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The Use of Online Services by Nonprofit Organizations

Joan E. Patton

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By Nonprofit Organizations

by Joan E. Patton

Working Paper No. 16

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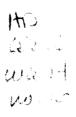
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**The Use Of Online Services
By Nonprofit Organizations**

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EXECUTIVE SUMMARY

This study analyzed the use of computers and online information systems by nonprofit organizations. The study surveyed 98 environmental, 60 arts, and 48 health services organizations in the San Francisco Bay Area.

The study identified factors which executive directors of nonprofits consider most important for the effective use of an online system and for user satisfaction. Based on the findings, a list of questions was developed to assist nonprofit managers in evaluating the value of online services for their organization.

Among the 206 organizations surveyed, 66% were using computers, but only 17% were using them for some type of online service. Online services were used primarily for gathering data from specialized databases, exchanging information with other groups, and internal communication. No special applications were identified which were uniquely suitable for nonprofits.

Reliability was ranked as the most important factor contributing to a system's effective use, with cost generally ranked second. The importance of different factors, however, was linked to the type of online function.

The research showed a relationship between the level of computer expertise of the organization's executive director and the extent to which an organization used computers and online services.

INTRODUCTION

Over the past 30 years, there has been an explosion in the volume of information coupled with a phenomenal increase in the use of technological innovations. With human knowledge doubling every 15 years (Chorafas, 1985), organizations have been forced to find non-traditional forms of information storage and dissemination. One strategy for connecting technology, information and users is the online database.

In 1979/80 there were 400 online databases available in the United States. By 1984, there were more than 1,400 databases with 90 million reports providing information on every subject imaginable (Chandler, 1984). The Directory of Online Databases (January 1988) listed 3,699 online databases, and the number is growing.

Online services, which include databases, electronic bulletin boards, and electronic mail services, can provide organizations with a convenient, cost-effective means of gathering and disseminating information. However, they are apparently not widely used (Needle, 1985). Langerman (1984) found that among social scientists there also was an underutilization of the new information technology in spite of its ability to provide a substantial amount of information with relatively little effort. Little data exist to explain this underutilization, or how use could be increased. The lack of data for nonprofit organizations is particularly evident.

PURPOSE OF THE STUDY

The purpose of the study was to find out how extensively and for what tasks nonprofit organizations were using online information services, and, based on the experience of those organizations which have used online services, what factors were considered most important for user satisfaction and system effectiveness. Additional data were collected to determine whether a relationship existed between the level of computer experience of the executive director and the level of computer use within an organization. The findings from the study are intended to help nonprofit managers assess and improve the usefulness of online information services for their organizations.

REVIEW OF RELATED LITERATURE

Nonprofit Use of Computers

Most nonprofit organizations today are using computers; however, most are using them for word processing and more traditional administrative purposes. Use of computers for more sophisticated applications such as online services is minimal.

In 1988, an estimated 50% of the nation's 800,000+ nonprofits had access to computers, up from 10% in 1983 (Johnson, 1988a). Johnson, however, found a rather resistant attitude among organizations and an inability to make full use of computers. Johnson (1988b) discovered three reasons which could account for the failure of nonprofits to make full use of computers: 1) Nonprofits are more likely to be resistant to computers because they are used to working with

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people and working with a machine as an
intermediary might seem contrary to the
organization's mission.

✗— 2) Nonprofits have limited capital and are not
encouraged by government or foundations to
invest in capital purchases.

⌐— 3) There is a tendency for nonprofit employees to be
more interested in humanitarian concerns rather than
science or technology, and they might be less cap-
able of implementing new technologies.

Johnson (1988a) also noted the following differences between
nonprofit and for-profit organizations which might bear on the
nonprofit's inability to make maximum use of computer technology.

1) Nonprofits rely heavily on volunteers.

2) Nonprofits have a significant turnover of staff.

3) Nonprofit staff members have multiple roles.

4) Nonprofits manage people more than money.

Although nonprofits have followed the corporate trend of
increased spending for information technology (corporate spending
is growing an average of 16% per year), it was unclear whether
there was a corresponding improvement in how organizations were
managed, conditions improved, or problems solved.

The Center for Local and Community Research in a San Fran-
cisco Bay Area study found that the organizations they surveyed
were using computers primarily for basic administrative func-
tions. If organizations depended on their own individual ef-
forts, they tended not to expand their computer use or might

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spend amounts of time and programming funds in excess of the benefits. Successful expansion seemed to depend on one organization or group of organizations leading the way and then providing training and model systems to the others.

Defining a "Successful" Online Service

The literature search identified a substantial number of studies related to the evaluation of information systems, although there appeared to be no single definition of success or any clearly established method for measuring success. Some researchers suggested that if end-users properly and intensively used a system, it implied they were satisfied with it, their attitudes were positive, and their task performance was improved (Ginzberg, 1980). However, there is little empirical evidence to support the claim that heavy system use is correlated with high user satisfaction and improved task performance.

Normally, system use is measured quantitatively by the number of users, the number of interactions, the volume of data transferred, or the amount of time online. However, it is possible to take a qualitative approach and imagine a very successful system that is rarely used, but is essential for a particular task.

Some studies identified factors which produced unsuccessful systems: 1) The potential benefits were not met (Alter and Ginzberg, 1978)

2) The system was not used (Lucas, 1975)

3) Users' attitudes were negative (Bailey and Pearson, 1983)

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4) A functioning system was not delivered (Gladden,
   1982)

Addison and Woods (1980) cited four factors which were
important in evaluating a computer-based information system:

1) Cost of the system

2) Speed of access

3) Relevance of information

4) Quality of information retrieved

Addison and Woods also raised the question of what needs
improving - the user or the system? Acceptance might not be the
fault of the system, but might depend on a user's ability.

Cost and time savings were important factors for those using
electronic mail, according to Crawford (1982).

The studies suggested that factors contributing to user
satisfaction and system effectiveness depended both on the system
itself - reliability, cost, quality of information, amount and
format of information, and speed of access, as well as individual
and organizational values and abilities - expectations, ease of
use, training and support, computer expertise, relevancy of
information.

The Manager's Role in Determining Organizational Computer Use

Little data were found to understand the role of a manager
in determining how extensively computers might be used within an
organization. Collins and Moores (1983) found that management's
failure to take an active role could significantly lead to em-
ployee resistance to computerization. Rafaeli (1985) examined
employees' attitudes and concerns about computerized administra-

tive work and found a positive correlation between employee use of computers and attitude toward working with computers; a positive correlation between employee job involvement and attitude toward working with computers; and a positive correlation between employee level of organizational commitment and attitude toward computers.

METHODOLOGY

Three types of nonprofit organizations were selected to participate in the study: environmental, arts, and health services organizations. In November 1988, a questionnaire was sent to 450 San Francisco Bay Area executive directors who worked in one of these types of nonprofits. The purpose of the questionnaire was to determine how many organizations were using online services, how organizations were using the services, and how well the services were meeting organizational needs.

One hundred and fifty organizations were selected from a total of 1,262 Bay Area nonprofit health services organizations, and 150 organizations from a total of 1,275 Bay Area nonprofit arts organizations. The lists were obtained from Sage Information in San Francisco. In addition, one hundred and fifty organizations were selected from a list of 288 Bay Area nonprofit environmental organizations obtained from The Harbinger File. The organizations were selected from each category using a systematic sampling. Only three types of organizations were used in order to have large enough numbers in each category to make comparisons between the groups.

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A survey instrument was constructed by the researcher to identify factors which contribute to user satisfaction and an organization's ability to use online systems effectively. The survey questionnaire used ranking items, open-end items, and forced-response items. The survey contained four sections: 1) questions to determine organizational use of computers; 2) questions to determine organizational use of online services; 3) questions to identify user satisfaction and system effectiveness; and 4) questions to identify the manager's profile and experience with computers and online services.

A cover letter and questionnaire plus stamped, return envelope were sent to the managers of the 450 Bay Area nonprofit organizations in November 1988. One month after the original questionnaire was sent, a second questionnaire was mailed to organizations which had not responded. Follow-up interviews were conducted with a small number of organizations which had used online services to further corroborate the findings from the survey. Two hundred and six usable responses were received for a response rate of 46%.

FINDINGS

Ninety-eight environmental, 60 arts, and 48 health nonprofit organizations participated in the study. Among these three groups, 66% were using computers. Seventy-nine percent of the environmental organizations were using computers, sixty-five percent of health services organizations and forty-seven percent of the arts organizations were using computers. Computers were

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used primarily for word processing, spreadsheets, data management, desktop publishing, and telecommunications.

Online systems were being used or had been used by 17% of the organizations. A greater percentage of the environmental organizations (28%) were using or had used online services than the arts (5%) or health services organizations (8%).

The environmental organizations in this study had higher average budgets, more full-time employees, owned more computer equipment, and used online information services more often than arts or health services organizations. In general, the executive director of the environmental organization used a computer more often than the executive director in the other two organization types. Surprisingly, executive directors of environmental organizations did not use spreadsheets as extensively as directors of either arts or health services organizations.

Only a small percentage of nonprofit organizations were making use of online information services. Of the thirty-four organizations which had used online systems, four were no longer using them. The reasons given for dropping the service were that it did not meet organizational needs, it was not used enough, the cost was too high, and the project for which it was being used had been completed. One respondent stated that the U.S. mail and regular phone system worked just as well.

Online services were more likely to be used by organizations with many full-time employees and large budgets. Forty-seven percent of the organizations with eleven or more full-time persons used online systems. Fifty-five percent of the organiza-

tions with budgets in excess of one million dollars were using online systems.

The vast majority of organizations in the survey, however, employed less than ten full-time persons and had budgets under $500,000. Ninety-three percent of the organizations which employed no full-time persons did not use online services. Ninety-three percent of the organizations with budgets under $100,000 did not use online services.

Organizations which were online used the services primarily for five purposes: 1) data retrieval (62%); 2) electronic mail (56%); 3) data dissemination (41%); 4) internal communication (35%); and 5) teleconferencing (18%). Several organizations listed additional purposes: donor records, credit card user data, payroll and budget, sample letters and international data retrieval.

Nine reasons were given for initially going online: 1) project coordination; 2) speed of communication; 3) required of funding agencies; 4) electronic mail; 5) convenience; 6) cost savings; 7) data retrieval; 8) internal communication; 9) telecommunications/teleconferencing.

There did not seem to be a relationship between the type of organization and use of a particular online service. Thirty-two different online services were used; most were used by one organization only. The list of online services can be found in the Appendix.

Most of the organizations (69%) used the online service at least weekly, and most (67%) used it one to ten hours per month.

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In 90% of the organizations, the service was used by five persons or fewer.

Nonprofit managers whose organization used online services were asked to select the five most important factors which contributed to user satisfaction and system effectiveness. Tables 1 and 2 show the ranking of those factors. Four respondents added additional factors: 1) the importance of system security; 2) global availability; 3) the value of a bulletin board system which offers two levels - one for experts and one for the general public; 4) a system which gives users a sense of activity and shared interests with other users.

An analysis of this section, while not statistically meaningful because of the small number of responses, offered some interesting trend data about nonprofits' use of online systems. The two most important factors contributing to user satisfaction were the system's reliability (62% checked this item) and the cost (56% checked this item). Interestingly, the factor "saves the organization money" did not receive a high ranking (24% checked this item). There did not seem to be a relationship in users' minds between the cost of the service and the amount of money the service could save the organization.

The factor which was ranked least important, "service is the only one offered," was checked by 55% of the respondents. It received the least number of checks (only one) on the Most Important Factor List. Respondents were consistent in their assessment that just because a service was the only one available did not mean necessarily that it would provide satisfaction.

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The same reverse ranking was found with system reliability. This factor was ranked first in importance (62%) and last on the least important list (5%).

Table 1: Factors Ranked by Managers as Among the Five Most Important for User Satisfaction and System Effectiveness

Factor	Percent Choosing the Factor
Reliability	62
Cost of service	56
User friendly	47
Information is current	44
Information is accessed quickly	44
Advances organization's purpose	44
Information is accurate	35
Promotes organizational efficiency	35
Service matches organization's needs	35
Offers networking capabilities	32
Training and support are offered	27
Saves the organization money	24
Fits user capabilities	15
Does what organization expects	12
Is the only service offered	9

N = 34

**Table 2: Factors Ranked by Managers as Among the Five Least
Important for User Satisfaction and System Effectiveness**

Factor	Percent Choosing the Factor
Is the only service offered	55
Offers networking capabilities	46
Fits user capabilities	46
Advances organization's purpose	32
Saves the organization money	32
Promotes organizational efficiency	27
Information is accessed quickly	23
Service matches organization's needs	18
User friendly	18
Cost of service	18
Does what organization expects	9
Information is current	9
Information is accurate	9
Training and support are offered	9
Reliability of service	5

N = 22

Table 3 shows the relationship between online tasks and factors which managers considered most important for user satisfaction and system effectiveness. In every category of use, system reliability was ranked as the most important factor. Cost was ranked either second or third in importance for every category.

Table 3: Ranking of the Most Important Factors Contributing to Effective Use/User Satisfaction by Type of System Function

Factor   Type of Service

	Data Retrieval	Data Dissem.	E-Mail	Teleconf.	Internal Commun.
Reliability	67%	64%	79%	100%	83%
Cost	57%	43%	68%	67%	67%
Quick Access	48%	57%	58%	67%	75%
User Friendly	38%	36%	58%	67%	50%
Advances Purpose	48%	36%	42%	67%	33%
Networking Capability	43%	43%	37%	67%	25%
Promotes Efficiency	19%	36%	42%	50%	58%
Current Information	48%	36%	32%	33%	42%
Matches Org. Needs	38%	36%	32%	50%	33%
Accurate Information	43%	29%	21%	17%	33%
Training & Support	33%	29%	26%	17%	33%
Saves Money	10%	21%	37%	17%	42%
Fits User Capability	14%	21%	16%	17%	25%
Only One Offered	14%	14%	11%	17%	17%
Meets Expectations	10%	7%	16%	17%	17%
N =	21	14	19	6	12

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Among the organizations surveyed, those which were using online services were more likely to own their own computers than those not online (97% as against 66%). Sixty-six percent of the executive directors of online organizations used the online service. The executive director or manager of an online organization was more likely to use computers than an executive director of an organization which was not online (82% as against 54%).

Only 30% of the health services executive directors used computers, compared to 71% of the environmental executive directors and 44% of the arts executive directors.

More than half of the online organization managers rated themselves as very experienced in computer use and able to use word processing, databases, spreadsheets, and telecommunication programs (52%). An additional 30% of online organization managers rated themselves as moderately experienced and able to use word processing and some other programs. Among the online organization managers, 71% had a computer at home.

As expected, because telecommunication technology requires more equipment and expertise, online nonprofits had greater organizational and managerial commitment to and experience with computers. In this group, 97% of the organizations owned computers and 82% of the managers used computers.

While the study indicated a relationship between organizational computer use and managerial computer experience, a cause-and-effect relationship was not established. It was not determined whether a skilled computer manager increased organizational use of computers or a computer-rich environment attracted manag-

ers with computer experience. The former is probably more often true, but this relationship needs to be established through further research.

SUMMARY

The study found that computers were widely used in the San Francisco Bay Area by arts, health services, and environmental nonprofit organizations, but were not used extensively for online information services. Only 17% of the 206 surveyed organizations used or had used an online service.

Bay Area nonprofits were using online systems primarily for data retrieval, although the survey indicated a wide variety of uses from internal accounting purposes to global communications. Follow-up interviews with some of the online organizations indicated there was general use of online systems to get the latest information in the organization's field of interest.

No online service was identified as being uniquely or outstandingly suitable for a specific type of organization. More than 30 different online systems were in use, mostly by a single organization.

Environmental organizations were making the most use of computers and online systems, but it was unclear why this was the case. Arts organizations were the least computerized, and health services organizations had managers who used computers least. Again, the reason was unclear. Further research is needed to understand why environmental groups were using online services more extensively and whether their expertise could be used to

help other nonprofits make better use of telecommunications technology.

Fifty-five percent of all organizations with budgets over $1,000,000 were using online services, and there was a consistent increase in the use of online services as budget size increased. As the cost of computers and online services drop, and computer applications become more widespread, online usage could be expected to increase. However, the organization which has a small budget and few employees will need to find ways to stay competitive in an increasingly information-intensive, high-tech environment.

The study found that most online organizations had managers who were highly educated and were very experienced with computers, although no causality was established between online system use and manager expertise. ' Online organizations may attract experts who can operate and expand the organization's computerized programs, or perhaps the experts arrive first and persuade the board and staff to try more advanced technologies.

The study did not identify the reasons why organizations were not using online systems or what features might be of interest to them. Further research is needed to understand why some organizations use online services and others do not. It would be useful to know whether the factors identified in this study as most important for user satisfaction also were seen as important by managers whose organizations were not online. If not, why not?

The staffs of nonprofits which use computers have overcome

the initial barriers associated with a lack of hardware, software and staff familiarity with computers. In assessing the effectiveness and value of online information systems, the nonprofit manager may find the following questions helpful.

1) Is the purpose for going online clearly established?

2) Is the organization already using computers? Does it have the equipment, software, staff interest and expertise to expand into the telecommunications field or is the organization just becoming computerized?

3) Does the organization have sufficient budget to sustain the telecommunications technology?

4) Can the organization identify a service which meets its needs and is reliable?

5) Can the organization identify a service which meets its needs and is cost effective?

6) Can other user satisfaction/effective use factors be used to evaluate and improve a specific online function?

7) Are other organizations in the field using online services? Can they offer suggestions? Does the organization want to use the same online service to exchange information with them?

8) Can the organization's manager offer computer expertise and support?

9) Can the telecommunications technology be used creatively to solve a social problem?

The study provides new data about nonprofit use of computers and online services and offers suggestions for evaluating and

improving their use. The wise nonprofit manager will find ways to take advantage of the new technology for the benefit of his/her organization and society.

REFERENCES

Addison, Paul & Woods, Lawrence. "Evaluating a computer-based information service." Proceedings of the ASIS meeting, Vol 17. White Plains, New York: Knowledge Industry Publications, Inc., 1980.

Alter, S. & Ginzberg, J.J. "Managing uncertainty in MIS implementation." Sloan Management Review, 1978, 19, pp. 23 - 31.

Bailey, J. & Pearson, S. "A tool for computer user satisfaction." Management Science, 1983, 29, pp. 530 - 45.

Center for Local and Community Research. Use of computers in valley corridor human services agencies. Berkeley, California: Author, 1984.

Chandler, David. Dialing for data: A consumer's how-to-handbook on computer communications. New York: Random House, 1984.

Chorafas, Dimitris. Handbook of data communication and computer networks. Princeton, New Jersey: Petrocelli Books, 1985.

Collins, Frank & Moores, Tom. "Microprocessors in the office: A study of resistance to change." Journal of Systems Management, 1983, 11, pp. 17 - 21.

Crawford, Albert. "Corporate electronic mail: A communication intensive application of information technology." MIS Quarterly, 1982: 6(3). pp. 1 - 13.Ginzberg, M.J. "An organizational contingencies view of

accounting and information systems implementation."
Accounting, Organizations and Society, 1980, _5,_
pp. 369 - 82.

Gladden, G.R. "Stop the life-cycle. I want to get off."'
Software Engineering Notes, 1982, _7,_ pp. 35 - 9.

Johnson, Steve. "Computers and nonprofits: easing the
transition." _Gateway,_ 1988a, _Summer,_ pp. 15 - 20.

Johnson, Steve. "The information age is calling, but is
anyone home?" _Nonprofit Times,_ 1988b, _12,_ pp. 21+.

Langerman, Shoshannah. "Non-utilization of information
technology by social scientists and ways to cope with it."
_1984: Challenges to an information society. Proceedings of
the ASIS annual meeting,_ 1984, Vol 21. pp. 20.

Lucas, H.C. "Why information systems fail." New York: Columbia
University Press, 1975.

Needle, David. "Making on-line services pay off." _Personal
Computing,_ 1985, _11,_ pp. 75 - 85.

Rafaeli, Anat. "Employee attitudes toward working with
computers." _Journal of Occupational Behavior,_ 1985, _4,_
pp. 89 - 106.

APPENDICES

1. Survey of Nonprofit Organization Use of Online Services

2. Letter of Request for Participation in Questionnaire

3. List of Online Services Used by Questionnaire
   Participants

SURVEY OF NONPROFIT ORGANIZATION USE
OF ONLINE SERVICES

The purpose of this survey is to identify the extent to which online services are being used or maintained by nonprofit organizations and to identify the factors managers consider most important for effective use.

For the purposes of this survey, online services include electronic bulletin boards, online database systems and electronic mail systems. Information is obtained or exchanged by using a computer and modem.

GENERAL INSTRUCTIONS: Most questions can be answered by drawing a circle around the response which most closely describes your opinion. Some questions require a written answer. Please answer all questions. **If your organization has never used an online service answer questions 1-8 only.**

DOES YOUR ORGANIZATION USE OR HAS
IT EVER USED AN ONLINE SERVICE? YES NO

SECTION I: ORGANIZATION BACKGROUND

1. What is the name of your organization? _____

2. How many full-time employees do you have? _____

3. What is the organization's
    annual budget?
        (a) Less than $100,000
        (b) $100,000 - $499,999
        (c) $500,000 - $1,000,000
        (d) More than $1,000,000

4. What is the purpose of your organization?

5. What are the primary activities of your organization?

6. Which of the following
    equipment does your
    organization own?
        (a) Computer
        (b) Printer
        (c) Modem
        (d) None of the above

7. Do you, the Executive
    Director, regularly use a
    computer?
        YES   NO

8. For what purposes do you use a computer?

SECTION II: ORGANIZATIONAL USE OF ONLINE SYSTEMS

9. Does your organization now
   use an online service?   YES   NO

   Name of service(s)_____

10. If your organization is not
    using an online service now,   YES   NO
    did it use one in the past?

   Name of service(s)_____

11. How often does/did your   (a) Daily
    organization use an   (b) Weekly
    online service?   (c) Monthly
                                    (d) Rarely

12. In an average month, how many   Day _____
    total hours is the online system
    used?   Month _____

13. In an average month, how many
    different persons in the   Persons _____
    organization use the service?

14. For what purpose(s) is   (a) Data Retrieval
    the service used?   (b) Data Dissemination
                                    (c) Electronic Mail
                                    (d) Teleconferencing
                                    (e) Communication within
                                        the organization

15. Please list any other purposes for which your organization
    uses an online service.

16. What was your organization's purpose for going online
    originally?

SECTION III: USER SATISFACTION & EFFECTIVE USE FACTORS

17. Based on your experience, which of these factors are most important in contributing to an online service's effective use by your organization?. Circle the five most important factors and circle the five least important factors.

		Most Important	Least Important
a)	Cost of the service	M	L
b)	Reliability of the service	M	L
c)	Service is user friendly	M	L
d)	Training & support are offered	M	L
c)	Information is accurate	M	L
d)	Information is current	M	L
e)	Information is accessed quickly	M	L
f)	Saves the organization money	M	L
g)	Advances organization's purpose	M	L
h)	Does what organization expects	M	L
i)	Promotes organization efficiency	M	L
j)	Fits user capabilities	M	L
k)	Offers networking capabilities	M	L
l)	Service features match organization's needs	M	L
m)	Service is the only one offered	M	L

18. Please list any other factors which you consider important.

19. If your organization no longer uses an online service, why was it discontinued?

SECTION 1V: PERSONAL INFORMATION

20. What is your title? _____

21. What is your age?

    (a) Under 30
    (b) 31 - 40
    (c) 41 - 50
    (d) 51 - 60
    (f) 61 or over

22. Are you male or female?   MALE   FEMALE

23. What is the highest level of education you have completed?

    (a) Did not graduate from high school
    (b) High school
    (c) College
    (d) Graduate school

24. What is your annual household income?

    (1) Less than $20,000
    (2) $20,000 - $30,000
    (3) $30,001 - $40,000
    (4) $40,001 - $50,000
    (5) More than $50,000

25. Do you have a computer at home?   YES   NO

26. What is the level of your computer experience? (Circle one)

    (a) Very experienced (Experienced in word processing, database, spread sheet and telecommunication programs)
    (b) Moderately experienced (Frequently use word processing and some other programs)
    (c) Not very experienced (Only casual user)
    (d) Inexperienced (Untrained in computers)

27. Do you use your organization's online service?   YES   NO

28. For what purposes do you use the online service?

Thank you for your time and consideration in completing this survey. Please return it in the enclosed envelope by November 30, 1988.

        Joan Patton
        Oceanic Society
        San Francisco Bay Chapter
        Bldg. E, Fort Mason
        San Francisco, CA 94123   415/441-5970

SAN FRANCISCO BAY CHAPTER
OCEANIC SOCIETY

BLDG. E, FORT MASON · SAN FRANCISCO, CA 94123 · PHONE (415) 441-5970

November 15, 1988

Dear Colleague:

I am writing to ask your assistance on an issue of importance to
managers of nonprofit organizations - making effective use of the
new computer technology. As part of my master's research project
at the University of San Francisco, I am conducting research on
the use of electronic bulletin board systems and networked
database systems (online services) by nonprofit organizations.
It is my hope that I can gather information that will assist
nonprofit managers in evaluating the value of this new technology
for their organization.

Your organization was selected along with other nonprofit
organizations in the Bay Area. Your response is very important
and will contribute significantly to the outcome of the study.
Please complete the survey whether or not your organization uses
these services because it will give a balanced picture of both
users and non-users.

I would appreciate your response by Wednesday, November 30, 1988.
For your convenience, I am enclosing a stamped return envelope.
If you have any questions, please do not hesitate to call me at
(415) 441-5970.

The use of computers and other technological innovations has
revolutionized the American workplace. Your response will
contribute to our knowledge of how well nonprofits are using the
new technologies.

Thank you for your assistance.

Sincerely,

Joan Patton
Conservation Director

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LIST OF ONLINE SYSTEMS BEING USED BY
QUESTIONNAIRE RESPONDENTS

AppleLink
BIN
CompuServe
CSIRI
Delphi
Dialcom
Dialog
Easy Link
EcoNet
EIES
Greenlink
Hewlett-Packard Internal System
KOSMOS
Maxcomm
MCI
Medline
NMA Central Office
NTIS
OAG
OCLC
Ontyme
Peacenet
PEN
Recyclenet
Sciencenet
Soc Abstracts
The Source
Stanford University
Telemail
Tellabs
UC Library Services, Gladis & Melvyl
The Well