

- ³⁵ gopher://gopher.vt.edu:10010/02/107/2
- ³⁶ <http://eng.hss.cmu.edu/philosophy/kant/what-is-enlightenment.txt>
- ³⁷ For further discussion of using the web in the classroom, see my "The Virtual Seminar Room," *Teaching Philosophy*, Vol. 19, No. 4 (December, 1996), 319-29. It is available in a hypertext version at http://ethics.acusd.edu/Virtual_Seminar_Room.html.
- ³⁸ Links to all these resources are available on my site at <http://ethics.acusd.edu/euthanasia.html>.
- ³⁹ <http://search.nytimes.com/books/search/bin/fastweb?getdoc+book-rev+book-rev+15735+1++euthanasia>
- ⁴⁰ All of the resources discussed in this paragraph are available at http://ethics.acusd.edu/reproductive_technologies.html#Cloning.

THE APA INTERNET BULLETIN BOARD AND WEBSITE

SAUL TRAIGER

The American Philosophical Association (APA) made its foray into Internet publishing in the fall of 1989, well before the Internet had become a household name. As we harness continually evolving computing and networking technologies and assess their application to scholarship and teaching in philosophy, the development of Internet resources for APA members has been and remains an exciting adventure with no end in sight. The importance of APA's Internet projects go far beyond technology and computing. I argue that such projects concern the very mission of the APA. In this paper I will provide a brief history of the APA's Internet efforts, the issues and problems faced by the national organization along the way, and offer recommendations for the future.

The First Five Years: 1989-1993

At the August, 1989 Computers and Philosophy Conference at Carnegie-Mellon University I met with Robert Cavalier, who had located an electronic, on-line bulletin board system or "BBS" running on a computer owned and operated by the Advanced Technology Laboratory (ATL), housed in the administrative offices of California State University in Seal Beach, California. Cavalier made preliminary arrangements for the APA to use the ATL system for a pilot electronic bulletin board. I volunteered to meet with the ATL staff and learn about the capabilities of the system. After an initial meeting in Seal Beach in October, I set up and began the administration of the new APA Bulletin Board. The Bulletin Board quickly became the most popular of several electronic boards running at ATL. As many as 4,000 logins were recorded in a single month, even in those early days of limited Internet access.

Access to the APA Bulletin Board was achieved by a Telnet connection to the ATL computer over the Internet. Once connected to the ATL computer, the user logged in as "apa" and was immediately presented with a menu of nine items. These include choices such as "News from the Divisions," "E-mail Addresses of the Membership," and "Philosophical Calendar." When the user selected one of these

items, she was presented with another menu of up to nine items. Selecting one of these items revealed scrolling text. For example, beginning at the top menu one might select the Philosophical Calendar, then at the next menu, the item entitled "January/February", and then a text file with information about conferences in January and February. Users could also send an electronic mail message to the administrator.

The coming into existence of the Bulletin Board raised a host of technological, institutional and editorial issues, many of which persist to this day. The most fundamental issue was the question of content. What information belongs on an electronic bulletin board system? How does the electronic medium differ from conventional paper publications and how can those differences be exploited to serve the membership? Should the APA repeat print publications in electronic form, or is doing so redundant and unnecessary?

The newness of the electronic medium made it impossible to settle these issues by appeal to precedent or custom, and it added other dimensions to the problems. In 1989, access to the Internet was not enjoyed by all institutions of higher education. In particular, it was virtually impossible for non-academically affiliated philosophers to connect to the Internet. Anything published electronically, therefore, would only reach a portion of the membership. Nowhere was this issue more important than with the matter of the electronic publication of job information.

In the late 1980s computers were being used by philosophers typically to accomplish tasks more quickly and efficiently, rather than to do new things, such as to search electronic texts. One of the tasks which many members of the APA had to accomplish is the tedious process of applying for positions in philosophy, working from printed issues of *Jobs for Philosophers (JFP)* to produce letters of applications to many institutions. It seemed to me that one of the principle benefits of an online service would be to distribute *JFP* data in electronic form, enabling job applicants to import such information directly to their computers, thereby automating one of the most tedious aspects of the job application process. Given the importance of job placement in the profession, I argued that placing *JFP* online would be a compelling use of the new computer technology.

The APA's National Office and then the APA Board of Officers was unwilling to make *JFP* or any other print publications available through the Internet. Their decision was based on several reasons, first among them a concern about access and fairness. It was feared that an electronic *JFP* would privilege those job candidates with access to computers and the Internet and handicap those without those tools. If electronic publication meant that some job candidates would receive notice of available positions sooner than others, that would be unacceptable. At about this time a rumor circulated among some graduate departments that job information was available on the Electronic Bul-

letin Board and several departments contacted the National Office to express their concern.

The National Office and the APA Board feared that the open electronic publication of *JFP* and other print publications would have a detrimental effect on membership. The Bulletin Board was accessible to anyone with Internet access. That meant that individuals who were not members of the APA would be able to view materials intended for members' eyes only. Would APA members abandon the organization if publications such as the *Proceedings of the APA* and *JFP* were placed on the Internet?

The APA's concern about the role of new technology in academic philosophy were natural and understandable, and to some extent, legitimate. Computers and the Internet had raised new questions about how to manage and run a professional organization, and no one had the answers, in part because no one knew where this technology was headed. Would electronic communication over networks be a passing fad? Would new technologies help solve the fairness issues and the access-limiting issues? No one knew, and there was speculation that the Bulletin Board, and with it these issues, would eventually fade away.

Indeed, some of the difficulties outlined above were a function of the early stage of computer use by philosophers and the newness of the Internet. It has already been noted that in 1989 many campuses did not have Internet access. While some philosophers were using e-mail, many, perhaps the majority, were on campuses using the Bitnet network, which did not support Internet protocols such as Telnet and FTP. The APA's first Internet accessible bulletin board, then, was not available to all or even most philosophers. Many philosophers did not have access to computers at all, and thus were not comfortable with the idea that professional information might be transmitted through them.

The Internet itself presented a challenge in handling the APA's concern about access by non-members. The impediments to restricting access were both technological and cultural. The Bulletin Board was not password protected. Anyone who knew the Internet address could establish a Telnet connection. The Bulletin Board gained notoriety through other online services. Early Internet 'surfers' created their own Telnet sites with categorized lists of Internet resources. The first Internet books began appearing in bookstores, and the APA Bulletin Board was one of the first academic sites listed in them.

Middle Years: 1992-1994

In the early 1990s the Internet, and with it the APA's presence on it, began a period of rapid change. During the summer of 1993 the Ford Foundation supported the work of Occidental College senior cognitive science major Jan Panero, under my supervision, to develop a 'gopher' server replacement for the APA bulletin board. A gopher server is a menu-driven information delivery system, installed on a computer connected to the Internet. On the surface it is similar to the bulletin board system running the APA Bulletin Board. In our case, Panero installed a gopher server on a Sun workstation at Occidental College. She moved and then reorganized the information from the old APA bulletin board to the more flexible and powerful menu system of the gopher server. For example, instead of breaking up the list of e-mail addresses of the membership into nine submenus, arranged alphabetically, the gopher server allowed the user to search for a desired name or e-mail address through an easy to use interface. Instead of grouping all the items in the Philosophical Calendar for August together in one long scrolling file, each item could now appear in its own menu listing.

The gopher server was an advance over the bulletin board because it emerged as a standard for Internet-based information systems, and it facilitated the seamless integration of Internet resources. Other academic societies and institutions developed gopher servers and those gopher servers which were of interest to APA members were selectable as menu items on the APA gopher server. There were links to the gophers of such publications and organizations as the Chronicle of Higher Education, the American Mathematical Society, and the History of the Philosophy of Science Working Group (HOPOS). Files maintained by users on remote machines were also accessed through the APA gopher. For example, David Chalmers' extensive bibliography in the philosophy of mind, originally placed on the Internet in an anonymous FTP site, was linked from the APA gopher. Internet sites which maintained electronic versions of full length works, including philosophical works, were linked as well. The idea of a web of interconnected, locally maintained but globally linked Internet resources was born, before almost anyone had heard of the World-Wide-Web.

A demonstration of the APA Gopher was presented at the Eighth Annual Computing and Philosophy Conference at Carnegie Mellon University, August 12, 1993. The conference was sponsored by the APA Committee on Computer Use in Philosophy. The demonstration illustrated the improvement in the user interface and functionality achieved with the gopher server.

The gopher system was accessed through the Internet, as was the Bulletin Board. Unlike the Bulletin Board, however, for which one needed the Telnet capability, gopher required software called a "go-

pher client." Most central academic computers at U.S. colleges and universities had gopher client software up and running. Users easily made the transition from the Bulletin Board to the new system. The strength of the gopher system was in its openness.

The new gopher server changed the nature of information delivery to APA members. On the old system, the user had access only to files placed on the system directly. With gopher, the selections available to the user included hypertext links to other gopher sites, FTP sites, and remote text and binary files. The APA Bulletin Board quickly became a central access point for philosophers looking for profession-related material on the Internet. As other Internet resources evolved, APA members were introduced to them through the APA's site.

The Rise of the Web: 1994-1996

Although the World-Wide-Web had been in use since 1990, it wasn't in widespread use until the middle 1990s, largely because most web clients were still text-based. In 1990 there were only about 500 websites on the Internet. During the next few years, however, researchers at the University of Illinois and Cornell University developed the now ubiquitous graphics-enabled web browsers for popular platforms like Windows and the Macintosh. The number of websites increased dramatically.

What is the Web and why is it so well suited for organizing and distributing content? The World-Wide-Web is really just two standards for formatting and distributing files stored on computers. The formatting standard is called the HypertText Markup Language. (HTML) Adhering to HTML insures that documents have the same appearance and function, regardless of the computer which is accessing that document. The features available under HTML keep growing, but they include standard text formatting features, the ability to include graphics in documents, and the ability to make any part of a document a link to another document, so that by selecting the link (usually by clicking on it with a mouse) the user retrieves the linked document. The standard for distributing documents on the Web is called HyperText Transfer Protocol. (HTTP) This standard controls how documents are stored and retrieved over a network. Typically HTML documents are stored as files on personal computers, workstations, and mainframe computers and retrieved over the Internet. What makes the Web 'world-wide' is the fact that HTTP allows anyone who is using a computer connected to the Internet to retrieve and view documents stored on any other computer on the Internet.

HTTP and HTML don't distinguish between local and remote documents. That means that it really doesn't matter to a student or professor whether a document is located on a computer in Tokyo or

Topeka. Documents can be selected by their relevance. Further, because documents are digital and networked, they may be found by search engines which comb and index the vast holdings of the Web. Finally, computer users are still discovering that computers can, in principle store and display any information which can be represented digitally, from the Mona Lisa to the sound of John Coltrane's 'A Love Supreme.'

The World-Wide-Web platform brought with it significant enhancements to the APA's Internet offerings. It enabled formatted text, including italics, boldfacing, and variable font sizes. It became possible to embed graphic images, and later tables, into web documents. Hypertext links can occur anywhere in a web document. Hence images, words, and maps could serve as navigation points for readers.

The HTML and HTTP formats make it easy for users to provide information to the APA through the use of forms. Web pages were developed with specific fields to be filled in by the user for the submission of information to the National Office, or as a request for information from the National Office. HTTP departs from the unrestricted access of gopher servers by providing security for web documents. Access to documents may be restricted through password protection or user address, or a combination of the two.

The importance of the web has less to do with its technological advances over earlier Internet solutions than it does with the brute fact that it has become extremely popular in the general population as well as in the academic community. The ease of use and the ease of creating and publishing web documents has led philosophers to embrace the Internet as never before. The new widespread use of the World-Wide-Web means that APA's web resources are connected to a huge corpus of web-based materials developed by philosophers for other philosophers. The accessibility of the APA's website by nonmembers provides a visibility to the APA's activities not previously enjoyed.

Some APA print publications are moving to the Web. In 1995 the APA began imposing a fee for subscription to the APA Newsletters. At the same time, those newsletters were made available on the Web. It seems likely that the Web version will ultimately replace the print version altogether.

Transition to National Office Control

To many of those philosophers who have explored the use of computing technology in philosophy, it has been clear for a long time that the APA's presence on the Internet would not be temporary. Through the entire development period there was continual discussion with the National Office about matters of policy, support, and editorial judgment. Through this period the National Office itself faced many issues

involving computer technology. The day to day tasks of that office, from membership maintenance to the publication of the *Proceedings*, had become increasingly dependent on computers. In the fall of 1995 the APA Board of Officers authorized the National Office to create a half-time position for a Coordinator of Information Resources, with responsibility for the APA's Internet resources and general office automation at the National Office.

The Coordinator of Information Resources position was filled in the late spring of 1996 and the APA's website was moved to the University of Delaware a few months later. Some of the benefits of the move are already apparent. The website now makes extensive use of forms. Users can submit requests for information, e-mail addresses and home-page addresses through forms. Individuals may also request a membership application or update membership information. Although the APA has been slow to move its publications to the Web, the fact that the National Office itself now manages and updates its Internet resources should make it easier for APA publications to migrate to the Web in the future.

The Future of the APA's Internet Resources

The APA's website is now an established service. Members increasingly look to the APA's Internet resources, rather than to its print publications, for the latest information. What can we reasonably expect for the future?

Print publication and regular mail distribution remains the norm at the present time. As the cost of this traditional distribution form rises, and the ease of use and wide availability of electronic media and network distribution increases, the APA will, in my view, begin moving its publications to the Web or its successor. Most of the APA's publications are time-sensitive. They contain deadlines for paper submissions, the programs of upcoming conferences, announcements of position vacancies, grant opportunities and the like. The Web is the natural place for such information. Web pages can be augmented, updated, and items can be replaced on a daily basis. Some of the updating of information can be automated. The costs associated with traditional printing and mailing can be reduced or eliminated.

What of the APA's reluctance to place materials such as *Jobs for Philosophers* online? In my view, the arguments against electronic publication are no longer cogent. The facts about access have changed dramatically. The cost of a computer with Web browsing capabilities is less than the cost of an electric typewriter was 20 years ago, in real dollars. Internet access is a fact of life in most institutions of higher learning, but more importantly, any individual can connect to the Internet at a low cost through a commercial Internet provider. Even job

candidates without a computer could access the *JFP* at their local library, and enjoy immediate delivery of the most up-to-date information. Access to a Web-based *JFP* and other publications can easily be restricted to APA members in good standing. Most importantly, a Web-based *JFP* would be a valuable service for job candidates, enabling them to search for jobs by category, to cut and paste addresses and other items from the electronic documents directly into letters of application, and to have such information in a timely manner.

Other membership services should make their way to APA members through the Web. Membership dues, now payable only by check through normal post, could be collected using credit cards or electronic fund transfers. As the evidence of commercial websites makes obvious, the technology is already in place. Marcia Homiak, with the assistance of myself and Christ Bender of Rice University, has developed a relational database of Women in Philosophy which is being ported to the Web under the auspices of the Committee on Women in Philosophy. This is a searchable, regularly updated database.

I've already noted that the APA's electronic publications have reached a wider audience than the print publications. The responsible promotion of philosophy is clearly in the scope of the APA's activities. The APA's presence on the Web should be a welcoming one, designed to answer some of the questions of laypersons about the profession and the discipline. One way to achieve this is to have an 'Ask a Philosopher' website, staffed weekly or monthly by several philosophers who agree to monitor incoming questions and respond.

The APA could help enhance the quality of philosophical discussion at its divisional meetings by placing papers, or at least longer abstracts, on the web, in advance of the meetings, with the cooperation of authors, of course. Attendees could then participate in sessions with some antecedent understanding of the author's position and arguments.

NOTES

My work on the APA's Internet Resources could not have been carried out without collaboration with many individuals and institutions. Robert Cavalier, of Carnegie Mellon University, provided the initial impetus and constant encouragement and advice over the entire project. The Executive Directors of the APA, first David Hoekema and currently Eric Hoffman, have shown leadership and a sincere interest in using computers to enhance the services provided to members, and in doing so, to support the practice of philosophy in the United States.

David Axeen, Dean of the Faculty at Occidental College, and Thomas Slobko, Vice President for Computing and Information Services, have placed Occidental College's substantial computing resources at the service of the APA over a period of almost seven years. Paul Hubbard, of Occidental College's Computer Center, made the computers work. Support for student participation on the project was made possible through the Ford Foundation.