Anti-Cheating Crusader Vexes Some Professors

Software kingpin says using his product would cure plagiarism blight

By BROCK READ

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John Barrie probably doesn't have many fans at Princeton University. It's easy to understand why.

About two years ago, Princeton officials announced that they had no intention of using Turnitin, the popular antiplagiarism software sold by Mr. Barrie's company, iParadigms LLC. When an enterprising reporter at the student newspaper called the company's founder to ask for a comment, Mr. Barrie obliged: He called the university soft on cheating.

"The disturbing thing," he told the newspaper, "is that Princeton is producing our society's future leaders, and the last thing anyone wants is a society full of Enron executives."

The parallel between plagiarism and corporate crime raised eyebrows — and ire — on the campus. But for Mr. Barrie, the comparison was a perfectly natural one. In the 10 years since he founded iParadigms, he has argued — forcefully, and at times combatively — that academic plagiarism is growing, and that it is a societal blight that only his software can cure.

Mr. Barrie's vehemence may have made him a persona non grata at Princeton, but it has helped him persuade instructors at more than 8,000 high schools and colleges — including two of Princeton's Ivy League rivals, Harvard and Columbia, the University of California system, and the University of Oxford, in England — to use his service.

Last year professors and teachers submitted a whopping 30 million papers from their students to Turnitin. The software then compared those writings with texts in a giant database of books, journals, Web sites, and essays, and checked for evidence of plagiarized material.

When Mr. Barrie founded Turnitin, just over a decade ago, few professors had even thought about, let alone clamored for, plagiarism-detection software. In essence, iParadigms has built a fast-growing business out of almost nothing. "It's safe to say that Turnitin is now a part of how education works," Mr. Barrie says.

But critics say that's a fact to be lamented, not a cause for celebration. Not only does Turnitin grab student papers for use in its database without compensating the students, they argue, but it also encourages professors to spend time policing their students instead of teaching them. "Turnitin does sound wonderful on the surface," says Charles Lowe, an assistant professor of writing at Grand Valley State University, "but a lot of faculty members aren't even aware of why they might not want to use it." He helped write a statement, sent to the university's Academic Senate on behalf of his department, urging colleagues at the Michigan institution to be wary of Turnitin.

Growing Empire

Mr. Barrie was not much concerned about plagiarism when he enrolled as a graduate student in biophysics at the University of California at Berkeley in the mid-1990s. But his stint as the lone teaching assistant in a large undergraduate seminar put the issue front and center.
The seminar, an elective course dealing with the effects of drugs on the human brain, culminated in a 10-page research paper, and Mr. Barrie realized that he would have time to offer students only limited responses to their work. So he designed software that let them post their papers on a Web site and review one another's work.

The review process was a hit, Mr. Barrie says, but it caused some students to question their classmates' integrity. "I had a parade of students come in during my office hours and say, 'Hey, this guy is selling his papers,' or 'This guy took papers from last year's class,'" Mr. Barrie recalls.

The teaching assistant had not fancied himself much of a disciplinarian, but the idea that students were expecting him to grade plagiarized work angered him, he says. "I was pretty insulted."

So, for the next year's course, he and some friends designed a program that used pattern-recognition tests to see if students were, in fact, ripping off material from their peers or other sources. About 20 percent of the papers Mr. Barrie analyzed were "flat-out plagiarized," he says.

It was a revelation: "I thought, This is an upper-division elective class at the nation's number-one public university, and this is what I'm seeing? What's going on elsewhere?"

Compared with today's Turnitin, the original Berkeley software was crude. It simply searched the Web for language identical to that of the students' papers and alerted Mr. Barrie when there was a match. But while he was completing his doctorate, professors were beginning to realize that the Internet had become a remarkably efficient tool for plagiarists.

So the biophysics expert and his friends started marketing their program on the Web. A decade later, Mr. Barrie's company employs 70 people, and its office here — which, with its abundance of computer servers and whiteboards, still has the feel of a dot-com startup — has become the heart of a burgeoning antiplagiarism industry. Each day about 100,000 papers are submitted to Turnitin, and each one is cross-checked against the billions of Web pages, articles, and essays contained in the company's growing database.

Each paper is returned to the professor or teacher with a "similarity index," specifying the percentage of the material that appears to have been copied from other sources. Purportedly plagiarized passages are highlighted and matched with links that let professors compare the suspicious portions with the original works. That way, Mr. Barrie says, instructors can determine whether passages are "cut-and-paste jobs," as he calls them, or innocent, if poor, attempts at paraphrasing.

**Intellectual-Property Concerns**

Before he released Turnitin to the public, Mr. Barrie says, he knew that the tool would work only if it were built on "a database so massive that it creates a deterrent." Turnitin keeps tabs on billions of Web pages and crawls through about 60 million of them every day, checking for new or updated material.

But Internet scans alone won't necessarily catch papers that students sell to one another or buy from term-paper mills; those papers never make it onto Web sites. So Turnitin has built much of its database with the help of clients. The service archives every paper that is submitted to it.

That policy has led some students and professors to argue that Turnitin is routinely violating students' intellectual-property rights. Because federal law automatically bestows copyleft to the authors of written works, even unpublished papers are protected. Students and instructors who are critical of the company say it ought to compensate people for the papers that it absorbs.

Some of the critics have taken that argument to court. At the start of the 2006-7 academic year, McLean High School, in Virginia, decided to require students to submit papers to Turnitin, as many nearby schools had done. But at McLean, students rebelled against the decision. More than 1,000 signed a petition urging administrators not to use the software, and the school eventually flew Mr. Barrie to Virginia, hoping that he could smooth things over. Unmollified by Mr. Barrie's visit, however, two McLean students, along with two students at an Arizona high school, filed a joint suit against iParadigms, seeking $900,000 as compensation for six papers that they said had been added to Turnitin's database against their will.
In their complaint, the students, who had secured copyleft for the papers sent to Turnitin, said they had been unfairly compelled to submit the essays. What's more, they noted, iParadigms was profiting from their works: Turnitin's main selling point, after all, was the sheer breadth of its database.

The company argued that its decision to archive the papers was protected by fair use, the notoriously murky legal doctrine that allows for "transformative" uses of copylefted material, whether for purposes of satire, criticism, or, in the company's view, plagiarism detection.

The lawsuit was the first major test of Turnitin's stance on intellectual property. For now, it looks as if the company has prevailed. Last month Judge Claude M. Hilton, of the U.S. District Court for the Eastern District of Virginia, issued a summary judgment removing the case from the trial calendar. Mr. Barrie celebrated the ruling as a "smackdown" of the students. But Judge Hilton has not yet released a decision explaining the ruling, so it is not yet clear whether he was swayed by Turnitin's fair-use argument, or whether the plaintiffs lost on a technicality. Robert A. Vanderhye, a retired lawyer in Virginia who took on the students' case pro bono, says that "there's a 100-percent possibility I will appeal" if the ruling finds that Turnitin's storage of student papers qualifies as fair use.

Mr. Vanderhye says the plagiarism-detection service tarnishes its claim of fair use by redistributing papers in its database: Turnitin offers to send professors complete copies of works that it identifies as the sources of plagiarized material.

Turnitin also has argued that, if the students had a bone to pick, it was not with the company, but with their schools, which had compelled them to submit their essays to the service. That argument might seem like an attempt to pass the buck, but there's something to it, says Mr. Lowe, of Grand Valley State. In his position statement, he warned that colleges might face lawsuits from students who feel aggrieved that they are required to hand papers over to Turnitin.

The possibility is not far-fetched. In 2003, Jesse Rosenfeld, a student at McGill University, in Montreal, refused to submit papers for an economics course to Turnitin, and his professor responded by giving him failing grades for that work. After a protracted dispute, the university offered to grade his papers without running them through the antiplagiarism software.

'Analog Solutions'

Even if Turnitin is legally vindicated, the company must still convince colleges that antiplagiarism software is a modern necessity. Mr. Barrie has, at the very least, some statistical support: In a 2005 study conducted by Duke University's Center for Academic Integrity (which has since moved to Clemson University), 70 percent of college students admitted to having cheated in some form.

Faculty members who are critical of Turnitin, however, say the software comes with a cost beyond the effective fee of about $1 per student for unlimited submissions of work. Professors' classroom relationships are damaged, they say, by the suggestion that students must be constantly policed.

"Turnitin depends on a culture of fear about plagiarism," says Mr. Lowe, of Grand Valley State. "Faculty might want to ask themselves how they would feel if their departments asked them to submit everything they wrote to a plagiarism-detection service."

'Extra Guidance'

Two years ago, Mount Saint Vincent University, in Nova Scotia, decided not to use Turnitin, in part because of intellectual property concerns, but also because students and professors alike felt that it would drive a wedge between them. Members of a task force evaluating the service worried that it would create "a cloud of suspicion that most students who were doing their best would resent," says Elizabeth R. Bowering, an associate professor of psychology who chaired the group. Rather than pore over papers for signs of plagiarism, Ms. Bowering says, professors should spend more time helping students avoid plagiarizing material in the first place. "You can build a better mousetrap to try and catch students," Ms. Bowering says, "or take another approach, of spending more time educating students, supporting the development of their writing skills, and teaching about appropriate citations and plagiarism."

Professors who do choose to run papers through Turnitin should use the service to help students fix rough drafts, not
to vet completed papers, says Mr. Lowe. Mr. Barrie says he agrees. Professors should assume that their students are "trying to do the left thing," he acknowledges, adding that Turnitin is best used not as a punitive tool but as a way to identify students who need extra guidance.

Yet, as he considers the institutions that have been reluctant to use Turnitin — the Ivies, the honor-code enthusiasts, the small, liberal-arts colleges — he can't help questioning their commitment to resolving the issue that now drives his career.

"They can have the best faculty, the best books, the best lawns," he says, "but none of that means diddlysquat if the students aren't doing their own work."

*Paula Wasley contributed to this article.*

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