Handbook of Research on Ethics, Entrepreneurship, and Governance in Higher Education

Suja R. Nair
Educe Micro Research, India

José Manuel Saiz-Álvarez
EGADE Business School, Tecnológico de Monterrey, Mexico
Chapter 1
Plagiarism and Ethical Issues: A Literature Review on Academic Misconduct

Bernard Montoneri
National Chengchi University, Taiwan

ABSTRACT
This chapter discusses the literature on plagiarism and aims at helping readers better understand what plagiarism is, what is at stake, and how to fight intellectual dishonesty. First, it is essential to define plagiarism and to present the historical background related to academic malpractice. Since the advent of the internet, the number of cases of plagiarism has increased exponentially. Many websites overtly encourage acts of cheating and plagiarism, offer or sell programs designed to copy, generate, and even buy assignments and academic papers. The growing number of retracted documents, not only in open access journals but also in journals owned by major publishers, is disturbing. This chapter will notably discuss the rise and thrive of “predatory” publishers, the growth of fake papers, the abuse of fake positive peer review, and the disturbing success of contract cheating. Finally, it should be noted that even though academic malpractice is damaging the reputation of the scientific community, many solutions have been proposed and implemented.

INTRODUCTION
There are many of types of academic dishonesty, such as cheating (the cheater copies or asks someone else to write any form of work or publication), contract cheating (the cheater pays someone else to do it), bribery (money, goods, or services in exchange for a favor, such as a good grade or a positive review), misrepresentation (to deceive someone for academic advantage), conspiracy (to create or alter experimental data; to cite references which are not actually used; to plan to do something unlawful), disruptive behavior (online and in the classroom), etc. This chapter cannot be an exhaustive presentation of all types of academic misconduct; it chooses to focus on plagiarism (in academia) and on the rise of contract cheating (among university students). This might concern and interest university professors,
Plagiarism and Ethical Issues

educational institutions, administrators, ministries of education and research, students in the case of contract cheating, as well as graduate students and young scholars around the world.

According to Jinha (2010), from the first modern journal published in France in 1665 to 2009, 50 million papers have been published in the world. Ware & Mabe (2015) state that around 2.5 million papers are published every year. By the end of 2014, there were roughly 28,100 active scholarly peer-reviewed English-language journals and 6450 non-English-language journals. Most articles are published in the US (23%), China (17%), the UK (7%), Germany (6%), Japan (6%), and France (4%). The United States still leads for the number of citations (36%).

Paradoxically, some scholars complain that the explosion of the number of publications, which is set to double every nine years (Bornmann & Mutz, 2015), results in the “narrowing of science and scholarship”, that is, articles referenced tend to be more recent, fewer journals and articles are cited, and a larger number of their references cite fewer journals and articles (Evans, 2008). Journals generally encourage scholars to cite the most recent literature in the field and the older literature is often neglected. Moreover, some argue that a large number of papers are read only by their authors, reviewers and editors or never cited by other authors (Hamilton, 1990; Schwartz, 1997; Collins, 2004; Meho, 2008). The debate is not new and many researchers argue about these results, which seem to be overestimated (Pendlebury, 1991; Garfield, 1998; Van Dalen & Henkens, 2004; Lariviere et al., 2008). One might also contest these results because these studies are relatively old and do not take into account the recent growth of platforms such as Academia.edu, which has 57 million registered users (Academia, 2017) and ResearchGate, which has 11 million users and 2.5 million research items shared on the site every month (Satariano, 2016), where scholars can share their research and publications for free with a worldwide audience; however, following threats of legal action by a coalition of publishers including Elsevier, ResearchGate is forced as to November 2017 to remove around 1.7 million copyrighted papers from the German platform (Oxford, 2017).

Some might argue that the pressure by academic institutions to “publish or perish” emphasizes quantity (pressure to publish a lot) as well as quality (pressure to publish in reputable journals indexed in renowned databases), and that the increased competition amongst scholars has numerous side effects (Colquhoun, 2011; Osterath, 2014; Jacob, Rzhetsky, & Evans, 2015; Chen, 2015). The career of a scholar depends more and more on his/her ability to publish. University faculty is increasingly pressured to attend conferences, write books, and publish articles in international journals with a high impact factor. The fact that “universities and governments would use the ranking of the journal (based on stated or revealed preference) as a proxy for the quality and impact of an academic’s articles” is disturbing. Many studies have demonstrated that highly-cited papers can be published in lower-ranked journals and that a large number of articles published in journals with impact factor are unable to gather citations (Harzing, 2011).

...both administrators and the management discipline will be well served by efforts to evaluate each article on its own merits rather than abdicate this responsibility by using journal ranking as a proxy for quality (Singh, Haddad & Chow, 2007, p.319).

Moreover, journal ranks and citations should be taken with caution, not only because they are “subject to many forms of error” (Harzing, 2011), but also because cases of plagiarism are increasing rapidly and scandals do not spare major publishers, such as Elsevier, Springer, Taylor & Francis, SAGE, Wiley, and Informa (Cohen et al., 2016; McCook, 2016).
Plagiarism and Ethical Issues

Oransky (2015) makes a list of the most cited among known retracted journal papers. Number one on the list is Fukuhara et al. (2005), which is, according to the number of citations from journals indexed by Thomson Scientific, cited by 243 before retraction (2007) and 915 after. Oransky (2015) shows that all the most cited papers are in the fields of medicine and biology (notably in renowned journals such as Science and The Lancet). It is worrisome as results may have a huge impact on the public’s health. It also shows that, even though retracted, these papers gain more and more popularity and their results are widely shared. According to McCook (2015), retracted papers continue to accrue citations: for example, “half of anesthesiologist Scott Reuben’s papers have been cited five years after being retracted, and only one-fourth of citations correctly note the retraction.” Massachusetts anesthesiologist Reuben spent six months in prison after many of his papers were proven to contain fabricated data.

It is difficult to find data on plagiarism by country and by field. However, Fast Company (2014) reports that Science mined data from the online repository arXiv (pronounced “archive”—open access to more than 1.3 million e-prints in science, including Physics, Mathematics, Computer Science, Engineering and Economics) and published the results. An automated program compared new articles submitted (in the field of science) to all the other papers in arXiv’s database, ruling out self-citations and text properly quoted. On 767,000 papers published between from 1991 to 2012, one in 16 authors had copied from their previous papers or from other authors’ articles. The authors of this study (Citron and Ginsparg, 2014) notably state: “We discovered significantly higher rates of text reuse specifically in computer science articles published in predatory open-access journals (articles largely received after the mid-2012 timeframe of the dataset analyzed here).” According to the study, 1,236 out of 26,052 authors were flagged in the U.S., 297 out of 9,201 in Germany, 164 out of 1054 in Iran, and 688 out of 6,372 authors in China (Fast Company, 2014).

Plagramme (2018) provides statistics on plagiarism by country in the USA and in Europe. Austria has the lowest plagiarism score at 8.4 and Russia the highest at 38.2. By comparison, Great Britain has a score of 10.8 and France of 14.3. According to the plagiarism checker company, scores are updated daily. In the US, plagiarism statistics vary considerably in all of the states from 6.4% in Vermont and 6.7% in Wisconsin to 21.8% in Texas and 24.2% in Louisiana (as to February 11, 2018).

Important scientific questions and controversial topics are discussed in published articles and the fact that an increasing number of studies are retracted (at least 700 per year) because of academic malpractice is alarming. According to Citron & Ginsparg (2015), 15% of submissions contain “duplicated material” in some countries. Trust in the scientific literature is at stake. Honesty, accountability, professional courtesy and fairness are the principles of scientific research (Resnik & Shamoo, 2011). Even though academic malpractice is not new (Charles Babbage was already complaining about hoaxes, forgeries, data trimming, and “cooking” in the 19th century; Babbage, 1830), the increase in the number of “scholars” who try to exploit the system must be dealt with more efficiently.

This chapter presents various definitions of plagiarism and types of plagiarism, followed by a short historical background and information on the origins of copyright. Then, it discusses various problems and issues related to plagiarism, such as the effectiveness of detection software, the growing number of predatory publishers and journals, the use of fake positive peer-review, and the disturbing trend to pay someone to write an essay or a paper (contract cheating).

Below is a thought provoking quote by famous British essayist, publisher, playwright, and literary critic Thomas Stearns Eliot:
One of the surest of tests is the way in which a poet borrows. Immature poets imitate; mature poets steal; bad poets deface what they take, and good poets make it into something better, or at least something different. (Eliot, 1920, 114)

DEFINITION OF PLAGIARISM

According to the Merriam-Webster Online Dictionary (2017), to plagiarize means “to steal and pass off (the ideas or words of another) as one’s own: use (another’s production) without crediting the source.” According to Stanford University (2012), plagiarism is the ‘use, without giving reasonable and appropriate credit to or acknowledging the author or source, of another person’s original work, whether such work is made up of code, formulas, ideas, language, research, strategies, writing or other form.’ Generally, plagiarism involves stealing and deception. However, Meuschke & Gipp (2013) consider that plagiarism is not necessarily theft as it is not always intentional. Plagiarism is often the result of the lack of proper citation. Fishman (2009, p.5) proposes an interesting definition of plagiarism based on the following concepts summarized and cited below:

1. The actus reus (conduct which is a constituent element of a crime) includes three elements:
   a. “Uses words, ideas, or work products”
   b. “Attributable to another identifiable person or source”
   c. “Without attributing the work to the source from which it was obtained”
2. Distinction between plagiarism and speech-writing or legitimate re-purposing of words and information:
   d. “In a situation in which there is a legitimate expectation of original authorship”
3. The mens rea (intention of wrongdoing that constitutes part of a crime):
   e. “In order to obtain some benefit, credit, or gain which need not be monetary.”

There are various types of plagiarism:

- The most basic and therefore the easiest to detect would be the “copy & paste” type (literal plagiarism), that is when a student or a scholar copies word for word an author’s text and takes credit for it without proper citation (Weber-Wulff, 2011).
- Disguised plagiarism means that the plagiarist made some effort to hide the fact that the text was copied by making some alterations (Lancaster, 2003).
- Shake & Paste means collecting paragraph from various sources. Weber-Wulff (2010) called it “mosaic plagiarism”.
- Paraphrasing is the intentional rewriting of someone else’s ideas, thoughts or research methods without acknowledging the source (Lancaster, 2003). It is close to idea plagiarism (Maurer et al., 2006).
- Plagiarism by Translation means that the plagiarist translates a writer’s work in another language and takes credit for it (Weber-Wulff, 2010).
- Technical disguise when someone exploits weaknesses of detection softwares to make content difficult or impossible to detect (Heather, 2010).
Plagiarism and Ethical Issues

• Self-plagiarism means that the author of a work reuses his own published findings to produce a “new” publication (Bretag & Mahmud, 2009). One may re-publish a work on the condition that it is justified and acknowledged and as long as the objective is not to artificially increase one’s citation count (Collberg & Kobourov, 2005).

• Cryptomnesia, or unconscious plagiarism (Marsh, Landau, & Hicks, 1997; Marsh, Ward, & Landau, 1999). For example, Brown & Murphy (1989) showed that cryptomnesia occurred in 3 to 9% of cases, that is, participants unconsciously plagiarized responses.

The Committee on Publication Ethics (COPE) was founded in 1997 as a voluntary body; it provides advice as well as guidelines for scientific editors (COPE, 1999). In some cases, it is the choice of an academic journal to decide what constitute self-plagiarism: for example, when an author participates to a conference (oral presentation), he/she then may submit a conference article (proceedings). On the condition that the proceedings are not peer-reviewed and that the author has the accord of the conference organizers, the same article might be submitted to an academic peer-reviewed journal. Many organizations hold conferences and have academic journal related to these conferences. Authors should acknowledge in their paper that the conference article has been published in the proceedings first, then submitted and peer-reviewed. If the organizers are aware of it and agree, there should not be any problem. Obviously, some corrections and changes are made to improve the quality of the article. Nowadays, many journals require the author to make substantial changes (for example, the article and the journal paper could be 30% different). But it is left at their discretion. Here is what the Code for the Responsible Conduct of Research at James Cook University (Australia) states about multiple submissions and republishing:

It is not acceptable to include substantially the same research findings in several publications, except in particular and clearly explained circumstances, such as review articles, anthologies, collections, or translations into another language. An author who submits substantially similar work to more than one publisher, or who submits work similar to work already published, must disclose this at the time of submission. Researchers must take all reasonable steps to obtain permission from the original publisher before republishing research findings. (James Cook University, 2017)

The Institute of Electrical and Electronics Engineers (IEEE) states that “Conference papers cannot simply be republished without significant differences. The meaning of “significant” is left at the discretion of the Editor. There is no quantitative threshold in determining whether the differences are significant.” (IEEE Transactions in Wireless Communications, 2017).

However, to maintain academic integrity, if an article has already been published in a journal, then it should not be presented at a conference and surely not submitted to the proceedings. Of course, papers should not be presented at two or more conferences or submitted to two or more journals. It should be also noted that academics prefer to resubmit their work to a peer-reviewed journal, especially with an impact factor because almost all institutions require this type of publication when applying for tenure and promotion. In the end, one must contact the publisher and the editor and obtain their authorization first. As long as they know and agree, there is no problem. Plagiarism is about misleading and deceiving people (Bretag & Mahmud, 2009).
Plagiarism and Ethical Issues

HISTORICAL BACKGROUND AND ORIGINS OF COPYRIGHT

The English term plagiary comes from Latin plagiarus. It was introduced during the early 17th century, notably by British playwright and literary critic Ben Jonson (1572-1637) in 1601 to describe someone guilty of literary theft (Valpy, 2005). The etymology of the Latin word is interesting and worth mentioning: plagiarus originally meant ‘kidnapper’, and plagium, ‘kidnapping’. The term comes from Indo-European root -plak (“to weave”).

The first known act of plagiarism is mentioned by Roman poet from Hispania (modern Spain) Marcus Valerius Martialis (circa 41-104 AD). Martial was one of the greatest epigrammatists and in one of his epigrams, he complained quite clearly and overtly about a certain Fidentinus who, according to him, was reciting his work without acknowledging the authorship:

“Fame has it that you, Fidentinus, recite my books to the crowd as if none other than your own. If you’re willing that they be called mine, I’ll send you the poems for free. If you want them to be called yours, buy this one, so that they won’t be mine” (Martial Epigrammata 1.29 cited by Anderson, 2006, p.119).

Jean Baptiste Timothée Baumes (1756-1828), teacher and clinician, famous for his work on pediatric neurology, accused a certain François Bidault of plagiarism. Baumes wrote in the second edition of his book that Bidault’s 1804 thesis submitted for the MD degree at the University of Paris plagiarized his work (Bidault, 1804; Hansen, 2000).

Plagiarism and copyright infringement are two different issues, even though they are often overlapping since modern times. Plagiarism constitutes a false claim of authorship while copyright infringement is the “unauthorized use of copyrighted material, such as text, photos, videos, music, software, and other original content.” (The Tech Terms Computer Dictionary, 2017). A major difference between the two is that a copyright “[…] infringer is not relieved of liability by crediting the source or the creator of the infringed work” (TheFreeDictionary by Farlex, 2017). The British Statute of Anne 1710 is considered to be the first copyright statute. It was passed by the Parliament of Great Britain in 1710 during the reign of Anne (Queen of Great Britain and Ireland from 1707 onwards) and concerned almost exclusively the government and courts.

Interestingly, the word ‘plagiary’ became an entry in a dictionary for the first time only in 1755. English writer Samuel Johnson (1709-1784) created one of the most authoritative and influential dictionaries of the English language: A Dictionary of the English Language, in which he defines a ‘plagiary’ as “a thief in literature; one who steals the thoughts or writings of another” (Johnson, 1755, p.1510).

The collective administration of rights in creative works has its origins in the 18th century. French playwright Pierre Augustin Caron de Beaumarchais (1732-1799) wrote a response to the under-remunerated use of his work by the Comédie Française (the oldest still-active theatre in the world, founded in 1680) in 1777. Twenty-two French other authors joined Beaumarchais. Actors were all-powerful and authors’ complaints had so far always been ignored, but Beaumarchais had connections, such as the Minister of the Royal Household, Antoine Jean Amelot de Chaillou (1732-1795), the Duke de Duras, one of the First Gentlemen who governed the Comédie Française (who wanted to end the never-ending author-theater conflicts), and the Count de Maurepas, first minister to Louis XVI. Beaumarchais complained about the poor remuneration he received for the performance of his comedy “The Barber of Seville” (1775), which was a commercial success. According to Brown (2006), the Comédie Française had a monopoly because it was the only royal theater authorized to perform plays in Paris and Versailles, but it “offered no juridical, institutional or financial framework to support young playwrights in their efforts.” However, Beaumarchais and his colleagues’ action led to revolutionary changes: in 1791, Louis XVI ratified the
Plagiarism and Ethical Issues

first law on authors’ rights. This is the first time the notion of authors’ rights was recognized anywhere in the world.

Finally, it should be noted that all works written and published before the 20th century are now in the public domain; therefore, they are not copyrighted anymore. In most countries, for literature, the length is between 50 and 70 years after the death of the author. But still, these works must be cited properly to avoid plagiarism.

PLAGIARISM DETECTING SOFTWARES

A large number of detection software has been commercialized (many are free though) to fight plagiarism and other forms of academic misconduct. Plagiarism detection systems such as Ephorus Suite, written by Ephorus; MyDropBox/SafeAssign, developed by Blackboard; Turnitin, created by iParadigms, LLC; and Urkund, by PrioInfo AB, search websites as well as previously received submissions (Scaife, 2007; Heather, 2010).

This part of the study discusses the literature on the efficiency of Turnitin, the most popular commercial anti-plagiarism software. It employs more than 300 people globally; the software is used by about 26 million students and instructors in 15,000 institutions and has processed more than 500 million submissions (Turnitin, 2017).

Turnitin may detect plagiarism better than manual methods (Jocoy & DiBiase, 2006); generally, faculty and students alike agree that the detection software is useful, that it saves time and that it helps fight plagiarism (Sheridan, Alany, & Brake, 2005; Heikes, 2006; Williams, 2007; Dahl, 2007). Turnitin can be considered a deterrent as it lowers the number of cases of plagiarism when people are informed that the software will be used to check their work (Cheah & Bretag, 2008; Davis & Carroll, 2009; Batane, 2010). However, Jones (2008) considers that it is only a text-matching system and that human intervention is necessary, that is, teacher or peers should verify whether an assignment or a paper is really a case of plagiarism.

While the word “plagiarism” is quickly associated with cheating, the issue is clouded not only by whether or not a student intended to steal the words of another, but also by the limits of anti-plagiarism technology and how it is used. (Stapleton, 2012)

Stapleton (2012) indeed expresses the feeling that the data generated by Turnitin are only a starting point and that they need interpretation by a peer or by an instructor. Howard (2007) and Purdy (2009) have concerns on the design of Turnitin’s digital archives and Walker (2010) notes that rates of plagiarism are still high despite the use of detection software. Moreover, these systems of detection contain loopholes that need to be fixed (Heather, 2010).

‘PREDATORY’ PUBLISHERS AND JOURNALS

Jeffrey Beall, a research librarian and an associate professor at the University of Colorado, Denver, is suspicious and critic of the open access publishing movement (Beall, 2012a). He coined the expression ‘predatory open access publishing’ in 2010 (Butler, 2013). He compiled a blacklist on his blog entitled
Plagiarism and Ethical Issues

Scholarly Open Access (https://scholarlyoa.com) of what he considered to be predatory journals, which grew to list 1,155 publishers in 2014 (Bloomberg, 2017). He also proposed criteria for determining predatory open-access publishers (Beall, 2012b). For example, “The journal falsely claims to have an impact factor, or uses some made up measure”, “The publisher provides insufficient information or hides information about author fees”, and “No single individual is identified as the journal’s editor.” (Beall, 2012b, pp.1-2) Predatory journals can therefore be defined as publications released by companies, which seem to be rather opaque about their ownership and fees (authors are often surprised to learn before publication that they must pay a fee), and which provide little to no peer-review for articles submitted. The term ‘pseudo-journals’ has also been proposed (McGlynn, 2013). One of the many issues is that these companies are profit-making while authors, editors and reviewers are unpaid. The other main issue is that their deception undermines the trust in academic publishing. The number of predatory conferences is growing fast as it seems to be a very profitable business. The open-access predator market generates $74 million. By comparison, reputable open-access journals generate $244 million and traditional journals $10.5 billion (Shen & Björk, 2015). The number of publication volumes released by predatory journals has grown from 53,000 in 2010 to 420,000 articles in 2014, published by around 8,000 active journals (Shen & Björk, 2015).

In 2016, the Federal Trade Commission (an independent agency of the United States government) filed a lawsuit against the OMICS Group, iMedPub, ConferenceSeries, and Srinubabu Gedela, stating that they were “deceiving academics and researchers about the nature of its publications and hiding publication fees ranging from hundreds to thousands of dollars.” (Federal Trade Commission, 2016) Jeffrey Beall has been criticizing OMICS Group for years (Bloomberg, 2017). While some scholars applaud Beall’s efforts to reveal opaque publishing practices, others, such as Phil Davies (Davies, 2013) and Wayne Bivens-Tatum (Bivens-Tatum, 2014) also criticize Beall’s approach, which is often based on generalizations with sometimes no supporting evidence. Butler (2013) notes that many publishing companies on Beall’s list, such as The Canadian Center of Science and Education, are threatening to sue him for alleged defamation and libel.

Cited by Butler (2013), Jan Velterop, a former science publisher at Nature Publishing Group, highlights one of the many consequences of blacklisting journals: it could damage their reputation if “a damning verdict is given to otherwise honest, though perhaps amateurish, attempts to enter the publishing market.” New journals need time to grow and learn the rules of academic publishing. It would be unfair as well as damaging to blacklist a team of scholars who try to create a new journal and to compare it with ancient and well-established journals. That is, one has to be careful not to “discriminate [against] publishers and journals from other parts of the world… [which] may have yet to polish their websites, editorial boards and peer-review procedures.” (Butler, 2013)

Some scholars might feel deceived by these predatory journals for many reasons: one could complain about the flood of bad surprises that might follow the submission of a paper, such as receiving some kind of ultimatum (pay or your paper won’t get published: “To my horror, I opened the file to find an invoice for $2,700!”; Butler, 2013), and often much worse, such as learning that the journal is blacklisted by academic institutions, which can potentially ruin a scholar’s reputation and chances for tenure and promotion. Moreover, there are reports of predatory publishers refusing to let authors withdraw their papers, that is, if a scholar realizes that a journal is blacklisted and feels deceived, he/she cannot retract and submit to another journal (McCook, 2016; Molteni, 2016).

However, it should be noted that many authors know that these publishers are predatory and play the game, that is, submit a low-quality article with little to no academic contribution for a fee and expect it to...
be accepted in a matter of days or weeks: in that case, “the relationship is more a new and ugly symbiosis than a case of scholars being exploited by predators.” (The New York Times, 2017)

Shen & Björk (2015) already acknowledged that scholars are not always tricked; they are often taking a calculated risk, hoping that nobody will notice, because, most of the time they cannot handle the ‘publish or perish’ culture of their institution:

The universities or funding agencies in a number of countries that strongly emphasize publishing in ‘international’ journals for evaluating researchers, but without monitoring the quality of the journals in question, are partly responsible for the rise of this type of publishing. (Shen & Björk, 2015)

There are of course many ways to fight these predatory publishing companies: warnings are issued in academic journals, in editorials of scholarly journals (Clark & Smith, 2015) and universities edit a blacklist of predatory journals. However, many propose to create a ‘white list’, instead of a negative ‘blacklist’, that is encouraging journals to implement rigorous ethical publication standards to win a place on the list. Since 2014, the Directory of Open Access Journals (DOAJ) has imposed much stricter criteria for inclusion (Van Noorden, 2014). Gasparyan et al. (2017) propose various solutions, such as “inviting experts in publication ethics, statistics, language, and design to serve as in-house journal quality evaluators.”

Recently, on January 15, 2017, Beall took down his blog and his faculty page at the Auraria Library. The site scholarlyoa.com is still online, but empty (Oransky, 2017). Straumsheim (2017) notes that “Lacey E. Earle, vice president of business development for Cabell’s International, said on Twitter Tuesday [January 17, 2017] that Beall “was forced to shut down [the] blog due to threats and politics.” A spokesperson for the company said the information came from Beall, but that it was all he told them.

A spokesperson for the University of Colorado, Denver, issued the following statement:

Jeffrey Beall, associate professor and librarian at the University of Colorado Denver, has decided to no longer maintain or publish his research or blog on open-access journals and ‘predatory publishers,’” the spokesperson said. “CU Denver supports and recognizes the important work Professor Beall has contributed to the field and to scholars worldwide. CU Denver also understands and respects his decision to take down his website scholarlyoa.com at this time. Professor Beall remains on the faculty at the university and will be pursuing new areas of research. (Straumsheim, 2017)

However, in his paper published in Biochemia Medica, Beall explains why he decided to close his blog: “facing intense pressure from my employer, the University of Colorado Denver, and fearing for my job, I shut down the blog and removed all its content from the blog platform.” (Beall, 2017b). Then, Shea Swauger (Beall’s direct supervisor and head of researcher support services at the University of Colorado-Denver’s Auraria Library) published an answer to Beall (2017b), insisting that “At no time did I pressure Beall to discontinue his work, or threaten his employment because of his work. In fact, I did everything I could to support his ability to research and publish, and would continue to support him should he decide to publish his blog and website again” (Swauger, 2017). Swauger has a point when she says: “Just because something was published in a predatory journal doesn’t mean that it’s false or poor research. Just because something was published in a prestigious closed-access journal doesn’t mean that it’s true or excellent” (Swauger, 2017). The present chapter may remind readers that renowned closed-access journals have had their fair share of scandals, notably related to plagiarism issues, fake data, fake
papers, fake positive peer-review, and so on. Beall lost allies, not only because of his generalizations (Davies, 2013; Bivens-Tatum, 2014), but also “by casting researchers and their universities as victims of rapacious publishers” (Basken, 2017).

Beall not only lost allies over the years, but made powerful enemies. According to Basken (2017), the immediate reason why the librarian closed his blog is linked to Frontiers Media: in October 2015, Beall added Frontiers to his list of predatory publishers. Frontiers Media SA is a publisher of peer-reviewed open access journals based in the Lausanne campus, Switzerland; it is notably active in science, technology, and medicine. Of course, several cases show that Frontiers Media has sometimes badly handled the retraction of various highly controversial papers (Basken, 2017). However, again, Beall fell to generalizations and blacklisted the entire group, which is a member of COPE, The Open Access Scholarly Publishers Association (OASPA), and the Directory of Open Access Journals (DOAJ). Frontiers received the Gold Award for Innovation in Publishing in 2014. Frontiers’ executive editor in charge of open-access journals, Frederick Fenter, personally went to the University of Colorado in 2015 and demanded an investigation of Beall (Basken, 2017). The university opened a research misconduct case against him in 2016. After several months, the investigation ended with no findings, but left Beall unwilling to maintain his blacklist online.

Of course many regret the closure of Beall’s blog, including Basken (2017), who reminds readers that the problem is left unresolved: “Universities still have a long way to go to create systems for researchers to share and collaborate with one another, evaluate one another’s work, and get credit for what really matters in research.” As to Beall, he did not stop being an advocate for publication ethics; he was a keynote speaker at a conference organized by Mendel University in Brno in May 2017. He presented the current state of predatory journals and publishers and new methods of defeating plagiarism detection, even though he acknowledges that “higher education institutions continue to grant credit for work published in predatory journals, including plagiarized work” (Beall, 2017a, p.7). Moreover, various webpages have been created online to continue Beall’s legacy. An iteration of Beall’s blog has been archived at this address: https://beallslist.weebly.com. The author states: “I am not Jeffrey Beall. I prefer my identity to be anonymous, largely for the reasons that Beall mentioned in his recent article (see here). However, I can tell you that I am a postdoctoral researcher in one of the European universities and have a hands-on experience with predatory journals.” Will scholars and institutions rely on a new iteration of the blacklist? It seems improbable, because the anonymous researcher acknowledges he/she will have little time to update the list (https://beallslist.weebly.com/contact.html). Another website was launched the same year (https://predatoryjournals.com/journals); it also archives Beall’s list but offers more updates. Anyone can email or contribute (create an issue or pull a request).

A new blacklist has been launched on June 17, 2017, by Cabell’s International, using 65 criteria to evaluate journals. Cabells visibly learned from Beall’s mistakes. Aside from calling journal ‘deceptive’, instead of the inflammatory and emotionally charged ‘predatory’, the company wisely makes the difference between deceptive journals and merely low-quality journals (which are not included on the blacklist). Another smart move is to include individual deceptive journals, not publishers. Journals may appeal and demonstrate their good faith. The company has four people who check journals’ claims. So far, the only problem is that the blacklist is accessible only by subscription: “Our initial plan was to offer it for free,” Ms. Berryman explained, “but as time and resources grew, we realized that wasn’t sustainable.” However, she said the company hopes that the list will be freely available one day.” (Gillis, 2017)
Beyond Plagiarism: Fake Papers and Peer-Reviews

Another example of academic misconduct is the submission (and publication) of fake papers and fake positive peer-review (Labbé & Labbé, 2013; Enago Academy, 2017). A particularly damaging new trend is the growth of computer-generated fake papers. According to The Guardian (Sample, 2014), three MIT graduate students (Jeremy Stribling, Dan Aguayo, and Maxwell Krohn) wrote a simple (sic) computer program to generate a paper (SCiGen, since 2005), which they submitted at a conference and got accepted (2005 World Multiconference on Systemics, Cybernetics and Informatics, WMSCI). The problem of course is that the program is available for free online (https://pdos.csail.mit.edu/archive/scigen). Davis (2009) used SCiGen and submitted a paper in January 2009 to The Open Information Science Journal (TOISCIJ). Davis writes that he received the following answer: “This is to inform you that your submitted article has been accepted for publication after peer-reviewing process in TOISCIJ. I would be highly grateful to you if you please fill and sign the attached fee form…” (US$800, according to Davis). One might argue that is a practical joke (obviously, when reading the author affiliation: The Center for Research in Applied Phrenology based in Ithaca, New York) and that it only concerns predatory journals ready to publish anything for a fee. However, there are more and more scandals involving fake papers being published by renowned journals: in 2014, publishers Springer (Germany) and IEEE (USA) retracted around 120 conference proceedings after Cyril Labbé, a French computer scientist, discovered that the articles, generated with SCiGen were nonsense (Van Noorden, 2014). In 2015, Springer retracted 64 papers from 10 journals, 107 in 2017 (McCook, 2017). Bioethicist Arthur Caplan considers that fabricated data and academic plagiarism are highly detrimental to the medical profession, it devalues legitimate science: “Publication pollution is corroding the reliability of science and medicine.” (Caplan, 2015) According to FastCompany (2015), Mark Shrime, a medical researcher pursuing a PhD in health policy at Harvard, made up a paper authored by Pinkerton A. LeBrain and Orson Welles and entitled “Cuckoo for Cocoa Puffs?”, using www.randomtextgenerator.com. 17 journals were ready to publish it, as long as the corresponding author accepted to pay a processing fee of $500. The so-called Journal of Food and Nutrition Sciences even edited the ‘paper’, which is available to read online (see Fast Company, 2015); of course, Shrime did not pay the fee…

Some scholars also take advantage of the fact that various publishers let authors propose the name of reviewers for their work. Sites such as retractionwatch.com are keeping track of cases of academic misconduct. Many papers have been published on this topic (Kowalczuk et al., 2015); they show that when authors are allowed to suggest reviewers, the chances of peer review fraud grow (Schroter, 2006; Bornmann & Daniel, 2010; Barbash, 2015). The first big scandal occurred in 2012 when Hyung-In Moon, a South-Korean “researcher”, was forced to admit he fabricated positive peer reviews for his study (he also acknowledged falsifying data…). Hyung-In Moon provided the editor of an academic journal with fake names and e-mail addresses created by him, so he or his friends would be able to review his own articles (COPE, 2016). As a result, Emilio Jirillo, the editor of Immunopharmacology and Immunotoxicology resigned and 20 of papers got retracted (Oransky, 2012). Since then, hundreds of articles have been retracted for the same reason. In 2013, the publisher Sage got suspicious and found out that Peter Chen, a Taiwanese engineer (then at the National Pingtung University of Education) was part of a peer review ring and that he had created various aliases on SAGE Track. As a result, SAGE Publishers decided to retract 60 articles from the Journal of Vibration and Control. The scandal had a tremendous impact on Taiwan political life as Taiwan’s Education Minister Chiang Wei-ling and Peter Chen co-authored many papers; Minister Chiang was then forced to resign in July 2014 (Oransky, 2014). In 2017, Springer
retracted 107 articles previously accepted with what happened to be fake peer reviews (McCook, 2017). Other types of malpractice have been reported since, such as using a fictitious account and having a review submitted under the name of a famous scholar without their knowledge.

THE RISE OF CONTRACT CHEATING

Contract cheating is a term coined in a study by Thomas Lancaster and Robert Clarke at the University of Central England in Birmingham (2006): “when a student gets a third party to do an assignment for them and then hands it in as their own work” (cited in Lancaster and Clarke, 2012).

Lancaster and Clarke acknowledge in a 2016 keynote presentation that the problem is far from being new. They demonstrate that contract cheating was observed on campus in the US in the 1950s; they also cite a paper written in the 1970s (Stavisky, 1973), as well as articles and advertising in university and national newspapers in the US, including one in the New York Times from July 1971 entitled “Market in Term Papers Is Booming” (Lancaster and Clarke, 2016).

The growth of contract cheating and hired ‘ghost-writers’ is alarming as more and more students pay other people to write their essays. Cheating has become an international and online profitable business (The Chronicle of Higher Education, 2016). This network of ‘consultancy’ services is a major threat to the scientific community. Obviously, the increasing number of online courses is followed by a bigger number of students cheating online and a growing number of cheating providers. Most students who are looking for an essay to buy online do it through a web search, by typing “essay,” “essay help”, “paper mill”, “ghost writing”, “student plagiarism”, or “write my essay”. According to The Chronicle of Higher Education (2016), “as many as half of the visits to some sites used for cheating come through search engines.”

Essay mills and contract cheating websites are growing fast (Wallace & Newton, 2014; Awdry, 2016). These providers “offer the services of a pool of experienced academic tutors to take classes and complete course work for our clients” (Newton, 2015). That is, for a fee, a company may provide a skilled and experience tutor who will assume a student’s identity and take one or many online classes in their place, guarantying he/she will pass, with a good score, without the need of learning and without attending online classes. These providers have very professional-looking websites, such as https://www.noneedtostudy.com. The founder, Oliver A. Warburg, holds a PhD and is proud to write in his short bio that he “has been tagged as of the most important disrupters of the education field.” The motto of the company seems to be a phrase written in big in the middle of their page: “Paying Someone To Take Your Online Courses For You Has Never Been easier!” (NoNeedToStudy.Com, 2017).

There are nowadays millions of students taking at least one online class. Many studies have been already published on this issue, such as Austin & Brown (1999), Lathrop & Foss (2000), and Walker & Townley (2012). Lancaster (2003) and Clarke & Lancaster (2006) define contract cheating as the successor of pure plagiarism and try to offer solutions on how to detect and prevent it. Clarke & Lancaster (2006) show that cheating is becoming a habit: “over half of the 236 cheaters have previously requested between two and seven pieces of work.” They also demonstrate that RentACoder, a US job outsourcing and freelance IT worker marketplace, can be used by students to do contract cheating. According to a research by Hosny & Fatimer (2014), 22% of the people interviewed admit that they have purchased assessments. Many students see the purchase of papers as a ‘business deal’ or ‘outsourcing’ (Lancaster & Clarke, 2016). According to Trushell et al. (2012, p.142), males ‘cheat’ more than females.
Newton (2015) points out that this trend is badly hurting online education credibility: “At least with a traditional degree, the assumption is the recipient actually went to class personally.” This is beyond cheating; this is about not even attending class and not passing exams anymore. There is another issue: companies might hire graduate students who are not competent and who did not actually acquire the skills they need to do their job, which could be disastrous and dangerous in some fields, such as healthcare (Oransky, 2011; New South Wales Government, 2013; The Telegraph, 2016). Finally, if students lack some basic virtues and values before they graduate, what might happen when they begin to do research? They won’t probably even try to plagiarize other researchers’ publications anymore. They will surely find it easier to pay someone to write papers on their behalf. It really puts Martial’s words into perspective: “If you want them to be called yours, buy this one, so that they won’t be mine” (see complete citation in the ‘historical background’ section of this chapter). According to Lancaster & Clarke (2016) and Newton & Lang (2016), text-matching softwares, such as Turnitin, are not reliable and cannot really detect contract cheating. One simple way to lower the risk of identity theft is to increase the number of face-to-face engagements online. More and more online college programs also require students to take tests in front of a web camera. Rigby et al. (2015) note that “purchase likelihoods and essay valuations decline as the probability of detection and associated penalty increase.” The main problem is that human labor to detect this type of cheating is limited and that anti-plagiarism services struggle to detect it. Ironically, most people writing essays for students are college graduates, Ph.D. students and independent writers; they are most of the time original authors and don’t plagiarize (Clarke & Lancaster, 2006; The Chronicle of Higher Education, 2016). As a matter of fact, most purchased assignments are of good or high quality (Lines, 2016). Some institutions try to block access to sites which help students cheat, but it is virtually impossible nowadays to prevent anyone from going online. If students cannot access sites at school, they will just do it somewhere else, using a smartphone or a laptop (The Chronicle of Higher Education, 2016). Tricia Bertram Gallant is a former president of the International Center for Academic Integrity (ICAI) at Clemson University. She believes that the key to fighting the problem is “faculty engagement” (The Chronicle of Higher Education, 2016).

According to recent figures, student cheating is disturbingly high in the UK: “close to 50,000 students have been caught cheating in the last three years in 129 UK universities.” (The Guardian, 2016). The newspaper also cites Geoffrey Alderman of the University of Buckingham: “What I’d call type-1 plagiarism, copying and pasting, is on the wane because it’s so easy to detect. But my impression is that type-2 cheating, using a bespoke essay-writing service, is increasing.” The Telegraph reported in July 2016 that “1,700 nursing students have been disciplined by their university over the last three academic years” for various reasons, such as “submitting essays commissioned from bespoke plagiarism websites, colluding with other students and even impersonating each other in exams” (The Telegraph, 2016). According to the newspaper, nursing students are notably targeted by a company in Pakistan called Nexus.

Very recently, Stern (2018) reported the extreme case of Vibroengineering, an engineering journal that retracted three papers published in 2016 because it was believed that these articles had been cited too many times. It raised suspicion because most of the citations came from papers presented at the 12th International Conference on Damage Assessment of Structures (July 2017, Kitakyushu, Japan) on which one of the authors, Magd Abdel Wahab, Professor and Chair of Applied Mechanics at Ghent University in Belgium, was the Chairman. It was considered too harsh because alleged citation manipulation (no formal proof so far in this case) is not a typical cause for retraction. Moreover, the editors acknowledged the academic contribution of the three papers, which were properly checked for plagiarism with iThenticate, peer-reviewed, and revised before publication. As a result, the publisher (JVE International) decided to republish the retracted papers in the Journal of Vibroengineering, in the February 2018 issue.
FUTURE RESEARCH DIRECTIONS

Academic misconduct is a vast topic, which encompasses a growing number of acts, essentially because of the advances in technologies and because of the design of new cheating computer programs. More damaging than the traditional and simple “copy-paste” plagiarism, certain practices can cause havoc, such as the manipulation of data, the use of invented or fraudulent data, the creation of software to generate papers, the online market of hired “professionals” and ghost-writers, etc. There is still little literature on these new phenomena.

The latest trend in academic misconduct is computer programs generating fake peer-review. Bartoli et al. (2016) propose a method for the automatic generation of scientific reviews and find that in around 30% of cases a generated review is considered genuine by the human subjects. Finally, as we saw, computer programs, such as SCIgen or others like Postmodernism Generator (which produces imitations of postmodernist writing), snarXiv (a parody of arXiv, which generates article titles and abstracts in physics), Mathgen (which randomly generates mathematics research papers), can produce papers which appear to be scholarly and might fool some reviewers and editors (Sample, 2014).

CONCLUSION

Although there were plenty of cases of plagiarism before the end of the 20th century, with the advent and extraordinary growth of the Internet, the number of cases and issues related to academic misconduct has increased rapidly (Meuschke & Gipp, 2013). Information technology has certainly made plagiarism much easier (Scanlon & Neumann, 2002; Howard, 2007; Heather, 2010). According to The Tech Terms Computer Dictionary (2017), modern technology “…makes it possible for one person to copy and republish content in a few minutes that may have taken another person several years to create.” However, some scholars demonstrate that students from traditional institutions don’t necessarily plagiarize significantly more than those from online institutions (Ison, 2014).

The conclusions drawn below can serve as pertinent and practical advice to editors:

The Senior Editor and the Executive Editor missed the totally inadequate quality of the reviews (box 2), the style of English, which was fairly unusual for two highly ranked professors of medicine in Ivy League US universities, and the suspiciously rapid response. Also the fact that they did not have an institutional e-mail address should have raised suspicion. (Cohen et al., 2016)

Editors are advised not to let authors propose the names of potential reviewers. After reception of a paper, the first step should be to “Google” the author(s)’s name(s) and to check if they don’t have any record of malpractice. The second step should be to use plagiarism detection software (several if possible, while keeping in mind that these softwares are not unfillable and need human interpretation of the results). Moreover, all the members of the editorial team and all the reviewers should be briefed before joining the team on the potential risks of academic malpractice.

Many institutions blacklist or think about blacklisting plagiarists. Of course most institutions punish severely cheating and plagiarism. Perhaps, more positive solutions could be found to encourage students and scholars. They certainly need guidance and training. Students need to be educated very early about ethics and about the proper ways to write an assignment or an academic paper. They should be aware
of the consequences of cheating (which has been proven to be very effective), but also learn about the importance of virtues and values in a world where technology has become so easy to use and so convenient. If students are resigned to cheating and lying to earn a diploma, what will happen if they join the scientific community? Companies and academic institutions might hire graduate students who are not competent because they did not actually acquire the skills they need to do their job, which could be disastrous and dangerous in some fields, such as healthcare.

Finally, on a more positive note, according to Lesk (2015): “The good news is that the tools used to detect plagiarism work effectively and efficiently, the copied papers are concentrated by author and by country, and the copied papers are less cited.” In fact, the growing number of retracted papers in various journals around the world is, in a sense, a good sign that plagiarists are being detected and punished.

The author hopes this literature review of more than one hundred and twenty publications will help the readers better understand plagiarism and some of the acts and issues related to intellectual dishonesty.

ACKNOWLEDGMENT

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. I would like to thank the three anonymous reviewers as well as Ms. Jillian Marchant for her encouragements and feedback.

REFERENCES


Plagiarism and Ethical Issues


Fishman, T. (2009). We know it when we see it is not good enough: toward a standard definition of plagiarism that transcends theft, fraud, and copyright. *Proceedings of the 4th Asia Pacific Conference on Educational Integrity*, 5. Retrieved on October 30, 2017 from http://www.academia.edu/5922464/We_know_it_when_we_see_it_is_not_good_enough_toward_a_standard_definition_of_plagiarism_that_transcends_theft_fraud_and_copyrigh


Plagiarism and Ethical Issues


Plagiarism and Ethical Issues


Plagiarism and Ethical Issues


KEY TERMS AND DEFINITIONS

**Contract Cheating:** The act of hiring a third party to write an essay, an assignment or an academic paper and then to hand it or publish it as one’s own work.

**Copyright Infringement:** The unauthorized use of any creation protected by copyrights laws, which grant rights to reproduce, distribute, display or perform a work to the copyright holder. All the works published before the twentieth century are now in the public domain.

**Fake Positive Peer Review:** The act to corrupt the anonymous peer-review process which protects publications from biased and subjective reviews. An author might for example create a fake identity or ask friends to positively review his/her own paper.

**Plagiarism:** The act of copying, voluntarily or not, other people’s work without proper citation. It is a form of intellectual dishonesty that involves the misleading of people on the origin and source of a work, idea or discovery published by someone else.
**Plagiarism and Ethical Issues**

**Predatory Journals:** Journals with very low standards which accept to publish almost anything for a fee, more often than not with no peer review process.

**Self-Plagiarism:** A form of plagiarism that involves the improper and misleading recycling of an author's work in order to increase artificially his/her number of publications. A published work must receive the authorization to be submitted to other outlets.

**Software-Generated Papers:** Nonsensical academic papers which are generated by a computer program and which might be accepted for publication if the review process is not seriously done.