
Evaluating the use of public PC workstations at the Arizona State University Libraries

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Abstract

From the moment the ASU Libraries migrated from dumb terminals to PC workstations for access to electronic resources, there was great concern that these workstations would be used "inappropriately". Whether students should be allowed to check their e-mail from the workstations was debated, as was the need to restrict access to the Internet. The Information Technology division at the University was concerned with how the Library would provide accountability for anything that happened at a public workstation. After much discussion, it was decided that the Library PC workstations would provide unrestricted access to the Internet. Telnet access was limited to library-related resources requiring Telnet, in an effort to keep students from doing computing assignments and personal e-mail on these workstations. The systems department developed an approach to data collection that included both an observational system and an electronic data collection system, using sampling techniques, to collect data on the use of the PC workstations at the main library (Hayden) at Arizona State University. This presentation will describe the data collection techniques, the results of data analysis, and how the results of data analysis are being used to better manage the PC workstations in the Library.

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Introduction

In the era before electronic resources – where paper ruled and the workstation was actually a *workspace* – most library conduct policies focused on keeping noise and food out of the library. As libraries moved into the world of the Internet and users gained access to unlimited electronic resources, libraries began focusing on appropriate conduct at the computer workstation. The Arizona State University (ASU) libraries' move to an Internet-based, open access, computer workstation environment raised great anxiety among the librarians who feared the worst when planning for this environment. Almost from initial installation of computer workstations the Library's systems department began testing different ways of monitoring workstation use. This paper describes these evaluation approaches and evaluation results.

In 1995 the ASU libraries had only a private network, used to connect terminals to the Online Public Access Catalog (OPAC). Dumb terminals (character-based) communicated with the OPAC using an X.25 network, which literally is hard wired from each terminal to the host computer. During that year a very small Local Area Network (LAN) was installed using Novell's Netware, to connect 486-based PCs running the Silverplatter Windows client to a small server with attached CD-ROM towers. Patrons had to move from workstation to workstation in order to access different electronic resources – including several workstations that contained only a single database – all housed in a separate, secure, by-reservation-only room. It was possible for patrons to use three different types of workstations to complete their research.

At the end of 1995 the libraries systems department had developed a plan to purchase and install an NT network, thereby permitting patrons to access all the networked electronic resources (including the OPAC) from a single workstation. Sixty 486-based personal computers were purchased and placed in high use areas around the main library, and its four branches – usually in reference areas. The addition of the NT network and 486 computers allowed patrons to access the catalog and databases from any of the workstations, thus eliminating the different workstation for different databases. The OPAC was accessed by running a Telnet

client at the workstation; most electronic databases were mounted on the Silverplatter ERL server, which was accessed using the WinSpirs client.

As the Internet gained momentum, public service areas within the Library started asking for browser-based access to the Web. With the NT network in place, and personal computer workstations available for public use, everyone agreed that it was time to begin offering Internet access to electronic resources. Almost immediately the issue of inappropriate workstation use was raised. The long list of concerns was topped by pornography, but also included e-mail, playing games, entering chat rooms and of course just surfing the Web. After much debate the public service areas agreed that the importance of Web access outweighed the potential negatives. It was agreed that only select Telnet access (to pre-defined library resources) would be available, and that every effort would be made to customize the Web browser to limit access to inappropriate electronic resources. This was done by removing the ability to open or type in URLs, and by creating a set of pre-defined, library-related bookmarks. Ironically, at about the same time this was occurring, the library was also installing a new integrated online library system, which allowed only Telnet access to its OPAC and staff functions!

By 1998 the Internet was firmly established in the Library. The Windows NT system was upgraded to version 4.0 and newer Pentium-class workstations had been added to the network, bringing the total number of public PC workstations to well over 200. There was full Web access now to the OPAC, as well as Web access to many electronic databases. In a relatively short space the Web had become a major library research tool.

With heavy demand for full Web access the Library could no longer limit access to resources. The emergence of Web-based e-mail made it easy for anyone to access their accounts. Since the horse was not completely out of the barn, the library reluctantly agreed to go ahead and give patrons full access to the Internet from all public workstations. But with this unlimited access the concerns about how the workstations were being used – which had only simmered while Web and Telnet access had been severely limited – resurfaced as a major issue.

While pornography remained a concern, the new number one concern was the use of workstations for personal, Web-based e-mail. Also for the first time concerns regarding workstation use came from outside the Library. The University's Information Technologies department expressed concern about the libraries' unrestricted access to the Internet. Their major concern was with patrons sending anonymous e-mail and attempting to hack into computer systems from the public workstations. As a preventive measure, IT staff asked the Library to implement some type of authentication on all library workstations. Free access to information – wherever and however it is found – has been a time honored library tradition, and a university library to limit access in this way was viewed as an infringement of the patrons' right to academic freedom.

After much discussion within the Library, and after several meetings with staff from the Information Technology area and University administration, the Library was permitted to continue offering unfettered access to the Internet from public workstations.

By 1999, with over 250 Library workstations in use, a new concern had surfaced: Public Service areas were complaining about limited workstation availability. Patron and staff reported that it was becoming difficult to use library workstations for library business (catalog, electronic databases, research) because of the heavy use of Web-based e-mail and Web surfing.

In hopes of rectifying the situation the Library took what could be considered the band-aid approach. Seventy-five additional workstations were purchased to alleviate overuse of the existing workstations, bringing the total to well over 300 workstations. The Library also created a workstation use policy, which expanded on the long-standing Library conduct policy by focusing on the use of computer workstations. It was hoped that this formal document would encourage patrons to use the workstations for legitimate research, while not limiting their academic freedom. The policy reads:

The University libraries' computers are intended to provide equal access to information in support of university instruction and research. Inappropriate use of computers, especially when it interferes with study and research activities of other library users, may be a violation of the Libraries' Conduct Policy, applicable copyright

and intellectual property law, or the ALA Bill of Rights. Priority is given to academic use.

Once the library had a user policy, the dilemma became enforcement. Who would inform a patron that they were using the libraries' resources inappropriately? The first thought was that with the posting of the policy peer pressure would discourage a user. This did not work. It was then hoped that the public service areas would enforce the policy, but they were not willing to play the heavy in this situation. The public service staff in turn suggested that the systems department should become the enforcer, but it was quickly agreed that this staff had neither the social skills nor ready availability to play this role.

Data collection

Since the user policy had no effect on reducing the use of workstations, and complaints continued about workstation availability, the systems department decided to make a more serious effort to determine the who/what/when/where of the problem of workstation use. The goal was to determine not only the magnitude of the problem, but also whether this problem was constant, or limited to certain times of the day/week, and at certain workstations.

The simplest and most direct way to assess the situation was to periodically walk among the workstations and observe what was being done at each. Choosing random days and times members of the systems department would wander through the reference area in the main library and make observations. What we saw was the obvious: users were frequently found recreationally surfing the Web and doing their personal e-mail, as well as accessing library resources.

The results were intriguing enough to encourage the systems staff to develop a more systematic way of collecting data. A system was developed based on formal observations. The reference area of the main library was selected as the observation area. This area is divided up into an upper concourse (which is closer to the reference desk) and lower concourse. There are 35 workstations on the upper concourse and 25 on the lower concourse. A staff member conducted the observations three times a day, at 09:00,

13:00, and 15:00, from October 6 to November 5, 1999.

The staff member was instructed to unobtrusively observe and record whether the workstations were being used for Library use (including use of the online catalog, electronic databases, research, etc.), Web surfing

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