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Ethics Workshops Sponsored by the Texas State Board of Registration

The Texas State Board of Registration for Professional Engineers (the "Board" hereafter) is a leader, perhaps *the* leader, among state boards in its support and encouragement of the teaching of ethics and professionalism to engineers and aspiring engineers. Here is a report on its recent efforts and immediate plans. For further information please call Jimmy H. Smith, Ph.D., P.E., Director of the Murdough Center for Engineering Professionalism at Texas Tech University, at (806) 742-0162:

Ethics Workshops for Engineering Faculty

The Board of Registration is sponsoring six (6) ethics and professionalism workshops for engineering faculty in Texas during 1992-93. The first, entitled "**Faculty Leadership in Professionalism and Ethics Workshop**," is scheduled for June 1992, and it is designed for "**key**" faculty, identified by engineering deans who may subsequently play a lead role at their own institutions. As such, it will concentrate not only on effective methods of including professionalism and ethics in engineering courses, but will also address various ways that faculty can assist engineering colleges in future development efforts on the subject. The five

subsequent workshops, to be held during the next 18 months, will be open to all engineering faculty.

Ethics Workshop for Engineering Deans

The National Science Foundation and the Board sponsored a three-day workshop entitled "**Ethics in the Engineering Curriculum**" in August 1991 for engineering deans. Fifteen (15) Texas engineering deans plus one each from New Mexico and Arkansas attended. Subjects covered in the various sessions included:

- *Introducing Ethics into the Curriculum
- Shared Responsibility in the Classroom and the Corporation
- *Teaching Methods, What Are We Doing Now? What Should We Do Tomorrow?
- Engineering Education Goals

The final session entitled "Issues on Including Ethics in the Engineering Curriculum and the Resulting Impact on Engineering Education" involved the development of conclusions, recommendations and action plans, which are currently being finalized.

Ethics and the IRS!

This time the Federal Internal Revenue Service (IRS) will be answering the questions, according to the Associated Press (AP):

- "How often do IRS employees lie to taxpayers?"
- "Do taxpayers with political clout get preferential treatment?"
- "Have you noticed unfair or uncaring treatment of taxpayer grievances?"

Unlike the customary confrontations between IRS and taxpayer, this grilling is taking place on paper. And there are no right or wrong answers. It's all part of an effort by the IRS to clean up its act, to make its 105,000-plus employees aware of possible ethics problems and to prevent recurrences.

The IRS hired the Josephson Institute (JI) of Marina del Rey, California (tel: 310-306-1868), to prepare and analyze a 126-item questionnaire that will be filled out anonymously by 5,600 randomly selected employees doing all types of jobs in the agency. After

International Convocation Endorsement

NIEE's convocation on "Ethical Issues in International Engineering Practice," announced in the Fall 1990 issue of "Engineering Ethics Update" as a major NIEE project, has received the endorsement of the American Association of Engineering Societies at its recent meeting on April 2, 1992.

The convocation, scheduled for November 28 through December 2, 1992, at the Barton Creek Conference Center in Austin, Texas, will have professional engineering representatives from twenty-four nations. Data-gathering questionnaires are currently being compiled as a basis for discussions during this first of three biennial convocations. Delegates are already confirmed from South America, Europe, Africa, the Middle East, the Far East as well as from the United States and Canada.

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Integrating Ethics Into Technical Programs

A group of educators at the Illinois Institute of Technology (IIT) is convinced that the best way to teach practical and professional ethics is to integrate ethics instruction throughout the curricula.

In January 1991, IIT's Michael Davis received a \$211,404 grant from the National Science Foundation (NSF) to put the idea into practice over a four-year period. Davis, senior research associate at IIT's Center for the Study of Ethics in the Professions (CSEP), is working with the IIT faculty to develop and implement a model "Ethics Across the Curriculum" program.

Here is a summary of his program as reported by him to the NSPE winter meeting of January 1992. To this editor the program sounds like an effective means to bring real-practice questions into the classroom, which students can quickly appreciate and which can make their technical studies take on real meaning. STAY TUNED!

"Educators generally agree that professional ethics will not be learned unless it is taught, and that most undergraduate programs in science and engineering are not doing enough to teach professional ethics," Davis explained. "The problem has been how to teach professional ethics. Most curricula do not have room for a separate required course in ethics."

Davis says the best way to get ethics into professional programs is to include it in ordinary technical courses. According to Davis, when scientists or engineers who are teaching substantive courses in their professional field integrate ethics into their courses, the implicit message is that ethics is an integral part of the profession.

Unfortunately, he says, few professional faculty are trained to teach professional ethics. They are, therefore, naturally hesitant to try. IIT's "Ethics Across the Curriculum" is designed to overcome this hesitancy in **three steps**:

1. Develop and offer a summer workshop for faculty in how to teach professional ethics in their technical courses.

While this seven-day workshop of thirty class hours includes some ethical theory, its primary focus is on classroom practice. How do you raise an ethical issue? What objectives should you have? What works? What doesn't work? About half the workshop is devoted to preparing, trying out, and evaluating materials for technical classes to be taught in the fall semester. Materials covered include:

- *Day 1: Definitions-Key Terms
- . Day 2: Summary of Moral Theory
- Day 3: Professional Ethics
- Day 4: Moral and Cognitive Issues
- *Day 5: Pedagogy-Issues & Experience
- *Day 6: Try Out Presentations
- *Day 7: Try Out Problems, Exams

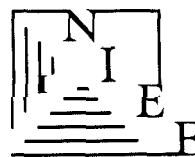
During the summers of 1991, 1992 and 1993, about forty-five IIT faculty members will participate in the workshop, fifteen each summer, receiving a \$2,000 stipend to offset expenses. In the summer of 1994, fifteen faculty members from universities other than IIT will participate in the workshop.

2. Provide institutional support for faculty including ethics in their technical courses. Such support will include a continuing seminar for workshop participants and other interested faculty. The grant also allows CSEP to expand its library to include books, videos, and other materials that might be used in class, and a file of problems other faculty have developed for their courses.

3. Finally, redesign senior level "capstone" courses (on a pilot basis) to make them both more realistic and more likely to be ethically instructive. Faculty members from one department will be provided support to work with their counterparts from other departments to develop ethically complex problems requiring cooperation among students in two or more professional fields.

What has been the experience to date? Results of evaluations from the summer 1991 workshop and integrated ethics-cum-technical courses in the fall of 1991 were as follows:

- (1) Students-overwhelmingly favorable (2/3 or more in each class)
 - a) Many seemed to appreciate the ethics because ethics brings abstract courses closer to practice.
 - b) Many of the negative voters approved of teaching ethics but claimed to already understand the ethical issues that were taught.
 - c) Very few students were "turned off," and some would have preferred a required ethics course.
- (2) Faculty-most intend to do more on ethics than they did in the fall of 1991; none intends to do less; some expressed surprise at the positive student reaction.



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For information on joining NIEE, call 703/684-2840. President: Margaret N. Maxey, Ph.D.; President-Elect: Paul R. Munger, P.E.; Immediate Past President: Herbert G. Koogle, P.E.; Commission Chairmen: Education: Vivian Weil, Ph.D.; Program Development: Samuel C. Florman, P.E.; Practice Applications: Jimmy H. Smith, Ph.D., P.E.; Margaret N. Maxey, Ph.D.; Editor: John Alger, P.E.

Comments and suggestions for articles are welcome. Please write to John Alger, Editor, *Engineering Ethics Update*, RR.#1, Box 133, Rumney, N.H. 03266.

(3) Positive Side Effects—"Ethics Across the Curriculum" was featured in a number of IIT publications, and the Administration has embraced it as something to attract students; engineering faculty have begun to think there is more room in the curriculum than they previously believed and that it may serve to make the first two years of the engineering curriculum "more relevant"; and finally, "Ethics Across the Curriculum" has become a model for campus-wide initiatives in quality, creativity (i.e., new approaches to problems), and leadership (i.e., improved writing or speaking ability).

(4) Remaining Problems—how to deal with ethical problems if they arise unexpectedly in class (i.e., provide faculty an "ethics survival kit"); coordination among faculty to recognize that in a second, third and fourth year, students will be progressively more sophisticated in their understanding and handling of ethical problems; how to measure the long-term impact that "Ethics Across the Curriculum" may have.

The NSF grant includes funds to make periodic updates available to the wider professional community about this IIT program. To that end you may wish to contact Michael Davis at (312) 567-3017 if you have a question or observation to share with him.

The Ethics of "Honest Abe"

"Without truth and integrity, leadership is hollow, Lincoln emphasized." So writes Donald T. Phillips, author of "Lincoln on Leadership," published by Warner Books and excerpted recently in the Christian Science Monitor.

In this particularly political year, it is interesting, once again, to reflect on the personality of Abraham Lincoln.

"High ethics and morality in any organization must be sincere. That's one reason "Honest Abe" Lincoln was so admired in his lifetime. Through an individual's words, deeds, and actions, integrity can be judged to be genuine. And integrity is tied closely to the values espoused by an effective leader. Leaders, in general, must set and respond to fundamental goals and values that move their followers . . . Put more simply—values motivate . . . It is the leader's role to lift followers out of their everyday selves up to a higher level of awareness, motivation, and commitment.

"Abraham Lincoln constantly shared, stressed, and reemphasized the two most fundamental values that, over the years, have mobilized Americans: the pursuit of liberty and equality. His integrity was, in short, the nation's integrity . . . Lincoln simply did not deal with people he knew to be dishonest. . . And, if an organization has no ethics or values, it can't support its own weight and will eventually come crashing down."

Ethics and the IRS!

(Continued from page 1)

those responses are evaluated, every IRS employee will be expected to take six to eight hours of classroom instruction, according to AP.

As reported in "Ethics in Action," the JI newsletter, this commitment by the IRS to have every employee of the agency participate in a comprehensive Jr-designed ethics course makes this IRS ethics initiative the most extensive ever undertaken by an organization in either the public or the private sector.

The discussion-based courses, initiated in April 1992, are built around course materials prepared by JI, with four half-hour video segments covering ethics and values, JI's ten core ethical principles, JI's five principles of public service ethics, and JI's ethical decision-making model.

Last year JI conducted a comprehensive "ethics audit" of attitudes and behaviors of supervisors and designed a full-day program for all 14,000 IRS managers, including the Commissioner and the Board of Directors.

This emphasis on ethics grew out of hearings by the U.S. Congress' House Government Operations consumer subcommittee into allegations of misconduct and resulting cover-ups by many senior IRS personnel, according to AP. In a final report on the investigation, the subcommittee concluded "Senior managers, left unchecked, abused their position and authority."

This situation also created morale problems among IRS employees, who believed a double standard existed that permitted senior managers to behave in a manner not tolerated for lower-level employees."

The IRS is paying JI \$24,000 to write and analyze the employees' survey. The agency estimates it will require the equivalent of about 410 people working for one year to complete the survey and training.

Statement on Plagiarism

Engineers, scientists and others who develop new or improved information must be concerned with the issue of prior publication and knowledge of that information. In July 1989 the "Professional Society Ethics Group" of the "American Association of University Professors" approved a "Statement on Plagiarism." In summary, the statement reads as follows:

".. Taking over the ideas, methods, or written words of another, without acknowledgement and with the intention that they be taken as the work of the deceiver, is plagiarism.

"Every professor [read engineer or scientist] should be guided by the following:

"1. In his or her own work, the professor must scrupulously acknowledge every intellectual debt—for ideas, methods, and expressions—by means appropri-

ate to the form of communication.

"2. Any discovery of suspected plagiarism should be brought at once to the attention of the affected parties and, as appropriate, to the profession at large through proper and effective channels.

"3. Professors should work to ensure that their universities and professional societies adopt clear guidelines respecting plagiarism. . .

"4. Scholars must make clear the respective contributions of colleagues on a collaborative project. . .

"5. In dealing with . . . students, professors must demonstrate by precept and example the necessity of rigorous honesty in the use of sources and of utter respect for the work of others. . ."

A copy of the full "Statement on Plagiarism" may be obtained by contacting the American Association of University Professors at 1012 Fourteenth Street, N.W., Suite 500, Washington, D.C. 20005, (202) 737-5900.

Letter to the Editor:

Readers! How Do You Decide This One?

Ken Arnold, P.E., of Paragon Engineering Services sent in these ethical dilemmas based on personal experience. How would you decide? How do you answer the questions Ken asks! Let this editor hear from you and get your views in the news!

1. Is it ethical to refuse to give your professional opinion in a lawsuit because of fear that the other party to the suit would withhold future work? Does the ethical situation change when a client requests the professional opinion?

2. Is it ethical to ignore an obvious safety hazard when you are a professional witness in a lawsuit, as it could be interpreted that you are just trying to embarrass the other side? For the same reason, is it ethical to bring the matter to the attention of government authorities?

3. Is it ethical for a professional engineer in a company to take a position that something is safe because it was not declared unsafe by a government inspector?

4. Is it ethical for a professional engineer in a company to withhold work from an engineering company solely because one of the engineering company's employees testified as an expert witness against the company? Is it ethical to continue to blackball the engineering company after the lawsuit is settled? Is it ethical to continue to blackball the engineering company even if the engineering company agrees not to allow the expert witness to work on the project?

An Ethics Code in 25 Words or Less

Art Schwartz, Esq., NSPE General Counsel, passed along the views of Bob Nichols, P.E., regarding the "Rotary Four-Way Test" as published in the "Rotagraph" by the Rotary Club of Fort Worth.

First, the Four-Way Test from the Rotagraph written in twenty five words:

"In recent days we have adopted a very practical statement of ethics, which we call the Four-Way Test:

1. Is it the truth?
2. Is it fair to all concerned?
3. Will it build good will and better friendships?
4. Will it be beneficial to all concerned?

Now, Bob Nichols' comments:

"The Rotary Four-Way Test covers the whole subject in just a few words. Wonder why engineers can't develop something short and to the point."

Well, this editor likes it but doesn't think it covers the whole subject. For example, shouldn't test #1 read "The whole truth and nothing but the truth?" And, how does it cover public health and safety? What do you readers think? Take up the "Nichols Challenge" and come up with engineering ethics in a about "twenty five words or less!" Send it in (if you have the guts) and get published!



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