

# Why Do Students Plagiarize?

## A Cultural Perspective

It is becoming a well-known fact that international students are at significantly higher risk to committing plagiarism. According to The Times newspaper, in the United Kingdom, students from outside the European Union were more than four times as likely to cheat in exams and coursework.<sup>1</sup>

Similar numbers were found by the Wall Street Journal: public universities in the United States registered 5.1 reports of alleged cheating for every 100 international students, versus one report per 100 domestic students.<sup>2</sup>

Find out some of the reasons why this is happening, especially with written assignments.

### KNOWLEDGE AS A SHARED PROPERTY

Many non-Western cultures have different views regarding originality and textual ownership. In Korea, for example, the traditional belief is that there is no such thing as an original idea or thought.<sup>3</sup> As a result, the perspective that an author owns his or her text, may not be a common concept in the student's cultural background. Because of that, students may not have experienced the same emphasis on attribution of sources.<sup>4</sup> In China, for instance, plagiarism is often encouraged as a way to honor the author, or seen as a form of flattery. In India, a word to suggest plagiarism does not even exist, and attribution of sources is only required if the author is renowned.<sup>5</sup>

### RESPECT FOR AUTHORITY

International students often do not think that they can enhance the writing and ideas of someone who is an authority on a particular subject.<sup>6</sup> Because of that notion, they may have difficulties paraphrasing, criticizing other people's work and writing book reviews, for example. They may find it difficult to critique the work of someone who has more knowledge on the matter.

### EXAM-ORIENTED CULTURES

In many cultures, educational institutions place a greater emphasis on exams rather than homework, written assignments and presentations. Students from countries such as South Korea, Japan, India and Pakistan may be used to the notion that homework does not have much importance towards the final grade. Since in their countries exams are much more significant, spending time doing homework may seem counterproductive to them.<sup>7</sup>

### DIVERSE LEARNING STYLES

International students may have to adapt to an entirely different academic culture and learning style. Learning by rote memorization is a common practice in nations such as India and China. In those cultures, reproduction of text without error may be considered proof that students have read it.<sup>8</sup> Memorization is seen as a form of respect for the author, and students who recite information verbatim commonly receive higher grades.<sup>9</sup> Additionally, during their school years, many students may not have had access from information beyond textbooks, so they may never have faced the question whether copying from the internet is permitted.<sup>10</sup>

### PRESSURE TO BE SUCCESSFUL

The pressure for good grades may be higher for a student who depends on a scholarship or faces the threat of a potential loss of visa.<sup>11</sup> There may also be financial and family pressures for the students to get higher grades which will lead to better jobs.<sup>12</sup>

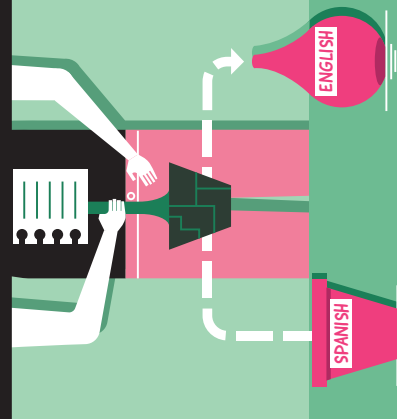
**LIMITED WRITING EXPERIENCE**

Some international students may not have experience writing research papers that require personal opinions and critical thinking.<sup>6</sup> The purpose of writing assignments in countries like Japan and China are usually to practice what one is learning, rather than producing original theories or ideas. Students also may have trouble understanding the characteristics of different types of writing assignments.<sup>7</sup>



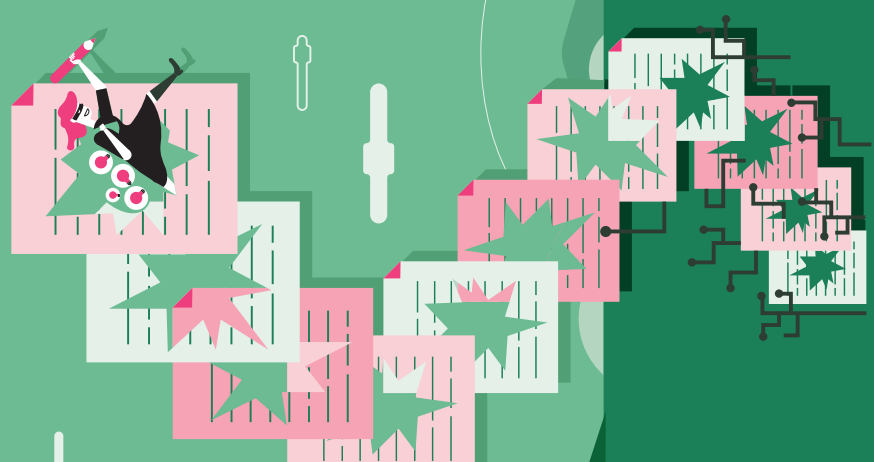
**DIFFICULTY EXPRESSING THEMSELVES IN ANOTHER LANGUAGE**

For students who speak English as their second language, it takes longer to read and write. They may feel unable to express their thoughts, or they may think that what is already written in English expresses what they want to say better than if they had written it themselves.<sup>8</sup>



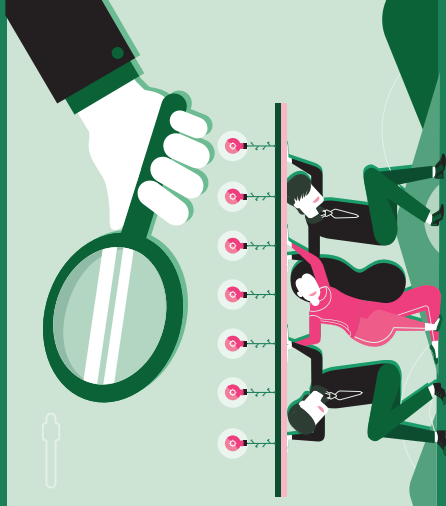
**MINIMAL CONSEQUENCES FOR PLAGIARIZING**

Consequences for cheating vary from country to country. Nations like the United States and the United Kingdom tend to be much stricter – students can fail the course or even be suspended or expelled. However, copying text without attribution and downloading papers from the internet may not be seen as severe violations in countries like India or China, and therefore, there may be no serious consequences for such actions in those regions. As a result, students tend not to pay attention to plagiarism rules.<sup>9</sup>



**GREATER EMPHASIS ON COLLABORATION**

International students may have a stronger sense of community, and they may not hesitate to help each other and ask to see their notes or assignments. They may not see collaboration and helping others as a way of collusion.<sup>10</sup>



**Be Aware**

Different countries can have very diverse conceptions on plagiarism and authorship. These distinct interpretations are not wrong or less advanced than the traditional western conception (see article on page 32). It is important to note that the data gathered here about specific countries may not be representative of the whole nation – China and India, for example, are large countries with significant regional diversity. Also, this information may not be true to all people, since there are individual issues in question, so it is important not to stereotype students.

**SOURCES**

1. Mostrous, A., & Kenber, B. (2016, January 04). Universities face student cheating crisis. Retrieved August 30, 2017, from <https://www.thetimes.co.uk/article/universities-face-student-cheating-crisis-9j6ncd9vz7>
2. Jordan, M., & Belkin, D. (2016, June 05). Foreign Students Seen Cheating More Than Domestic Ones. Retrieved August 30, 2017, from <https://www.wsj.com/articles/foreign-students-seen-cheating-more-than-domestic-ones-1465140141>
3. University at Buffalo Center for Educational Innovation. (2016, September 22). Teaching International Students: Academic Integrity. Retrieved August 29, 2017, from <https://www.youtube.com/watch?v=s6Sy2rOjoIU>.
4. Introna, L., Hayes, N., Blair, L., & Wood, E. (2003, August). Cultural attitudes towards plagiarism: developing a better understanding of the needs of students from diverse cultural backgrounds relating to issues of plagiarism. Retrieved August 29, 2017, from [http://www.academia.edu/1362321/Cultural\\_attitudes\\_towards\\_plagiarism](http://www.academia.edu/1362321/Cultural_attitudes_towards_plagiarism).
5. Minnesota State University. (n.d.). International Students and Academic Integrity: Cross Cultural Considerations in Student Conduct. Retrieved August 29, 2017, from [https://www.mnsu.edu/conduct/cross\\_cultural\\_handout.pdf](https://www.mnsu.edu/conduct/cross_cultural_handout.pdf).

# We Need to Talk About Integrity

Van Davis, Blackboard's Associate Vice President of Higher Education Research and Policy, shares his experience as a former history professor and affirms: "We are at the precipice of a shift in terms of how we think of ownership in a digital environment."

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"I ONCE TAUGHT A CLASS WITH A LARGE JAMAICAN STUDENT contingent, and I discovered that because they came out of a different educational and cultural environment, they had a different understanding of ownership and collaboration. In the middle of the semester I realized, when an accusation of plagiarism came up, that what I was defining as plagiarism — in this case it was a student that had helped another one write a paper to such extent that I felt like it was no longer that student's work — the students did not see as plagiarism, because that was not the intent. They saw the behavior as a collaborative venture that was culturally appropriate for them to be helping each other out. That made me really begin to understand how our cultural position could change the way that we think about ownership and attribution of material," recalls Van Davis.

Early in his career, Davis, who holds an M.A. and a Ph.D. in 20th century United States history from Vanderbilt University, spent a decade as a professor and academic administrator. "As a faculty member, I taught writing intensive courses and worked closely with the Composition and Rhetoric faculty. Students performed a lot of writing for my courses and because of that, I had to deal with academic integrity on a regular basis," tells Davis. "I think what really interests me about the topic now is looking back and seeing all of the mistakes that I made."

For Davis, although there are going to be students who absolutely know what they are doing is academically dishonest, more often than not students were not doing it deliberately — like the ones in the story above. "They were doing it because they were sloppy, or they made a mistake, or they had a different

understanding of what collaboration was. And rather than taking those [instances] as opportunities to have deeper conversations with them that would allow them to reflect on this, I responded in a punitive manner. That is something that I regret when I look back at my teaching career, and something that I would do very differently now."

## Digital Revolution

Having started a teaching career at the beginning of the digital age, Davis is interested in looking at how digital technology changes our understanding of academic integrity. "It is very easy to copy and paste something, just in terms of the technical ease of being able to take material from one place and put it someplace else. But I think that the digital age has shaped the conversation on a more philosophical level because we are seeing cultural shifts take place," he suggests.

"One example of this is when you look at the culture of remix, or the culture of sampling, whether that be in music, or in architecture, or in art. It is becoming second nature to people to pick pieces of other works and change them to become something new."

According to Davis, the digital age is also shaping how we think about information. "**There is a greater emphasis now on collaboration and**



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we have Web 2.0 tools that enable that. Most employers see collaboration as a critical competency and, so, if you are working on a wiki, everybody is contributing. Somebody else's words become part of this greater whole that you are all creating. That's a different way of thinking about information and the creation of knowledge."

Another example, he says, would be the idea of knowledge in the public commons. "We see the creation of knowledge increasingly as a public participatory event. It's a very huge shift away from this more traditional western idea of single ownership of information, which, quite frankly, is what western copyright law is based on."

For Davis, that cultural shift may point to what seems to be a disconnect between students and faculty. "We are at the precipice of a shift in terms of how we think of ownership in a digital environment. Sampling, mixing and remixing are a wonderful example of this. If you can take snippets of somebody else's work and put them together in a different way to create something that is fundamentally different and more than its component pieces, is that your creation? Or is that a co-creation? Engineers, for example, have to collaborate every day. At what point does the sum of their contributions transcend each contribution and becomes something very different and unique?"

## Multiple Literacies

According to Davis, some of the best research and writing on academic integrity is happening in the context of multiple literacies. "Learning how to clearly attribute information in the digital age is a facet of digital literacy. Understanding what to do with information, how to use it and what it means in the digital context, that it as much a type of literacy as writing is a type of literacy, or as math is a type of literacy."

Digital literacy can be defined as a person's ability to use digital technology, communication tools or networks to locate, evaluate, use and create information. Or, more broadly, as the ability to perform tasks effectively in a digital environment, including the ability to read and interpret media, to

reproduce data and images through digital manipulation, and to evaluate and apply new knowledge gained from digital environments.<sup>2</sup>

However, it could be a mistake to assume that students know how to use technology properly. "We probably should not assume that faculty and students have the same set of values around using technology. For example, students and faculty may not agree on the appropriate use of technology. So we need to have a value conversation as well as a technical conversation about technology usage."

According to Davis, one of the challenges that digital learning programs with internationally diverse student bodies face is the variety of cultures, all of which may have different understandings of originality, creativity, and ownership. That makes the conversation more complex and nuanced. "In China, for example, the idea of replicating a master teacher's work is considered the highest form of flattery," says Davis. "In digital learning, where you obviously have a greater opportunity to draw students from a number of different cultures, those sorts of challenges are going to come up on a more regular basis."

Davis suggests that research and literature on this subject is starting to shift away from how students are plagiarizing, or how do you

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catch a student in the act of plagiarizing, and beginning to look more at why these actions are taking place. "Are there cultural reasons at work? Are there different understandings of digital literacy at work? I think that one of the trends in this area is that people are beginning to shift away from the how and talking more about the why."

## Five Ways to Promote Integrity in the Classroom

1. **Start a conversation.** Dedicate classroom time to have a conversation with your students about what academic integrity is and create shared frameworks and values that students can feel ownership in. "If they do not feel that ownership, then they are not going to care, that is human nature," says Davis. "As faculty, that means engaging students in deeper conversations about what do they think integrity means, why do they think it's important to have this conversation, how does it connect to their academic and professional careers."

2. **Do not assume guilt.** "When you see a student who has clearly copied and pasted something, it is very easy to assume they have cheated, rather than to assume that they have made a mistake, or that they may not fully understand what they have done," says Davis. Instead, use the incident as a learning opportunity. "Looking back, my academic integrity policy was a zero-tolerance policy. If I found a student had committed an act of academic dishonesty, then they failed the class. I would not do that now. I would instead look at it as an opportunity for some reflective learning — assigning a reflective essay, asking students to actively think about what they have done and why they have done it, and placing it within a larger ethical context."

3. **Focus less on having students replicate knowledge and more on having students apply their knowledge.**

"It is easier to cut and paste something if you are writing an informational term paper, because all that you are doing is presenting information. It is much more difficult to plagiarize something if you have an application-based project. I think faculty should really think about what types of assignments

they are making, because the application of knowledge is a deeper and more complex critical thinking skill, and those are the skills that faculty are going for, not the more rudimentary recitation of information," says Davis.

4. **See integrity as a competency to be developed.** "We define competency loosely as knowledge, ability and skills, and integrity is always a cultural construction. As a cultural construction, one can learn what that construction is; why that construction has come to be; and then what it means.

For example, what are the skills associated with making sure you are behaving, in this case in an academic environment, in a way that mirrors integrity," says Davis.

5. **Provide students with very clear examples of what is expected of them.**

"What constitutes plagiarism? What does it mean to appropriately cite this material? In which circumstances do you attribute words or ideas to somebody else and in which circumstances can you assume it is general knowledge? Provide students with very clear examples of what it means to plagiarize and what it means to give appropriate attribution," suggests Davis. Additionally, do not assume that talking about academic integrity once will be enough. "That is something you have to constantly address through conversations and reminders."

## SOURCES

- Digital Strategy—Glossary of Key Terms. (n.d.). Retrieved August 24, 2017, from <http://web.archive.org/web/20071127010041/www.digitalstrategy.govt.nz/Media-Centre/Glossary-of-Key-Terms>.
- Jones-Kavaler, B. R., & Flannigan, S. L. (n.d.). Connecting the Digital Dots: Literacy of the 21st Century. Retrieved August 24, 2017, from <http://er.educase.edu/articles/2006/11/connecting-the-digital-dots-literacy-of-the-21st-century>.



# Integrity, Originality and Authorship: Evolving Concepts

Goethe once said “There is nothing worth thinking but it has been thought before; we must only try to think it again.”<sup>1</sup> In an increasingly collaborative, information-based world, is our view of textual ownership becoming outdated?

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The conceptions of copyright and intellectual property first appeared in British law around 1710.<sup>4</sup> It was the beginning of authorship as western societies now understand it, based on a capitalist view of property and ownership, that resulted in the current concept of plagiarism as it is accepted in educational institutions. “It assumes that everything of value can be owned, bought, and sold and that ideas, knowledge, and art are created by individuals who have the rights of ownership,” researchers Lea Calvert Evering and Gary Moorman write.<sup>5</sup>

## Postmodern Questions

But what does it mean to be an author? Is it possible to write only original ideas? Can an author really own an idea? In the 19<sup>th</sup> century, some new conceptions appeared and the modernist paradigm begins to be called into doubt.

Pennycook points out that “The notion of the individual as creative guarantor of meaning and originality, this particular vision of self and authenticity, has taken a fair battering since Marx, Freud, and others have questioned the notion of the unmediated and authentic expression of self.”<sup>6</sup>

INTEGRITY IS OFTEN DESCRIBED AS ADHERENCE TO moral or ethical principles.<sup>2</sup> Academic integrity, for its part, comprehends a set of well-accepted rules followed by the most renowned universities, mainly western institutions, which receive students from all over the world. However, in order to understand how these rules were created – many of them regarding academic writing – we need to first understand western views of ownership of text.

The western ideological perspective of textual ownership sees the author as the single creator

of his texts. In this context, plagiarism is considered as a violation against the author and thereby is morally wrong.<sup>3</sup>

Alastair Pennycook, distinguished professor of Language, Society and Education at the University of Technology Sydney, however, sees plagiarism as a more complex phenomenon that is associated to the relationships between text, learning and memory.

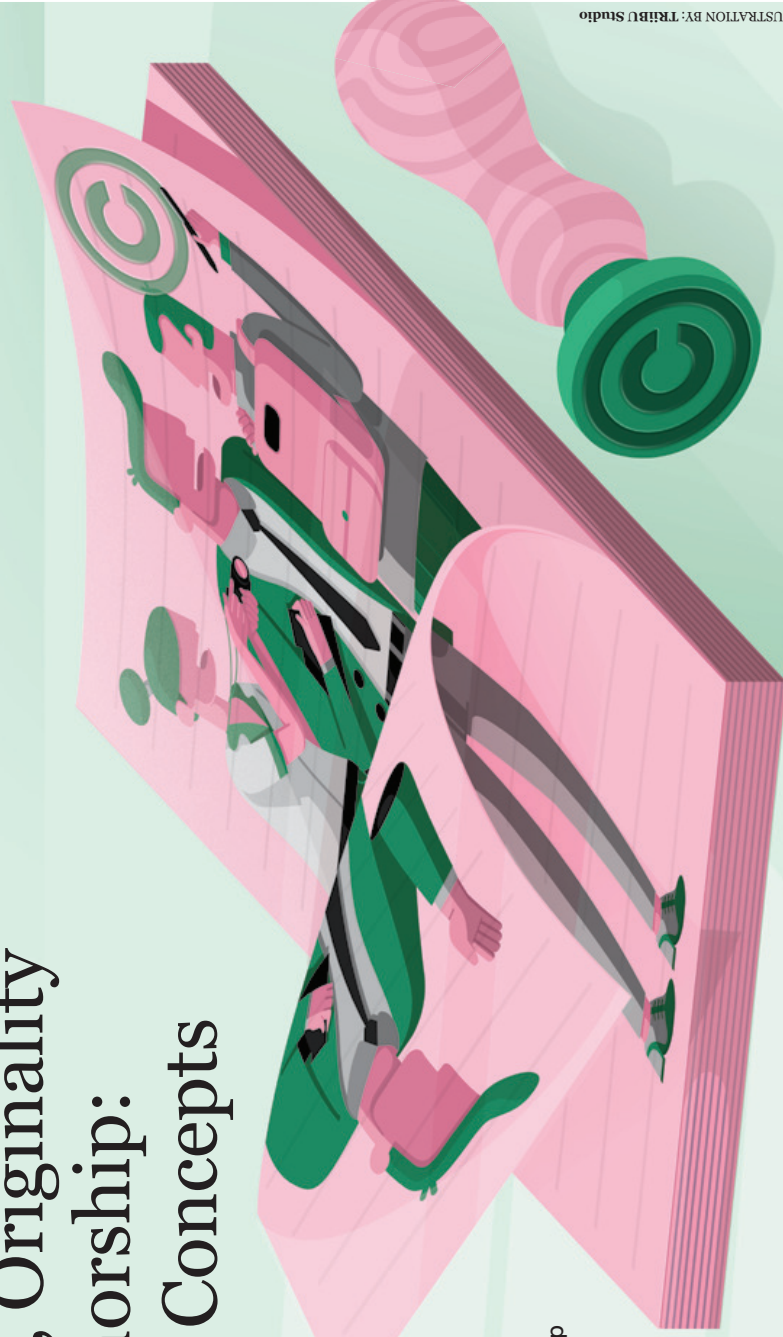
In his view, what defines plagiarism is the way cultures understand the notions of authorship and textual ownership. The ownership of text, he argues, is a western concept originated in the Enlightenment era, when there

was a shift from a mimetic, biblical, premodern paradigm, to a productive, modern way of thinking.<sup>4</sup>

In the premodern paradigm, individual creativity was attributed to a divine inspiration. As a result, literary work was unauthorised during this period. The Enlightenment replaced that point of view for a new one according to which “Imagination was no longer a mimetic capacity, but a productive force.” The humanist subject became “the centre of creativity,” that and the notion of property rights “produced an understanding of individual ownership of ideas and language. [...] This understanding of imagination is clearly closely tied to the development of the notion of the author,” Pennycook writes.<sup>4</sup>

According to him, the postmodern and post-structuralist positions on language, discourse, and subjectivity, raise serious questions for any notion of individual creativity or authorship. “If, instead of a Self or an Identity, we consider the notion of subjectivity, or indeed subjectivities (we are, in a sense, the fragmented products of different discourses), then we arrive at more or less a reversal of the speaking subject creating meaning: we are not speaking subjects but spoken subjects, we do not create language but are created by it.”<sup>4</sup> To Pennycook, the postmodernist view has moved from “the author owning and

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giving meaning to text to the notion that meaning is derived from the interaction with a text.<sup>33</sup>

Pennycook cites Richard Kearney to suggest that “Postmodernism casts a suspecting glance on the modernist cult of creative originality,” a kind of skepticism that points to the need to “reevaluate beliefs in originality and textual ownership.” He writes, “**There is a degree of hypocrisy in the defense of the culture of originality because postmodern understandings of language and meaning, by contrast, point to the possibility of little more than a circulation of meanings.**”<sup>34</sup>

### Digital Revolution

It was 1967, three decades before the beginning of the internet as we know today, when Roland Barthes wrote *The Death of the Author*. In his essay, the French literary critic argued that “All writing is itself this special voice, consisting of several indiscernible voices, and that literature is precisely the invention of this voice, to which we cannot assign a specific origin: literature is that neuter, that composite, that oblique into which every subject escapes, the trap where all identity is lost, beginning with the very identity of the body that writes.”<sup>35</sup>

Deceased in 1980, Barthes never came to know the World Wide Web and the technologies and collaborative tools now available that have made the boundaries of authorship so hazy. Traditional definitions of plagiarism are being challenged by the digital revolution, indicating perhaps an approximation with a postmodernist line of thought, and also with Barthes’ ideas about the changing concept of authorship.

What does it mean to be original in a society where the circulation of ideas and information is so intense and incessant? Consider, for example, a collaborative website like Wikipedia. If hundreds, or even

**What defines plagiarism is the way cultures understand the notions of authorship and textual ownership.**

thousands of people are contributing to write a more accurate, complete article about a specific subject, who is the author of that? And beyond that, does it matter? Couldn’t it be that the sum of individual contributions is creating something richer and better?

For researchers Evering and Moorman, easy access to massive amounts of information are making policing for ownership of ideas nearly impossible. “**This situation has caused the current millennial generation to see knowledge ownership, acquisition, and distribution in radically different terms than in previous generations.**” Clearly, academia is past due in reevaluating the concept and how we deal with it in secondary and higher education.<sup>36</sup>

They argue that, since much of the content on the internet is free, in their lives outside of school it is second nature for millennials to download, copy, and paste. “Their concept of ownership is different from the one their teachers and professors grew up with and have come to take for granted.” According to the researchers, additional analysis and definition of intellectual property is needed by both students and faculty.<sup>37</sup>

Another issue is the expectations and academic standards imposed on millennials. In assignments that emphasize creativity, innovation, and collaboration, it may be difficult to credit the original source. Also, as collaboration is becoming one of the most desired competencies for 21<sup>st</sup> century companies, students are highly encouraged to use tools such as wikis, social media and document sharing and editing platforms. “Web 2.0 tools designed to foster digital literacy and socially constructive online learning experiences have altered conventions and cultural norms for writing,” say Evering and Moorman.<sup>38</sup>

### Ideological Arrogance?

There are also cultural considerations to be made. The emphasis on creativity and authorship typical of the West is not followed in many cultures around the world, especially in Asian nations, where knowledge can be seen as a shared property rather than an individual possession (see infographic on page 24).

Students that come from these cultures to attend western universities often struggle to understand very different concepts and rules about academic integrity, since the modernist interpretation of textual ownership is still eminent in western academia, with an emphasis on individual ownership of text and the need for attribution.

Hong Jian, a researcher from Xishuangbanna Vocational & Technical Institute, compares learning styles of American and Chinese students in a paper called *A Contrastive Study of Cultural Diversity of Learning Styles between China and the United States*.<sup>39</sup> He concludes that “Due to cultural diversity, Americans [...] emphasize the pragmatism of the knowledge, but to some extent, the result of teaching and learning styles lead to lack of systematical knowledge. In contrast, owing to the deep-rooted influence of Confucianism for thousands of years, harmony,

unity, and hierarchy are important considerations for Chinese students in the process of learning. Its teaching puts more emphasis on transmission of systematical knowledge, ignoring the cultivation of creativity and innovation,” he explains.

In order to reduce the number of violations due to unintentional cheating, institutions should develop specific policies and support mechanisms for foreign students. It is important that faculty is flexible and understands that they come from a different sociocultural environment, and teach them writing techniques so that they know how to put into practice a new interpretation on integrity, as opposed to criticizing or invalidating their knowledge, learning style or educational experience.

Deriding other cultures for their supposedly imitative cultural practices may be a form of ideological arrogance, as Pennycook points out. “**The important point here is that whereas we can see how the notion of plagiarism needs to be understood within the particular cultural and historical context of its development, it also needs to be understood relative to alternative cultural practices.**”

Defining what it means to act with integrity in academia might become more and more challenging as the world turns increasingly globalized and digital. What we know for sure is that institutions will need to strive to understand the needs and conceptions of the incoming student generations. It may be time to rethink some of the western notions of textual ownership, and look at the collaborative world that is emerging from a refreshed and more flexible point of view.

### SOURCES

1. Von Goethe, J. W. (2013). Maxims and reflections. Retrieved August 30, 2017, from <http://www.philaletheins.co.uk/study-notes/living-the-life/goethe-s-maxims-and-reflections.pdf>
2. International Center for Academic Integrity. (n.d.). About Integrity. Retrieved August 28, 2017, from <http://www.academicintegrity.org/ical/integrity-1.php>.
3. Introna, L., Hayes, N., Blair, L., & Wood, E. (2003, August). Cultural attitudes towards plagiarism: developing a better understanding of the needs of students from diverse cultural backgrounds relating to issues of plagiarism. Retrieved August 29, 2017, from [http://www.bing.com/cr?IG=870A63B2E5E24664820D45C54109991&CID=338718CE093A6AFD0D221223033C6B51&rd=1&rh=A+Oho-FyZojNcNOAMwbYWU\\_aeFsdIV-BmGMZ0h-BoNg&v=1&rh=http%3a%2fwww.idt.mdh.se%2fzkuser%2fcomputing%2fIDA403%2fVA403-2012%2fLectures%2fBorrowing%2fOwnershipPlagiarism.pdf&p=DevEx.5062.1](http://www.bing.com/cr?IG=870A63B2E5E24664820D45C54109991&CID=338718CE093A6AFD0D221223033C6B51&rd=1&rh=A+Oho-FyZojNcNOAMwbYWU_aeFsdIV-BmGMZ0h-BoNg&v=1&rh=http%3a%2fwww.idt.mdh.se%2fzkuser%2fcomputing%2fIDA403%2fVA403-2012%2fLectures%2fBorrowing%2fOwnershipPlagiarism.pdf&p=DevEx.5062.1).
4. Pennycook, A. (1996). Borrowing Others Words: Text, Ownership, Memory, and... Retrieved August 29, 2017, from [http://www.bing.com/cr?IG=870A63B2E5E24664820D45C54109991&CID=338718CE093A6AFD0D221223033C6B51&rd=1&rh=A+Oho-FyZojNcNOAMwbYWU\\_aeFsdIV-BmGMZ0h-BoNg&v=1&rh=http%3a%2fwww.idt.mdh.se%2fzkuser%2fcomputing%2fIDA403%2fVA403-2012%2fLectures%2fBorrowing%2fOwnershipPlagiarism.pdf&p=DevEx.5062.1](http://www.bing.com/cr?IG=870A63B2E5E24664820D45C54109991&CID=338718CE093A6AFD0D221223033C6B51&rd=1&rh=A+Oho-FyZojNcNOAMwbYWU_aeFsdIV-BmGMZ0h-BoNg&v=1&rh=http%3a%2fwww.idt.mdh.se%2fzkuser%2fcomputing%2fIDA403%2fVA403-2012%2fLectures%2fBorrowing%2fOwnershipPlagiarism.pdf&p=DevEx.5062.1).
5. Evering, L. C., & Moorman, G. (2012). Rethinking Plagiarism in the Digital Age. *Journal of Adolescent & Adult Literacy*, 56(1), 35-44. doi:10.1002/jaal.00100
6. Barthes, R. (n.d.). The Death of the Author. Retrieved August 30, 2017, from <https://writing.upenn.edu/~rbarasky/Barthes.pdf>.
7. Jian, H. (2009). A Contrastive Study of Cultural Diversity of Learning Styles between China and the United States. *International Education Studies*, 2(1). doi:10.5539/ies.v2n1p163.