ANNUAL REPORT

MARCH 1983 - JUNE 30, 1984

COMPUTER PROFESSIONALS FOR SOCIAL RESPONSIBILITY

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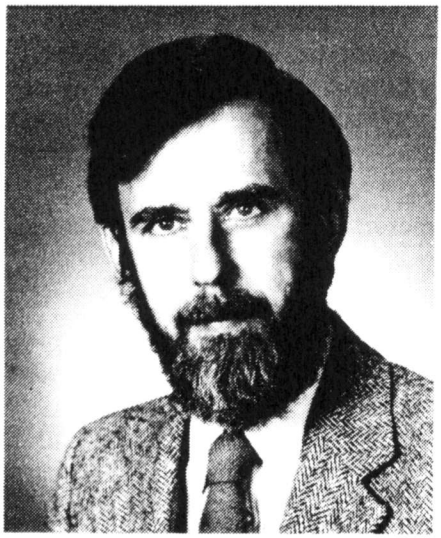
Computer Professionals for Social Responsibility (CPSR) is a national, non-profit, tax-exempt, educational organization of computer professionals concerned about society's use of computer technology. Our primary concern is the increasing role that computers play in the arms race and the ways in which their misuse might increase the threat of nuclear war. The work of the organization is supported by foundation grants as well as by membership dues and contributions.

January 1985



Severo M. Ornstein, Chairman

Dear Friends,

This first CPSR Annual Report actually covers the period from our beginnings in October, 1981 to June 30, 1984. Since the publication of this report has been so delayed, we are including with it a "Six Month Update" which lists briefly our accomplishments since last June.

The past year has been an exciting and formative one for CPSR. We have grown from a "basement enterprise," heavily dependent upon the dedication of a few key volunteers, into an organization with an office, paid employees, considerable foundation support, and a growing national reputation both within our profession and with the public media.

When I think about what elements make CPSR an important new force in our society, first and foremost is the fact that it is an organization whose time has come. The benefits to society of computer technology are both enormous and well advertised; the attendant problems have received considerably less attention but are becoming increasingly apparent. It is therefore not only timely but imperative that an organization of computer professionals emerge with the explicit purpose of focusing attention on these problems before they become extreme.

The coupling of advanced computer systems with nuclear weapons offers by far the most alarming of the potential threats to society, and for that reason we have chosen to focus our efforts principally in this area. In fact some members have argued that we should limit our attention to this issue alone because of its overwhelming importance. But there is a growing sense that our effectiveness in dealing with that or *any* issue will be enhanced rather than reduced if we are perceived as addressing the more general problems of appropriate use of computers by society. Stated differently, CPSR's strength may, in the long run, derive from its ability to address a wide range of issues.

CPSR's role is a complicated one. Expressing reservations about the capabilities of computer systems in a technologically oriented society can lead to charges of being opposed to technology, which we decidedly are not. To avoid such an image requires treading a fine line in which the benefits are acknowledged, but weighed carefully against the liabilities. By adopting only well considered positions and maintaining a scientific, non-partisan approach, we have acquired a highly professional image; we are recognized, accepted, and increasingly sought out as a valuable source of thoughtful technical knowledge and opinion. I hope that over the coming year we will be able not only to maintain, but to enhance that reputation for credibility.

Let me take this opportunity to thank all of you who have participated in helping to bring CPSR into existence. We have come a long way in a short time, but events have been more than keeping pace and, like Alice In Wonderland, we have had to run full tilt simply to avoid losing ground. Now, with solid foundation support behind us and with our new Executive Director, Gary Chapman, who commenced working with us in January 1985, we look forward to a year of expanded activities and increased effectiveness.

Severo M. Ornstein
Chairman of the Board

SIX-MONTH UPDATE OF CPSR ACTIVITIES

January, 1985

CPSR's first National Meeting was held in San Francisco in early October and was attended by members from across the country. Prior to the meeting, a general election was held and Professor Terry Winograd of Stanford and Deborah Estrin of M.I.T. were elected to the CPSR Board as Directors-at-Large. Our 1984 fall Newsletter contains a report of the meeting, much of which was spent sharing ideas about what CPSR should be doing. The meeting was deliberately held the day before the ACM Annual Conference. CPSR had a booth at the conference and members participated as panelists in two sessions entitled "Social Dimensions of Reliability of Complex Systems" and "Ethical Issues in New Computing Technologies." Also in early October, Terry Winograd and Severo Ornstein participated, together with Professor John McCarthy of Stanford in a well attended panel discussion at San Jose State University entitled "Survival and Prosperity: How Should Computers Help Us?"

CPSR has continued to be well represented in the press. There was a cover story about CPSR in the July 1984 issue of *Nuclear Times* and there was a lead article on the October 29 front page of the *San Jose Mercury News* under the banner headline: "'The last bug' computer scientists fear." The November 12 issue of Electronic Engineering Times contained a long story about CPSR headlined "Computer Scientists and Professionals Express Concern Regarding President Reagan's Star Wars Strategies." Severo Ornstein was recently interviewed for a program being prepared for Belgian television. Two members of CPSR/Santa Cruz wrote a chapter for a book on peace organizing about the use of computers for peace groups. CPSR's Assessment of the DARPA Strategic Computing plan was published in the December issue of the *Bulletin of the Atomic Scientists* and the Director of DARPA, Robert Cooper, wrote a letter criticizing our Assessment. Both his letter and our response to it were published in the January, 1985 issue of the *Bulletin.* A shortened version of our Assessment will be published in the February 1985 *Communications of the ACM.*

Also in the February *Communications* Adele Goldberg, ACM President, will announce that the ACM Council has unanimously adopted a statement prepared by the Ad Hoc Committee on Systems Reliability and Risks to the Public. CPSR had requested the ACM to take some such action; Steve Zilles, CPSR treasurer, and Jim Horning of CPSR/Palo Alto were members of the committee. The statement (which will be published both in the *Communications* and in our Winter Newsletter) announces that computer systems can and do fail, that human life is increasingly at stake, and that system developers have a responsibility to recognize and address themselves to this problem.

Laura Gould and Severo Ornstein were invited to participate in a meeting in August entitled "The Boston Roundtable." This week-long meeting was sponsored jointly by the *Nation Institute* and the *Institute for Policy Studies* and most of the major "Peace" groups were represented. It was an excellent opportunity to meet people and establish contacts and we have been invited to a second meeting planned for next summer.

CPSR's financial situation is by now much better than indicated by the Financial Statement contained in the 1983-84 Annual Report. To date we have received a total of $105,000 in foundation grants, and are currently preparing a proposal for general support for the coming year. In addition CPSR/Boston has prepared a proposal to produce an audio-visual program for the presentation of CPSR's concerns to general audiences. We are assisting CPSR/Boston with the search for funds and encourage other chapters to embark similarly on projects of their own.

Finally, after a long search we recently hired Mr. Gary Chapman to be our full-time Executive Director. Gary has had considerable experience at organizing, is interested in building a strong chapter-based organization, and is knowledgable about the issues. He comes out of the Political Science program at Stanford where he has been concerned with the impact of AI on society. Over the coming months he will try to visit the various chapters as he takes over responsibility for running and building CPSR.

CPSR GENERAL STATEMENT

Computer Professionals for Social Responsibility (CPSR) is an alliance of computer professionals concerned about the impact of computer technology on society. Decisions regarding the use of this technology have far-reaching consequences, and reflect our basic values and priorities.

As technical experts, we are responsible for providing the public with realistic assessments of the power, promise and limitations of computer technology. As concerned citizens, we must direct public attention to critical choices regarding applications of computer technology, especially where there are potentially dangerous consequences.

We are particularly alarmed by the increasing role that computers play in the threat of nuclear war. We deplore the extent to which our knowledge and skills are used to develop weapons systems that contribute less to our security than to our common peril. We resolve to work for a world in which science and technology are used not to produce weapons of war, but to foster a safe and just society.

These concerns impel us to many forms of action:

We will encourage wide recognition of the global threat posed by the nuclear arms race.

Within the computer profession, nationally and internationally, we will encourage debate and critical examination of social and technical issues.

We will encourage public discussion of, and public responsibility for, decisions involving the use of computers in systems critical to society.

We will work to dispel popular myths about the infallibility of technological systems, about the inviolability of expert judgments, and about the adequacy of technological solutions to political and social problems.

We will attempt to develop criteria for judging the appropriate application of computer technology, and will encourage its use in the service of constructive human purposes.

INTRODUCTION

Computers offer society many obvious benefits, providing increased efficiency, the elimination of routine labor, rapid access to large amounts of information, more detailed control over processes such as medical monitoring, etc. But as society becomes increasingly dependent on the power of computers for its vital functions, it becomes vulnerable as well. For example, while computers facilitate law enforcement, they may also invade our privacy and restrict our civil liberties. More serious dangers are presented by the possible failure of critical systems such as those used to control air traffic, communications, or nuclear power plants.

The way we choose to use computers reflects our basic values and priorities. They already handle many routine tasks that people previously performed, and they are continually being applied to more and more sophisticated problems. We are now beginning to use them in decision making at increasingly high levels. Such use has profound implications and far-reaching consequences for society. People are starting to assume - and in some cases act upon the assumption - that computers will soon be able to make sophisticated judgments. Such assumptions are generally neither valid nor safe. As we come to understand the potential power of computers, we need also to allow for their limitations. Failure to acknowledge these limitations leads to unrealistic assumptions about what computers can be counted on to do. When plans based on such assumptions involve critical systems, the dangers to society can become extreme.

Nowhere are the risks more pronounced than in the role that computer technology is assuming in the arms race. Computers are increasingly embedded in the decision-making processes associated with our defense system generally, and with the use of nuclear weapons in particular. Errors here have the potential for unprecedented catastrophe. Yet our dependency on computer control is growing, despite the universally acknowledged fact that it is impossible to build computer systems that perform properly under all circumstances. Basing international policy on the hope that we can build such systems is doubly dangerous.

Because decisions about the use of computer technology, particularly by the government and by major utilities, affect everyone, it is vital that the public be well informed in order to participate intelligently in guiding these decisions. But because computers are viewed as too complex for the general public to understand, decisions about their use are left to experts whose technological enthusiasm may overwhelm their concern for the long range interests of society. We believe that the fundamental issues involved are *not* so complex as to be beyond the grasp of the lay person, and that the survival of society may in fact depend on citizen involvement in such issues.

Our purpose is to give policy-makers and the general public a more informed understanding of what constitutes appropriate use of computer technology, or more particularly what computers can and cannot be counted upon to do. We do this by giving interviews to the press, radio, and television, by presenting public lectures and participating in panels, by meeting with public officials, by producing our own publications, and by writing articles for newspapers and journals.

In order to be effective in raising public awareness of the problems that computer technology presents to society, it is equally important to arouse concern within a broad segment of the computer profession itself. We have therefore petitioned various technical societies to take an ethical stand concerning the social responsibilities of members of the computing profession. Many computer scientists are concerned about the social implications of computer technology, and in particular with the fact that their profession is so closely tied to the arms race. They are concerned about the impact that military research has on the conduct of their work, and more generally with the moral implications of the directions of their research. There has previously been no national forum in which to express these concerns and examine alternatives. CPSR is filling that role.

HISTORY

In October of 1981, as part of the growing concern over the apparently increasing threat of nuclear war, a discussion group was formed on a computer message network at a research center in Palo Alto, California. Over the ensuing months, a small group began meeting weekly to discuss the issues and to debate the merits of forming a national organization of computer professionals dedicated to raising the awareness of the professional and public with regard to the dangers inherent in the use of computers in critical systems. Gradually a consensus formed on a number of issues and in June 1982, a public organizational meeting was held, at which the name was chosen and the issues and goals identified. Eventually related groups began to form in other cities and it becamse apparent that there was sufficient interest to justify the formation of a national organization. Accordingly, a statement of purpose and set of bylaws were drawn up, officers chosen, and in March 1983, CPSR was incorporated under the laws of California; later CPSR was granted non-profit, tax-exempt status as an educational organization. A national office was established at the end of 1983 in Palo Alto, and by June 1984, CPSR had acquired over 500 dues-paying members, distributed among ten chapters in the United States (Berkeley, Boston, Los Angeles, Madison, New York, Pittsburgh, Palo Alto, San Jose, Santa Cruz, and Seattle). It also has an increasing number of members from abroad, particularly from Canada, Western Europe, Australia, and New Zealand.

ORGANIZATION

The organization of CPSR at the national level consists of three governing bodies. First there is a Board of Directors, which sets general direction, decides matters of overall policy, and takes responsibility for actions taken in CPSR's name. This board will eventually consist of twelve members: four Officers elected by the Board itself, six Regional Representatives elected by members from those regions, and two Directors-At-Large elected by the general membership. All terms are for three years, with staggered expiration dates. As of June 1984, seven of these positions have been filled.

Second, there is a six-member Executive Committee, which is charged with acting on behalf of the Board between Board meetings. It deals with the day-to-day details of running the organization and is largely a subset of the Board.

BOARD OF DIRECTORS

Brian C. Smith, President
Severo M. Ornstein, Chairman
Laura Gould, Secretary
Stephen N. Zilles, Treasurer
Lucy Suchman, Western Representative
Alan Borning, Northwest Representative
Andy Langer, Northeast Representative

EXECUTIVE COMMITTEE

Brian C. Smith, President
Severo M. Ornstein, Chairman
Laura Gould, Secretary
Stephen N. Zilles, Treasurer
Lucy Suchman, General Member
Terry Winograd, General Member

The third governing body, yet unformed, is a National Advisory Board which will advise the organization on long range policy. It is to consist of well-known people who have contributed significantly to the computer field and/or are particularly interested in the issues that CPSR addresses.

During this year, the Chairman and Secretary devoted full time to running CPSR on a volunteer basis. In January 1984 we rented a small office and hired a part-time assistant, Mary Alexander. Mary has since been replaced by a full-time Office Manager, Marylyn Genovese who came to work the last week of June. Marylyn is currently our only paid employee; we are actively searching for a full-time Executive Director. Legal services have been donated since CPSR's inception by Paul Valentine, of the Palo Alto law firm Blase, Valentine and Klein.

ACTIVITIES AND ACHIEVEMENTS

Although CPSR is a relatively young organization, it has achieved considerable recognition in a short time, and has had substantial impact in a number of areas.

Conferences and Meetings

In August 1983, CPSR had a booth at the International Joint Conference on Artificial Intelligence (IJCAI) in Karlsruhe, West Germany. Because of concern about the placement of the cruise and Pershing missiles in Europe, an ad hoc panel was instituted concerning the involvement of the computer profession in the arms race. Several CPSR members participated in this panel.

Also in August, Dr. Alan Borning, a member of the CPSR Board of Directors, gave a talk at Stanford University entitled "Computer Reliability and Nuclear War." CPSR distributes the hour-long videotape that was made of his talk.

CPSR/Madison prepared a workshop entitled "Computer Unreliability and Nuclear Weapons Systems." This workshop was presented at a symposium about the medical consequences of nuclear war sponsored by Physicians for Social Responsibility at the University of Wisconsin-Madison in October 1983. The workshop has been repeated about ten times to a variety of audiences.

CPSR was invited to speak at a workshop on accidental nuclear war at the annual meeting of the International Physicians for the Prevention of Nuclear War (IPPNW) held in Helsinki, Finland, in June 1984. Dr. Borning represented CPSR and presented a paper entitled "Computer Reliability and Nuclear War." CPSR has been invited to participate in the next IPPNW Congress which will be held in Budapest in June, 1985.

CPSR Chairman Severo Ornstein gave a presentation at a meeting in Washington sponsored jointly by the Public Interest Computing Association (PICA) and the ACLU to discuss the impact of modern communication technology on privacy legislation.

CPSR regularly has information and membership solicitation booths at computer conferences and fairs. For example, in February 1984 we were present at the Computer Science Conference of the Association for Computing Machinery (ACM) in Philadelphia and in March we had a booth at the West Coast Computer Faire.

Guy Almes of CPSR/Seattle described CPSR and its concerns in a panel discussion entitled "Software Engineering and Social Responsibility" at the 7th International Conference on Software Engineering.

Publications

National CPSR has published five issues of its quarterly newsletter which is sent to all CPSR members as well as to members of the press, to foundations, and to related organizations. In addition several chapters, most notably CPSR/Boston, publish local newsletters.

As an outgrowth of a graduate seminar Dr. Alan Borning conducted at the University of Washington in the Fall of 1982, an Annotated Bibliography on Computer Reliability and Nuclear War was prepared. It includes entries on reliability in general, computer science in the U.S.S.R., command, control, and communication, arms procurement, military simulations, nuclear weapons computer failures, EMP, and launch-on-warning. CPSR distributes this bibliography.

As an outgrowth of a workshop (see above) at the University of Wisconsin-Madison in October 1983, CPSR/Madison prepared a publication entitled "Computer Unreliability and Nuclear War" which CPSR distributes.

In June 1984, CPSR published and distributed an Assessment of the "Strategic Computing" plan that was announced in October, 1983 by the Defense Advanced Research Projects Agency (DARPA) of the Department of Defense. This has produced considerable discussion and controversy concerning Strategic Computing in the press.

Mark Hall, co-editor of the CPSR Newsletter published a story in *Computerworld* entitled "High-Tech Dreams, Nuclear Nightmares." This article included information about relevant organizations including CPSR.

Several op-ed articles, written by CPSR members, have been published in newspapers around the country. For example in July 1983, David Bradburn of CPSR/Berkeley published an op-ed piece entitled "Defense Can't Depend on Computers" in the *Berkeley Gazette.*

Organization

We have established chapters in Berkeley, Boston, Los Angeles, Madison, New York, Palo Alto, Pittsburgh, Santa Cruz, San Jose, and Seattle. Virtually all of these chapters hold regular public meetings and often have well-known speakers.

On his way to the IPPNW meeting in Helsinki (see above) Dr. Borning stopped in Bonn, West Germany where he assisted with the formation of a West German organization similar to CPSR. We have also been instrumental in causing CPSR-like organizations to form in Scotland and New Zealand.

Press Coverage

There have been numerous interviews and articles in the press about CPSR and its concerns, both in newspapers and in professional journals.

In August 1983, the *San Jose Mercury News* published an interview with CPSR President Brian Smith and Chairman Severo Ornstein entitled "High Tech Poses High Risk."

In the February 1984 *Datamation*, John Verity wrote an article on CPSR entitled "Nuclear War and the Computer." This story was closely tied into another article in the same issue entitled "DARPA's Big Push in AI."

In May 1984, the British magazine *Computing* published a long article entitled "Taking a Moral Stand Over the Nuclear Circus." Much of this article consisted of interviews with Severo Ornstein and Alan Borning.

In June 1984 the student newspaper of Victoria University in Wellington, New Zealand published an early version of CPSR's assessment of DARPA's Strategic Computing plan.

In June 1984, the New York Times published a story by staff writer David Burnham entitled "Debate on Pentagon Computer Plan Focuses on Military's Effect on Society." This story contained several quotes from CPSR's assessment.

We have appeared a number of times on television and radio. We were interviewed on Cable Network News. Stories appeared on two television stations in the San Francisco Bay Area about the computer bulletin board. (See below under Miscellaneous.)

Professional Impact

We have requested the Association for Computing Machinery (ACM) to take a stand on the issue of social responsibility of its members. The ACM is the largest and most prestigious organization of computer professionals in the U.S. They have formed a committee entitled the ACM Ad-Hoc Committee on Computer Systems Reliability and Risks to the Public. This committe, which met for the first time on November 14, 1983, includes two CPSR members.

Educating Elected Officials

CPSR has had several meetings and correspondence with Rep. Ed Zschau of Califiornia's 12th Congressional District to discuss with him the potential hazzards of computer control in missile systems such as the MX and Pershing II. We have also discussed with him concerns about the practicality of building a computer system capable of directing the so-called "Star Wars" system.

Miscellaneous

CPSR/Palo Alto established the *Arms Control Conference Tree* a computer bulletin board with the intent of encouraging discussion of the sorts of issues that concern CPSR. We have also been working, together with Community Data Processing (CDP), on a larger system that would provide computer mail, bulletin boards, and data bases. CDP is a local group of computer experts who provide computer facilities to non-profit, social change organizations.

Chapters have arranged for numerous showings of such films as "The Day After Trinity" and "The Last Epidemic" as well as the videotape of Alan Borning's talk (see above).

We distributed a leaflet at showings of the movie "War Games." That movie dramatized a situation in which an overly automated defense system got out of control. Our leaflet suggested that the fundamental issues raised in the movie were substantive and serious.

FINANCIAL STATEMENT

Statement of Revenue, Expenditures, and Fund Balance
For the Year Ended June 30, 1984

REVENUE	1984	1983 Restated *(Note 3)*
Contributions - Foundations	$30,000.00	$ 0
Contributions - Individuals *(Note 1)*	1,962.00	193.41
Membership Dues	9,280.00	3,130.00
Donations for Publications	59.00	29.00
Interest	513.32	0
Misc.	280.00	0
TOTAL REVENUE	$42,094.32	$3,352.41
EXPENDITURES		
Chapter Dues Distribution	$ 3,685.00	$1,510.00
Travel *(Note 2)*	2,491.60	14.00
Rent	1,520.00	0
Salaries	1,373.31	0
Telephone	1,089.25	0
Postage	988.08	129.90
Office Furniture and Equipment	640.73	0
Printing	562.58	0
Workshops and Meetings	430.85	0
Office Supplies	261.33	15.66
Chapter Start-Up Grants	200.00	0
Resource Materials	154.35	0
Misc:		
Personnel Recruitment	456.82	0
Contract Labor	200.00	0
Insurance	190.00	0
Publicity	73.21	25.00
Bank Charges and Filing Fees	67.50	4.00
Donations	27.00	0
Other	4.67	0
TOTAL EXPENDITURES	$14,416.28	$1,698.56
EXCESS OF REVENUE OVER EXPENDITURES	$27,678.04	$1,653.85
FUND BALANCE, Beginning of FY	1,653.85	0
FUND BALANCE, End of FY	$29,331.89	$1,653.85

Balance Sheet
June 30, 1984

ASSETS	1984	1983
Cash in Bank	$ 6,075.57	$3,013.60
Cash in Money Market Funds	25,487.32	0
Rent Deposit	420.00	0
TOTAL ASSETS	$31,982.89	$3,013.60
LIABILITIES AND FUND BALANCE		
Membership Dues Payable *(Note 4)*	$ 2,651.00	$1,359.75
Fund Balance	29,331.89	1,653.85
TOTAL LIABILITIES AND FUND BALANCE	$31,982.89	$3,013.60

Notes to Financial Statements

Note 1. Two full time volunteers donate their labor to CPSR doing administration, fund raising, public speaking, and writing. In addition CPSR received donated services and goods which reduce the amount allocated for operating expenses.

Note 2. CPSR was reimbursed for $1172.50 of this travel expenditure after the close of FY84. The actual expense for travel was $1319.10

Note 3. In order to facilitate comparison and provide a fund balance consistent with accounting procedures adopted in FY84, dues income and chapter distribution items for 1983 have been restated in accordance with those procedures. (FY83 began with the incorporation of CPSR on March 8, 1983; thus figures represent only 4 months of operation)

Note 4. One half of membership dues from members in chapters is paid to chapters in quarterly installments throughout the year of membership. This amount represents CPSR's obligation for payments to the chapters in the next FY.

FUNDING SOURCES

Since its incorporation in March 1983, CPSR's work has been funded by membership dues and contributions. At the end of 1983 we received a large anonymous gift that allowed us to open a national headquarters office. Later that winter, foundation funding was applied for. CPSR received its first foundation grant in March 1984. Foundations that contributed to CPSR in FY84 are:

Tides Foundation
Ploughshares Fund
New-Land Foundation
Richard & Rhoda Goldman Fund
The Max and Anna Levinson Foundation
Rockefeller Family Members