INTRODUCTION

The second workshop to study ethical issues in physics was held at Eastern Michigan University's Corporate Education Center on July 19-20, 1996. The purpose of the second workshop was to study issues time had not permitted the 1993 workshop to address. The Proceedings from the first workshop have recently been published and will soon be available on the World Wide Web.

Preparation for the 1996 workshop began in 1995 with a survey of physicists to help identify ethical issues of most importance to the physics community. Some results of that survey are discussed in the first paper, by Bonnie Wylo and Marshall Thomsen. The survey targeted primarily members of the Forum on Physics and Society. All those surveyed were asked to identify specific ethical issues of relevance to them in their job setting, and those in academia were also questioned on the possibility of offering formal training to students on ethical issues. While there did seem to be a fair number of respondents in academia who thought offering a course in ethics was a possibility, it was interesting to note that some of the stronger sentiment for the need for such a course came from respondents in industry. Given recent employment trends in physics, this is a result worth noting.

Following the paper on the survey results, Caroline Herzenberg discusses organizational pressures which may come to bear on a physicist trying to act in accordance with ethical standards. Such pressure may become a form of harassment. While discussions on ethics often revolve around the obligation to act ethically, Herzenberg's paper focuses on the right to act ethically. Her identification of different harassment mechanisms provides a useful framework for studying harassment in the workplace. An appendix to the paper provides numerous concrete descriptions of harassment and could itself be a springboard for classroom discussion.

Alvin Saperstein addresses several ethical issues faced by physicists who teach, looking at both institutional pressures affecting the balance between teaching and research as well as at the methods used by physicists as they teach. He calls into question the apparently generally accepted model of a research university in which the number one priority of faculty is research and teaching is handled primarily by traditional methods. While doctors are held accountable for keeping up with the latest medical techniques which are of most benefit to their patients, the same is not in general true for physicists keeping up with the latest research on teaching methods. Although there have been significant discussions on the content of physics courses and curricula, Saperstein's paper is a call for physicists to pay more attention to the teaching process.

Tina Kaarsberg discusses the obligation of the physics community as a whole to provide input into important public policy decisions. She uses the broad set of issues related to the sustainability of present natural resource utilization trends to illustrate the ethical obligation of physicists to become more active in public policy matters. She examines the present status of public policy input and argues the need for more physicists specifically trained in this area of public policy and for greater institutional support for physicists who choose to get involved in public policy debate.

David Resnik provides insight into the nature of interactions between scientists and the media, in particular highlighting some of the problems associated with differing priorities between these two groups. If the general public is misled by the representation of science in the media, then they will be unable to make informed decisions which have a technological component. Thus scientists need to pay careful attention to how they relate to the media. The paper describes in detail the most common forms of interaction of scientists with the media and also provides a good overview of public perceptions and misperceptions about science and how these relate to the media portrayal of science.

Priscilla Auchincloss introduces the question of gender and how this may affect ethical issues in physics. Presumably the physics community does not intend to exclude women, and many of the social barriers to women's participation have been removed. Yet women continue to be more underrepresented in the physics community than in most other sciences. It is therefore reasonable to ask whether physicists have an ethical obligation to ensure that their community encourages women (and minorities) to participate, what the nature of this obligation might be, and how the community could or should meet it. The under representation of women challenges the notion that science is gender neutral and invites a re-examination of values (like objectivity) linked to the making of knowledge.

Finally Marshall Thomsen gives an overview of the numerous ethical issues associated with the publication process in physics and how those issues will be affected by likely changes associated with electronic forms of information storage and communication. The paper is tutorial in nature, providing a brief overview of the publication process so that it can be understood by students without much experience in this area. Relevant ethical standards as described by the American Physical Society guidelines for professional conduct and the Physical Review Letters instructions to authors are discussed, and unresolved problem areas are identified.

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