"Plagiarism"
Michael Davis, Editor, CSEP, Illinois Institute of Technology

"Plagiarism" has the ugly look of a word far from home. The dictionaries concur. Its origin, they say, is the Greek plagios, meaning crooked or treacherous, from which comes the Latin plagium, a kidnapper, a plunderer (of another's slaves). From there, the flying carpet of metaphor brought it to its present residence in literature and science, where, as plagiarism, it is a word to conjure with.

Consider, for example, Stephen B. Oates, biographer. Last year, Stewart and Feder, famous (or infamous) for earlier work on fraud in science, used a computer to identify more than five hundred instances of "plagiarism" in Oates' books on Abraham Lincoln, William Faulkner, and Martin Luther King. The instances are not chapters, paragraphs, or even long sentences, but (mostly) short passages, sweet turns of phrase. Is Oates guilty of plagiarism? While Oates should find St. Onge's definition reassuring, I do not. Even by its conservative standard, I am a plagiarist. In eighth grade, I did a report on the battle of Gettysburg. The ten-page report, which I typed myself, came (as verbatim as I could manage) from one chapter of an old history of the civil war my parents had around the house. I tried to cover my tracks, as any smart eighth-grader would, by appending a list of "Sources" including that book (along with the Encyclopedia Britannica and a few titles from the card catalog).

There is more irony than shame in this story. My youthful crime earned only a B-. (My typing wasn't good; my proof reading, worse; and, apparently, such things counted more than substance.) A teacher myself now, I wonder what my American History teacher was thinking. Surely she could tell the difference between the writing of an average eighth-grader, barely able to keep subject and verb together, and the long, smooth-Bowing paragraphs of an accomplished historian. Yet, she said nothing-and (here's the irony), with that, I began a life of (more or less) honest writing. Did she handle my plagiarism properly (assuming she recognized it)?

Linda Bergman has a surprisingly complicated answer to that question, though one focusing on first-year college students rather than eighth-graders. Plagiarism is, she argues, very much a matter of context. What is common knowledge in one context may require a footnote in another; what is free for the taking in one context is theft in another.

Richard Matasar makes much the same point in his piece, though his examples come from the study or practice of law, where we might expect the rights of authorship to be honored relentlessly. The conclusion to draw from these three pieces seems to be that plagiarism is not a simple idea. In some contexts, plagiarism is literally theft, the unauthorized taking of intellectual property (a violation of copyright). Much literary plagiarism is precisely that, the creation of a commercially valuable work by plundering huge chunks of an older work, adding nothing of value.

Literary plagiarism also generally involves deception, both of the publisher and of readers. But the deception compounds the offense without changing it. Literary plagiarism would still be plagiarism if the publisher knew...
all along that the work had been copied and even if readers could tell at a glance. The new work would still make the right to copy the old less valuable.

In another context, however, deception is intrinsic to plagiarism. Academic plagiarism claims undue credit. So, for example, students who buy term papers from their local “Dr. Research” do not violate copyright by submitting his papers as their own. He sold them the copyright. They are, nonetheless, guilty of (academic) plagiarism because they are claiming credit for his work when the credit is supposed to go to the work’s creator, not its owner. The nub of academic plagiarism is deception: these plagiarists cannot receive the credit they seek if the reader knows the work’s origin.

Context may explain why much that looks like plagiarism generally passes without complaint. In government and business, for example, a senior executive may give a speech having one or more unacknowledged “ghosts” as author. No one cries, "Plagiarism:" The executive is a "spokesperson", not an individual; she will have to take responsibility for what she says, but the only personal credit she can expect for her words is for their delivery.

If contexts were as distinct in practice as I just made them seem, plagiarism might be much less topical than it is. In practice, however, contexts overlap and, worse, seem to shift unpredictably, much as do the Mississippi's shipping channels.

Donald Buzzelli of the National Science Foundation concludes this issue of Perspectives by giving an example of such a shift. NSF has adopted new regulations concerning plagiarism. These include the obvious prohibitions, for example, against reviewers taking (without permission) ideas from the proposals they review. (What might St. Onge say about that prohibition? What might Buzzelli respond?)

But the new regulations also include at least one that is not obvious: Each proposal submitted to NSF must now certify that "the text and graphics. . ., unless otherwise indicated, are the original work of the signatories or individuals working under their supervision." Gone are the days when "boilerplate" freely moved from one proposal to another. Now would-be principal investigators must give credit in the proposal to some who, until recently, had never supposed credit due there. Plagiarism's flying carpet is airborne again.

That may explain why the Office of Research Integrity of the National Institutes of Health and the American Association for the Advancement of Science recently sponsored a two-day conference on "Plagiarism and Theft of Ideas:" Now is a good time to think about plagiarism.

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"The Threshold of Plagiarism"
K.R. St. Onge, University of Southern Illinois, Edwardsville

It is all too apparent that one scholar's "fair use" is another scholar's plagiarism. If this were not true, neither the scholarly press nor the general press would have so much spirited fratricide to report. Almost everyone enjoys a good fight, especially among intellectual heavyweights. For the accused, it is a battle to almost certain academic death; for the accusers, soul-satisfying gratification in protecting "academic integrity" and shielding valid, significant, and original scholarship from fraud. For some academics, plagiarism has become a fair substitute for pugilism.

About the only thing the opponents can agree on is that the motivating epithet, plagiarism, refers to concepts and acts that lead to consequences. Regrettably, the consequences often reflect badly on both sides, a very high price to pay for scholars presumably committed to intellectual precision. Unless it harbors some strange compulsion to appear foolish, the academy ought to declare a moratorium on plagiarism charges until it can reach some consensus concerning what the pathology is and where it starts.

The idea of plagiarism was to stop some individuals from copying the works of others. That idea was so persuasive that it is now invoked to stop individuals from using the words of others. Authors produce works of various lengths and qualities, and having worked hard, they want credit-due and rightly so. The works were clearly theirs, but what of the words in the works? Are they also protected by the proper sanctions of plagiarism? The late Alexander Lindey, who in Plagiarism and Originality, reviews most carefully the legal and moral equities of authorship, said: “A dozen paragraphs taken from a long book may be fair use; four lines from a six-line poem may be
an infringement. The question is whether or not the borrower has unreasonably taken advantage of the creative effort of his predecessor.”

Lindey is an authoritative place to start. Most definitions of plagiarism, such as those of the Modern Language Association, derive directly or indirectly, at least in the modern era, from his, which follows (including the often omitted third sentence): “Plagiarism is literary or artistic or musical-theft. It is the false assumption of authorship: the wrongful act of taking the product of another person's mind, and presenting it as one's own. Copying someone else's story or play or song, intact or with inconsequential changes, and adding one's name to the result constitutes a simple illustration of plagiarism.”

If the academy would remember this, it could save itself a lot of pain. If taken seriously, Lindey's definition would silence about ninety percent of all plagiarism charges. Lindey is not concerned with petty verbal borrowings.

Lindey was obviously on the right course. Who would not want to protect new validities, new significant hypotheses and findings, and generally, original scholarship of whatever epoch? But eventually, we must ask, how far do we go?—and what moves imperceptibly with time into the "public domain"? Ideas, images, events, circumstances, vocabulary, all move in concert. At some minimal level between the vocabulary of tens of thousands of words that belongs to all native speakers of a language and excerpts of the syntax of an author, plagiarism has to start. Is there a natural cleavage between vocabulary and syntax?

Any scholar who confronts the plagiarism challenge should consider the fundamental elements of syntax, phrases and sentences, and their statistical realities. The phrase is clearly the fundamental unit of syntax as the word is the fundamental unit of vocabulary. Phrases typically come in sets of a few related words, rarely more than seven or eight. Longer phrases can be built, but usually serve no expositional purpose. Given the very limited syntactical lengths of phrases, when authors write on the same topic, the longer the text, the higher the probability of some correspondence between phrases in the two texts. If the two manuscripts are extensive, the presence of some common phrases approaches certainty. Historical scholarship, for example, draws on common imagery, associations, events, and circumstances of the past and on common sources. Scholars imbued with their subject, threading through the intricacies of complex chronologies, do not usually conceptualize in phrases. They may go back and tidy up some syntax, but their writings must work with ideas and concepts, the medium of which is the sentence.

How does the sentence differ from the phrase? Give credit to our hardworking English teachers who drilled in the notion that the sentence is, or should be, a complete idea. It is also a special, indeed, a very special species of the phrase. But so critical to syntactical powers was this special phrase that it became the sentence. The sentence completely unfettered expositional powers. The prepositional sentence was born: 15, 20, 30, 50 words of absolutely unique syntax. We can forget for a moment whether sentences of such length are true or significant. We cannot forget that they are absolutely original. The statistical probabilities of two sentences of the lengths above occurring verbatim in two different texts is so infinitesimal that it can be treated as zero.

Hence, as phrases in exposition are extended, the probability of some correspondence approaches certainty; in sentences, the probability virtually vanishes. Technically, the sentence could be infinite. The third sentence in Faulkner's historical novel, The Unvanquished, has 104 words. If someone copies that sentence and offers it as original composition, that's plagiarism beyond all cavil. Let the statisticians play with the factorial permutations of 104 words. Let scholars contemplate the yawning gulf that separates the phrase from the sentence in the expositional process. Then look to Lindey for firm guidance.

If we expect to be recognized for each phrase, jot and tittle, we are being parsimonious with the higher lexical endowment providence has granted to some and not to others. Nor should we be too jealous of the products of an innate neural system that favors some and not others verbally. There is enough greatness of soul in the academy not to be troubled by low-level phrasal borrowings. It would not have troubled Lindey and it should not trouble us. It might be courteous to acknowledge "apt phrases;” but only in the Wild West were people shot for bad manners. The sentence is the minimal unit of syntax that, if potent enough, true, and original, might merit protection. Lindey
also said, "There is too much plagiarism crying:" And that was forty years ago. At the rate we are going now, plagiarism zealots will have individual words under copyright in far less time than that.

There is yet another threshold of concern in plagiarism: ideas. They arise in neural-symbolic processing as precursors to words, phrases, and longer formulations. The plagiarism of ideas invites extended treatment but can be resolved here with perhaps surprising dispatch if not with conclusive persuasiveness. Ideas have no existence apart from the symbolic forms in which they present themselves to us as symbols: words, formulas, logos, motifs, and the like, for which the traditional rules of appropriate attribution properly apply. Ideas, as such, are beyond protection. It is difficult enough to protect the protectable.

"Plagiarism and the Composition Classroom"

Linda S. Bergmann, Humanities, IIT

When I started teaching writing, I thought I knew what plagiarism was: it was submitting someone else's words or ideas as your own. It was wrong on two grounds: it was stealing another person's intellectual property and it was claiming achievement that you had not earned. Having been burned several times by students' submitting other people's work as their own, I was suspicious of any writing better than expected and angry at students who thought they could fool me so easily. Composition teachers, particularly teachers of first-year composition, are typically on the front lines of the battle against plagiarism. I was glad to be there.

Several years ago, however, as director of a writing program, I was asked by my dean to deal with a student who had repeatedly been caught, reprimanded, and punished for plagiarism throughout her first-year core classes. No one had the heart to kick her out of school; no cynical opportunist trying to grab a high grade on the cheap, this was a shy, sincere young woman, under great familial pressure to achieve, who just could not understand why it was wrong to copy ideas out of books or to let her brother-in-law, a physician, write her papers for her.

I tried all my standard explanations on her. First, I tried to convince her that she could not merely "steal" writers' words or ideas and present them as her own because college faculty members, writers themselves, simply cannot countenance intellectual theft. And, second, I tried to explain why she could not let her brother-in-law compose for her; such reliance on outside help kept her from learning a skill necessary for professional survival. She was not convinced. If, she miserably countered, the books she was copying from were true, how could we object to her reiterating the truth to us; if they were not true, how could they have been published? If students were allowed, even encouraged, to do collaborative work in class, if such collaborations reflect real-world writing situations, why could she not collaborate with her brother-in-law at home—particularly if such collaboration resulted in strong, successful papers?

This student's case has become for me a prototype for understanding the issues that writing teachers face in teaching students to avoid plagiarism, issues that seem to have become much more complicated in the past few years, as our understanding of writing has shifted focus from the individual writer to the discourse community. In a writing class or a writing program, the question of plagiarism is highly problematical. Writing teachers are only beginning to come to terms with the problems.

Clearly, my definitions of plagiarism were inadequate. Plagiarism is not really stealing, since we would still consider it plagiarism for a student to be given (or to purchase) the right to present someone else's paper as her own. Furthermore, the issue of fair attribution is not simple or stable; it differs from discipline to discipline, and from high school to college to graduate school to profession. For example, in high school, students typically learn to footnote "facts"; in college, most of these facts are relegated to the realm of "common knowledge," which need not be footnoted. "Ideas," however, do need to be footnoted, even though few first year students fully comprehend what an idea is and why it may be important. Which ideas need to be footnoted then changes as students advance in a field. Some ideas are really "common knowledge": suppose we needed a citation every time we mentioned something like calculus or Plato's cave.

There simply is no single rule that can be taught in first-year composition and applied to all
writing situations. But when I tell students that what needs to be attributed varies from context to context and from point to point in their careers, I have no really good answer to the question, inevitably raised, about how to figure out where you are in that progression and whether your teacher or supervisor thinks you are at the same place.

The problem is even more complicated, however, as the student above indicated when she raised the issue of "truth." In most fields, rhetoric and composition studies included, common knowledge in the field is compressed into textbooks and purveyed as "truth." at least as far as the student can see. Only some textbooks, typically in fields like rhetoric or communications, use endnotes or indicate that they are presenting the author's version of the discipline. Textbooks in the sciences and engineering typically claim, explicitly or implicitly, that the information they contain is true. Ordinarily, in turn, students expect textbooks to tell them what they need to know, and they expect to be evaluated on their ability to repeat that information as accurately as possible.

I used to tell students that whenever they submit someone else's words or ideas as their own it is plagiarism. But that is exactly what I ask students to do when they take tests: to repeat, usually without attribution, the ideas learned from the textbook and class lectures. On a recent exam, for example, I asked students to define terms like "species," "uniformitarianism," and "natural theology" without any suggestion of "according to whom." I do not think I am alone or, for that matter, that I am wrong. Because of all this undocumented passing back and forth of information that goes on in the college classroom, I can see where my troubled student's confusion came from, even if I am still not willing to accept her naive conception of "truth."

It is not only this passing back and forth of information that makes the concept of plagiarism problematic in the writing classroom. In the past decade composition teachers have been moving from the "Romantic" model of writing as individual self-expression to a collaborative model of writing for and with a discourse community. Responding to research that indicates that most workplace and professional writing is collaborative, many writing teachers are fostering group activities at various stages of the writing process. Thus, writing instructors set up peer groups to discuss and generate topics, to revise and edit drafts of papers, and even to share research and compose drafts. Some writing instructors themselves participate in student writing by commenting on first drafts of papers that are then rewritten for a grade. Given this move toward collaborative, student-centered learning, fewer composition instructors are willing to serve as plagiarism police. And given this turn toward a process-oriented, collaborative approach to writing, issues of "fair help" and acknowledgement become issues understood only by seeing shades of gray.

My prototypical plagiarist disabused me of the notion that I could solve the problem of plagiarism by a quick definition and severe penalties. I have rethought my composition courses to sensitize students to the difference between their own voices and those of the writers they read and to give students practice at incorporating the ideas of others into their papers. I have built into my courses continual practice in citation and documentation, so much so that one first-year student observed: "At the beginning of the semester we all plagiarized and falsified without knowing it. Now we have learned to give credit when credit is due and to try to relay the correct information with summaries, quotes, and paraphrases." At the same time, I encourage collaboration of all sorts, both in class and out, continually raising the question of when collaboration crosses the line into exploitation or evasion of responsibility. In class, as in life, the students have to defend their decisions, and to live with them.

Plagiarism is not, as all educators know, a problem only in composition classes. While few would disagree about the ethics of buying term papers, when we get into issues of collaboration and common knowledge, the consensus breaks down. The unfolding debate over the accusations of plagiarism against University of Massachusetts historian Stephen B. Oates has exposed serious disagreement among senior members of the profession about what constitutes plagiarism. The best approach for the teacher of writing, and indeed for the teacher of any subject that requires or uses writing, is to admit and discuss the complexity of the problem of plagiarism, and to do so repeatedly. We cannot just assume that "everyone knows" what plagiarism is, nor can we assume that even if it is defined in first-year composition, the lesson will "take." Cases like Oates' can be used to show students what is at stake in defining plagiarism and to
Plagiarism conjures up the image of a low-life stealing others' words, verbatim, without quotation or attribution. When it turns out that the low-life is a federal judge, a partner in a law firm, or a member of Congress, however, it is evident that plagiarism is more than simple theft; it must have a much more nuanced meaning. Moreover, when law students are held to a stricter standard than legal practitioners, it is also evident that there are nuances to the nuances. In the legal profession, context—facts, intent, inflection, credibility—is everything; and, so too, in assessing whether one's words have been plagiarized.

By any simple definition likening plagiarism to theft, the legal profession is inundated with plagiarism. Even a cursory glance at legal culture reveals widespread acceptance of using others' works. Lawyers and judges make their living by appropriating language that has worked for others.

**Lawyers.**

If replicating someone else's work is a form of flattery, lawyers have raised the form to art. Publishers create legal forms that lawyers use without attribution. Law firms create practice manuals instructing younger lawyers to take others' words and pass them off to clients as newly minted. Even the rule makers get into the act by drafting model forms, which lawyers are encouraged to use and which are sufficient, on their face, to survive judicial scrutiny. If "magic words" have worked in the past—courts have accepted them, they have been given a fixed meaning as terms of art, they have become industry boilerplate—no second thought is given before embracing the language as one's own. Thus, no one should be shocked that lawyers may see plagiarism as a far more complicated matter than others who use words for a living.

**Judges.**

Making matters even worse, judges are skilled in the practice of taking other people's words. Trial judges, under enormous time constraints, frequently rely on the lawyers in a case to draft language for orders issued over the judge's signature. They publish findings of fact drafted by lawyers. They rely upon model instructions to charge juries. Appellate judges are no better. They have no first-hand knowledge of facts and hence adopt-usually without attribution—factual statements written by a lower court judge or an attorney. Sometimes they "write" opinions that are taken directly from their law clerks' drafts. On other occasions, even when the words of an opinion are those of the judge, the opinion may contain entire sections that are duplicates of a lawyer's brief or organization or both. The very essence of the judicial method depends upon the adoption of prior judicial opinions through citation and adoption of language, often without quotation or direct acknowledgment that the words used were crafted by

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"Plagiarism in the Law: The Student's Dilemma"

Richard A. Matasar, Chicago-Kent College of Law, IIT

Plagiarism is a form of flattery, lawyers have been taught well by judges. If lawyers are plagiarists, they have been taught well by judges.

One might conclude from all this that plagiarism is rampant in the legal profession; nothing could be further from the truth. Plagiarism exists in the legal profession, but not in its daily practice. The problem is defining, and understanding, the contexts in which using others' work is appropriate.

It is important to place plagiarism within a proper cultural setting before carefully analyzing the practices within the legal profession, for many of the complexities of legal practice can be traced to society's general ambivalence about plagiarism. Although plagiarism is a high sin among academics who make their living through scholarship, in popular culture people often take others' works for their own. Whether through advertising, where one successful campaign gives birth to another virtually identical advertisement for a different product, or through successive films of the same subject, or through the reading of wire stories on the news, our public use of others' work does not raise a ripple in the public consciousness. Accordingly, one ought not to be too surprised that issues of plagiarism often draw a yawn outside academic circles.

Among legal academics, however, plagiarism issues are important. We worry about our words being stolen by others. We worry that we will not receive proper credit for our labors. And we worry that our students may go into the world without understanding the prohibition of plagiarism, or
worse, with an attitude that it just doesn't matter.

The challenge within legal education is to give students an appreciation of the mores of legal practice while also giving them the tools to recognize improper use of others' words. By appreciating legal writing within context, one can learn the particular culture of plagiarism within the law, and avoid unethical behavior.

**When in doubt, fully attribute, accurately quote, and properly cite.**

Doing so makes plagiarism unlikely (or at least easily detected). With full disclosure the risk lies only with appropriating someone else's entire project, design, or ideas, and such an appropriation may be proper for some projects.

**Use others' words, without attribution, when their words are intended to be copied.**

Forms, official practice manuals, and officially prepared practice aids are meant to be appropriated. However, students should take care not to use such materials because they are prepared for practitioners to use to save time. They are not meant to be used in school unless the instructor-the audience for whom an assignment is prepared-has authorized the use of others' works.

**Use the language of courts with great caution.**

Although judges and lawyers do not often cite or even use quotation marks to set off language of earlier opinions (or factual discussions within cases), students should be more careful to delineate their own work. Lawyers and judges are engaged in advocacy, where their task is to convince others by effective and inexpensive means. They use others' words as shorthand, in order to persuade. They cite when it is effective advocacy. Otherwise, they cut corners. Of course, they act within a culture in which judges in prior opinions fully expect that their words will be used by others.

When students simulate the activities of lawyers and judges, however, they are engaged in a different project. They are doing scholarship, and demonstrating their competency to an instructor. In such situations, they must do their own work to allow the instructor to assess their learning.

**Never cite scholarly work without full attribution.**

The authors of scholarship intend neither students nor practitioners to use their words and theories without attribution. Yet, even legal scholars understand that their work may never be cited by a court that adopts a theory or a lawyer that advocates a position. Entering the legal arena, the legal scholar must take the advocacy world as she finds it.

In sum, plagiarism in the practice of law exists. But, some types of plagiarism are not unethical. The profession requires law to be practiced efficiently; advocates must be able to make arguments without unnecessary fuss. However, law students do not have the freedom of their practicing counterparts. They must be attentive to academic conventions for use of others' work. Until licensed, students are bound to a strict code: cite, attribute, and create on one's own. Understanding context, knowing when one has received implied consent to use someone else's words, appreciating one's audience, and comprehending the purpose of a writing project take great skill. The key to understanding plagiarism in the law is solid training in legal writing and the keen sense of culture that comes from professional education.

"Plagiarism in Science: The Experience of NSF"

Donald E. Buzzelli, Office of Inspector General, National Science Foundation

One of the responsibilities of the Inspector General's office at the National Science Foundation (NSF) is to deal with allegations of misconduct that NSF receives in connection with its proposals and awards. In my position within that office, I have had the opportunity to observe a wide variety of allegations. Plagiarism and related phenomena make up a large part of our case load. My conclusion is that the scientific community should review its standards and practices concerning plagiarism.

NSF's regulations on misconduct in science and engineering contain the following definition: 

"Misconduct means (1) fabrication, falsification, plagiarism, or other serious deviation from accepted practices in proposing, carrying out, or reporting results from activities funded by NSF; or (2) retaliation of any kind against a person who reported or provided information about suspected or alleged misconduct and who has not acted in bad faith." (45 CFR 689) Thus,
plagiarism is explicitly defined as misconduct in science.

In spite of this, NSF does not have its own definition of plagiarism, and there are different views among scientists as to what offenses the term "plagiarism" should cover. Everyone probably agrees that copying another person's original text into one's own publication without acknowledging that it was copied and without giving a reference to the source is plagiarism.

Outside this central concept, however, many possible violations of intellectual property may or may not be counted as plagiarism. If the text that was copied is considered to be derivative itself, or to contain no novel ideas, the argument may be made that there was no plagiarism because no ideas were stolen. On the other hand, ideas may be stolen without copying any text. Sometimes the ideas taken were never written down but merely communicated orally. Some would call this plagiarism, while others might call it "intellectual theft" and place it under the "other serious deviation from accepted practices" part of the NSF definition. It may make a difference whether one perpetrator writes down and publishes the stolen ideas, as opposed to using them in the design of his or her own research. Some would argue that plagiarism occurs only if the stolen text or ideas were used in a published paper, as opposed to a grant proposal or an oral presentation. However, NSF has consistently rejected the position that, since a grant proposal is not a publication, copying in a proposal cannot be the basis for a plagiarism case.

The term "plagiarism" is sometimes raised in connection with simple priority disputes or other squabbles between scientists. For example, a complainant will occasionally charge plagiarism when he or she only means that someone published something in the complainant's field without citing the complainant's work to the extent that the complainant considers fitting. Collaborators on a research project may have a falling out or a simple failure of communication that leads to charges of plagiarism. One collaborator may publish material from the project without the knowledge or permission of the others. There is often disagreement as to how much each contributed to that material. A charge of plagiarism is especially likely to arise if one collaborator uses text or ideas in a publication while other collaborators believe they were the original source. Again, some would call such unauthorized publication plagiarism, while others would not.

There are special problems if some of the collaborators are graduate students or postdoctoral researchers. Such individuals are very much under the authority of the research director. Their intellectual property rights are not fully defined. A graduate student or postdoc may be asked to write a research proposal for the research director, and may then find that he or she is excluded from the project in the final version. The junior person may then feel that the text and ideas have been stolen. Disagreements also arise over the publication of the results of supervised research. The research director may publish the results without giving the junior researcher the credit to which he or she feels entitled.

Plagiarism may involve diagrams and charts as well as texts. It may also involve graphs or tables containing data. If a scientist plagiarizes the data of another, a charge of data fabrication may arise that is possibly more serious than plagiarism itself. A similar situation arises in connection with the peer review of proposals. The research proposals that NSF receives are sent out for review by scientists knowledgeable in the field of science involved. Since they may be doing research in the same field, these reviewers are specifically instructed not to use the proposal to their own advantage by copying, quoting, or otherwise using material from it. If a reviewer violates these instructions and plagiarizes a proposal, this violation of the confidentiality of peer review may be a greater offense than the plagiarism itself.

There are many other opportunities in the proposal process for allegations of plagiarism. One investigator may simply send in a proposal that was written by another. If this was done without the original writer's authorization, it is clearly plagiarism. However, even if the original writer consented, one may want to ask whether "plagiarism with permission" isn't still plagiarism. Certainly some kind of misrepresentation of authorship seems to be occurring. From NSF's viewpoint, it is important to know who wrote the proposals NSF receives. NSF revised its proposal cover page in April 1992 to include a certification that the proposal was written by the signatories or by individuals working under their
supervision, unless otherwise indicated.

In a typical year, NSF receives about fifty allegations of misconduct in science. About half of these will be about an intellectual property violation of some kind. (Another ten percent will be mainly data related, and therefore will cover what NSF's definition calls falsification or fabrication. About fifteen percent will be other kinds of misconduct in science, and twenty-five percent will ultimately be judged not to be allegations about misconduct in science at all.) Many of the cases that have come in have not been closed, and many others have been closed with findings of no misconduct.

However, among the cases that have been closed with findings of misconduct, plagiarism cases are predominant. Specifically, the cases received at NSF since the beginning of 1989 have led to three individuals being found guilty of misconduct in science by their universities. All of these were major plagiarism cases. In four cases (including two of the cases just mentioned) NSF made its own findings of misconduct in science. Three of these were also plagiarism cases.

It may be comforting to scientists that these numbers are so small. Still, these major cases emerge from a great number of less serious intellectual property offenses and numerous squabbles and misunderstandings. The frequency and variety of intellectual property complaints indicate that the scientific community needs to clarify the rights that individuals have in different situations and to communicate these standards better to working scientists. I would be very happy to see fewer cases of plagiarism.

The views expressed here are mine. They are not necessarily shared by the Office of Inspector General, the National Science Board, or the National Science Foundation.

"Announcements"

PUBLICATIONS
Anyone interested in the ethics of libraries (or librarians) might want to look at the following: Library Trends 40 (Fall 1991) issue, "Ethics and the Dissemination of Information;" or "Proceedings from the Allerton Park Institute Conference," Ethics and the Librarian (1989). These are available from the University of Illinois Press, 54 Gregory Drive, Champaign, IL 61820. Contact: Lynne Curry (ph. 217-333-1359).

Issues in Ethics, the newsletter of the Center for Applied Ethics, is published quarterly and distributed free of charge. Contact: Center for Applied Ethics, Santa Clara University, Santa Clara, CA 95053.

Michael Davis, To Make the Punishment Fit the Crime: Essays in the Theory of Criminal Justice, Westview Press, 1992, 266p., examines many of the practical problems of punishment, including how to punish habitual offenders, how unsuccessful attempts at crime should be punished, and how courts should deal with crimes of strict liability.


Peter A. French, Responsibility Matters, University Press of Kansas, 1992, 234p, tries to understand responsibility as a practice in fields as different as politics and law, military justice and environmental accidents.


Philosophical Issues in Journalism, edited by Elliot D. Cohen, Oxford University Press, 1992. Chapters on the education of journalists, the logical foundations of news reporting, objectivity, bias, news distortion, and confidentiality (among others).

Ethics and Social Concern, edited by Anthony Serafini, Paragon House, 1989, 400p, has short introduction to moral theory followed by sections on medical ethics, business ethics, and journalistic ethics.

Student Pugwash USA has just published its fourth edition of The New Careers Directory: Internships and Professional Opportunities in Technology and Social Change. This guide profiles nearly three hundred public, private, or non-profit organizations in forty-five states providing entry-level, internship, and volunteer opportunities in the fields of peace and security, health, energy and the environment, communications, women and minority issues, development, agriculture, and
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CONFERENCES

Law and Science at the Crossroads: Biomedical Technology, Ethics, Public Policy, and the Law, October 21-22, Hotel le Meridian, Boston, will be sponsored by Suffolk University Law School in cooperation with the University of Massachusetts Medical Center. Contact: Advanced Legal Studies Office, Suffolk University School of Law, 41 Temple Street, Boston, MA 02114 (ph. 617-573-8627 or fax. 617-248-0648).

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