



Newsletter



Dr. SHELLY BEAUCHAMP, director of the Women Inventors' Project, gave a CSTV brown bag lunchtime talk on 26 September. Her topic was Women and Technology -- Two Cultures? In February '91, she'll conduct a workshop on "Mothers and Daughters of Invention" at the sixth annual NASTS conference in Washington, DC. For a short note on the Women Inventors' Project, see p. 10.

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APPLIED ETHICS: ONLY SOUND AND FURY?

The following item by the late Dr. Michael Bayles is reprinted by permission of Westminster Affairs, the newsletter of the Westminster Institute for Ethics and Human Values. Dr. Bayles, who died in August 1990, was the Institute's first director, serving from 1979 to 1984.

The expression "applied ethics" seems to be an oxymoron. Ethics is about how one ought to act and live. How could it not apply? Only for a brief moment in the history of ethics stretching back to Socrates did philosophers think it was not an applied subject. During the middle third of this century, the dominant Anglo-American view was that philosophy, including ethics, primarily analyzed the meaning of terms. According to the theories of intuitionism and emotivism, normative statements were unarguable unless they concerned means to ends. And questions of means to ends were thought to be scientific. "Applied ethics" signifies at least a partial rejection of these views.

"Applied ethics" has a broad and narrow sense. The broad sense might better be called applied moral philosophy, because it includes questions of political, legal, and social philosophy. Examples are the justifiability of the death penalty, civil disobedience, and affirmative action. The narrow sense restricts applied ethics to issues of individual conduct; that of individual physicians, business persons, parents, and so on. The broader sense is probably the most common one.

During the last two decades, applied ethics has grown and spread at a rate that even cockroaches might envy. Some subfields, such as legal and medical ethics, existed earlier but were primarily the province of the professionals concerned. New subfields have arisen: agricultural ethics, government ethics, military ethics, and even, some have suggested, academic ethics and the ethics of clergy.

The impact of all this applied ethics is less clear. There have been some clear policy results, such as ethical review of research involving human subject. Effects

on daily conduct are less clear. A philosophy student studying with a professor of medicine once told me that the professor's practice seemed to have little relation to his ethical views in the classroom. Of course, none of us always acts as we think we should, but this problem is a deeper failure of theory to affect practice. Moreover, practical changes that have occurred may be due to causes other than the study of applied ethics. For example, physicians may now tell patients of their cancer; formerly, they rarely did. Now they have therapies to offer, and patients are better informed.

Applied ethics has recently become more sophisticated. Not many years ago, I seriously writing a parody -- The All Purpose Medical Ethics Paper. It was to contain discussions of human experimentation, informed consent, substituted judgement, paternalism, the physician-patient relationship, and the allocation of scarce medical resources. "X" would represent a medical procedure or appliance. One could then generate a paper on any new topic by using a word processor's global search and replace to substitute the name of a procedure or appliance for "X". This is no longer an apt characterization of the work in medical ethics.

"Applied ethics is still defective in its relation to ethical theory, to practice, and to persons researching it."

Some applied ethics is now entrenched and will be around for the foreseeable future. Medical, legal, and business ethics are well entrenched in university curricula. Most introductory ethics courses contain a segment on applied problems. The future of applied ethics is assured because society changes. Scientific and social developments, as well as unintended consequences of old policies, continually raise new ethical problems.

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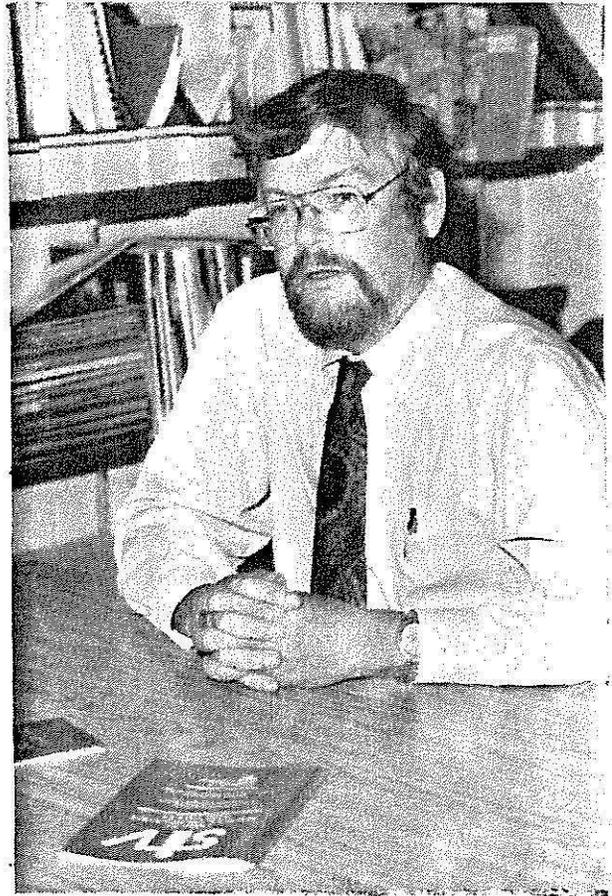
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Applied ethics still has defects regarding its relation to ethical theory, its effect on practice, and the persons who research it. The relationship between ethical theory and practice is difficult. Current applied ethics only partially rejects intuitionism and emotivism. Ethicists are still uncertain about how to argue for fundamental values. Prominent theories of justice contend that one cannot evaluate alternative conceptions of the good. Applied ethicists often either ignore ethical theory, including theories of justice, or pay it only lip service. Much more attention needs to be given to the complex connections between theory and application.

A second defect relates to the effect of applied ethics on individual conduct. Its successes, such as ethical review of human experimentation and informed consent, seem to rest on explicit procedures for implementation. Although these areas are not perfect, the problems are recognized to be procedural ones -- physician-patient communication and so forth. Procedures to implement more ethical practice are sorely needed in other areas.

Finally, if procedures for implementation are needed, then, as Dan Callahan has long emphasized, interdisciplinary effort is required. Ethicists now generally realize the need for empirical knowledge of topics about which they write. Few papers today, compared to ten or fifteen years ago, rest on mistaken factual assumptions. However, if one is to design institutions and practices to promote ethical conduct, people with backgrounds in sociology and administration, for example, need to be involved.

Without interdisciplinary attention to detailed implementation, a future exemplified historically by Jeremy Bentham's work, applied ethics risks a Shakespearean fate -- being full of sound and fury, signifying nothing.



Dr. Gregory Benford, 1990 Hagey lecturer, conducted a lunchtime discussion for the Centre in early October.

BEIJING TO HOST TECHNOLOGY AND SOCIETY CONFERENCE

An international conference on Technological Progress and Social Development is being planned for Beijing, China in 1992. The philosophy, sociology and technology division of Tsinghua University is organizing the meeting with the help of the Chinese Society for Dialectics of Nature and the International Union of Philosophy of Science. Topics will include social and ethical problems in current technology, value judgements and assessment, technological innovation and economic development, philosophies of technologies in different social and cultural contexts, and other issues. Information: Gao Dasheng, Department of Social Sciences, Tsinghua University, Beijing 100084, People's Republic of China.

PALM SPRINGS: 1991 SCIENCE AND TECHNOLOGY EDUCATION EVENT

The Wyndham Palm Springs Hotel and Resort in Palm Springs, CA, will be the site of an August 1991 conference called "Science and technology education: responsible change for the 21st century". The 10-day event is the sixth annual international symposium on world trends in the field.

Organizers say the event will offer a "forum for dialogue" for increasing awareness of world wide perspectives and for developing closer cooperation. Issues arising from society, culture and the environment, as well as from science and technology, will provide the context for conference sessions.



Papers are now being solicited; deadline is 1 January 1991.

Contact:

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STS AT THE UNIVERSITY OF ALBERTA

By Eric Higgs

Assistant Professor, Science, Technology and Society Program, and Department of Philosophy, UA

The UA Faculty of Arts is about to launch a Science, Technology and Society (STS) Program. With good fortune and the favourable winds of finance (read oil prices – such irony), we look forward to gearing up our courses and administration in 1991-2.

STS at Alberta traces its origin to the late Gordin Kaplan, then UA's Vice-President Research, who campaigned vigorously for an interdisciplinary program that would address the pressing social and environmental concerns raised by science and technology. Several faculty positions were arranged under a "New Initiatives Program", and an ad hoc committee was struck to create a proposal. The first proposal proved too opulent, but by early 1989 a leaner one was approved, and a search was begun for two people to staff the program.

In June 1989 Julian Martin, a Cambridge-trained historian of science, and I were appointed to tenure-track positions. Some minor complications ensued, since neither Julian Martin nor I could accept the positions immediately. Dr. Martin started his work on January 1, 1990; I followed on July 1.

Higgs:

"The first proposal was too opulent, but Alberta's STS program is now gearing up."

Both of us arrived only to discover that Alberta had not sold enough oil to warrant the immediate sustained funding of the STS Program. We were in the rare and perplexing position of having a job but no work! Julian was temporarily placed in the Department of History, and I in the Department of Philosophy. We now have

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**ETHICS FOR ENGINEERS -- FEB. '91
NASTS SYMPOSIUM**

The American Society of Mechanical Engineers will co-sponsor with NASTS a "scenario approach" ethics forum at the February 1991 NASTS meeting in Washington, DC. Scenarios will include Ethics and the new chemicals, At what price safety?, When should a technical expert get involved?, Ethics and the international marketplace, and others. Professional liability and responsibility, economic constraints, and race/gender differences will be discussed.

Contact: Kate Ingle, ASME Conference Chair, 1313 Burton Road, Knoxville, Tennessee 37919. Phone: (615) 574-9245.

IEEE GETS NEW ETHICS CODE

The latest issue of the *Professional Ethics Report* says the Institute of Electrical and Electronics Engineers (IEEE) is getting a new ethics code on 1 January 1991. The new code is written "as an aspirational document", a change in approach from its former "legislative-type" document. How this change will work out in practice remains to be seen, says the *Report*, adding that "it is hoped [presumably by the IEEE Directors] that the new code, by its aspirational tone, will motivate IEEE members to practise engineering in such an ethical manner as to eliminate the need for an enforcement process."

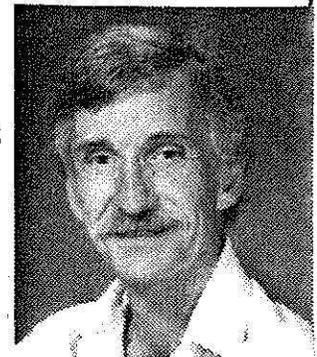
**ENGINEERING, TECHNOLOGY AND
SOCIETY COURSE CANCELLED**

STV 401A, which was to be cross-listed with GE 481 -- Engineering, Technology and Canadian Society -- will not be offered in the Winter '91 term. Other commitments on the part of Dr. Norman Ball, holder of the Northern Telecom professorship, and a lecture series that Ball is scheduled to give for the Association of Professional Engineers of Ontario (APEO), forced the cancellation.

**"KEEN, ACTIVE STUDENTS" In FALL
STV COURSE**

Jim MacLachlan's Fall 1990 course on Communications, Technology and Society (STV 201A) has an enrolment of 12 keen and active students, reports the instructor.

"So far the course has covered the revolutions in society prompted or promoted by the print revolution of the fifteenth century," said MacLachlan earlier this term. "We are now examining the electrical and electronic revolutions in communications, leading up to the social changes wrought by the shift to mass communications."



MacLachlan:
*Students at
work on
interesting
projects*

Students are working on an interesting variety of papers and reports, MacLachlan said. They are looking at the ways in which radio and television have affected politics and public opinion, violence and children, the unity of Canada, social and psychological distances, and the entertainment industry.

The class is composed of eight males and four females, representing the faculties of Science, Arts, Mathematics, Environmental Studies and Engineering. The course has attracted interest from all undergraduate levels, as well as one post-degree and two non-degree students.

MacLachlan, a recently retired Ryerson history professor, is the author of Children of Prometheus, a history of science and technology.

GED MCLEAN PURSUES STV ACTIVITIES OUT WEST

Dr. GED MCLEAN of the University of Victoria's mechanical engineering department is continuing his STV-related activities there.

McLean, formerly an STV instructor at UW, tells us that he taught a course this summer called "Technology and Society." The course is similar to STV 100, but is geared toward fourth year Engineering students and is part of their curriculum. The course was a success, says McLean, who looks forward to teaching it again in the summer of 1991.



McLean:
*Slow progress
on a
national STS
association*

McLean is also thinking of submitting a paper for a June 1991 conference, Preparing for a Sustainable Society, to be held at Ryerson Polytechnical Institute. The conference, co-chaired by Willem Vanderburg, will include addresses by Dr. Ursula Franklin, Dr. John Jackson and Dr. J. Ham.

Development of the Canadian Association for the Social Study of Technology (more or less a Canadian version of the US-based "STS" organization) is proceeding very slowly, reports McLean. He has been in touch with Dr. Datta Pillay, Dean of Science at University of Windsor, to ask him to head up the Association.

Newsletter readers can contact McLean at University of Victoria, Department of Mechanical Engineering, Box 1700, Victoria BC, V8W 2Y2.

NEWSLETTER EDITOR LEAVES THE CENTRE

STEVE JONES, a contract worker with the Centre and editor of the *CSTV Newsletter*, is leaving the Centre at the end of November.

Jones, a self-described "interested and sympathetic" observer of STV issues, was hired in 1986 by then Director Larry Haworth to handle publicity and promotion for the Centre. Early projects included a general information brochure, conference planning, and this *Newsletter*.

During a transition period in 1987-88, Jones became more directly involved in the Centre's day-to-day operations under Director Russel Legge. He admits he was more than happy to relinquish these duties when an administrative assistant/secretary was hired in 1988.

"I have appreciated and benefitted from your work here," wrote *CSTV* Director GEORGE ATKINSON in acknowledging Jones's departure. Atkinson indicated he was referring especially to the period just before he became Director in 1989 as well as to Jones's publicity activities and "thoughtful participation" in the Centre's daily life.

Citing personal and other reasons for his decision to leave the Centre, Jones observes wryly that he "peaked awhile back, during *CSTV*'s formative years." But the Centre's current administrative and financial problems were also a factor.

"I don't think there's the widely-shared vision for the Centre that there was back in 1984-85. We often seem to be just moving deck chairs around on the *Titanic*," he says.

Jones will continue to work at UW -- as Assistant to the Dean of St. Paul's United College and as joint co-ordinator of a Winter 1991 interdisciplinary Arts course.

STS AT MIT: PARALLELS WITH STV AT WATERLOO?

CSTV Newsletter readers will recall that in the last issue STV Option Coordinator Dr. DAVID HURON discussed the "technological malaise" that the Centre seems to be suffering. Huron pointed out aspects of the "serious structural and organizational difficulty" faced by CSTV, especially in terms of faculty appointments (this part of his essay was picked up by the *LW Gazette* issue of 19 Sept.)

An interesting light is thrown on the UW situation by a recent item from MIT. The comments below are from Kenneth Kenniston, Director of the Program in Science, Technology and Society at MIT, and are published in the Sept. 1990 issue of *STS News*, the Program's monthly newsletter.

"With a small and diverse faculty, limited resources, and a varied agenda, a program like ours always risks internal fragmentation and the external impulse to make STS a part of some more traditional organizational unit. That these risks have so far been overcome is above all the result of the unusual coherence of the Program, present in faculty, staff, and students.



Internally, that coherence is manifest in a high degree of mutual respect and dedication to the Program, despite our heterogeneous origins and diverse destinies. Externally, it has always been witnessed by an ability to "circle the wagons" -- in Roe Smith's phrase -- when confronted with major challenges.

But underlying these attributes, I think, is a more basic sense of the importance of the enterprise to which we are committed. In a word, there is no task more important than understanding the history and role of science and technology, and no better place to accomplish that task than MIT."



National Association for Science, Technology and Society

SIXTH ANNUAL NASTS CONFERENCE COMING UP

The US-based National Association for Science, Technology and Society (NASTS) will hold its sixth annual "technological literacy" conference in Washington, DC in February 1991. The overall theme will be "Broadening participation in science, technology and medicine." Also included will be NASTS's traditional "signature" themes of education and information; technology, industry and work; environment; health and biomedicine; and moral, ethical and philosophical perspectives.

STS educators are invited to submit proposals for workshops, tutorials, poster sessions, exhibits and other activities. A wide range of participants is again expected, including teachers, scientists, authors, academics, policy analysts and others. (CSTV has participated in the past, but the budget crunch may preclude our involvement in the 1991 event.)

Early conference registration is \$90 US (before 15 December) and includes NASTS membership. Contact TLC-6 Manager, The Pennsylvania State University, 117 Willard Bldg., University Park, PA 16802. Phone (814) 865-9951.

WINTER 1991 COURSES

STV's introductory course, STV 100, will be offered in the Winter '91 term to a record 93 students.

The course will be taught by Dr. DARYL PULLMAN, who has been involved with the course during 1990. Classes begin Tuesday, 8 January from 7 - 10 p.m. in MC 1068.



Pullman:
*Teaching
STV 100
in Winter
'91*

STV 400, the senior project course required to fulfill the STV Option, will also be offered.

STV 200 (Group Projects) and STV 401A (Engineering, Technology and Canadian Society) were cancelled late last year. See separate stories in this issue.

NEWSLETTER PRODUCTION

- Steve Jones
- Kathy Sharpe

Be sure to complete and send in the cover questionnaire attached to page one!

It's been a pleasure to publicize, write about, and report on CSTV's activities and related matters over the past several years. Best wishes to the Centre's staff, supporters and friends -- and to our Newsletter readers!

-- S. Jones
Editor 1986-90

BIG STS GRANT NEWS FROM MASSACHUSETTS

The biggest item in a recent issue of MIT's *STS News* describes a \$700,000 grant the Program has received from the MacArthur Foundation for setting up US-USSR workshops on the social and political implications of science and technology.

A contact between US and USSR scientists last year led to the four-year workshop series. Soviet scholars complained at the time that "for many years Soviet governmental policy relied almost entirely on a narrow technocratic approach in developing the national economy, neglecting the insights of the humanities and social sciences." The "strikingly narrow" education of planners and bureaucrats produced "the most technocratic and insensitive industrial civilization the world has ever seen," says the *News*.

During the next four years, faculty from MIT and other universities will discuss problems arising out of the science-technology-society connection. The first workshop in Spring 1991, will examine anti-science and anti-technology trends in both countries.

STS News is an informative publication, containing lots of news about STS faculty, staff, students and the Program in general. The current issue announces the retirement of Leo Marx, noted author of *The Machine in the Garden: Technology and the Pastoral Idea* (1957) and *The Pilot and the Passenger: Essays on Literature, Technology and Culture in the United States* (1989). Marx has recently completed a draft report for the Rockefeller Foundation on "the humanities and the environmental crisis."

To receive *STS News*, contact STS Headquarters, Massachusetts Institute of Technology, E5-110, Cambridge, MA 02139.

MCDONALD SHAPES AGENDA OF UBC APPLIED ETHICS CENTRE

Earlier this year, longtime UW philosophy professor Dr. MICHAEL MCDONALD left Waterloo to take up the Maurice Young Chair in Applied Ethics at the University of British Columbia. We asked him to take a moment after the moving boxes were unpacked to write a short piece on UBC's new Centre for Applied Ethics. The following is the report he sent us in late October.

When I was in the process of deciding whether to accept the newly-established Maurice Young Chair at UBC, I had a chat with Bruce Gellatly, who has also made the trek westward from Waterloo to Vancouver. I asked him to compare UBC to UW. He replied, "UBC has about twice the number of students, double the budget of UW, and is about *four times as complex*."

Why so complex? Well, UBC has faculties of commerce, education and forestry; a law school; a large health sciences complex -- medicine, nursing, dentistry, pharmacy and a full complement of teaching hospitals ... the list goes on and includes newly-created centres in sustainable development and health policy research.

Each of these faculties, schools, or centres has its own special ethical concerns. These are oriented either to teaching, introducing ethics into the

curriculum; to research, assisting active researchers in professional faculties develop competence in ethics; or to consultations with the community, helping local industries with ethics programs.

So my main work now is forging collaborative connections with faculty, students, and community that will allow the Centre to effectively address these diverse and very specific concerns. As it is evolving now, the Centre will have a governing structure that has both an inside committee, drawn from ethics researchers and teachers, and an outside committee, made up of representatives from interested community groups.

At the same time, I want our Centre to play a significant regional and national role. So I am most interested in promoting active linkages with ethics researchers at other institutions including, of course, the fine researchers at UW.

With all this work on my agenda, a top priority is creating new chairs in applied ethics, visiting professorships and the like, to recruit more people to help me meet these very exciting challenges.



Cont'd. from p. 4

good reason to believe that the University will approve the Program in the next few months.

Once underway, the Program will be housed in the Faculty of Arts, UA's largest faculty. We will be administered by a six member committee (including ourselves), and will report to the Associate Dean for Fine Arts and Interdisciplinary Programs. Our administrative structure and size will be comparable to Women's Studies, Canadian Studies, and Film Studies, all interdisciplinary programs. Under the leadership of the current Dean of Arts, Patricia Clements, the atmosphere seems favourable for the formation and growth of such programs at UA.

In full swing, our Program will offer a major and serve as a second subject area for a BA degree. The proposal contains provisions for course offerings in STS at all undergraduate levels. We will also offer courses of interest to the wider University community. In time we hope to build our own graduate program, or to cooperate with other departments and programs to offer an STS emphasis at the graduate level.

Research is a large part of our mandate. It will be accomplished from a variety of traditional disciplinary perspectives, but will also foster the distinctive intellectual fusion possible with a diverse yet united group of scholars and students. Some of this work will draw us out to government, industry and community groups for consultation, and expand our interests in the direction of science and technology policy.

The future is bright for those who choose to study the social and environmental implications of science and technology. One thing is sure in this endeavour: there will be no shortage of material.

Dr. Eric Higgs was the STV Option Coordinator at UW in 1987-8, and taught at Oberlin College in Ohio in 1989-90.



Women Inventors Project

What is the Women Inventors Project?

The **Women Inventors Project** is a non-profit organization which provides information, advice and moral support to innovative women of all ages. Founded in 1986 by two Canadian women, the **Women Inventors Project** has been working to raise the profile of women through numerous activities, including:

- the publication of the only Canadian inventors' manual, **The Book for Women Who Invent or Want To**, which has now sold over 3,000 copies;
- the production of a newsletter, **Focus**, with information and expert advice by and for women inventors;
- the production of a traveling exhibit, **Inventing Women**, which is now coordinated by the National Museum of Science and Technology.

In recognition of its achievements, the Project has received a gold medal from the United Nations' World Intellectual Property Organization.

Why a Women Inventors Project?

Until recently, women inventors were few and far between. Women have been held back by a lack of money, information, recognition, and support networks. And they have been put off by a lack of female role models. In response to this problem, the **Women Inventors Project** has developed resource material for women inventors and entrepreneurs, teachers, and organizations that advise inventors and entrepreneurs.



Dr. Shelly Beauchamp spoke to about 35 students, faculty and staff at a CSTV brown bag discussion on 26 September.