

A STUDY OF MICROCOMPUTER RESOURCE POLICIES AT TWO- AND FOUR-YEAR COLLEGES AND UNIVERSITIES

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ABSTRACT: This paper presents the results of a survey of microcomputer resource management policies at two- and four-year colleges and universities. The purpose of this study is to provide some insight into the use of policies governing microcomputer resources. The survey addresses several managerial issues ranging from software copying to how closely lab administrators conform to policies. Of particular interest are the areas of microcomputer lab operation and management that need policy governance. The result is a compilation of operational and managerial policy subject areas used by 53 colleges and universities.

The survey results reveal that 43 percent of the responding colleges and universities do not have microcomputer resource policies. A majority of these (71%) indicate that policies are needed. Clearly, a significant number of institutions still need to develop policies. This paper provides a resource guide to use when writing or revising microcomputer lab operational and managerial policies.

KEYWORDS: Computer Committee, Microcomputer Lab Administrator, Microcomputer Lab Assistants, Microcomputer Resources, Microcomputer Resource Policies, Policies

INTRODUCTION

Policies play an integral part in the management of resources. They establish parameters for decision making and provide the needed direction to manage resources effectively. (1) Computer resources are not excluded from this managerial necessity. The importance of policies is even recognized by many national and regional accrediting agencies. One of the requirements for accreditation by the Southern Association of Colleges and Schools is that "Policies for . . . computing resources and . . . for computer use must be clearly stated and consistent with the institutional purpose and goals." (2)

This paper examines the results of a study conducted to discover areas of importance for microcomputer resource management. The findings provide a framework for microcomputer

administrators to use when formulating policies. In this discussion, microcomputer resource policies are defined as the guidelines used to manage microcomputer resources. Microcomputer resources include not only hardware and software but also the people who use and manage microcomputers.

METHODOLOGY

The Instrument

A nine-item questionnaire [Appendix A] was developed to survey and assess microcomputer resource policies. The items cover a range of activities and aspects dealing with microcomputer resource management.

Survey items one, two, and nine focus on the number of microcomputer

labs that the survey recipient is responsible for, the existence of a committee to oversee microcomputer resources, and the use of service logs. Item three inquires about the existence of policies governing microcomputer resources. If the answer to item three is positive (policies do exist), items five, six, seven, and eight query as to the reasons that policies were drafted, the content of policies, the difference between policies for student and faculty/staff labs, and the degree to which day-to-day decisions actually conform to policies. If no policies exist, item four asks the participants if they anticipate a need for policies in the future.

The Subjects

Questionnaires were sent to microcomputer lab administrators at 80 colleges and universities. A cover letter

informed the recipient of the nature of the study and the importance of an accurate reply. Institutions were chosen so a nation-wide study could be conducted. Both public and private two- and four-year colleges and universities were included. Responses were received from 32 (80%) two-year colleges and 21 (53%) four-year colleges and universities. This provided for an overall response rate of 66 percent.

FINDINGS

The number of microcomputer laboratory facilities that respondents administer ranges from one to seven with an average of three. Forty-three percent have a committee to oversee microcomputer resources, and 55 percent maintain service logs on their microcomputers.

Forty-nine percent of the respondents indicate that their institution has microcomputer resource policies. Forty-three percent do not have policies, and eight percent are not sure. A majority of the respondents, 71 percent, say there is no significant difference between the policies for student labs and those for faculty/staff labs.

The purpose of survey item five is to determine if an institution's microcomputer policies are the result of their own volition or mandated by external factors such as accreditation requirements. It is conceivable that the choice "accreditation requirement" would receive a high rating given that many accrediting associations require computer resource policies. However, the results appear to indicate otherwise. Sixty-five percent of the respondents report that administrative directives initiated the policy-making process. Only 15 percent say that policies resulted from accreditation requirements, and 15 percent are not sure. Nineteen percent give other reasons such as faculty directives, computer committee directives, and personal initiative. (The percentages sum to more than 100 because participants were allowed to select more than one answer.) One explanation for this unexpected outcome is that, unknown to the survey participant, many of the

administrative directives, computer committee directives, and faculty directives may have actually originated from accreditation requirements.

Item six asks about the content of an institution's microcomputer policies. This survey item contains eight topics considered potentially important policy subject areas. Respondents having policies were to select those topics that their policies address. These eight subject areas and the percent of times that each was selected are shown in Table 1.

The purpose of item eight is to measure the perceived usefulness of policies. Participants were to rank the frequency with which their day-to-day decisions conform to stated policies. Five choices are provided: always, frequently, occasionally, seldom, and never. Thirty-six percent of the respondents say their daily decisions always follow stated policies, 60 percent frequently follow policy guidelines, and four percent occasionally conform to policies. The options "seldom" and "never" were not selected. The fact that 96 percent of the respondents always or frequently follow policy guidelines is indicative of their usefulness in decision making.

POLICY SUBJECT AREAS

Collectively, the survey items provide a general overview of microcomputer policies. Item six, however, goes further by delving into policy making. This item is designed to ascertain the actual contents of policies. All the subject areas provided on the survey received high selection rates (Table 1). Thus, it is apparent that these areas are of paramount importance when writing microcomputer resource policies. The significance of each subject area listed in Table 1 to policy making is explored below.

Software Use and Copying

The survey reveals that 77 percent of the institutions with policies have one that prohibits software copying. Sixty-five percent report having a policy addressing the use of software not owned by the college or university.

The drafting and enforcement of such policies are becoming increasingly important. Software companies are demonstrating a willingness to prosecute makers, distributors, and users of illegally copied software.⁽³⁾ The software industry's legal actions against piracy are no doubt an effort to recoup some of the estimated \$2

**Table 1: CONTENTS OF MICROCOMPUTER POLICIES
BY PERCENT OF TIMES SELECTED**

POLICY SUBJECT AREA	PERCENT OF TIMES SELECTED
Illegal copying of Software.....	77%
Equipment Maintenance.....	65%
Acquisition of Software Resources.....	65%
Use of Software Not Owned by the College or University.....	65%
Acquisition of Hardware Resources.....	65%
Responsibilities of Microcomputer Committees.....	61%
Responsibilities of Microcomputer Lab Administrators.....	50%
Responsibilities of Microcomputer Lab Assistants.....	50%

billion lost industry-wide to illegal software copying.(3,4,5) Legal actions are not limited to the corporate sector. One Oregon University recently paid \$150,000 in fines for using pirated software.(4)

The illegal copying of software and the unauthorized installation (use) of software can be significant problems in microcomputer labs. The first step in dealing with these problems is to draft policies that prohibit their occurrence. For a discussion on informing users about software copying policies, enforcing policies, and taking actions against violators see Athey's (6) article on software copying policies.

Equipment Maintenance

Sixty-five percent of the respondents report having equipment maintenance policies. Maintenance policies are important because simple maintenance procedures can reduce downtime and increase the speed and efficiency of computing resources.(7) The key to effective maintenance is scheduling. Maintenance policies should contain not only the type of maintenance and the individual responsible but also how often specific maintenance activities should take place. Many lab administrators (55 percent in this study) find service logs to be effective tools for scheduling preventative maintenance and recording repairs.

Acquisition of Hardware and Software Resources

Sixty-five percent of the respondents report having resource-acquisition policies. These policies are important because they bring organization to the process of acquiring computer resources. Without policy guidelines, individual departments or divisions within an institution have a tendency to acquire hardware and software in a disorganized manner. Carefully drafted and implemented, purchasing policies can reduce unnecessary and/or duplicate hardware and software. The net effect will be an alignment of hardware and software resources with the mission, curricular offerings, and financial resources of the institution.

Microcomputer Committees

Sixty-one percent of the respondents report policies governing responsibilities of microcomputer committees. Microcomputer committees help insure that a lab fulfills the needs of its users (8) and that it operates within the boundaries of college- or university-wide policies. Committees may also be responsible for appointing lab administrators and approving the purchase and disposal of software and hardware.

The illegal copying of software and the unauthorized installation (use) of software can be significant problems in microcomputer labs.

Microcomputer Lab Administrators

Fifty percent of the respondents report policies concerning microcomputer lab administrators. These policies typically address the duties of lab administrators. Lab administrators' responsibilities often include supervising lab assistants, consulting with the faculty about software and hardware needs, scheduling lab usage (8), and recommending hardware and software purchases to the microcomputer committee.

Microcomputer Lab Assistants

The final policy subject area listed in Table I concerns lab assistants. Fifty percent of the respondents report policies dealing with lab assistants. Duties of lab assistants and job qualifications (the degree of computer proficiency a lab assistant should have) are important areas concerning policy makers.

Lab assistants are responsible for the day-to-day operation of the lab. The duties lab assistants often perform are helping students with software problems, keeping paper in printers, replacing ribbons, keeping

track of users' manuals, reporting equipment failures, performing simple maintenance tasks, and seeing that the physical facilities are neat and orderly.

Job qualifications will vary depending on the size and intent of the lab, so some general policies dealing with credentialing should be developed. Lab assistants need not be computer majors;(8) however, they should have significant experience dealing with computers.(8)

Other Areas

The survey asks participants to list additional areas they consider important for microcomputer resource policies. Nineteen percent of the respondents suggested other areas including virus protection, unauthorized alteration to hard-drive files, unauthorized alteration to hardware, and the prohibiting of smoking and eating in the lab. These areas are certainly important and deserve thoughtful consideration when drafting policies.

CONCLUSIONS

Policies are an important component of any well-managed microcomputer lab. This study reveals that many colleges and universities still do not have microcomputer resource policies. The discussion of policy subject areas in this paper provides the reader with a guide for developing policies. Survey results affirm the importance of these policy subject areas. The high selection rates given to them (Table 1) are indicative of their significance in microcomputer resource management. Actual wording and content of policies will vary depending on the needs and preferences of individual institutions.

Changing organizational conditions and computer technology can render policies obsolete. The fact that four percent of lab administrators only occasionally follow policy guidelines (survey item eight) may result more from outdated and/or incomplete policies than an unwillingness to comply with authoritative guidelines. Policies are not static. They should be reviewed and updated on a regular basis.

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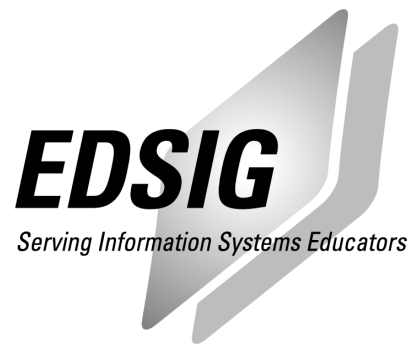
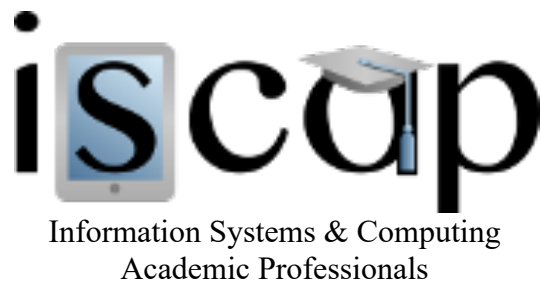
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The typed nomination should include the following information about your nominee (see page 45 for a nomination form):

- name,
- business affiliation,
- address,
- office phone,
- home phone,
- FAX number,
- home address,
- date of birth,
- place of birth,
- education,
- educational accomplishments/achievements/recognitions,
- publications,
- narrative (for those things that are worthy of note), and
- name of recommender (your name).

Appendix A: MICROCOMPUTER RESOURCE POLICIES SURVEY

1. As closely as possible, estimate the total number of microcomputer labs that you are responsible for. _____
Of this number, how many labs are used primarily by students? _____
How many are primarily used by faculty/staff? _____
2. Is there a committee at your institution whose primary responsibility is to oversee microcomputer resources? (check one)
_____ YES _____ NO _____ NOT SURE
3. Does your institution currently have written microcomputer resources policies? (check one)
_____ YES _____ NO _____ NOT SURE
If no, answer items four and nine and then stop; otherwise, skip to item five and continue.
4. Do you anticipate a future need to formulate microcomputer resource policies? (check one)
_____ YES _____ NO _____ NOT SURE
5. What initiated the formulation of microcomputer resource policies at your institution?
(check all that apply)
_____ ADMINISTRATIVE DIRECTIVE
_____ ACCREDITATION REQUIREMENT
_____ NOT SURE
_____ OTHER, PLEASE SPECIFY
6. Does your institution's microcomputer resource policies include references to: (check all that apply)
_____ RESPONSIBILITIES OF MICROCOMPUTER COMMITTEES
_____ RESPONSIBILITIES OF MICROCOMPUTER LAB ADMINISTRATORS
_____ RESPONSIBILITIES OF MICROCOMPUTER LAB ASSISTANTS
_____ EQUIPMENT MAINTENANCE
_____ ACQUISITION OF SOFTWARE RESOURCES
_____ USE OF SOFTWARE NOT OWNED BY THE COLLEGE OR UNIVERSITY
_____ ACQUISITION OF HARDWARE RESOURCES
_____ ILLEGAL COPYING OF SOFTWARE
_____ OTHER, PLEASE SPECIFY
7. If your institution has separate microcomputer lab facilities for students and faculty/staff, is there a separate set of policies for each type of lab? (check one)
_____ YES _____ NO _____ NOT SURE
8. How often do your day-to-day decisions actually conform to stated policies? (check one)
_____ ALWAYS _____ FREQUENTLY _____ NEVER
_____ OCCASIONALLY _____ SELDOM
9. Does your institution maintain service logs on its microcomputers? (check one)
_____ YES _____ NO _____ NOT SURE



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