footnotes to indicate that, with only slight variations, he had taken about seven pages directly from Mr. Zhou's thesis, including this passage.

Mr. Ranatunga, now an engineering professor at Miami University of Ohio, acknowledges copying the material but says he didn't think he was "doing something wrong" because he'd named the author in his text and bibliography.

The lapse of attribution has embroiled him in one of higher education's largest plagiarism scandals. Acting on allegations made by a former graduate student, Ohio University is taking action against 39 mechanical-engineering graduates, 36 of them from abroad. It has ordered them to address plagiarism allegations involving theses dating back 20 years or risk having their degrees revoked. Professors are under fire for not catching missteps of students they were supervising. The mechanical-engineering department's longtime chairman has stepped down and a second professor has been told he will lose his job.

The case has sparked turmoil on campus. A faculty review committee recently said plagiarism in the mechanical-engineering department has been "rampant and flagrant" for years, adding that "there cannot be any tolerance of individuals who participate in this serious misconduct."

The affair raises questions about how well the nation's universities are teaching the fundamentals of research to foreign students, who have become an important source of tuition dollars and research talent in engineering. International students accounted for 43% of master's degrees in engineering awarded in the U.S. in 2005 and 59% of doctoral degrees, according to the American Society for Engineering Education.

No evidence has surfaced that the accused Ohio students—who come from China, India, Sri Lanka, Saudi Arabia, Thailand, South Korea and the U.S.—doctored lab data or fraudulently claimed others' discoveries as their own. The alleged plagiarism was found in the "literature review" sections of their theses, which often account for as much as half of a finished work. In it, students are supposed to set the stage for their original research by discussing previous inquiry in the field.

But one 2001 thesis about manufacturing metal tubes includes a 28-page chapter that is nearly identical to a section of a

1995 thesis by another student. Both theses contain paragraphs from a textbook written in 1989. The writer of a 1990 thesis about optical fibers, in his acknowledgments, thanked a classmate who had graduated the year before for his help and inspiration. He began his thesis with two pages of material copied almost verbatim from his friend's thesis.

This isn't the sort of misconduct that can lead to the cancellation of government research contracts. But ethics specialists say it represents a troubling erosion of standards. "What is going to happen as those people become the next generation of faculty members and researchers?" asks Michael Kalichman, director of the Research Ethics Program at the University of California, San Diego. "What will their understanding be of what is acceptable and what is not?"

Plagiarism, of course, isn't limited to international students. According to a 2005 study by Duke University's Center for Academic Integrity, 40% of all U.S. college students admit to having woven unattributed material from the Internet into their written work. Still, international students may lack the English fluency needed to read and paraphrase scientific literature, and may come from countries with less-rigorous academic standards.

China and India, which send the most international students to the U.S., are grappling with plagiarism issues. In China, where faculty pay raises and post-graduate degrees often depend upon publication in academic journals, research plagiarism has become so rampant that university presidents recently called on the government to stiffen the now-lax penalties. India has detailed standards for research citation, but training in them is generally reserved for doctoral students.

Not a Priority

In the U.S., many international students receive little instruction in the mechanics of scholarly writing. "We end up very often assuming people know the rules and don't tell them what the rules are until they get into trouble," says Elizabeth Heitman, a professor of ethics at Vanderbilt University Medical Center.

Moreover, because original research is considered the core of a thesis, literature reviews often get little scrutiny for plagiarism. "It's not any malicious or devious effort to suppress the problem," says Nicholas Steneck, professor of science history at the University of Michigan and consultant to the federal Office of Research Integrity. "It's simply that, on a scale of 1 to 10, it doesn't come up to the level of other things faculty have to do."

That still might be the case at Ohio University if not for Thomas Matrka, 40, of Columbus, Ohio. He enrolled full-time at Ohio in 2003, aiming for a master's degree in mechanical engineering. Unable to get his thesis proposal approved, Mr. Matrka began going to the university library in June 2004 to seek ideas from past theses. He came across a 1999 master's thesis by Eka-

chai Puttitwong, a former graduate student from Thailand. Its subject was “quenching,” a cooling process used in metal manufacturing. Its first sentence read: “Quenching—a thermal treatment process for metal alloys—must be controlled for the formation of desirable transformation products.”

Mr. Matrka soon found another thesis, written in 1998 by a different student, with an almost identical start: “Quenching is a thermal treatment process for metal alloys that must be controlled to ensure the formation of desirable transformation products.” Mr. Matrka also found dozens of additional pages of duplication, along with pages of equations and language from a third thesis. Although Mr. Puttitwong listed both sources in his bibliography, his text of his work didn’t contain footnotes, quotation marks or other notations indicating that the material had been taken almost verbatim.

Gary Graham, one of two mechanical-engineering professors appointed to review Mr. Matrka’s initial plagiarism allegations, says the copying in Mr. Puttitwong’s work was “flagrant,” and that the former student admitted to plagiarism when contacted by email early last year. “His reasoning was that his family couldn’t support him anymore and he had to finish his degree,” recalls Mr. Graham, who says Mr. Puttitwong was told his degree might be revoked if he didn’t revise his thesis.

In a telephone interview, Mr. Puttitwong said his thesis problems also stemmed from his poor command of English. He added that he has turned in a revamped thesis but declined to discuss further details, saying it was “personal stuff.”

‘Cheaters Moving On’

Mr. Matrka says he was frustrated because he couldn’t get his thesis proposal approved “and you had students who were cheaters moving on.” Dissatisfied with the university’s initial response to his allegations—a limited investigation by the mechanical-engineering department—he kept digging. He detailed his findings in letters to Ohio Gov. Robert Taft and the Higher Learning Commission, an organization that accredits universities.

Some of the former Ohio graduate students accused of plagiarism say faculty advisers monitored their original experiments and research on a weekly and sometimes daily basis. Students from abroad got help smoothing out their written English, sometimes from department secretaries, but received little instruction in citation rules or research ethics.

“We had no idea of what to put on a thesis when we took material from someone else’s” work, says Mr. Ranatunga, the former Ohio graduate student. He says he assumed the three-member faculty panel that reviewed and approved his thesis would tell him if he’d done something wrong.

Robert Speckert, chairman of the engineering-technology department at Miami University’s Middletown campus, where Mr. Ranatunga teaches, says the professor is one of the most highly regarded members of his faculty. Mr. Speckert says he has seen nothing that would cause him to question the professor’s integrity and doesn’t anticipate taking disciplinary action.

Bhavin Mehta served as faculty adviser for 11 theses under

scrutiny. A native of India, the 44-year-old earned his master’s and doctoral degrees from Ohio and joined its faculty in 1988. He says many of the accused students he advised were foreign and had arrived at the university with little experience in such writing. “They were not really intending to copy,” he says. “They were just ignorant about those kinds of things.”

Mr. Mehta says he works closely with thesis writers to make sure their own research was properly represented. He says he didn’t notice the plagiarism because he assessed literature-review sections primarily for the flow of language and to see that students had relevant and adequate background material.

‘I Don’t Memorize Every Thesis’

It isn’t easy for an adviser to detect whether a student’s written work is taken from another text, he says. “I can’t memorize all the textbooks,” he says. “I don’t memorize every thesis.” Mr. Mehta has been barred from advising graduate students and was told his employment contract will not be renewed after this academic year.

Jay Gunasekera, a native of Sri Lanka, served as faculty adviser for Mr. Mehta’s 1992 doctoral dissertation and has supervised nearly 100 Ohio graduate students since 1983. He contends it isn’t possible for a professor to ensure that every sentence and paragraph in a literature review is original. “But if I knew this was coming, I would have checked them” more closely, he says.

After he was criticized by a faculty review panel over theses he supervised, Mr. Gunasekera stepped down as chairman of the mechanical-engineering department in June. University officials say they may strip him of an endowed professorship.

Mr. Gunasekera says his reputation has been destroyed. He recently sued the university in Ohio state court, accusing school officials of “recklessly” publicizing false statements about him and of failing to distinguish between major and minor plagiarism. John Marshall, his attorney, says much of what the school has called plagiarism is simply “a failure to attribute.”

Dennis Irwin, dean of Ohio’s engineering college, says it doesn’t matter where in a thesis copying occurred. “I think some people became very sloppy in doing their job,” he says, adding, “we’ve got a culture that has to change.”

The school has begun requiring engineering students to submit their theses electronically so they can be scrutinized with plagiarism-detection software. Mr. Irwin says two papers this spring were referred to the university’s judiciary office for possible disciplinary action.

The university hasn’t been able to locate the authors of two of the 39 theses under review. Certified letters to 10 alumni have been returned as undeliverable or refused. The other 27 have either agreed to rewrite their theses or said they want to challenge the allegations.

After switching advisers and starting a new research project, Mr. Matrka earned his master’s in June 2005. But convinced his degree’s value is diminished by every questionable mechanical-engineering thesis that remains on the university library’s shelves, he continues to check them out, one by one. There are 293 on file. “I plan to keep reading,” says Mr. Matrka.