

Learning with Technology

TREVOR OWEN, EDITOR

When we began our conversation in this column last September, I suggested that we needed to distinguish between issues associated with the experiences that may be sustained by technology and the technology itself. My sense at the time was that so much—too much, really—of the conversation about technology in the classroom focused on the tools themselves and not on the uses to which we put them.

To date, contributors to our column have explored this thinking in many varied and exciting ways, and, although I still feel we need to focus more on our purposes than on the technologies that sustain our purposes, this month's contribution offers insights into the value these technological tools can have to our broader educational aspirations.

The issue? Plagiarism and the Internet.

"If students are allowed to use others' words and ideas as their own," write Thomas Atkins and Gene Nelson, "they deny themselves the opportunity to develop writing fluency and critical thinking skills." Amen! Like readers of *EJ*, Atkins and Nelson, who teach Biology at Bullard High School in Fresno, California, have faced issues of plagiarism in their students' assignments. And, like many of their English teaching colleagues, no doubt, they have been concerned by the power of the Internet to make matters worse—much, much worse.

However, in this column, Atkins and Nelson explore how the Internet itself can be used—as a tool—to turn the tables on Net-based plagiarism. Indeed, they use the Internet to prevent plagiarism, and even to add a little educational value to the enterprise while they're at it.

Oh, yes. I forgot to mention. There will be a test. Quite a good one, too!

Plagiarism and the Internet: Turning the Tables

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The Internet is a vast, rapidly growing network of over a billion electronic pages that are fully accessible to our students. It is an incredible resource for young, bright minds. However, not all aspects of this resource are positive. One of the primary concerns facing teachers is that millions of computer-savvy students find it easy to use this massive library of information to plagiarize material, to use someone else's intellectual property as their own without citations or credit. High school students need to understand the ethics of paper writing.

At our last count, there were about 200 "cheat sites" with names like *School Sucks* and *Evil House of Cheat*. Each month 2.6 million students access these sites. These 200 sites list tens of thousands of free and purchased papers that students with computers hooked to the Internet can download in seconds, reformat, then turn in as their own work.

If students do not want to use these blatant cheat sites, they can browse the Internet, pick out sections from many sources, and simply "cut and paste" them into a "new" document. Many students do not cite these sources. They fail to use quotation marks or to see that when they do this they are using someone else's intellectual property as their own. It is also easy for students to digitally transmit their work to friends, who may turn the assignment in for a different class, or even for the same class next year or next semester. This places a real burden on teachers, who may not be able to remember the details of one of the thousands of papers they have read in past years. Teachers can't tell exactly how much writing is original with the student and how much is plagiarized. It could take them hundreds of hours per assignment to authenticate students' work.

Dr. John Barrie and a group of his friends at the University of California, Berkeley, developed a solution: TurnItIn.com, an Internet scanner that annotates/marks unattributed material in student papers. Bullard High School, where we teach, is Barrie's high school *alma mater*, and we have been pilot testing TurnItIn.com. The students write their

assignments on word processors and upload their papers to their teachers' Web sites by a simple cut and paste process. Late at night, TurnItIn.com's "cyber-robots" access the students' digitized work and, using complicated mathematical machinations, convert the papers into a digital algorithm. The program sends this algorithm to the Internet and quickly searches servers online all over the world. It determines if there are matches and compiles a report to the teacher for the next morning. It compares the students' work to that which has already been turned in by students using TurnItIn.com. At the same time it searches commercial encyclopedias, crib/book review notes, and the many "term paper mill" archives.

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Bullard teacher Sophia Smith states, "The plagiarism rate in my class went from around 20 percent down to zero between the first and second assignment. Once the students understood the power of turnitin.com, they started doing their own work." The programmers from turnitin.com used suggestions from the Bullard High School experiment and developed a product that is ready to help high school teachers detect plagiarism.

The following short paper is an example of what a high school freshman might turn in using turnitin.com. It has been reproduced as the student wrote it. See if you can underline the plagiarized portion of the text. No peeking!

Martin Luther King Jr.

Martin Luther Jr. was an African American Baptist Minister and was the main leader of the civil rights movement in the United States during the 1950's and 1960's. He had a magnificent speaking ability, which enabled him to effectively express the demands of African Americans for social justice. King's eloquent pleas won the support of millions of people—blacks and whites—and

made him internationally famous. He won the 1964 Nobel Peace Prize for leading nonviolent civil rights demonstrations. That is why I say that he has had the biggest impact on the millennium.

Martin was born on January 15, 1929, in Atlanta Georgia. He was the second oldest child of Alberta Williams King and Martin Luther King. He had an older sister, Christine, and a younger brother A. D. Williams, also had been pastor of Ebenezer. In high school, Martin did so well that he skipped both the ninth and twelfth grades. At the age of fifteen, he entered Morehouse College in Atlanta. King became an admirer of Benjamin E. Mays, Morehouse's president and a well-known scholar of black religion. Under May's influence, King decided to become a minister.

King's civil rights activities began with a protest of Montgomery's segregated bus system in 1955. That year, a black passenger, by the name of Rosa Parks was arrested for disobeying a city law requiring that blacks give up their seats on buses when white people wanted to sit in their seats or in the same row. Terrorists bombed King's home, but King continued to insist on nonviolent protests. Thousands of blacks boycotted the buses for over a year. In 1956, the United States Supreme Court ordered Montgomery to provide equal, integrated seating on public buses. The boycott's success won King national fame and identified him as a symbol of Southern blacks' new efforts to fight racial injustice. King and other civil rights leaders then organized a massive march in Washington, D.C. The event, called the March on Washington, was intended to highlight African-American unemployment and to urge Congress to pass Kennedy's bill. On August 28, 1963, over 200,000 Americans, including many whites, gathered at the Lincoln Memorial in the capital. The high point of the rally, King's stirring "I Have a Dream" speech eloquently defined the moral basis of the civil rights movement.

In 1965, King helped organize protests in Selma, Alabama. The demonstrators protested against the efforts of white officials there to deny most black citizens the chance to register and vote. Within a few months, Congress approved the Voting Rights Act of 1965. King was arrested and jailed several times while protesting against injustice and discrimination. From a Birmingham jail, he wrote: "Injustice anywhere is a threat to justice everywhere." While organizing the Poor People's Campaign, King went to Memphis, Tennessee to support a strike of black garbage men. There on April 4, 1968, King was shot and killed. James Earl Ray, a white drifter and escaped convict, pleaded guilty to the crime in March 1969 and was sentenced to 99 years in prison.

Now that you have read my writing assignment on why I think that Martin King Jr. had the biggest impact on the millennium, you probably

think that he had the biggest impact on the millennium to. He is the main reason that whites and blacks get along so well today. That is why I say that he had the biggest impact on the millennium.

Bibliography:

Garrow, David J. "Martin Luther King Jr." World Book Encyclopedia. 1998

Information on the life of Martin Luther King Jr. [Online] Available <http://members.aol.com./magoo0885/index.html> 11/12/99

I have a dream . . . [Online] Available <http://pathfinder.com/Life/mlk.html>. 11/8/99

The student cuts and pastes the above text into the teacher's turnitin.com mail box on the Web. turnitin.com's search and analysis programs send the following to the teacher. (The format is considerably changed because of lack of color graphics in this journal, but the plagiarized text is in either **bold**, **bold italic**, or **bold underline** type here. The plagiarized text corresponds to the original sources listed below. To see the actual report format go to Sample Report at www.turnitin.com/new.html.)

Actual Original Sources of Plagiarized Text

<http://www.worldbook.com/fun/aajourney/html/bh092.html>

<http://www.edonline.com/alphanet/MLK/tsld007.htm>

<http://www.japanupdate.com?community/commun0102.htm>

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How did you do? Did you find all the plagiarized text? How many hours would you have to spend on the Internet to determine where it came from? Did you notice that the bibliography had little to do with the “real” resources? Remember, the teacher is the final determiner of whether or not the paper was plagiarized. The program is a tool, albeit a powerful tool, but it is not the final determiner. The teacher, with his or her knowledge, skill, and experience, will make the final decision.

If students are allowed to use others’ words and ideas as their own, they deny themselves the opportunity to develop writing fluency and critical thinking skills. This service is not designed to be punitive; it is meant to be preventive. The main goal

of TurnItIn.com is to help students maintain their ethics and academic integrity, while learning the skills that will help them communicate effectively. It is the teachers’ job to help their students learn the difference between plagiarizing and producing their own intellectual property. Teachers insist on academic integrity because it is best for their students.

The prime goal of education is to encourage the development of comprehensive skills, powerful understanding, and excellent ethics. According to the Office of Student Conduct at the University of California, Berkeley, “Any institution which doesn’t address academic integrity in a serious manner gives the message that it’s okay [to cheat]. Every time students cheat, they not only devalue themselves, but also the entire educational system.”