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## Digital Cheating and Plagiarism in Schools

*Cheating is not a new phenomenon, yet the ways that students cheat and their attitudes toward cheating have changed. The Internet age has brought tremendous opportunities for students and teachers in teaching and learning, and yet it has also brought challenges to academic integrity. This article discusses various reasons why young people cheat and points out that young people are developing a more lax attitude toward cheating online, thus making it important for teachers to address this issue and to develop strategies to combat digital plagiarism in the classroom. The article provides teachers with specific ideas to deal with digital plagiarism in*

*schools, such as building a social community on- and offline to help students understand the concept of plagiarism, using antiplagiarism software packages in combination with punishment, and cultivating an atmosphere that encourages ethical behavior on the Internet.*

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**T**HE INTERNET HAS BECOME MORE and more important for young people's lives at school and at home. It provides young people with tremendous opportunities in social interactivity, peer-to-peer communication, career seeking, shopping, and civic interests. The Internet is affecting all subjects in K–12 education. It is changing the way that educators teach by providing new perspectives on communication and dissemination, and by opening up exciting new resources for students and teachers.

The Internet has brought wonderful opportunities for improving teaching and learning, but

at the same time it has also brought challenges to academic integrity. Surveys by Who's Who (1998) and Josephson Institute of Ethics (1998, 2002, 2004, 2006) reported that young people were developing a more lax attitude toward cheating. According to Lathrop and Foss (2000), the deterioration of ethics among young people seems to be closely related to the Internet and other advanced technologies. It is imperative that teachers address this issue and develop strategies to work with students in the classroom.

Why do young people cheat on the Internet? How can educators combat digital plagiarism in the classroom? This article discusses these questions through the cultural constructivist point of view and provides suggestions for teachers who work with students in the classroom to reduce digital plagiarism.

### **Net Generation**

Previous research found that more and more middle school and high school students are using the Internet both at home and at school. Tapscott (1998, p. 15) predicted an emergence of a *Net generation* who are fluent with digital technology including Internet use. Nowadays, young adolescents are digital-savvy, and the Internet has become one part of their life styles.

According to a report released by U.S. Bureau of the Census (2002) in the *World Almanac & Book of Facts*, 64.1% of children ages 6 to 11 have computers at home, and 24.7% of them are using the Internet. For children ages 12–17, 69.5% have Internet access at home, and 47.9% are using the Internet.

Based on surveys about children's use of computers and the Internet (Lenhart, Simon, & Graziano, 2001; National Public Radio, Kaiser Family Foundation, & Harvard University Kennedy School of Government, 2000; San Jose Mercury News & Kaiser Family Foundation, 2003), young people's access rate to the Internet has been rising. Children hold more positive attitudes toward the Internet than adults. They use the Internet for school research and homework. They use instant messaging and e-mail to contact

other people. They listen to music, chat, shop, and watch movies online. All these studies assure educators that they are teaching a new generation that has grown up with the Internet, which provides both opportunities and challenges.

### **Deterioration of Academic Integrity and Internet Use**

As the Net generation has increasingly easy access to the Internet in their lives, literature has revealed that, in recent years, more and more young people at school are practicing cheating, and things are getting worse each year.

The Josephson Institute of Ethics (1998, 2002, 2004, 2006) surveys confirmed the deterioration of ethics among young people. The 2002 survey confirmed that things had been getting worse each year over the past decade. From 1992 to 2002, the number of high school students who admitted that they cheated on an exam in the past 12 months had increased significantly, from 61% to 74%. The percentage of students who admitted having cheated two or more times increased at a very slow rate: 1992, 46%; 2000, 44%; 2002, 48%. In 2006, the Josephson Institute of Ethics surveyed 36,000 high school students, and the survey revealed entrenched habits of dishonesty in the young people. About 33% had copied an Internet document within the past 12 months; 18% did so two or more times. In addition, 60% cheated during a test at school within the past 12 months; 35% did so two or more times.

The 29th annual survey of Who's Who (1998) revealed that 53% of the students said that it was no big deal that more students were cheating these days. Both the studies by Who's Who and the Josephson Institute of Ethics (1998, 2002, 2004, 2006) reported that young people were developing a more lax attitude toward cheating. Teachers and educators need to pay attention to this tendency and find ways to address this deterioration of ethics.

The deterioration of ethics among young people seems to be closely related to the Internet. According to Lathrop and Foss (2000), students from one class can create a Web site to share ideas and often will copy homework

answers from each other. There are Web sites that provide free essays for students to plagiarize reports and term papers. Some examples are [www.al-termpaper.com](http://www.al-termpaper.com), [www.academicpapers.com](http://www.academicpapers.com), [www.bignerds.com](http://www.bignerds.com), [www.cheater.com](http://www.cheater.com), and [www.cheathouse.com](http://www.cheathouse.com). Electronic online encyclopedias or CD-ROMs are also a source for plagiarism. In addition, young students report using all kinds of digital devices to connect with each other, including Palms, calculators, and pagers. E-mails and chat rooms on the Internet are also frequently used for plagiarism.

Stricherz (2001) reported that a recent survey of 4,500 high school students found that 47% of student respondents believed that their teachers sometimes chose to ignore students who cheated. Among these respondents, 26% believed that teachers did not want to go to the trouble of reporting suspected academic dishonesty. The survey also found that the Internet was a major source for cheating. About 54% of respondents reported they had used the Internet to plagiarize other people's works.

Digital cheating and plagiarism are problems among college students as well. The Center for Academic Integrity (2005) has conducted a nationwide survey in 60 universities, among 50,000 undergraduates, since 2002. The study found that on most campuses, 70% of the students admitted to some cheating in the past years. About one-fourth of the students admitted to serious cheating on tests. Where the Internet is concerned, 77% of students thought that cutting and pasting one or two sentences from online without appropriate citations was not a serious issue. At the same time, surveys were done among high school students in 61 schools. One high school study (Center for Academic Integrity, 2005) reported that over half of the students admitted to some level of plagiarism through the Internet.

The connection between plagiarism and Internet use has been echoed by another investigation conducted in middle schools (Ma, Lu, Turner, & Wan, 2006), which reported that the characteristics of the Internet brought more convenience to digital plagiarism, particularly among middle school students.

In short, studies revealed that the Internet, as an innovation, provided young people with more convenience to cheat and plagiarize. Web sites, e-mails, chat rooms, digital devices, and search engines all become tools for plagiarism and cheating. The Internet produces vast amounts of information, yet at the same time provides opportunities for simple copying and pasting of other people's works.

### Cultural Constructivism

Human beings are social creatures. Social interaction between students, and with their surrounding environment, is crucial for students' development of ethical concepts. Now that the Internet has become an everyday part of young people's lives, it also becomes an environment for social interaction.

Social constructivists believe that social interaction is a critical factor in learning. Vygotsky (1962) believed that meaning is constructed through social communication and dialogue. As Fosnot (1996) expressed the constructivists' view, an individual will interact with others through a certain medium to present his or her world views (meanings) to others. The medium, in this case, is the Internet. During the social interaction process, *taken-as-shared* meanings can be reached to form a certain cultural symbol. According to Fosnot, knowledge is internally and temporarily constructed, and each individual forms his or her own model of the world. Through social interactions, individuals modify their models by adjusting discrepancies and conflicts that arise during the interaction with previous models of the world.

The Internet can be viewed as a constructivist learning environment where students engage in meaningful learning that is relevant to their own personal interests, which can, in turn, form a social community that encourages plagiarism. While interacting with each other through the Internet, students develop a shared understanding of what is acceptable.

The most common reason mentioned by students in the focus groups for engaging in aca-

demic cheating was the fact that others were doing it. About two-thirds of the student participants admitted that they once saw someone they knew go online to copy and paste sentences for language arts assignments, or copy and paste answer keys for math or science problems. About one-fourth admitted that they did so themselves. During the focus groups, students reported their copying and pasting as excitedly as when they were talking about shopping online or chatting online. In their eyes, those things were not that different. Some young people seem to find it hard to tell collaboration from cheating.

### **Why Plagiarize Digitally?**

The middle school study (Ma et al., 2006) found that the following aspects contributed to an increase in academic cheating: peer culture, Web sites that facilitate plagiarism, pressure to achieve, few consequences or punishments, and lack of understanding of the concept of plagiarism.

#### **Peer Culture**

One of the major reasons for digital cheating and plagiarism found by the study (Ma et al., 2006) was that other people were cheating and plagiarizing, too. More than 70% of the students reported that they knew someone who copied and pasted sentences online for their homework. It, therefore, became no big deal for these students to plagiarize. In fact, one-fourth of the students admitted that they plagiarized, themselves.

#### **Web Sites**

Web sites were reported to provide a convenient way to engage in digital plagiarism. Students reported that Web sites contain a vast amount of information, and it was easy for them to find Web pages about any topic. As one student commented, "People can just type in any keyword, and they can get all sorts of information about it" (Ma et al., 2006, p. 77). It was very

convenient to copy and paste a few sentences or paragraphs from the Web pages that they were on. During the focus group discussion, several students cheered when asked if they sometimes copied and pasted articles from online. They talked about how exciting it was to find such rich information online and how easy it was to get information and simply own it.

Teachers reported that they found that students were submitting the same papers or providing exactly the same solutions to math problems. It turned out that the students went to some Web sites that were designed for teachers, where answer keys for problems were accessible.

#### **Punishment Not Reinforced**

The lack of punishment for digital cheating has contributed to the increase in digital plagiarism. Students reported that they would copy and paste from the Internet even though they knew it was not right. They found that there was no immediate consequence for them if they cheated occasionally. The following is the justification of one girl gave for her cheating: "Once I forgot to do my homework, to submit to the teacher, and I went on there (online), and just copied the paper in my handwriting, and she never knows. I only did that once" (Ma et al., 2006, p. 78).

Students reported the *just once* mentality and did not really feel it was a big deal. They said they knew it was wrong, and they would not do it any more.

Teachers reported that it was not easy to catch the students all the time. As an instructor, it was impossible to know all the Web pages at once. Students would, therefore, take risks to cheat because the odds of getting caught were low.

#### **Pressure for Achievement**

Students reported that they sometimes decided to cheat because they felt that they could not achieve well within a short time. They talked about wanting to get high scores, and yet were not able to when time was too pressing or a deadline was imminent. Teachers also described how

students would cheat when they felt pressure for achievement. About half of the teachers talked about how students would forget about an assignment and became desperate when they realized that they almost missed a certain deadline. Some of them chose to copy and paste from the Internet when they were under such pressure.

### **The Concept of Plagiarism**

The Ma et al., (2006) study revealed that students' understanding of plagiarism was limited. Teachers reported that students did not grasp the concept of plagiarism very well, and it was too convenient for the students to copy other people's work in this age of digital media. Teachers of the rural school under study said that the students did not really understand the concept of plagiarism. One of them commented:

Kids don't seem to understand plagiarism as we do. We tried to get them to understand better. That's why I am covering the topic that they can't just copy and paste. But I don't think they really grasp the concept... We are trying to get them to understand, to get them to use their own words. (Ma et al., 2006, p. 78)

Most students in the interviews did not understand the concept clearly. They talked about copying and pasting as if it were something ordinary. As was noted previously, some of them commented that it was not really a big deal to copy and paste other's works, because they knew many people did it.

### **Combating Plagiarism in the Digital Age**

Renard (2000) suggested that teachers need methods to alert and detect cheating, and yet the most effective way to reduce cheating should be to involve students in interesting assignments. Another important tool, according to Renard, is to teach the students how to document sources.

Lathrop and Foss (2000) went into great detail to recommend ways to combat student cheating

and plagiarism in the Internet era. The strategies include using high-tech defenses against high-tech cheating. Blocking, filtering, and rating systems can be used. They also suggested that parents need to be alerted and help to build their children's ethical model. Schools need to make strict policies to deter cheating and plagiarism. Teachers need to define plagiarism and discuss with the students the differences between collaboration and cheating.

To combat digital plagiarism, educators can use antiplagiarism software packages such as turnitin.com in combination with punishment. Tools such as turnitin.com can help instructors detect digital cheating. The Web site provides clear and thorough definitions for academic cheating and plagiarism. Instructors can register the whole class in the system, and the students' papers will be reviewed by other students, and also by the instructor. A student's submission might be reviewed by a student from another school. The site can detect which sentences were plagiarized from which Web site. Instructors can use the tool as a reference and question students who write suspicious papers.

Other antiplagiarism tools include search engines such as Google. McCullough and Holmberg (2005) investigated 210 master's theses in a university by using Google Search to detect digital plagiarism, and found that 27% of the theses included occurrences of plagiarism. The Ma et al. (2006) study of middle school students also found that students were especially drawn to Google to search for information for writing their papers. Google Search may also be used effectively in middle schools against plagiarism.

Another important strategy is using peer culture as a tool to combat digital plagiarism. As the Ma et al. (2006) study revealed, peer culture plays an important role in students' decisions to engage in cheating. Educators can take advantage of peer culture to cultivate an atmosphere that encourages ethical behavior on the Internet. To help cultivate a healthy peer culture, educators may consider the following strategies: clarify the concept of plagiarism, establish specific rules and consequences for breaking them, and compliment

model behaviors such as showcasing students' original writings or evidence of creative thinking.

Ma et al., (2006) showed the need of teaching a clear definition of plagiarism to middle school students and helping students build a habit of thinking for themselves. From a teachers' point of view, an effective way to combat plagiarism is to help students understand what plagiarism is, and to make it clear that plagiarism is not acceptable. Victoria University of Wellington provides a comprehensive definition of plagiarism on its Web site (<http://www.vuw.ac.nz/home/glossary/>):

Plagiarism is presenting someone else's work as if it were your own, whether you mean to or not. "Someone else's work" means anything that is not your own idea, even if it is presented in your own style. It includes material from books, journals, or any other printed source, the work of other students or staff, information from the Internet, software programs and other electronic material, designs and ideas. It also includes the organization or structuring of any such material.

Teaching students how to cite references properly and use a bibliography properly is a useful way to combat plagiarism and cheating through the Internet. Students sometimes copied an author's sentences word for word without giving credits. Other times, they paraphrased the sentences without identifying sources. Teachers should let the students know how to cite the sources and give credits to the original authors whenever the students quote, summarize, paraphrase, or refer to someone's ideas. Giving credit can be done either by way of parenthetical citation or by means of a footnote. It should show whose idea is cited, and where the source is.

It is also important to engage students in activities that are related to their own interests or needs. Most often, students reported that cheating happened when they had to turn in their homework to gain a score, particularly when they felt that the homework was not interesting. Using an example of the *only once* mentality, students felt that they were justified to cheat if the work they were doing was boring and meaningless, yet they wanted a good score, which was often the

only means for demonstrating their achievement. In other words, if they felt that the work was interesting and relevant to them, they would want to devote time to it. One student reported that he has a family member who developed leukemia, and when the teacher asked the students to find sites for diseases, this student told the researcher how he took pains to read and reflect on the online journals of a little girl who developed leukemia. He did not write his report simply through copying and pasting.

### Conclusion

The Internet has become an important part of young people's lives. It creates wonderful opportunities for teaching and learning, and yet, at the same time, has contributed to the deterioration of ethics among young people. In this study, middle school and high school students reported cheating and plagiarizing online. Ma et al., (2006) also found that peer culture contributed to the deterioration of ethics among the students. The findings of this study indicate that activities that are engaging and relevant to students' own interests can help reduce plagiarism.

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