

Publication Aspects of Ethics in Photogrammetry

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ACCORDING TO THE Code of Ethics of the American Society for Photogrammetry and Remote Sensing (ASPRS), the principles on which ethics are founded consist of honesty, justice, and courtesy, forming a moral philosophy associated with mutual interest among men. In a recent much-discussed movie, the whole question was put in a much simpler form by calling the film "Do the Right Thing." This is what this discussion is all about: Given this or that question involving moral principles, what is the right thing to do? In these paragraphs, we will tackle in particular the ethical problems of publication of photogrammetric material in the various media. There are many such problems, and we often face a dilemma in selecting a course which is the right thing to do.

ILLEGAL VS. UNETHICAL

At the outset, let it be accepted as an axiom that what is illegal can never be ethical. If you willfully violate someone's copyright, that is an open-and-shut case of an action that is both illegal and unethical. It might be argued that a person could be unaware that certain material has been copyrighted, but if he calls himself a professional, there is no excuse for such ignorance. Anyone publishing a professional paper is obliged to check the copyright status of any material he uses. Most authors gladly grant permission for the use of portions of their copyrighted publications, as long as due credit is given. But believe me, they can be hopping mad if it is used without permission. ASPRS has a longstanding policy of freely granting permission to quote its texts and reproduce its illustrations to all authors who make reasonable requests. On the other hand, the society is careful to copyright all its publications and is not amused if a copyright is violated.

The question presents another aspect when non-copyrighted material is plagiarized. Here we have a situation in which the action may not be illegal, but it is certainly unethical. Years ago, I had the experience of being asked to review a paper being considered for presentation at a technical session on photogrammetry. As I read the article, the words seemed amazingly familiar. So I reached for the U.S. Geological Survey (USGS) instruction manual on multiplex operation, which I myself had written, and there were the same sentences, word for word, identical in the paper and in the manual. Needless to say, that paper was scratched from the program.

Now, the "author" of that paper was not doing anything illegal. U.S. Government publications are not copyrighted. But he was certainly doing something unethical. By presenting himself as the author of those words, he surely was not doing the right thing.

There is a gray area of ethics in the common practice of using government maps as a base for special-purpose maps made by private parties. For example, an entrepreneur can take a USGS quadrangle map and plot on it the locations of all the bus stations, or restaurants, or theaters, or whatever—and he can then copyright the new map. This is perfectly legal, as the government map is in the public domain. It seems to me that ethical

principles would not make it mandatory that the new map bear an acknowledgment of the source of the map base; but I believe it is the right thing to do—an instance where courtesy and ethics rub shoulders.

As I reflect on the question of using someone else's material—when is it plagiarism and when is it research—I am overcome by a sense of guilt. I distinctly recall that in 1925, when I was in the eighth grade, I was assigned to do a report on the element nitrogen. The way I did it was to go to the public library and copy the nitrogen item verbatim from an encyclopedia. Perhaps I can assuage my guilt by supposing that my teacher considered the report as "research" rather than "plagiarism." Even so, I should have indicated the source and put quotes around the whole report.

SOURCES AND REFERENCES

How much credit should an author give to those who have contributed to the prior art in the field of his publication? Here the question concerns not only the ethics of the situation, but also the credentials of the author. To omit reference to prior work by another practitioner deliberately, in order to attempt to establish originality by the author, is an egregious breach of ethics. The author thereby hides the existence of relevant preceding work—and that is not the right thing to do. Furthermore, the knowledgeable reader may conclude that the author is either deliberately claiming unearned originality, or that he is really ignorant of the prior work and therefore he is not well-qualified in the field. So the author who omits the prior art and fails to acknowledge sources exposes himself to double jeopardy: anyone who knows the field has to conclude that the author is either unethical or uninformed.

It is professionally appropriate and ethically sound to quote short passages from someone else's work, giving due credit to the source. Longer passages may be quoted if permission is obtained, and sometimes an entire article may be included as an appendix—always with due permission and acknowledgment.

The use of references and quotations can sometimes be complicated by another party's proprietary interest in the material referenced. If a quotation or reference discloses a trade secret, and the author knows this, it would be unethical to use it unless there is complete assurance that the disclosure does not harm any proprietary interest.

WHO IS THE REAL AUTHOR?

The widespread practice of ghost writing opens up a Pandora's Box of ethical questions. Who is the real author of that speech, or article, or book? Ghost writing is not really an honest practice, but in many cases it is considered to be not in violation of practical ethics. This is certainly a gray area of ethics—we draw a distinction between ideal ethics and practical ethics, considering the exigencies of today's ratrace mode of existence.

Everyone knows and accepts that The President of the United

States must have competent writers to draft his speeches and other messages. But how does this apply in a professional, scientific field such as photogrammetry? It would seem, at first blush, that the only ethical approach in science is that a professional paper must bear the name of the person who did the work. But there are several complicating factors that creep into the equation. These factors are invention, policy, and image.

The purely scientific paper usually deals with invention in one form or another. Let us say someone or some group invents a new photogrammetric device, or develops a new mathematical or physical approach to a photogrammetric problem, or presents some other scientific advance in our field. The ethical approach would be to have the inventor, or leader of the group, publish the findings under his name, giving credit to other participants, or perhaps sharing the authorship. But suppose the leader, although a scientific genius, is a poor writer (this does happen!). Is it ethical for his name to appear as the author, even though the report is actually written by a subordinate? My own answer is generally "Yes," for the leader provided the spark for the project. Now, let's suppose the report wins the ASPRS Abrams Award as the year's best technical paper — what does the leader do with the \$1000 prize money? We leave to him the problem of selecting "the right thing to do."

Next, let's consider a paper that reflects the scientific or corporate policy of a company operating in the field of photogrammetry. If you want the policy to be stated with authority, it must bear the name of a top official of the company. If the article is published under the name of the ghost writer, who may have a great deal of talent but not an established reputation, no one will pay any attention to it. The procedure generally considered to be ethical in a practical sense is to publish the article under the name of the company president and pay the ghost writer a good salary.

The factor of image follows along the lines of the factor of policy. Let's say the Society wants to have a convention keynote speaker who is president of a university, or a member of the President's cabinet, or a famous astronaut. The idea is to present an image that is attractive to a large audience, without expecting much discussion of scientific detail. Although some of our keynote speakers do indeed write their own speeches, it is not considered unethical for some member of the Society, or other qualified person, to draft a speech for the famous keynoter. This is not really honest, but the ghost writing art is so widespread throughout our society, that it is accepted as normal practice. I state this from long experience: it never bothered me to ghostwrite for a well-known competent person. What did bother me, however, was the single occasion, late in my working career, when someone wrote a paper that bore my name. I can only say that I was terribly embarrassed by the experience. And yes, I did think it was unethical, for I could very well have done it myself, given the time.

THE RIGHT THING TO WRITE

There are two ethical factors in publication that involve the author's subjective treatment of himself and his professional colleagues. These factors, both entailing treatments to be avoided, are (1) aggrandizement of himself or his company, and (2) deprecation of colleagues or competitors.

A professional should not have to brag about his own genius in developing the material about which he is writing. He need not point out that nobody has ever done this before, or that he has achieved a genuine *tour de force*. The knowledgeable reader will either perceive that for himself, or, if he does not consider the achievement to be so great, he will be further alienated by the author's self-laudatory approach. The ethical (and sensible) way to present the material is simply to state the argument and let the reader decide whether it deserves praise.

There is nothing unethical about expressing disagreement with the stated position of a colleague or competitor. ASPRS has always encouraged debate in its publications. The question of ethics arises when an author presents statements that reflect adversely on the intelligence, competence, qualifications, or integrity of another professional. This is the *ad hominem* approach, based on feelings about the person, rather than about his argument, and it is decidedly an unethical thing to do. The author of a review of a book or article must be especially careful to avoid the *ad hominem* approach. He has the right to damn the organization, the literacy, the technical validity, and the manner of presentation of the book, if he is so inclined; but the reviewer should never disparage the personal attributes of the author.

TEACHING ETHICAL CONCEPTS

How are we going to spread the word about ethical conduct to the photogrammetric profession? By publishing the ASPRS Code of Ethics? By publishing this symposium on Ethics? The problem is: can people who have no innate sense of ethical responsibility be trained to become ethical?

In an article titled "Can Ethics Be Taught," appearing in the March 1990 issue of the *Reader's Digest*, Prof. Michael Levin, of CCNY, contends that "ethics courses are pointless exercises." He holds that "Telling right from wrong in everyday life is not that hard; the hard part is overcoming laziness and cowardice to do what one perfectly well knows one should."

I am inclined to be more optimistic than Prof. Levin. I believe there is a place for teaching people to think about ethical behavior. I believe that members of our profession want to be ethical. I believe that some of our members who read the papers presented here may discover that they have unwittingly been engaging in some unethical practices and that they will strive to correct them. And finally, I believe that this effort to alert our members to ethical concepts is the right thing to do.

43rd Photogrammetric Week Stuttgart, 9-14 September 1991

This internationally-recognized "vacation course in photogrammetry" has been held at Stuttgart University since 1973. Because Professor Dr.-Ing. Friedrich Ackermann, one of those responsible for the scientific program, is to retire soon, this 43rd Photogrammetric Week will be his farewell seminar. Essential lines of his work have been chosen as the main topics for the meeting:

- GPS for Photogrammetry • Digital Photogrammetric Image Processing • Photogrammetry and Geo-Information Systems •

Lectures and discussions will be held in the mornings. Technical interpreters will be available for simultaneous translations into German or English. Demonstrations are scheduled for the afternoons. For further information, contact: Universitat Stuttgart, Institut fur Photogrammetrie, Keplerstrasse 11, D-7000 Stuttgart 1, FRG, telephone 0711/121-3386 or FAX 0711/121-3500.