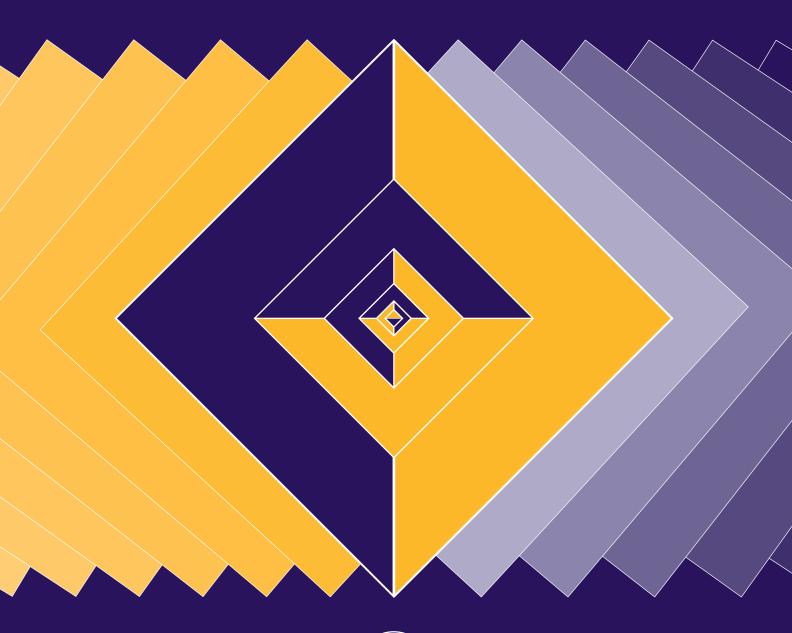


Kit 302

Managing Public Computing
November 2007





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# SPEC Kit 302

## Managing Public Computing

November 2007

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# Managing Public Computing

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## **SURVEY RESULTS**

## **EXECUTIVE SUMMARY**

#### Introduction

Computers have been a major resource in libraries for many years. From the first OPAC terminal to librarian-assisted DIALOG searching, the role of computers in service to library patrons has come a long way. Today, library public computers serve many different needs of patrons. They are OPACs; gateways to databases, e-books, e-journals, video, and audio content; information resources about the library and its many services; e-mail kiosks; and a destination where patrons find numerous software applications. Often, all of these resources are loaded on each public computer. These computers are fully networked and often configured for or attached to numerous peripherals. Patrons flock to them.

This environment presents a wide range of challenges to academic and research library staff and administrators. In an environment that demands more of the resources, the infrastructure, and the staff who work to keep public computing the stable and reliable door to all things digital in the library, how are libraries managing and supporting public computing to meet the needs and expectations of today's library user?

The focus of this survey was on the management of library public computing, i.e., those computers that are located in public spaces for use by patrons, as distinct from staff computers and servers. By jointly looking at the scale of the public computing operations, the staffing and organizational structure, budgets, upgrades, maintenance, security,

polices, and assessment, this survey pulls together and expands on issues covered in several previous SPEC Kits. SPEC Kit 281 The Information Commons (2004) indicated that only 22 of the 74 responding ARL member libraries had developed a specialized information commons computing area. SPEC Kit 275 Laptop Computer Services (2003) indicated that half of the 84 responding libraries were circulating laptops. SPEC Kit 277 Library Public Access Workstation Authentication (2003) examined this security practice which has changed significantly in the intervening four years. System wide library computing operations and staffing were examined by SPEC Kits 271 and 211, Library Systems Office Organization (2002 and 1995, respectively). Policies to address issues of access and use were included in SPEC Kit 218 Information Technology Policies (1996). The current survey brings these issues and others together to provide a comprehensive overview of public computing management.

#### Background

This survey was distributed to the 123 ARL member libraries in July 2007. Sixty-nine libraries (56%) responded to the survey. The survey respondents were primarily library deans, directors, and heads of library information technology or library systems departments. All 69 respondents indicated that their library contains public computers that need support. Responsibility for the support, service, repair, and replacement of computers in public library spaces falls solely on library staff in 44 of

the responding libraries (64%). Support is shared with non-library staff in 21 of the libraries (30%); in four libraries (6%), the institution's central IT staff provides sole support. In none of the libraries is computer support contracted out or provided by a consortium's IT staff.

#### **Staffing and Management**

Sixty-four respondents reported a total of 1005 professional, support, student, and other staff in library and campus units who provide public computing support. The total number of staff at each institution ranges from 2 to 82 with a mean of just under 16. At 55 of the responding libraries (86%), professional staff in the library IT unit provides public computing support. At all but four of these libraries the IT professional staff have additional assistance from support and student staff either within or outside the IT unit, or both; at 17 they also get assistance from librarians in other units, typically reference, circulation, and other public services departments. At the other nine libraries, public computing support is primarily the responsibility of support and student staff in the IT unit, with some assistance from other library staff. The main campus IT department is the primary source of support from outside of the library. In almost every case, IT professionals, support staff, and student employees support both public and staff computing, though at 25 libraries some staff is designated for public computing support only.

The person who has primary responsibility for managing and coordinating the public computing support operations is, not surprisingly, most often found in the Library Information Technology department. Other names for this department include Integrated Technology Services, Library Computing, or Library Systems. In a few cases, this person can be found in library reference or public services departments. Primary responsibility typically falls on the head or director of the library IT or systems department who in turn reports directly to the director of the library, the university librarian, or an associate university librarian. In nearly

half of the reporting libraries, it falls to a manager or specialist who in turn reports to the library IT or systems department head.

#### **Public Computing Workload**

After gathering data on who is responsible for providing public computing support in the libraries, the survey asked what the staff is supporting. A significant amount of the workload is focused on desktop computers distributed throughout public spaces across multiple libraries. Forty of the 62 responding libraries (65%) indicated that computers take the greatest amount of staff's time to support; printers are a distant second (16 or 26%). Four (7%) reported that no type of equipment takes any more time than the others.

When considering the total number of units supported, these responses are not surprising. Across 61 institutions, staff support over 20,000 desktop computers, ranging from 40 to 1600 per institution with an average of 328. Forty-two respondents manage a total of 1,919 loaner laptops. These libraries manage between 2 and 202 laptops with an average of 46 laptops per institution. Only 27 respondents indicated that they still support OPAC only terminals, on average 37 terminals each. With all of these computers, printers are also necessary. Fifty-six libraries reported managing an average of 34 printers each. Forty-seven institutions reported supporting a range of other equipment, including various types of scanners and microfilm and microfiche readers. Printing systems, audio-visual equipment, PDAs, and photocopiers are also supported.

Public computing support is challenged not only by the number of pieces of equipment but also by the fact that the equipment is spread out across many different libraries. Sixty-one respondents (98%) reported that they have equipment in multiple buildings, eight on average, most likely at various branch libraries. One library reported having equipment in 31 different buildings. Some libraries also have public computers on more than one floor of a building, adding additional complexity to staffing and maintenance.

#### Maintenance

With so many computers deployed across so many different locations, maintaining and upgrading hardware and the software on them is at times a daily task. Survey respondents schedule this work in a variety of different ways. Twenty-two libraries (35%) manage additions, updates, or changes to software applications by scheduling the work before each semester begins. Seventeen (27%) do it on an as needed basis; nine (14%) do it during holidays and breaks. More important changes and updates, such as Windows and anti-virus updates, are done much more frequently. At night, after hours is the time preferred by 18 libraries (28%). Slightly fewer do these critical updates either as needed or weekly (14 or 22% each) and 12 (19%) do so daily. Software upgrades on the other hand, are done much less frequently. Of the 61 libraries responding, 19 (31%) upgrade software once a semester and 6 (10%) upgrade just once a year. Fifteen of the libraries (25%) upgrade software when a new version appears. Others upgrade as needed, or at the request of faculty, staff, and students.

In order to actually make software changes, most of the responding institutions (36 or 57%) push the software changes out from a server. Eleven (17%) touch each computer with a fixed image, while three use a list of changes and modify each machine accordingly. The remaining respondents use a mixture of these methods to keep their software current. Software deployment applications are a popular utility used to facilitate deploying, changing, and updating software. Fifty-five institutions reported using one or more of these applications. Windows Active Directory is the most popular followed distantly by Novell Zenworks, Microsoft Systems Management Server, WinINSTALL, Altiris, Symantic Ghost, and custom scripting among other applications. Use of imaging software, another way to maintain computers, was reported by 57 libraries. The most popular imaging software is Ghost and DeepFreeze with the majority of respondents using some combination of one of these and Mac OS X Server.

Metering software is used to control access to software that limits the number of simultaneous users. Of the 22 libraries that reported using some form of metering software, the majority (13 or 52%) use Keyserve. A few use NetSupport, Citrix, Express Meter, or some locally written code. Twelve (52%) report that the library controls the metering of software. At nine institutions (39%) an external IT department controls the metering.

Unlike software that may be upgraded at least annually, the upgrade cycle on equipment is significantly longer. Of all of the public computing hardware maintained by the responding libraries, desktop computers are on the most regular replacement cycle. Twenty-one respondents (36%) reported that they upgrade or replace their desktop computers every three years, 26 (44%) replace them every four years. Printers, on the other hand, are replaced on a much less regular schedule. Of the 55 respondents, 23 do not have a regular printer replacement schedule and 16 replace them on an "as needed" basis. Only a few have printers on a regular two year (4 respondents), three year (6 respondents), or four year (6 respondents) schedule. There is also typically no particular replacement schedule for other equipment, such as scanners. For some libraries, available funding or equipment failure drive the replacement schedule.

Survey respondents were also asked what they do with equipment that has been retired. The most common procedure is to discard them to a recycling program. Computer manufacturers often run such programs and may reuse some materials while ensuring the rest are disposed of environmentally. Slightly more than half of the respondents cannibalize old equipment for parts. Roughly a quarter either rotate the machines to staff, sell them, or give them to charities. Many institutions reported that the equipment is sent to university surplus, often for sale or redistribution.

## **Public Computing Budget**

The availability of funding has already been mentioned as a key driver of the replacement schedule

of public computing equipment. Since FY 2005, just under half of the respondents have seen a mixed impact on their hardware, software, and staffing budgets. At these libraries some budget categories have increased, others have decreased, but most have stayed the same. Seventeen libraries report their budgets have remained the same across the board. A lucky 14 have had increases across the board. At several institutions, the budget does not include a line for computer replacement, instead that expense must be taken from the general operating budget. The situation is further complicated by the fact that some institutions must compete for student technology fee dollars in order to replace public computing equipment. On the bright side, two respondents commented that they have been able to purchase more hardware for the same or less money as prices drop.

#### **User Technical Support**

At the other end of the public computing support spectrum is the direct support of the patrons who use the public computing equipment. The people who provide this support come from several different areas. When asked which staff are responsible for answering technical questions about library public computers, 41 (66%) responded that professional staff in the library IT department are responsible. At 26 of these libraries, librarians, and in most cases support and/or student staff, also answer users' questions. At 14 of the remaining 15 libraries support and/or student staff share that responsibility with the professional IT staff. At 15 other libraries user support falls on librarians with help from support and student staff. At only four libraries are support staff primarily responsible for user technical support.

A comparison of the responses to the questions on who provides equipment support and user support shows that in about a third of the cases it is the same staff. In 45% of the cases additional staff, typically in public services, help answer users' questions. In 24% of the cases user support falls to the higher-level staff in the group.

The survey asked which non-IT departments provide staff to answer users' technical questions. The departments most commonly mentioned include public services, reference, and circulation. Several respondents mentioned that the non-IT staff provide support primarily for applicationsbased questions and lower-level technical questions. When users need to alert library staff about public computing problems, in-person reporting is the most common approach. The majority of users report problems to the reference desk, significantly fewer report problems to the circulation desk. Only four libraries have a tech help desk. Several respondents clarified that users can report problems to any public service desk. Ten libraries take problem reports by e-mail or instant messaging and one has a Web-based help application. Since the reference and circulation desks receive most of the problem reports, it stands to reason that the staff at these two locations would be the ones who most frequently provide technical support to users.

To help manage and address public computer problems, about three-fourths of the responding libraries use helpdesk ticket tracking software. There is no consensus on which software is best. Sixteen use a locally developed system, five use Request Tracker, four use Remedy, and the rest use a variety of other software including NetSupport, JIRA, TrackIT, and Numara Footprints.

For most libraries, addressing public computing problems is an on-going challenge that keeps library IT staff busy every day. When asked how frequently library IT staff has to address a public computing problem, seven (11%) reported that they respond more then five times a day, 22 (36%) address problems between two and five times a day, and 10 (16%) just once a day. The remaining 21 libraries address problems less often then once a day.

## **Public Computer Use Policy**

To ensure appropriate use of the public computer equipment, 61 respondents have a policy in place that is aimed at users. When asked whether the library developed the policy or whether they use one created by their institution, 29 (48%) reported that they follow the institution-wide computer use policy, 23 (38%) developed their own document in accordance with the institution-wide policy, and nine (15%) developed their own public computer use document. At most institutions, the policy was developed by the university or central IT department. Within the library, developing the policy is most frequently the responsibility of the library administration, the public services department, or the library IT department. When asked how frequently the policy is reviewed for updates and revisions, all but a handful said that it is reviewed on an "as needed" basis. Only seven review it annually and two review it each semester.

#### Security

Security, as it relates to protecting the public computing infrastructure and also the users of the resources, has become a critical concern for all who support computing. When asked whether users are required to login to public computers to access applications and the network, 28 of the respondents (46%) said that users only have to login to some of the public computers, 15 (25%) require logins for all of their computers, and 18 (30%) do not require a login at all. Four years ago, 67 ARL member libraries answered a similar question in SPEC Kit 277: Library Public Access Workstation Authentication (2003). Their responses then were: 15 required some logins (22%); 7 required all logins (11%); 45 required no logins (67%). Thirty-nine institutions replied to both surveys. Eighteen still have the same login policy (6 yes, some; 4 yes, all; 8 no). Twenty now require more logins. Ten of these changed from no to yes, some; six from no to yes, all; and four from yes, some to yes, all. Only one has changed from yes, all to yes, some.

For those libraries that now require a login to use a computer, 20 (46%) will provide a guest login to people who are not affiliated with the institution. Sixteen (36%) just direct these patrons to the few machines that do not require a login. Some in-

stitutions will do both, while others are completely closed to unaffiliated people.

When asked if public computer users are allowed to install any software on a machine, 46 (74%) said that they are not. Sixteen (26%) do allow users to install software that complies with the library or institution's computer use policy. The software cannot require either an administrative login or a reboot. In most cases, the computers are set up to wipe away the installation when rebooted.

Although libraries have computer use policies in place and most require users to login and not install software, public computer support staff still have many security concerns. Even with imaging software, viruses, spyware, and malware remain a major concern. People hacking into the network, using the public computers to hack into other systems, and attempting to access or steal confidential or personal information are also of concern. Low-tech malicious acts like theft and vandalism of equipment are also still a problem.

#### **Public Computing Assessment**

Given the amount of time, effort, and resources committed to developing and maintaining a high quality computing environment, many libraries turn to assessment measures to determine how successful they are at meeting patrons' needs. When asked if the library assessed user satisfaction with public computing, more than half (35 or 59%) said that they did. Six have not but are planning for a user assessment. Of the 35 that have done an assessment, 28 (80%) assessed hardware, 27 (77%) assessed software, and 18 (51%) assessed the technical support provided. Several respondents indicated that they have used LibQUAL+® to gather assessment information.

Twenty-five respondents do not track the use of public computers, seven don't now but are planning for usage tracking. Of the 27 who do track the use of public computers, 17 (63%) track user logins, nine (33%) use software and scripts to track desktop activity, and five (19%) take physical head counts of users.

Based on these assessments of public computing usage, survey respondents were asked to rank typical user issues. Thirty-nine of the 55 respondents felt that the number of computers is a common issue for users. The availability of software applications and technical support are moderate issues for 39 respondents; wireless connectivity is a moderate issue for 33. One respondent indicated that the number and speed of printers was also an issue of concern for users. For most respondents network speed is rarely an issue.

#### Conclusion

Several respondents to this survey commented that the management of public computing is a complex collaborative effort often involving people both within and outside the library. It includes technically skilled staff and professionals as well as non-technical people who are dedicated to providing high quality service. It involves maintaining, upgrading, and protecting hundreds of pieces of equipment often distributed across many buildings. As a result, the level and quality of public computing supports varies from hour to hour and building to building.

At present, it appears that demand will continue to grow and will require each library to provide more equipment and support. A follow-up question sent to the survey respondents found that 90% (36 of 40) have seen a steady increase in the demand for public computing over the last five years. A few report that demand has stayed about the same. No one reported a decrease. In addition to the increase in demand for desktop public computers, several respondents mentioned that the greatest demand has been for laptops, wireless access, and laptop infrastructure (electrical outlets, docking stations). This growth in laptop utilization may be due in part to institutions building more flexible spaces within their libraries, which means public computing must go with the students instead of the students going to the public computing. Some respondents noted that although more students own laptops, they often prefer to use those that the

library provides. This preference has also been observed in a study of students at the University of Rochester. (Foster and Gibbons, 2007)

Managing public computing is a challenge and will continue to be even as some libraries plan to shift the management of all or most of the public computers out from under the auspices of the library IT department and into the hands of the campus IT department. Although not asked by the survey, the issue of campus and library IT support centralization (or lack of it) was evident in many responses.

While researching ARL member institution's Web sites, it became clear that in many cases little or no information about library public computing is readily available and there is very little consistency in how the information is presented to the user; it varies from institution to institution and even library to library within an institution. Although some library sites have "computing" somewhere on that page, in many cases only a site search and further browsing leads one to this information. In some library Web sites it was not possible to find any substantive information on what a library offered in the way of public computing.

In preparing and researching this work, the authors discovered that there are things being done at some institutions that really stand out, though not addressed specifically in the survey. For example, Case Western Reserve University uses RSS and a blog approach to update their users on new and changing features of their public computing environment. There were enough of these innovations that "flew below the radar" of the survey results that the authors felt that it was appropriate to look at all of the ARL member library sites — not just those of the respondents — for these "notable innovations." This led to finding many remarkable innovations, such as North Carolina State University's real-time workstation availability, Brigham Young University's computer reservation systems, The University of Kansas' search interface which locates hardware and software across campus (including library locations), and also their

unique approach to providing individualized technical assistance known as "Desktop Coaching."

Since in so many cases computing needs have blurred the lines between the library and its campus, the authors discovered instances where a library's parent institution really went the extra mile to engage students about their public computing policies, such as the University of Delaware's entertaining and student-friendly "Responsible Use of the Campus Network: A Student Handbook" and the University of Virginia's "Responsible Computing Video." Although not created by libraries, these two are among the more innovative approaches the authors encountered for getting the word out to the students who use the libraries at these institutions. Please refer to the Selected Resources section titled "Notable Innovations" for a list of these exceptional efforts by ARL member institutions.

The management of public computing continues to evolve in ARL libraries. This evolution depends to a great degree on local budgeting and staffing considerations as well as on the structure of IT management in the libraries and their parent

institutions. Although staff support is similar in many of them, the processes employed differ. The wild card in the overall picture usually relates to rising or falling trends in the computing behavior of library users, whether faculty, students, or others. Some libraries accommodate new kinds of assignments by the faculty they serve, for example by providing access to multimedia production facilities, poster printers, and so forth. In such libraries the nature of class assignments is driving the nature of the computing environments. Many respondents noted that seemingly every generation of students is increasingly tech-savvy, bringing with them a continuous stream of new and changing expectations. Like other areas of the survey, just how these expectations are met varies from place to place, sometimes even within the same institution. As some have noted, "A basic philosophical issue for libraries is the extent to which we should move in the direction of the users and how much we should expect users to move in our direction." (Thomas & McDonald, 2005) The results of this survey show that managing public computing continues to be complex task with a diverse set of challenges.

## **SURVEY QUESTIONS AND RESPONSES**

SPEC Survey on Managing Public Computing was designed by **Michael Cook**, Head of Public Computing, Albert R. Mann Library, Cornell University, and **Mark Shelton**, Leader, Media Services, at Brown University. These results are based on data submitted by 69 of the 123 ARL member libraries (56%) by the deadline of August 13, 2007. The survey's introductory text and questions are reproduced below, followed by the response data and selected comments from the respondents.

The focus of this survey is the management of library public computing, i.e., those computers that are located in public spaces for use by patrons, as distinct from staff computers and servers. The survey authors have seen dramatic growth in public computing and its demands for support and related services in their libraries and want to know if this is happening elsewhere. Wireless computing permeates their libraries, each semester library users are more tech-savvy than before, and the demand for expertise on all technical fronts is rising quickly. This environment presents a wide range of challenges to academic and research library staff and administrators. In an environment that demands more of the resources, the infrastructure, and the staff who work to keep public computing the stable and reliable door to all things digital in the library, how are libraries managing and supporting public computing to meet the needs and expectations of today's library user?

This survey is designed to provide a snapshot of the current state of public computing in ARL libraries and to gather information on the scope of the services provided and the practices applied to manage and support public computing. The survey seeks to determine:

- The scale of the library public computing operation—number of libraries, number of public computers and printers, etc.
- Staffing & organizational structure—how many and what kind of staff are involved, which staff are responsible for supporting public computing, what support services they provide, what other library technology responsibilities they have, which staff are the first to be approached by users with technology questions, problems, and support needs, etc.
- Budgeting & upgrades—have budgets for public computing changed in any way over the past two years? How frequently are upgrades done to computers and software?
- Security & maintenance—do users log in to use computers and/or the network? Are computers secured using imaging software or other techniques? What kinds of network security are used to combat viruses, file sharing, etc.?
- Policies—are there policies in place for public computing? How current are the policies? How are these created?
- Assessment/measurement of success—does the library conduct surveys, focus groups, etc. to determine outcomes of the introduction of new services, hardware, software, etc.? Are usage statistics gathered? How are complaints handled?

## **BACKGROUND**

1. Is library staff responsible for installing, repairing, servicing, or otherwise providing support for computers that are located in public spaces for use by library patrons? N=69

Yes, library staff has sole responsibility for public computing support	44	64%
Yes, library staff shares public computing support responsibility with non-library staff	21	30%
No, public computing support is the responsibility of our parent institution's central		
IT unit staff	4	6%
No, public computing support is contracted out	0	
No, public computing support is provided by our consortium's IT staff	0	_

## **PUBLIC COMPUTING STAFF**

2. For each category of staff below, please indicate how many individuals provide **public computing** support. Enter a whole number. N=64

	N	Min	Max	Mean	Median	Std Dev	Individuals
Professional staff in library IT unit	55	1	14	3.95	3.0	2.97	217
Support staff in library IT unit	42	1	16	4.42	3.0	3.81	186
Student employees in library IT unit	39	1	14	2.82	2.0	2.22	110
Support staff in units other than IT	25	1	26	7.24	3.0	7.44	181
Librarians in units other than IT	18	1	23	6.44	3.0	7.32	116
Student employees in units other than IT	16	1	33	9.56	4.5	10.53	153
Other staff category	11	1	10	3.82	3.0	2.93	42
Total Number of Staff	64	2	82	15.70	11.5	14.75	1005

## Please specify other staff category.

1	University IT is responsible for the printers networked to the public computers.
1	Intern in IT.
1	Graduate students working at the Library Information Desk. We have 8 to 12 graduate students working 1 person at a time.
2	Campus Academic Computing also provides staff to support some public workstations; not sure how many but your question doesn't allow that answer so we are guessing 2 FTE. The librarians and other staff numbers are approximate FTE.

2	Two "other staff" not directly responsible for public machines.
3	A variable number of students and/or civil service support staff in a variable number of units perform some types of public computing support to varying degrees. An average number over a year's time would be around 3 FTE but could range from 0 to 6. The number of student employees in the IT unit also varies over the year from 2-8 individuals.
4	(none specified)
5	Support staff in UNIVERSITY IT unit $= 4$ . Students employees in UNIVERSITY IT unit $= 1$ . We have 2 labs that are jointly sponsored and staffed by the library and the University IT unit.
6	The University's central computing division, Academic Information and Communication Technology (AICT), operates a number of computer labs within various campus libraries and has responsibility for about 200 workstations in the Knowledge Common, which is also in a library building. The library's public computers at the one rural campus of the University are managed by the rural campus's central IT staff. Library staff are responsible for the remaining 300+ public workstations in eight libraries on or near the main campus. All printing from public workstations, whether in AICT labs or elsewhere in the libraries, is managed by yet another campus unit, the "ONEcard" office.
7	University Publications Services and University Health Sciences Library (part of the Libraries).
10	I'm counting an unspecified number of staff at the campus IT level who provide networking and server support that, in turn, supports both staff and public computing.

# 3. If staff in a unit(s) other than IT provides public computing support, please identify that unit(s). N=32

Librarians	Support staff	Student employees	Unit
			Academic Computing and Communication Center.
1	2	2	Academic Computing Service (non-library). Staff in our individual libraries.
			Campus Computing (ITaP) and School of Management Computing.
	2	2	Catalyst Client Services (a division of University Computing & Communications that manages general access student labs and most of the Libraries public workstations). Printing is managed by University Publications Services — 2 staff, 2 students. These staff also provide support for student printing in non-library spaces. Health Sciences Library is part of the University Libraries but manages its own public computing and printing — 1 staff, 2 students.
	1		Circulation.
18	23	2	Circulation, Reference, Periodicals, Brady Art Gallery, Global Resources Center, Special Collections, VA Campus & Eckles Libraries.
	3		Copy Services, Reference.
	7	1	Digital Library Technology.
3			Electronic resources librarians in public services units.

Librarians	Support staff	Student employees	Unit
	1		Engineering Library.
5	21		Gateway Services, Scholarly Resources.
			General Information Services provides lab assistants, who do not support the computers, but answer technical/software related questions asked by students.
19			General Reference and Readers' Services staffs.
4	8	1	Imaging Services provides public printing and copying from the computers.
	3	5	Learning Commons, Research and Information Services, Digital Media Laboratory, Branch libraries.
	3		Medical Center Library IT staff, one person. College of Law IT provides support for that college including the Law Library. Library AV department maintains 40 laptop computers that circulate to students. Agriculture Library provides a staff member for computer support. Student Computing Services runs computer labs on campus too, one of these is in the main library and supports 88 computers not included in my computer counts.
	11	12	Onsite Services.
	1		Printers in library public clusters are maintained by our Central IT department.
1	14	18	Public service units: reference, circulation, Scholar's Lab, 11 branch libraries.
15	4	6	Public services staff (Reference) and Access services staff (Circulation).
	11	31	Public Services, Academic Computing.
1			Reference.
10	2	3	Reference.
		3	Reference and Instruction Division.
23	17	33	Reference, Access Services, Special Collections, Engineering Library, Heath Sciences Library, Journalism Library, Math Library, Geology Library, Veterinary Medicine Library.
3			Reference, Undergraduate Library.
2	2		Regional campuses.
1	1		Research Services.
1			Sinclair Library (formerly Undergraduate library), Science/Technology Reference, Special Collections, Access Services.
			Staff in the campus Information Systems & Technology Department provide support for wireless and network connectivity.

Librarians	Support staff	Student employees	Unit
1	6		The one librarian noted in "Librarians in units other than IT" is located in Reference. The six staff noted in "Support staff in units other than IT" are located in Reference, Access & Delivery Services, the Media Center/Studio, Special Collections, the Music Library, and the Ag Library.
			We have public computing in 7 libraries throughout the system.  Depending on the question and time of day, public service staff in any of these areas may be asked for assistance.

4. Do these individuals only support public computing or do they also support staff computing? N=64

	N	Support Public Computing Only N=25	Support Public and Staff Computing N=64
Professional staff in library IT unit	54	2	52
Support staff in library IT unit	45	—	45
Student employees in library IT unit	40	4	36
Support staff in units other than IT	28	10	18
Librarians in units other than IT	20	9	11
Student employees in units other than IT	18	11	7
Other	12	4	8

## **PUBLIC COMPUTING MANAGEMENT**

5. Please enter the title of the individual who has primary responsibility for managing/ coordinating public computing operations, the library department/unit in which this individual is located, and the title of the position to which this individual reports. N=64

Title of the individual	Library department/unit	Reports to
Technology Operations Manager	Information Technology Services, Libraries	Technology Operations Manager
Head of Reference and Instructional Services	Reference	AUL Public Services
Co-leader Integrated Technology Services	Integrated Technology Services	Co-Leader ITS
Manager of Desktop Services	IT Department	Project Manager/Customer Service Manager

Title of the individual	Library department/unit	Reports to
Library PC Support Manager	Systems	Head of Systems
Manager, Administrative and Desktop Systems	Integrated Library Systems	Head, Integrated Library Systems
Public Computing Coordinator	Public Services (includes reference services)	Head of Public Services
Associate University Librarian, Information Technology	Library Information Technology (LIT)	University Librarian
Library Systems Coordinator	Systems	Assistant University Librarian
Lead IT User Support Analyst	Systems	Assistant Dean for Systems and Technical Services
Associate Dean of Library I.T.	Library IT	Dean
Director, Office of Libraries Technology	Libraries Information Technology	Dean, University Libraries
Information Technology Manager	Systems Administration and Support	Information Management and Systems
Director of Library Systems	Library Systems	Dean of Libraries
Director of Digital Library Infrastructure	Digital Lib. Technology, unit of Central Computing (ITS)	Senior Director, Digital Library Technology
Senior Computer Systems Administrator	Information Technology	Associate Dean for Information Technology
Assistant Manager of Systems Services	Systems	Associate Dean for Support Services
Associate Professor & Systems Librarian	Library Technology Services	Professor & Head, Library Technology Services
IT Manager	Library Information Technology Systems	Director, Library Information Technology Systems
(1) Program Operations Specialist; (2) Catalyst Help Desk Manager	(1) Libraries ITS; (2) Catalyst (not part of Libraries)	(1) Head, Web Services; (2) Director, Catalyst Client Services
Network Systems Administrator [Library]	Systems Department	Manager, Library Systems Support Services
Manager, Customer service	Technology	Head, Technology
Library Systems Operations Manager	Library Information Technology Division/ Library Information Systems Department	Library Information Systems Manager
User Services Coordinator	Library Systems and Information Technology	Assistant University Librarian, Systems and Information Technology
Help Desk Manager	Systems Department	Systems Department Head
Director of IT	IT & Technical Services	AUL for Information Technology & Technical Services
Programmer/Analyst III	Systems Department	Computing Resource Manager I/ Head, Systems Department

Title of the individual	Library department/unit	Reports to
Analyst Programmer 2	Technology Team	Chief Technology Officer
Information and Computer Services Manager	Onsite Services	Coordinator of Onsite Services
Public Workstation Coordinator	ITS	Support Services Team Leader
Department Head	Library Systems Support Department	Assistant Director for Library Computing Systems
Sr. Manager, IT - Head, Information Systems Support	Information Systems Support	Director of Administrative Services
Public Services Technical Coordinator	Systems	Head, Systems Department
Assistant in Technology and Research	Systems	Associate Director for Technology and Research
Head, Network Operations and Computer Support	Systems	Assistant University Librarian for Systems
Manager, Systems Support	Library Information Technology Services	Associate Chief Librarian, Information Technology Services
Head	Desktop Network Services	Assistant University Librarian for Information Technology
Systems administrator	Main library	Director of Libraries
Manager of Library IT Workstation & Network Support	Library IT	Associate University Librarian for Information Technology Planning & Policy
Information Technology Officer	Information Technology Division	Dean of the Library
LAN Administrator III	Research Services	Digital Services Librarian
Digital Technology Development Librarian	Library & Learning Technologies	Associate University Librarian (Library & Learning Technologies)
Manager, Technical Support and Networked services	Libraries Electronic Technology & Services	Associate Director Information Services & Systems
Coordinator Library Systems and Web Management	Library Systems and Web Management	Director of Libraries
Head of Desktop Support Services	Library Information Technology	Associate University Librarian for Library Information Technology
Head, Library Technology Services	Library Technology Services	Director of Libraries
Computer Specialist	Computing Operations & Research Services (CORS)	Director, CORS
Manager, Desktop and Networking Unit	Library Systems	Head, Library Systems
Associate Department Head	Information Technology	Head, Information Technology
Coordinator, Desktop and Lab Services	Information Technology Division	Assistant University Librarian for Information Technology

Title of the individual	Library department/unit	Reports to
Director, Library Systems	Systems	Dean of Libraries
ITC (Information Technology Center) Coordinator & Assistant Director	Library Systems	ITC Coordinator reports to Assistant Director; Assistant Director reports to Director
Systems Analyst	ULS-Information Systems	Systems Analyst
Unit Computing Manager	Technical and Automated Services/ Systems Department	Head of Systems Department
Head, Library Systems Department	Library Systems	Assistant Director, Division of Library Systems and Technical Services
Head, IT Services	IT Services Department	Associate University Librarian, Digital Library Programs & Services
Senior Operating Systems Specialist	Digital Library Systems	Associate Director for Digital Initiatives
Head of Library Systems	Library Systems Department	Dean of Libraries
Head, Library Systems	Library Systems	Assistant Dean for Public Services and Outreach
IT Manager	Library Computing	Library Computing Director
Manager, Library Information Technology Services	Library Information Technology Services	Associate University Librarian (Planning & Services)
Manager of Workstation Infrastructure	Integrated Library Technology Services	Manager of Web, Workstation & Digital Consulting Services
Chief Technology Officer	Systems Department	Deputy Director
Manager of Library Network Support	Director's Office Systems Department	Acting VP for Libraries

## **PUBLIC COMPUTING WORKLOAD**

6. Please indicate how many pieces of equipment the public computing staff is responsible for supporting. Enter a whole number. N=62

Type of Equipment	N	Minimum	Maximum	Mean	Median	Std Dev	Pieces
Desktop computers	61	40	1600	328.51	267.0	243.11	20,039
Printers	56	1	350	33.89	14.0	57.66	1,864
Loaner laptops	42	2	202	45.69	30.0	52.08	1,919
OPAC only terminals	27	5	200	36.55	18.0	49.09	987
Other equipment	48	1	400	35.78	12.5	66.65	1,646

## Please describe the other equipment and indicate how many pieces are supported. N=47

1	Flatbed scanner
1	Scanner
4	Scanners
4	Projectors
4	Scanners
5	We do not have any OPAC only terminals.
5	1 flatbed scanner; 4 microform reader/printers
5	Public scanners (supported by Catalyst); most student access to scanners is provided by general access computer labs (also supported by Catalyst).
5	Scanners
5	Scanners
6	Scanners.
6	Microform digitizer/scanners, scanner
6	5 scanners; 1 microfilm scanner
7	Microform Readers are supported by the library system. There are 6 Digital Film Viewers, and one old Minolta MS 6000 film viewer. An aspect that might be unique to us is that the library does not maintain its own public printing. Public printing is done by an outside vendor whose contract is negotiated through the Student Computing Services—a unit outside the library system.
9	GoPrint debit printing PayStations, public use flatbed scanners. NOTE: OPAC-only are PCs, not dumb terminals.
10	Wireless; scanners
10	Scanners
10	10 scanners, 5 assistive technology workstations, 4 video access monitors, and 4 presentation rooms
10	Servers, scanners, wireless routers
10	Scanners
11	GoPrint print cost recovery system, 11 PayStations
12	Flatbed Scanners
12	2 microfilm readers; 10 flatbed scanner
13	Microfiche readers with attached printers
13	10 public accessible scanners; 3 microform reader/printers (integrated with workstations)
15	Scanners, CD/ROM burners, microfiche scanners
19	Scanners; We are in the process of re-configuring our public computing. These numbers will be accurate at the start of our fall term.
19	7 CD + special; 6 microfilm scanners; 2 other scanners; 4 group study
20	Image and book scanners, projectors, document cameras
20	20 public scanners; 3 microform converters; 2 film scanners; 9 various DVD equipment. Some of this equipment is provided by University IT for our 2 collaborative lab spaces.

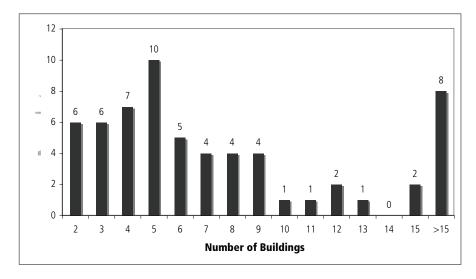
20	Audio-visual equipment (projectors, plasma screens, DVD players, VCRs, other A/V management equipment)
25	Note - The campus Office of Information Technology provides support for ninety desktop computers, fifty-four loaner laptops, seven printers, and the twenty-five pieces of "other equipment." This equipment is all located in the Information Commons. Library IT provides support for five OPAC terminals, one-hundred ninety desktop computers, eleven loaner laptops, and twenty-four printers. The "other equipment' is as follows: 6 headphones; 5 USB zip drives; 5 USB floppy drives; 5 optical mice; 1 trackball mouse; 3 USB scanners
25	Photocopiers
26	7 portable hard drives; 6 scanners; 4 editing video decks; 3 multi-format monitors; 2 multi-format VCR players; 4 multi-format DVD players
26	12 patron print system printing stations; 10 scanners; 3 microfilm scanning stations; 1 flatbed map scanner
27	2 scanning stations; 2 microform readers attached to networked computers; 7 electronic text center computers; 3 special language computers; 1 disability station; 12 creativity lab computers
35	Scanners, video editing equipment, etc.
43	7 self-service checkouts; 12 networked photocopiers; 12 staff PDAs; 12 LCD projectors
50	26 scanners; 12 digital microform readers; 1 video conference unit; 6 microfiche readers; 5 plasma displays
65	Other equipment number reflects various types of scanning equipment, both staff and public use. The other numbers reflect total hardware for public use, staff use, and two teaching labs. Public use only numbers are 325 public computers, 20 public loaner laptops, and 31 public printers.
92	40 digital copiers; 40 Omega terminals; 12 Kiosk Guest Printing System
112	110 desktop computers in library instruction rooms; 2 public access scanners. NOTE: An additional 67 public desktop computers will be deployed for Fall Quarter 2007.
113	10 scanners; 80 light pens; 15 microfiche reader/printers; 7 servers; 1 plotter
150	MP3 players, video cameras, cameras, scanners (15), A/V production stations, 41 digital cameras, 34 digital camcorders, 60 audio/visual devices
160	Barcode scanners and flatbed scanners
400	400 SunRay appliances and 5 servers
UA	Other equipment number is unavailable. Includes card readers for public pay-for-print system, network switches, network media converters, wireless network antennas.

# 7. Does public computing staff support equipment in just one library building or in multiple buildings? N=62

Multiple buildings	61	98%
One library building only	1	2%

If you selected "Multiple buildings" above, please indicate the total number of buildings supported. N=61

## **Number of Buildings Supported**



Minimum	Maximum	Mean	Median	Std Dev
2	31	8.05	6	6.28

8. Please indicate which kind of equipment requires the greatest amount of public computing staff's time to support. N=62

Public computers	40	65%
Printers and printing support	16	26%
None more than any others	4	7%
OPAC only computers	1	1%
Scanners	0	_
Wireless/network access	0	_
Other	1	1%

Please describe the other kind of equipment.

<sup>&</sup>quot;Desktop computers."

## **MAINTENANCE PROCEDURES**

9. How frequently does public computing staff change/update/add applications software (excluding Windows updates, anti-virus definitions updates) on public computers? N=63

Before each semester	22	35%
As needed	17	27%
Over breaks & holidays	9	14%
Annually	4	6%
On demand	2	3%
Monthly	1	2%
Quarterly	1	2%
Other	7	11%

Please describe the other software updating frequency.

10. How frequently does public computing staff change/update/add such things as Windows updates, anti-virus definitions updates, etc. on public computers? N=63

Night only, after hours	18	28%
Weekly	14	22%
As needed, on demand	14	22%
Daily	12	19%
Monthly	1	2%
Over breaks & holidays	1	2%

<sup>&</sup>quot;Annually and on demand for plug-ins such as Acrobat/Flash."

<sup>&</sup>quot;At least once a year, between quarters as need arises."

<sup>&</sup>quot;Can be weekly at times."

<sup>&</sup>quot;On demand if urgent, otherwise over break, summer, and holidays."

<sup>&</sup>quot;Push out updates as needed."

<sup>&</sup>quot;Twice a year on average."

<sup>&</sup>quot;Weekly."

Weekends only	0	
Other	3	5%

#### Please describe the other software updating frequency.

"Automatically."

## 11. What procedure does public computing staff use to make changes to the software on public computers? N=63

Push software changes from a server	36	57%
Touch each computer with a fixed image	11	17%
Touch each computer with a list of changes	3	5%
Other	13	21%

### Please describe the other procedure.

"All of the above." (2 responses)

<sup>&</sup>quot;Programmed."

<sup>&</sup>quot;Updates are scheduled to run automatically, but frequently some workstations miss the update or don't update correctly and have to be updated manually."

<sup>&</sup>quot;Either push software from server or touch each computer with a fixed images, depending on the application."

<sup>&</sup>quot;Ghost image for major changes; push software for minor changes."

<sup>&</sup>quot;Ghosting & local installs."

<sup>&</sup>quot;Libraries ITS touches each computer with fixed image; Catalyst pushes changes from server."

<sup>&</sup>quot;Mixture of PUSH and TOUCH."

<sup>&</sup>quot;OS and virus updates are pushed from a server, all other software changes are done by touching each computer with either a fixed image or a list of changes depending on the scenario and changes being made."

<sup>&</sup>quot;Push changes from SUS server for Windows & anti-virus updates; Touch each computer with fixed image for other software updates."

<sup>&</sup>quot;Some applications can be pushed while others need to be touched."

<sup>&</sup>quot;Touch once per year with image changes and push out updates as needed."

<sup>&</sup>quot;We use a combination of all three depending the type of update."

<sup>&</sup>quot;Windows Auto Update."

12.	If a software deployment application is used to deploy/update/change software,	what system/
	software is used? Check all that apply. N=55	

Windows Active Directory	40	73%
WinINSTALL	4	7%
Netsupport	2	4%
PC-Duo	0	_
Sitekeeper	0	_
InstallAnywhere	0	_
ANSA	0	_
EMCO	0	_
Other	29	53%

## Please describe the other software deployment application.

Microsoft SMS (6 responses)

Novell ZenWorks (6)

Altiris (4)

Symantec Ghost (4)

Custom scripting (3)

LANDesk (2)

Admin Studio Install Shield

Apple Remote Desktop

Centurion's Cornerstone

Installer scripts

Login scripts, batch files

Trend Micro (vendor supplied remote software application)

Shavilik

Wise package studio

WinBatch

13. If imaging software is used to maintain hard disk images, what system/software is used? Check all that apply. N=57

Ghost	45	79%
DeepFreeze	27	47%
Mac OS X Server	10	18%
PCR-Dist	1	2%
Other	16	28%

## Please describe the other imaging software.

Altiris (4 responses)

Novell ZenWorks (3)

Apple Remote Desktop (2)

Ardence

Carbon Copy Cloner

Centurion's Cornerstone

PartitionMagic

PowerQuest Image Center

Proquest Drive Image Pro

radmind

Remote Installation Services

Windows PE WAIL Tools

Windows Sys Prop

14. If metering software is used to control the number of simultaneous users of some licensed software, what software is used? Check all that apply. N=22

Keyserve	13	59%
NetSupport	1	5%
Other	9	41%

Please describe the other metering software	Please	describe	the	other	metering	software
---	--------	----------	-----	-------	----------	----------

"Shares on CD titles."

"Application specific and LANDesk."
"Citrix."
"Done by software vendors, allowing a limited number of connections to servers."
"Express Meter."
"In-house written CDROM license manager."
"Local code in PERL and BATSCH."
"Microsoft SMS."
"Sassafras."

## 15. If metering software is used, who controls the metering of software? Check all that apply. N=23

The library	12	52%
External IT department	9	39%
A college, unit, or department other than IT department	0	_
Other	5	22%

If you selected "Other" above, please describe who controls the metering software.

```
"Access and Excel."

"Citrix."

"In the Fine Arts Library, the College of Fine Arts IT department."

"Libraries IT Department."

"Vendors."
```

## 16. Please indicate how often equipment is scheduled for upgrade or replacement. Check one choice in each row. N=61

Type of Equipment	N	No regular schedule	Every 2 years	Every 3 years	Every 4 years	Other time period
Desktop computers	59	9	—	21	26	3
Printers	55	23	4	6	6	16
Loaner laptops	46	13	_	16	11	6
OPAC only terminals	34	12	_	7	9	6
Other equipment	37	21	_	2	2	12
Total number of responses	61	32	4	29	32	24

## Please specify the other time period. N=28

"Approximately 1/3 of the laptops are replaced every year."

"As maintenance records dictate."

"As needed."

"As needed, whenever possible."

"As requested/needed per funding availability. Still expanding public computing so not routinely replacing."

"As soon as warranty expires we wait for the equipment to need repairs."

"Every 5 years."

"Ideally, computers would be replaced every 5 years as the manufacturer warranty expires. However, budget constraints prevent this from happening on a regular basis."

"Libraries ITS upgrades as budget permits, most of the current ITS PCs are 5 to 6 years old; Catalyst upgrades every 3 years (its funding comes from Student Technology Fee)."

"Loaner laptop program does not yet have an upgrade or replacement schedule."

"Loaner laptops: not enough information or experience to judge upgrade or replacement cycle."

"Most of our public printers are owned by the University's Printing and Copying Services, not by the library, so we don't maintain or replace them."

## 17. How frequently is software on public computers upgraded? N=61

Once a semester	19	31%
When new versions appear	15	25%
Once a year	6	10%
Upon request of faculty	1	1%
Upon request of students	0	_
Other	20	33%

<sup>&</sup>quot;New equipment gets replaced roughly every 3 to 5 years."

<sup>&</sup>quot;No OPAC only terminals available. Printers as fund permit. Loaner laptops not available yet."

<sup>&</sup>quot;OPAC (Web only) terminals are replaced approximately every 5 years; 2 to 4 new printers are purchased approximately every 2 years and are placed in locations with the highest volume printing; replaced printers are then bumped to areas doing a lower volume of printing; scanners are replaced as needed."

<sup>&</sup>quot;OPAC only terminals are repurposed staff and public computers."

<sup>&</sup>quot;Printer and scanners replaced when either obsolete or failure rate too high for good service. Often more than 5 years."

<sup>&</sup>quot;Printers and other equipment upgraded as needed."

<sup>&</sup>quot;Printers and photocopiers are replaced every 5 years."

<sup>&</sup>quot;Printers are replaced as needed."

<sup>&</sup>quot;Printers are replaced as needed. Monitors are replaced every four years."

<sup>&</sup>quot;Printers replaced when beyond repair; often this is far more than 4 years."

<sup>&</sup>quot;Public hardware is replaced as funds become available."

<sup>&</sup>quot;Replacement schedules have been proposed but never funded."

<sup>&</sup>quot;Variable — depends upon funding."

<sup>&</sup>quot;We do not have OPAC only terminals. Printers — every year. Other equipment as needed or on demand."

<sup>&</sup>quot;We have been on a 3-year leasing schedule for about 10 years. Last year we began getting our computers on a 4-year leasing schedule."

<sup>&</sup>quot;We purchase 5-year warranties, but try to replace sooner. Funding does not permit strict adherence to any upgrade schedule."

# Please describe the other software upgrade frequency.

"As needed." (3 responses)

"As needed for security reasons, otherwise over breaks, recess, summer."

"As required by various factors — usage, hardware, funding."

"Before term (if) new software or upgrade image is required."

"Both Libraries ITS and Catalyst rely on staff input to determine upgrades. Because Catalyst funding is from an annual call for proposals from the student technology fees, upgrades never occur more than yearly."

"Combination of new versions appearing, request of faculty, primarily librarians."

"Combination of staff/student/faculty request and periodic check/notification of new software."

"Combination of when new versions appear and upon request mostly from faculty, sometimes from students who need specific functionality for online classes."

"Depends upon many factors — when new versions are available, if patrons or faculty request, if licenses expire, how it falls into professional staff workload, how it coincides with breaks."

"Evaluated quarterly and updated when necessary."

"It depends on nature of issue, but at least once a year."

"Once a year, although may change as needed per selected faculty requests."

"Several apply, including new versions, upon request of students and/or faculty."

"Upon request of staff."

"Usually on request from librarians, faculty or students — it depends."

"Varies depending on the need and location."

"When a critical mass of new versions appear; when new applications are identified; depending on need for specific application."

"When new versions appear and on request of students and faculty."

### 18. What happens to retired equipment? Check all that apply. N=62

Discarded to recycling	35	57%
Used for parts for existing computers	32	52%
Used for staff computing	17	27%
Sold to students/public	14	23%

Given away to charitable causes (i.e., elementary schools, etc.)	14	23%
Discarded	7	11%
Given back to agencies/departments/units that funded them	4	7%
Other	25	40%

# Please describe the other options.

<sup>&</sup>quot;De-accessioned to the university's warehouse."

<sup>&</sup>quot;Given back to company they were leased from OR given to other departments on campus (if they were purchased)."

<sup>&</sup>quot;Given to campus surplus sales. They manage the disposition of retired computers which can include selling to the public."

<sup>&</sup>quot;Given to other units on campus."

<sup>&</sup>quot;Given to other university departments, based on campus policy."

<sup>&</sup>quot;It is surplused according to state regulations."

<sup>&</sup>quot;Libraries ITS PCs are used as long as possible and discarded to University Surplus for resale; Old Catalyst PCs are either given to Libraries ITS to replace even older Libraries PCs or discarded to University Surplus for resale."

<sup>&</sup>quot;Must be surplused according to state regulations."

<sup>&</sup>quot;Our computers are on a leasing cycle and we purchase them at the end of lease on a dollar buy-out. The lease and buy-out are all done on the library's budget. We offer and transfer ownership of many, if not most, of the computers to other campus units and departments that have expressed a need. We also keep about 30 old computers for parts and for expansion needs and special projects. The remainder of the computers must go to the university surplus department because individual units on campus are not allowed to sell or transfer assets outside of the university."

<sup>&</sup>quot;Redeployed."

<sup>&</sup>quot;Redistributed to library student workers."

<sup>&</sup>quot;Sent to central campus surplus unit for re-use elsewhere on campus."

<sup>&</sup>quot;Sent to central stores on campus where the determination is made on disposition."

<sup>&</sup>quot;Sent to surplus property for resale or discarded."

<sup>&</sup>quot;Sent to the university's equipment redistribution services."

<sup>&</sup>quot;Sent to university surplus."

<sup>&</sup>quot;Sent to University Surplus Department which sells old equipment to the general public."

<sup>&</sup>quot;Sent to university surplus for recycling or resale."

## **USER TECHNICAL SUPPORT**

19. Which public computing staff is responsible for answering users technical questions about library public computers? Check all that apply. N=62

Professional staff in library IT unit	41	66%
Librarians in units other than IT	41	66%
Support staff in library IT unit	36	58%
Support staff in units other than IT	32	52%
Student employees in units other than IT	27	44%
Student employees in library IT unit	24	39%
Other	8	13%

# Please describe which other staff has this responsibility.

<sup>&</sup>quot;State auction of surplus equipment."

<sup>&</sup>quot;State law requires us to surplus equipment."

<sup>&</sup>quot;Surplused to other units in need."

<sup>&</sup>quot;Surplused to main campus computing department."

<sup>&</sup>quot;Surplussed to other departments."

<sup>&</sup>quot;Transferred ownership to other campus units."

<sup>&</sup>quot;University surplus program."

<sup>&</sup>quot;Computing Center staff and students."

<sup>&</sup>quot;Most staff at all public services desks answer 'basic' technical support questions."

<sup>&</sup>quot;Professional staff in units other than IT."

<sup>&</sup>quot;Publications Services Staff answer some questions about networked printing."

<sup>&</sup>quot;Support staff from university IT working collaboratively in two labs in the library."

<sup>&</sup>quot;These answers depend on the type of technical question being asked."

<sup>&</sup>quot;User support for public computers is generally provided in departments/areas where public workstations are located; rather than by staff in the Systems Department which provides technical support of the workstations."

<sup>&</sup>quot;Usually, circulation or reference desk staff."

# 20. If staff in a unit(s) other than IT provides technical support, please identify that unit(s). N=40

"Access Services and Public Services employees."

"All librarians and staff working library (non-Information Commons) public service desks will answer technical support questions if they are able. If they cannot provide the answer they will contact Library Technology Services for assistance. The Information Commons service desk is staffed by IT support personnel from the campus Office of Information Technology. All technical support questions asked at service desks in the Information Commons are referred to them."

"All public services units."

"All units at one time or another, to one degree or another are called upon to answer technical questions about public computers. All reference departments have CD-ROM products that run on single-user workstations and tech questions center on that equipment but other support questions, esp. printing and connection/Web page display issues may be, and are to differing levels, handled by each reference and circulation unit in both libraries."

"Catalyst Client Services (desktop); Health Sciences Library (part of University Libraries but they manage their own public computing operation); Publications Services (printing)."

"Circulation."

"Circulation, Reference, Periodicals, Special Collections, Global Resources, Brady Art gallery."

"Directorate separate from the library, Computing and Communications Services — their IT Help Desk (situated in the library main building)."

"Employees at desks in the branch libraries field initial questions."

"Gateway Services; Scholarly Resources."

"General Reference and Readers' Services librarians in the library's Information Commons; public service staff in library's branches."

"Learning Commons Office of Information Technology."

"Librarians and staff in public services units provide application-specific support for users (e.g., MS-Office, RefWorks)."

"Most often reference, information literacy, and media resources."

"Public service library staff (professionals, support, students) in all 12 buildings handle simple technical support."

"Public Services."

"Public Services."

- "Public Services (i.e., reference, circulation/access services, periodicals, public services student tech rovers.)"
- "Public Services (reference) and Access Services (circulation) staff."
- "Public Services Division."
- "Public Services provides lab support."
- "Public services staff (from both circulation and reference) are the first point of contact for library users having problems with public workstations and other devices such as printers. These staff provide the support that they can then call upon IT staff for technical problems they cannot resolve."
- "Public services units (Reference, Access Services, Library Instruction)."
- "Reference & Information Services; reference and circulation desks in branch libraries."
- "Reference (including chat reference), Circulation."
- "Reference and Access Services departments field first level questions."
- "Reference and Circulation."
- "Reference and Instruction Division."
- "Reference Department."
- "Reference Librarians are often first point of contact for public computer questions. May not be actual technical questions but more informational in nature."
- "Reference Librarians working at the desk answer basic questions and then refer higher level requests via our ticket system. Central IT help desk students help provide evening support and offer similar services."
- "Reference, Special Collections, Heath Sciences Library, Engineering Library, Math Library, Geology Library, Journalism Library, Veterinary Medicine Library."
- "Reference, Undergraduate Library, departmental libraries."
- "Research and Information Services, Learning Commons, Digital Media Laboratory, Branch libraries."
- "Research Services Librarians and technical support staff, Information Desk graduate students

Service desks in libraries and online help team."

- "Service providers at reference desks assist with questions from public lab areas."
- "Staff from our individual libraries and campus academic computing staff."
- "Student Computing Services runs a computing help desk."
- "This is not technical support. This is application support and other similar questions (like printing). General Information Services has student lab assistants to answer questions. There is a difference at our library."

# 21. How do users most commonly alert library staff about public computing problems? N=62

In person at Reference desk	32	52%
In person at Circulation desk	8	13%
In person at tech help desk	4	7%
Via e-mail to staff	6	10%
Via online bulletin board	0	_
Via physical bulletin board	0	_
Other	12	19%

# Please describe the other options.

# 22. Does your library use a helpdesk ticket tracking software to assist in managing, addressing, and reporting public computer problems? N=62

Yes	45	73%
No	17	27%

<sup>&</sup>quot;At closest public services desk."

<sup>&</sup>quot;At the nearest public service desk whether it is Reference, Circulation, a branch library, or the Information Commons."

<sup>&</sup>quot;At the Reference Desk AND at the Circulation Desk."

<sup>&</sup>quot;Combination of in person at reference desk, in person at circulation desk and via e-mail to tech staff support address."

<sup>&</sup>quot;In person at any public services desk."

<sup>&</sup>quot;In person at our multiple service desks — not limited to just one type or location."

<sup>&</sup>quot;In person at reference desk and at circulation desk."

<sup>&</sup>quot;In person at Reference desk, Circulation desk, and via e-mail to staff."

<sup>&</sup>quot;In person at the Information Desk."

<sup>&</sup>quot;Plan to offer chat/IM starting fall term."

<sup>&</sup>quot;Sometimes they tell us in person. Sometimes they go through the Web-based help application."

<sup>&</sup>quot;Three ways: in person at Reference desk; in person at circulation desk, and via e-mail to staff."

# If yes, which help desk ticket tracking software is used? N=44

Remedy	4	9%
Netsupport	2	5%
JIRA	2	5%
HelpStar	0	
Other	36	81%

# Please describe the other tracking software.

Locally developed system (16 responses)

Request Tracker (5)

Numara Footprints (2)

TrackIT! (2)

Bugzilla, with some modifications

Epicore

Heat

Infra Enterprise

Microsoft SharePoint Services

One or Zero

OTRS (open source)

Perfect Tracker

PHP helpdesk

Service Desk Express

Web Help Desk by MacsDesign Studio

# 23. On average, how frequently does library IT staff have to address a public computing problem? N=61

More than 5 times a day	7	11%
Between 2 and 5 times a day	22	36%
About once a day	10	16%

About once every two or three days	11	18%
About once a week	5	8%
Less often then once a week	3	5%
Other	3	5%

# Please describe the other frequency.

## **PUBLIC COMPUTER USE POLICY**

# 24. Has your library developed a policy document aimed at users of public computers or does it follow an institution-wide computer use policy? N=61

Library follows an institution-wide computer use policy	29	48%
Library has developed its own public computer use document		
in accordance with an institution-wide computer use policy	23	38%
Library has developed its own public computer use document	9	15%

## 25. Who has primary responsibility for developing this policy? N=60

<sup>&</sup>quot;Libraries ITS has few problems, about once a week; Catalyst responds to problems between 2 to 5 times a day."

<sup>&</sup>quot;Most problems are addressed by the Computing Center."

<sup>&</sup>quot;With over 400 computers, we are constantly working on making them better."

<sup>&</sup>quot;A committee representing multiple library units was charges by the Library Director to develop this policy."

<sup>&</sup>quot;Academic Information and Communication Technologies, Office of Information Systems Security."

<sup>&</sup>quot;Assistant Dean, Learning Commons."

<sup>&</sup>quot;Associate Director for User Services, Associate Director for Digital Initiatives."

<sup>&</sup>quot;Associate University Librarian for Public Services and Collections."

<sup>&</sup>quot;Associate University Librarian, Information Technology and Systems, in consultation with Library Leadership Team, and with final approval by the University Librarian."

<sup>&</sup>quot;Campus administrators, reviewed by Legal Council."

<sup>&</sup>quot;Campus computing in consultation with representative management groups."

<sup>&</sup>quot;Campus ITS."

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"Campus IT and legal counsel."
"Central campus computing services."
"Central IT."
"Central IT."
"CIO, Campus ITS Department."
"Dean."
"Developed by university-wide committee and adopted through university governance."
"Director, Library Systems, in consultation with library administration and library department heads."
"Done by committee with ITS taking the lead."
"For PCs managed by the Libraries, the policy is developed by stakeholders and approved by the Dean's
Cabinet; For PCs managed by Catalyst Client Services, they rely on institution-wide computer use policies."
"Information Technology Department develops policy but University Board of Trustees has to approve it."
"Institution."
"Institutional IT group."
"IT Department and staff in public services."
"IT manager in conjunction with senior management group."
"Library Administration."
"Library administration in consultation with IT unit and public service librarians."
"Library Administration, IT Department."
"Library Computing Director."
"Library director council."
"Library Information Technology."
"Library IT staff in consultation with public services staff."
"Library management."
"Manager of IT Security for the campus."
"Members of the Library ITS Support Services Team."
"Office of Library IT."
"Public Computing Working Group — advisory group that assists in suggesting public computing changes,
etc."
"Public Services."
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- "Public Services Division."
- "Public Services management staff."
- "Public services with consultation of Information Technology."
- "Public services, reference, and IT professional staff."
- "Reference staff."
- "Reference, Instruction & Outreach Group (RIO), composed of the library's public services departments."
- "The Computing Center."
- "The library-wide Public Services Executive Committee (PSEC), with input from the library-wide Public Services/ Public Computing Advisory Committee (PCAC)."
- "The Public Services Access Council."
- "The University IT Department."
- "The university's central IT department."
- "The university's Office of Information Technology (OIT)."
- "These are a combination of university and Information Technology Services (ITS) policies. The latter are developed through a university group that includes participation from faculty and staff in campus units outside of Information Technology."
- "University CIO and Institutional IT Policy Committee."
- "University Committee on Information Systems & Technology (UCIST)."
- "University computing office."
- "University Computing Services."
- "University Information Systems & Services (ISS) department, The Library Administrative Group, and Public Services Staff."
- "University IT department."
- "University of California Office of the President."
- "University Security Committee."
- "University Technology Services."
- "Vice President for Information Technology."

# 26. How often is the policy reviewed for updates/revisions? N=51

As needed	32	63%
Unknown	9	18%
Annually	7	14%
Once each semester/2x per year	2	4%
Still an interim policy	1	2%

# **PUBLIC COMPUTING BUDGET**

# 27. Has the library budget for public computing increased, decreased, or stayed the same since FY 2005? N=60

	N	Increased N=31	Decreased N=16	Stayed the Same N=41
Hardware	60	27	11	22
Software	60	24	5	31
Staffing	59	19	8	32

# **Selected Comments from Respondents**

"Major university allocation for public computing in FY 2006, enabling replacement of approximately 65 percent of all public workstations and approximately 30 percent of monitors. With the lowest-end workstations replaced, this represents a major upgrade in public computing. A laptop pilot program was financed from endowment funds in FY 2007. In FYs 2007 through 2009, a university allotment will support replacement of additional public workstation monitors and the purchase of laptop computers for public checkout. Staffing: Loss of one Systems Librarian position in FY 2006. (Unit head retired, position filled through transfer.)"

<sup>&</sup>quot;Budget is allocated each year, dependent on overall library budget."

<sup>&</sup>quot;Extra staff paid for with FEMA disaster funds, so not an increase to library's 'real budget."

<sup>&</sup>quot;Hardware needs increased because of Microsoft Vista."

<sup>&</sup>quot;Library expenditures have been reduced because more equipment is now purchased through the campus technology fee process. Students pay a technology fee which goes into a central fund at the campus level. Each year the library, along with other departments on campus, submit proposals for a portion of this money to be used for purchasing student-use technology (mostly computers, but can also be software, cameras, and so on)."

#### **SECURITY**

# 28. Are users required to login to public computers to access applications and the network? N=61

Yes, for some public computers	28	46%
Yes, for all public computers	15	25%
No	18	30%

# If yes, how are users who don't have an institutional ID accommodated? N=44

They are provided a guest login	20	46%
They are directed to computers that don't require login	16	36%
Other	8	18%

<sup>&</sup>quot;One-time money increased."

<sup>&</sup>quot;Over the last several years, with the implementation of a preferred computer vending program for the campus, and the general reduction in computer prices, we have managed to provide more computers at less expense."

<sup>&</sup>quot;Public computers are purchased through a student technology fee fund. The libraries compete with other entities on campus for the technology fee money."

<sup>&</sup>quot;Public computing funds are augmented by the patrons Pay-for-print system in addition to the standard department budget. On occasion, donors fund special equipment such as a lab for patrons requiring special accessibility for FY 2008."

<sup>&</sup>quot;Staff budget increases due to annual raises."

<sup>&</sup>quot;The library does not have a budget line specifically for public computing, which is usually funded through a combination of student fees and library gift funds. Amount spent per year varies. Technical support staffing in the Systems Department has remained the same since 2005, staff supporting selected service desks has increased."

<sup>&</sup>quot;The library doesn't provide replacement hardware for most public workstations since they are maintained by the Computing Center and funded by the CIO's office."

<sup>&</sup>quot;The response above is for Libraries ITS. Catalyst, which relies on Student Technology Fee funding, reports its budget for hardware and software have both increased, but staffing has remained the same."

<sup>&</sup>quot;The same dollars are able to buy more hardware equipment. Thus, the public computing footprint has grown a bit over time, even with similar funding year-to-year."

<sup>&</sup>quot;There is no line item for public computing; we take money from the operations budget."

#### Please describe the other accommodation.

# Yes, for some public computers

"92% of computers require university ID with remaining limited Internet access."

"Both, but ones that don't require login are OPAC only."

"Some computers do not require login; we also offer guest logins."

"There are a few machines (mostly OPAC only) that do not require any login. Other general use computers are controlled by WatchDog software which requires library staff to assign users a WatchDog account."

"They are directed to computers that don't require login or they are loaned a SunRay smart card."

# Yes, for all public computers

"Separate community access terminals with a different login software system."

"The library is closed to the general public; all eligible patrons are required to have a university ID to access applications and the network."

"We have three machines that do not require login, and they are directed to those."

# 29. Are public computer users allowed to install any software on the machines? N=62

Yes 16 26% No 46 74%

# If yes, please describe what is permitted. N=15

"Although almost anything can be installed on non-OPACs, a few technological and policy constraints do exist. Users must abide by university's computer use policy, which prohibits malware, for example. Also, the network is configured to not serve Web pages and the like from workstations."

"Any software not requiring administrative privilege can be installed. Deep Freeze removes any changes upon daily reboot."

"Anything can be installed but is removed automatically on reboot."

"Anything that complies with the computing use policy."

"Anything that does not require a reboot of the computer will work."

"Browser plug-ins."

- "Catalyst PCs are authenticated and allow student to install any type of software. When they log out Deep Freeze returns the image to its original state. PCs managed by Libraries ITS are unauthenticated and tightly locked down, and no installation of software of any kind is allowed."
- "On multimedia machines and laptops for checkout, legal downloads are permitted, which are erased after the user logs out."
- "Once the computer is rebooted, it is reset to the original state."
- "Selected public workstations require a campus login and password in order to load software when using a DVD, CD, or USB drive."
- "Separate partition is available for users to write to."
- "The library has two computers used for patron loaded software. One of the computers is connected to the Internet."
- "Users can install software on check-out laptops."
- "Users can install software, which is then deleted nightly when workstations are re-imaged. Campus acceptable use policy requires users to have licensed copies of software."
- "Various, this activity is not monitored."

# 30. What is the biggest security concern for public computers? N=55

Biggest Security Concern	Additional Comments on Security.
Abuse of university computer use policy. Very few known breaches.	
Anonymous e-mail, gaming.	
Booting from USB devices.	
Bot-nets, key loggers.	
Computers in remote areas of the libraries can be (and are) compromised. Working in low traffic areas, users have broken into the operating system and installed applications, which can infect other machines on campus and compromise the university's network.	Since December 2006, Library Systems has improved its ability to automatically apply version upgrades to its Symantec AntiVirus client on workstations. This is an important campus-wide security issue. In some cases, staff must perform the upgrades manually, which takes a lot of time and effort (in part, to locate the workstations that need to be upgraded). The Libraries in Pullman will be instituting public laptop checkout for the first time in fall 2007; Library Systems are carefully reviewing the security issues involved in this service. To access the university network from these laptops, users will have to log on to VPN client software, using their university Network ID. Once the laptop checkout service is implemented in the fall, the answer to the security question above will be: "Yes, for some public computers."
Concern about whether we applied the group policy correctly.	
Data theft and accounts not being logged (auto) in time.	
Downloaded malware.	Requiring authentication before public computer use based on a university-affiliated ID. Some past problems have included users sending threatening messages from public machines.
E-mail.	
Ensuring the integrity and confidentiality of the public user's session. This means: protections from trojans and viruses; ensuring user data is not left behind; encryption methods where possible.	
Hacking and theft.	
Hacking into staff network.	
Hosting or acting as a server for inappropriate and/or illegal material.	Being a public library, encouraging public use while being concerned about IT security is a difficult path.

Biggest Security Concern	Additional Comments on Security.
Keeping them free of virus, and maintaining patron confidentiality.	
Key loggers, anonymous e-mails, spiders, public machines becoming an attack vector for other campus systems.	
Libraries ITS' biggest concern is misbehavior by users (for example, threatening anonymous e-mails); Catalyst staff's biggest concern is damage caused by viruses.	Libraries ITS notes that security-related concerns during the past few years have led them to reassign almost a full FTE to address general network security problems and prevention of problems. Security is one of the top priorities for university computing administrators in general.
Maintaining a stable environment for the next user.	
Malicious internet software.	Public devices are locked through policies.
Malicious software, i.e., viruses, trojans, etc.	
Network intrusions.	
Network penetration/security threat to take down machines or network.	We are moving away from "restrict all" security schema, as there are more things our patrons have to do. We started to employ Deep Freeze security software with minimal restrictions via Windows Security Policy to allow maximum usability of public PCs.
Network-based trojans/worms.	All public computers are on private address space for an additional layer of security.
No overt concerns.	Potential use of USB keyboard dongles serving as key- stroke recorders is theoretically possible, but currently deemed a low risk. Before network edge router rules were set several years ago (ACLs), file sharing was a huge security and liability concern.
Online banking, keystroke loggers, trojans, malware.	Policies are set to prevent malicious software from being installed and each workstation reboots nightly to clear and reset.
Operating System security. They all run Windows.	Computers are well secured with Microsoft profiles and policies.
Our workstation infrastructure is relatively secure; our biggest concern usually involves public users wanting to devote hours to game playing.	
People not signing off and leaving their personally identifiable information exposed.	
Physical theft and damage.	
Physical removal of hardware.	

Biggest Security Concern	Additional Comments on Security.
Physical security (theft or vandalization).	
Protecting public computers and library network from malicious use.	
Protecting student information (e.g., papers, resumes, etc. left on machines; forgetting to log off.) Machine and network security (e.g., attempts to circumvent computer and network protection measures.) Potentially illegal use of machines (e.g., child porn, file sharing of copyrighted material, e-mail threats to individuals, identity theft.)	Currently, we use a combination of Active Directory Group Policies and scripting to remove user information.
Security and some complaints from patrons about the use of other patrons' use of visiting Web sites that they may deem inappropriate.	
Security breaches.	
Security breaches for hardware, software and network attacks, including unauthorized access for workstations which require login id and password.	Inappropriate downloads from licensed resources.
Security/virus attack.	
That someone will intentionally or unintentionally release dangerous code onto the libraries' network through a public workstation or a public network connection.	
That user information will be exposed or stolen.	Tightening security is a constant part of desktop support.
That users might exploit security holes in installed software applications.	Use of DeepFreeze has minimized security concerns; a reboot restores the workstation to its original image.
The ability to install software.	I have a philosophy of insecurity and view how insecure we are.
Theft of components: mice, Internet cables, etc.	PCs are locked down physically with cables and combo locks. PCs are also locked down with software including Windows Group Policy settings, DeepFreeze, use of a VPN, and a library firewall system.
Theft of hardware.	
Theft of personal information from users of public computers.	
Theft of small peripheral devices.	
Thefts and hacking.	
Unauthenticated users sending harassing e-mails from library public computers.	
User's data storage and e-mail.	Unauthorized use of networked resources.

Biggest Security Concern	Additional Comments on Security.
Users utilizing our equipment in attempts to hack into other systems.	Our computers are protected by DeepFreeze. They are also configured to automatically reboot when every user logs off (or after a set idle time). Both of these help ensure that any changes made to the systems, or any personal information left by users, are wiped out between each use.
Using the computers for illegal activities.	
Viruses.	
Viruses.	
Viruses and Spyware.	
Viruses, bots, other malware programs.	
Viruses, illegal file sharing.	Privacy control (delete history/documents after logoff).
Viruses.	
	We are changing to authentication for public workstations in the Fall. Visitors who don't already have au logon will be given their own logon specific to public computers in the library.

# **PUBLIC COMPUTING ASSESSMENT**

31. Has your library assessed users' satisfaction with public computing hardware, software, and/or technical support? N=59

Yes	35	59%
No	18	31%
No, but planning for user satisfaction assessment is under way	6	10%

If yes, what aspects were assessed? Check all that apply. N=35

Hardware	28	80%
Software	27	77%
Technical support	18	51%
Other	10	29%

# Please specify the other aspect that was assessed.

"2006 in-house User Satisfaction Survey: 'Computer Workstations' and 'Printers.' 2007 LibQUAL+® Survey: 'Ready access to computers/internet/software.'"

# 32. Does your library track the use of public computers? N=59

Yes	27	46%
No	25	42%
No, but planning for usage tracking is under way	7	12%

# If yes, what method is used to track usage of public computers? Check all that apply. N=27

Track user log-ins	17	63%
Track desktop activity via software, scripting, etc.	9	33%
Make physical head counts of users	5	19%
Extrapolate from library entrance counts	0	_
Other, please describe	6	22%

<sup>&</sup>quot;A network-based count of public laptop connections to the wireless network."

<sup>&</sup>quot;LibQUAL+®."

<sup>&</sup>quot;LibQUAL+® perceived levels of service quality expected and received from library employees."

<sup>&</sup>quot;Licensed resources."

<sup>&</sup>quot;Overall usability."

<sup>&</sup>quot;Service quality assessment surveys including LibQUAL+® and staff Quality Council."

<sup>&</sup>quot;User satisfaction with public computer services."

<sup>&</sup>quot;User spaces."

<sup>&</sup>quot;Via LibQUAL+®."

<sup>&</sup>quot;Catalyst tracks total number of logins and number of unique logins in each library location by quarter."

<sup>&</sup>quot;LANDesk reports, OPAC reports of computer checkout."

<sup>&</sup>quot;Number of pages visited through library Web site; number of databases accessed and how often."

# 33. Based on your assessment results, please rank the following items on a scale of 1 to 5 where 1 is rarely an issue and 5 is a common issue for users of public computers. Select N/A if an item has not been assessed. N=55

	N	Rarely an issue	2	3	4	A common issue	N/A
Number of computers	55	7	7	9	13	17	2
Available software applications	55	10	13	17	9	4	2
Network speed	55	33	10	3	4	1	4
Wireless connectivity	54	12	16	11	6	3	6
Technical support availability	54	10	16	22	1	_	5
Total number of responses	61	40	38	39	25	21	6

#### Additional Comments on Assessment N=11

<sup>&</sup>quot;User logins are tracked only for the purpose of identifying users at a later date if a security breach is discovered."

<sup>&</sup>quot;We only track log-ins for computers in one library's info commons."

<sup>&</sup>quot;Assessment is done by the university's IT unit, but public computing is also included in our routine user satisfaction surveys."

<sup>&</sup>quot;Individual units have conducted head-counts when requested by administrators during busier times. General patron surveys have also included public computing-related issues and our feedback boxes often contain related issues, such as appeals for more public computers."

<sup>&</sup>quot;Limited tech support is available evenings and week-ends."

<sup>&</sup>quot;Number and speed of printers also an issue; number of printers and print release stations increased after 2006 survey; wireless printing (PrinterOn) implemented in 2007."

<sup>&</sup>quot;Students often comment on the limited number of laptops available during high use time periods."

<sup>&</sup>quot;Technical support is not provided for applications not licensed by us which leads to issues for some users of public computers."

<sup>&</sup>quot;The issue regarding number of computers available varies by unit in question."

<sup>&</sup>quot;The library was a LibQUAL+® participant in 2002 and 2006, and obtained assessment data on its computing equipment through that process. (For example: local question on 'Ready access to computers/Internet/software.')"

<sup>&</sup>quot;These comments often refer to campus lab devices, not library devices."

# **ADDITIONAL COMMENTS**

34. Please enter any additional information regarding the management of public computing at your library that may assist the authors in accurately analyzing the results of this survey.

"Academic Computing provides networking services and support for the Libraries and technical support for one library lab. However, the Libraries are responsible for most support for public computing. We see a continued need for professional IT staff that can support more powerful computing environments and professional level multimedia content creation software. The new crop of students coming in are demanding more sophisticated software, and a lot of them do not require any type of basic support. They are asking assistance with very sophisticated projects like gaming environments, online interactive professional portfolios, and product development for marketing and film classes."

"Currently, the public computers only offer Web access, but other applications will be added in the future."

"Library machines will be migrating management of all login public computers to university IT department management; this constitutes the vast majority of machines."

"Most intensive support on the public side goes to maintenance and updating of the research database products on the old CD-ROM network. This is a format that isn't going away fast enough!"

"One very important aspect of public computing at our library was not easily addressed in the survey questions so I would like to speak to that here. We have recently built an Information Commons in our library. As of the end of Spring 2007 it contained 90 public computers and 54 loaner laptops reported in the totals for question 5 and explained separately in the comments to question 5. Our Information Commons is currently undergoing an expansion so this number will be even higher beginning in the fall of 2007. The Commons is a collaborative project between the library and the campus Office of Information Technology (OIT); support for public computing in this area of the library is handled exclusively by OIT. Most answers to the survey questions therefore reflect only the public computers supported by the library's own IT group (Library Technology Services)."

"Public printers are managed by the university's Printing and Copying Services unit. We have two collaborative computer lab spaces managed by the library and University IT. We also have a lab space managed by University IT which is not included in the responses to this survey."

"Support for public computing on the campus is a collaborative but complicated endeavor. There are four main players involved: 1) Libraries ITS supports 165 non-authenticated Libraries workstations. These stations have a tightly controlled image and no software can be loaded on them. They provide access to library resources and the Web, but have no productivity software, such as MS Office. 2) In 2002 the Libraries began a joint venture with a university partner organization, Catalyst Client Services, to provide more powerful computing

<sup>&</sup>quot;These answers are based on our LibQUAL+® survey, which covers much more material than computer use."

<sup>&</sup>quot;Wireless networking is a campus-wide system run by institutional IT group."

services for students within library units. Catalyst, which also manages the general access computing labs, manages 260 'Access Plus' PCs, all located within library units. Funding for equipment has come from the Student Technology Fee but the Libraries has contributed to Catalyst staffing costs. 3) University Publication Services, which has long managed library photocopying services, began managing networked and fee-based public printing services several years ago. There are public printers in all Libraries units. 4) The Health Sciences Library, which is part of the Libraries system, maintains its own public workstation and printing operations. This arrangement has been successful but with so many people involved it can get complicated. Effective and timely communication has been critical and things have derailed when it's been absent. Several working groups have been established over the years to try to facilitate open communication and coordinate activities. While the Libraries doesn't loan laptops, staff also can issue temporary university Netlds to visitors with their own laptops. These provide campus access to Web, e-mail, and licensed databases."

"The campus IT service runs two computer labs, one in each library, that provide Internet access and a greater range of software applications with debit printing. Both the library and the IT labs charge the same price for printing. Campus IT maintains the wireless network in the building; library purchases the wireless access port equipment."

"The University Library is composed of 20 libraries, many operating with independent public computing funds and support. This survey response was focused on the response of one of two or three of the larger library public computing service areas, and includes the system's largest library. We did this to not only ensure a better alignment between reported support staff numbers and the supported equipment listed, but also to prevent diluting or averaging the other support-related questions as would be necessary the more units we tried to include. Please note that there is a large amount of variability in the degree of public services and IT integration throughout the library system."

"There is a student computing services (SCS) unit on campus which runs a number of computer labs aimed specifically at providing services to students. They do have a computer lab in the main library which provides 88 computers specifically for student use, but I have not included these computers in any of my counts, nor their staff, processes of support, or mode of operation in my answers. However, they do represent a significant means of access and service for our students. It is mainly the activities of this unit (SCS) that creates a technical environment that doesn't require library computers to be as dynamic in relation to the installation of software. We are also increasing mutual involvement with SCS on other projects — like an information commons — where we have joint responsibility for the services. So the computers provided and the management of them is becoming intertwined."

"These response are in reference to the PCs maintained by library staff. There is another group of 70 PCs in the library maintained jointly with the central IT group."

"Until late summer 2005, the Libraries IT staff was responsible for managing all library public computers. At that point, the reporting line for the six desktop and network support positions was changed from the Libraries to the Office of Information Technology (OIT). However, the position responsibilities remained the same and the physical location of those staff members did not change. As Assistant Director of Information Technology and Technical Services, I closely coordinate with one of the six positions (the coordinator) and his manager at OIT. We have weekly conference calls to discuss issues and priorities, expenditure approvals, etc. The Libraries retained the budget for the positions and for computing equipment, services, etc. We transfer funds to OIT on a monthly basis to cover their expenses on behalf of the Libraries."

"We have a shared responsibility with campus staff in some library-based computer clusters and we manage others on our own. So it is difficult to answer some of your questions about number of staff involved in supporting public computing here."

"We spend little time on a day-to-day basis managing public workstations. Given we are undergoing a large renovation, the most frequent complaint about the machines is that they are dirty due to construction dust."

# **SURVEY FOLLOW-UP QUESTION**

During analysis of the survey responses, and reinforced by the article "Are Computers in Libraries on the Wane?" (http://chronicle.com/wiredcampus/index.php?id=2489) in the Chronicle of Higher Education, the survey authors realized they needed to ask one more question. An e-mail was sent to the survey respondents with the question below.

Over the last five years, would you say that user demand for public computing at your institution has increased, decreased, or stayed about the same? N=40

Increased	36	90%
Increased in certain locations, decreased in others	1	3%
Decreased	0	_
Stayed about the same	3	7%

# **Selected Comments from Respondents**

"Public computing use in the Libraries has increased to some extent, but there is some evidence that public computing use has decreased across campus. So it depends on what you mean by 'your institution.'"

"Although the % of personal PCs that students bring to campus has gradually increased over time, our library continues to received requests from patrons for more computers. One reason is our library is located centrally on campus and has become a popular stop-over and meeting place for students. Even though we have added more PCs, the convenience has meant greater user demand and we never seem to have enough PCs."

"I would say that demand in our libraries for public computing has increased somewhat over the last five years. However, alongside this modest increase, demand for wireless access accompanied by electrical outlets has increased greatly."

"Student computers in our public areas are always in use. There has never been a problem with equipment sitting idle! Of particular note is the voracious appetite students have for laptops they can check out. It seems that no matter how many more we make available, there is always need of a few more."

"Our networked computers, where students log in and can access their student accounts and printing

<sup>&</sup>quot;It has increased in certain locations, decreased in others."

allocations, as well as our laptop loan program, are two of our most heavily used services at the library."

"Without question, without reservation, over the last 5 years the demand for public computing has INCREASED."

"I would say that demand for public computing at the university continues to increase."

"This is a difficult question to accurately answer. It appears that we have a lower demand for public computers, be we have added additional public laptop computers in the last five years. It could be that use has shifted from the desktop computers to the laptops."

"Over the last five years, we have added a significant number of additional PCs that are available to students. Those machines are fairly heavily used."

"We are anticipating that it will decrease over the next several years, because approximately 75% of students are now coming to campus with laptops."

'Demand for PCs-in-general increased between 2002–2005, demand for wireless and laptop docking ports surfaced and increased between 2005–07. Anecdotally, it looks to me like desktop PC demand is slowly decreasing as more students bring their own equipment to the library."

- "1. I'd definitely say that the demand for wireless access and electrical outlets to support laptops has increased significantly over the last 5 years. I'm inclined to say the demand for actual physical public computers has stayed about the same, but that is just my gut feeling—no data to back it up. Also, it may have been affected by our allowing the public to use the machines, but not having any productivity software like Word on the machines. I suspect CATS may have experienced an increase in demand. They might have data based on logins.
- 2. I'm not sure about empirical data, but given what I've observed, I would say it has increased (based on Reference librarians struggling to find available computers).
- 3. There's no real distinction being made in the question about public computing. Does that mean PCs we provide or access we provide including wireless and the simple electrical outlet? Our informal studies show that many students don't want to carry their laptops so they depend on our hardware. Computer use in the library has increased because we are the central location on campus and are the preferred building for users to come to (based on an fairly narrow anthro study, including, and most importantly, for social contact which shouldn't be minimized as a reason to use the library. (Like an old commons). It isn't hard to understand given [the university's] limited space for computing resources and we are the major provider of central (not dispersed) IT resources, unlike labs. We also have added MS Office, although I can't say based on statistics if that has increased usage of PCs, but I think that it will over the long run. There's no real way to capture usage beyond anecdotal to point to the following as reasons for increases. Both hardwire and wireless:
- Adding wireless access
- Adding MS Office
- Most seat availability
- Hours
- Positive public service

My hunch is that if we were to add more PCs we would have the students there waiting to use them. So after this long-winded and anecdotal feedback, I still would say check the Increase line."

"It has been consistently high demand, with some increase from high to higher. (Science Librarian) The current number of public laptops is roughly double what it was five years ago: 30 then to 50 today. (Our IT guy.) Staff in the main library also report increases in demand for public computing. This also applies to laptops. The students don't want to carry their laptops around; they want to borrow ours."

"Feedback from our patrons has been very consistent that they desire more public computers, particularly ones that are focused on productivity (in contrast to simple OPACs). In our largest library, we're adding public computers, mostly in the form of additional free public loaner laptops, and expect demand for the library's public computers in general to continue to increase.

FWIW, here's what I've seen regarding demand for public computers over time. At first we thought that as students acquired computers in their residence hall rooms and apartments, demand would go down for the campus's public computers. Demand went up during that period instead. Then we thought that as students got laptops, demand would go down for public computers. Alas, demand has continued to increase! It turns out that our mostly generic but robust and functional public computers, conveniently available in appealing environments, represents a large utility to our library's patrons."

# RESPONDING INSTITUTIONS

University at Albany, SUNY
University of Louisville
University of Alberta
McMaster University
Arizona State University
University of Manitoba

Boston College University of Massachusetts, Amherst
Boston Public Library University of Miami
Brigham Young University University of Michigan
University of British Columbia University of Missouri

Brown University University of Nebraska—Lincoln University at Buffalo, SUNY University of New Mexico

University of California, Davis

University of North Carolina at Chapel Hill

University of California, Irvine

North Carolina State University

University of California, Riverside
University of California, Riverside
University of California, San Diego
University of California, Santa Barbara
University of Oklahoma
Case Western Reserve University
Oklahoma State University

University of Chicago

Colorado State University

University of Connecticut

University of Pennsylvania State University

University of Pittsburgh

Cornell University

Purdue University

University Purdue University

University of Delaware Rutgers University

Duke University Smithsonian Institution

University of Florida Southern Illinois University Carbondale

Florida State University Syracuse University

George Washington University
University of Tennessee
University of Georgia
University of Texas at Austin

University of Guelph Vanderbilt University
University of Hawaii at Manoa University of Virginia

Howard University Virginia Tech

University of Illinois at Chicago University of Washington
University of Illinois at Urbana-Champaign Washington State University

University of Iowa
University of Waterloo
Wayne State University

Johns Hopkins University
University of Western Ontario

Kent State University Yale University

University of Kentucky



# **REPRESENTATIVE DOCUMENTS**

Position Descriptions	

#### PROFESSIONAL VACANCY NOTICE

Position: Head of Library Systems Department, SL-5

Responsibilities: The University at Albany Libraries seek a creative, knowledgeable, dynamic administrator committed to service to academic library users who will manage and provide leadership for the Library Systems Department, consisting of 4.5 professionals and one secretary. The successful candidate will: plan, implement and manage technology based services of the Libraries including the Libraries' ILS (Ex Libris ALEPH 500), an in-house server farm that hosts Web sites and related applications, over 500 PCs and associated printers for public and staff, and computer equipped classrooms; oversee daily operations and services, working closely and collaboratively in a team-based environment and bringing systems knowledge and experience to the advancement of library goals in existing and new initiatives; represent the Libraries' interests in respect to information technology on campus and within SUNY; recommend technical standards, policies and new technological initiatives; and plan hardware/software upgrades for the Libraries. He or she is expected to work collaboratively with library faculty and staff, with staff in ITS, the centralized campus computing and networking support group, in order to manage joint projects, and with other IT professionals on campus; to be professionally active, provide vision for the department and the Libraries, and perform other duties such as committee service. Must be able to inspire and lead an experienced and hardworking staff in an ever changing and challenging environment. Must be willing and able to assist with daily operations. Reports to the Assistant Director, Division of Library Systems and Technical Services. Finalists will be asked to submit official transcripts and to present on a specific topic to all library personnel.

Qualifications: required: A Bachelor's degree and at least five years progressively responsible library experience including managing an automated library system (preferably ALEPH 500) and supervising personnel. Demonstrated knowledge of computer hardware and software, networks, library management systems, and PC desktop operating systems and networking principles. Demonstrated commitment to user-centered service. Knowledge of library operations. Evidence of successful management within an information technology department or team and of strong interpersonal, analytical, organizational and problem solving skills. Demonstrated skill in planning, budgeting, managing for results, and overseeing hardware and software applications in a networked environment. Demonstrated ability to shape vision and goals for the department and to relate them to library and university goals. Demonstrated knowledge of best practices and current trends in the application of technology to libraries and higher education and knowledge of Unix (Solaris), Windows (XP, 2003, 2003 server), web applications, database management, website hosting, servers and server farms, MARC and OCLC. Strong written and oral English communication skills. Applicants must address in their applications their abilities to work with a culturally diverse population.

**Preferred:** Graduate degree in librarianship from an ALA-accredited institution or foreign equivalent at time of appointment. Academic library experience; advanced degree in a relevant field, working knowledge of Oracle, ILLiad, ERes, ALEPH 500, SFX; programming ability.

**TERMS & BENEFITS** - Calendar year appointment and tenure-track position; sick leave and annual leave at 1.25 days each per month; health insurance; dental, vision and prescription coverage. TIAA/CREF or New York State Teachers Retirement available (employee contribution rate 3%).

SUBMIT APPLICATIONS VIA E-MAIL, IF POSSIBLE, TO: <u>azrl@uamail.albany.edu</u> or to Anna Z. Radkowski-Lee, Library Personnel Officer, University at Albany Libraries – LI 111, 1400 Washington Avenue, Albany, New York 12222.

**DEADLINE** – The application deadline \_\_\_\_\_\_. Please include the names, addresses, and phone numbers of three references in addition to your resume and cover letter.

#### THE UNIVERSITY AT ALBANY, SUNY AND THE UNIVERSITY LIBRARIES

Albany's University Libraries are among the top 100 research libraries in the United States. They are a highly valued partner in teaching and research at the University, serving a campus community of 16,000 full-time and parttime students and 2,300 faculty and staff and a broader regional, national and international community. The Libraries employ a dynamic and knowledgeable staff of 124 FTE and 300 part-time student assistants to provide excellent services to a campus community that makes heavy demands on these services. Collections total over 2 million cataloged volumes and the Libraries offer a full spectrum of resources, from rare books and manuscripts to electronic resources. Librarians work closely with teaching faculty to offer user education and information literacy instruction. The University Library on the main campus is a 175,000 square feet, 4 story building. It contains several fully-networked library classrooms and laboratories, a 60 seat computer user room, a large networked reference area, and an interactive media center.

The Thomas E. Dewey Graduate Library on the Rockefeller College campus serves the graduate schools of Criminal Justice, Public Administration, Social Welfare and Information Science and Policy. The Science Library, opened in

# **UNIVERSITY AT ALBANY, SUNY**

September 1999 on the main campus, houses the Science Library, the M. E. Grenander Department of Special Collections and Archives, and the Library's Preservation Department.

The University Libraries are fully automated, offering an extensive array of electronic and networked resources and Web-accessible services. Minerva, the Libraries' Web-based catalog, contains information on all cataloged holdings and is Internet accessible. The Libraries are members of the Association of Research Libraries and The Center for Research Libraries. Additional information about the University at Albany Libraries is available at: (http://library.albany.edu).

THE UNIVERSITY AT ALBANY, STATE UNIVERSITY OF NEW YORK IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION/IRCA/ADA EMPLOYER.

#### University of Alberta Library Librarian Position Description

#### I. POSITION INFORMATION

INCUMBENT:

**DATE:** 11 April 2005

POSITION:

ITS Operations Manager

ADMINISTRATIVE UNIT (including work unit):

Information Technology Services

SUPERVISOR: Associate Director, Information Technology

#### II. GENERAL STATEMENT OF RESPONSIBILITY

#### i. PRIMARY JOB FUNCTION (one sentence)

The Operations Manager provides day-to-day management of ITS staff and technology resources to support the tactical and strategic goals of the University library system and the various consortium partners who contract for services from ITS through Learning Services or the University of Alberta Libraries. Areas for which ITS provides technical support include materials processing, office automation, electronic database and document access, consortium-based resource sharing, and network connectivity.

#### ii. NATURE AND SCOPE OF RESPONSIBILITY

#### Nature of Responsibility:

The ITS Operations Manager is responsible for day-to-day management of the human and hardware resources allocated to technology support within the library system. This entails directing the work of the technical staff within the unit; providing project management where needed on specific initiatives; developing targets regarding the level of service ITS provides to unit libraries and departments as well as procedures and processes to meet those targets; researching and purchasing appropriate hardware; ensuring that staffing levels are adequate to meet demands and that training is available to staff to support new initiatives; entering into support contracts with vendors for services to supplement in-house support; consulting with unit heads and librarians on their specific technology requirements; and communicating ITS procedures, policies and plans to the library system.

#### Scope of Responsibility:

Under the direction and advice of the Associate Director for Information Technology, the Operations Manager is responsible for setting specific goals for ITS in order to meet any tactical and strategic directions of the library system that have a technology focus. Within the context of that set of specific goals, the Operations Manager can determine day-to-day priorities for the unit, allocate human and material resources, and develop procedures and policies to achieve objectives. The Operations Manager provides direct supervision of the technical staff within ITS (16 permanent and 1 to 2 contract staff). Supervisory responsibilities include coaching technical staff in working through implementation problems; advising staff on day-to-day priorities based on changing needs and circumstances; evaluating the progress and quality of work; and developing structures and processes to allow the staff to work effectively as a group. The Operations Manager is also responsible for all computer hardware and software purchases across the library system. The annual budget allocated for technology varies from year to year, but ranges from approximately \$500,000 to \$1,500,000.

#### III. WORKING RELATIONSHIPS AND COMMUNICATIONS

#### i. INTERNAL

Outside of ITS, the Operations Manager works through various system-wide teams and directly with librarians and unit heads in defining the technology requirements for specific projects. He/she provides advice on possible approaches, helps define time frames, and identifies resources required for these projects. The Operations Manager works with the Electronic Access Coordinator , the Web Development Librarian and the Digital Initiatives Librarian to identify priorities and projects and assess the human and financial resources required for ITS initiatives. The Operations Manager works with staff in FSA to monitor technology expenditures.

#### ii. EXTERNAL

The Operations Manager works regularly with various units on campus (including CNS, SMS and Physical Plant) on projects and policies that affect the library and are related to wide-area networking, software licensing, hardware repairs, and equipment inventory. He/she works with the NEOS Coordinator, the Alberta Relais Consortium and the Edmonton Public Library IT Manager to ensure that the technology support needs of Learning Services and the University of Alberta Libraries' clients are being met. The Operations Manager also works with technology vendors when researching and purchasing hardware or contracting for support and integration services. On occasion, the Operations Manager will be required to make presentations to various faculty groups and committees to inform them about technology-related library projects. Coordination of projects with technical staff at other libraries is also necessary on occasion.

#### IV. COMMITTEES AND PROFESSIONAL INVOLVEMENT

(Committee responsibilities REQUIRED by the position and the position held on each committee)

Participation in service to the general public and the profession is required by the position.

Participation in various ad hoc library and NEOS committees is also required.

### V. SPECIFIC RESPONSIBILITIES

(Five to seven statements which describe what your position is intended to accomplish and the duties involved)

Supervision of the technical staff in ITS, creating an environment in which they can function effectively as a group and ensuring that they receive the necessary training and experience to allow them to develop new technical skills.

Management of various technology projects as required, ensuring that the necessary resources are available, that time frames are defined and met, and that goals and progress are communicated.

## **UNIVERSITY OF ALBERTA**

Management of Information Technology Services operational, casual, training and capital budgets. Researching and purchasing appropriate technology, making sure that the library system has the tools needed to support its service goals and that those tools conform, where possible, to campus and industry standards.

Monitoring changes in levels of use of the library's computer systems and ITS technology support requirements so that accurate budgets and staff plans can be developed to ensure the smooth ongoing operation of these systems.

Developing and communicating procedures and policies for technology support to ensure the continuous operation of the library's computer systems.

Consulting with unit libraries and librarians on their technology requirements and advising them on appropriate solutions.

Management of formal partnership/consortial/client/vendor relationships including service level agreements, contracts for services and operational communications and planning activities

SIGNED:	
INCUMBENT:	DATE:
SUPERVISOR:	DATE:
ADMINISTRATIVE LIBRARIAN:	DATE:

UCSD JOB DESCRIPTION LIBRARY INTERFACE

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# **Job Description Library**

Classification Menu 4 Job Description Main Menu

UCSD Human Resources > Compensation > Job Description Library

# UCSD Job Description 117974 ▶ Printer Friendly Version? Click here ▶ Help setting print-margins? Click here Search Library

University of California, San Diego Campus Human Resources 0922 JOB DESCRIPTION		
JOB DESCRIPTION NUMBER • 117974	POSITION CONTROL NUMBER • 26114	
REASON FOR SUBMITTING THIS JOB DESCRIPTION •Recruit for new position		
(If filled) PERSON WHO WILL OCCUPY THE POSITION (Phone: )	LOCATION OF POSITION  •Main Campus	
PREVIOUS TITLE CODE (If Update/Reclass)	PREVIOUS TITLE	
JOB DESCRIPTION HISTORY		
Completed	by Designated Authority	
DEPARTMENT CLASSIFIER •Caprece Speaks-Toler	CLASSIFIER EMAIL ADDRESS *cspeaks@ucsd.edu	
APPROVED TITLE CODE •7277	APPROVED PAYROLL TITLE •PROGRAMMER/ANALYST II	
DATE RECEIVED •12/05/2005	DATE REVIEW COMPLETED •12/09/2005	
RECLASSIFICATION EFFECTIVE DATE •	APPROVED HEERA •All Others, not Confidential	
IS BACKGROUND CHECK REQUIRED •No	IS C.O.I. DISCLOSURE REQUIRED  •No	
IS PRE-PLACEMENT PHYSICAL REQUIRED •No	REQUESTED HEERA •All Others, not Confidential	
	Overview	
WORKING TITLE •Systems Engineer	PERCENT OF FULL TIME •100	
DEPARTMENT NAME •GEISEL LIBRARY	DEPARTMENT UNIT CODE *000265	
VC AREA •ACADEMIC AFF	VC UNIT CODE 1	
SUPERVISOR'S NAME •Matthew Clark	SUPERVISOR'S TITLE •Unit Head, Desktop Services	
SUPERVISOR'S EMAIL *mbclark@ucsd.edu	SUPERVISOR'S PHONE •822-5903	

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7/26/2007

## UCSD JOB DESCRIPTION LIBRARY INTERFACE

TYPE OF SUPERVISION RECEIVED

•General Supervision

#### POSITION OVERVIEW

•This position serves as a Systems Engineer in the Desktop Services Unit of the UCSD Libraries.

Technical implementer for Infostations, GIS Lab, and other Public Services Computing projects. Research, recommend, and coordinate the selection, testing, deployment, installation and implementation of new workstations and all related hardware, software and peripherals. Perform complex diagnostics, repair, and upgrade functions as directed by Unit Head. Analyze operations and systems and see that workstation hardware, software and peripherals are configured and utilized for optimal support of computing needs.

Develop, alter and repair scripts and applications using Visual Basic, Perl, batch files, and other programming and scripting languages as needed. Develop innovative, cost effective solutions and applies new and emerging technologies to new, existing and often complex problems. Troubleshoot operating system, network connectivity, and end-user problems. Maintain current knowledge of changing technology and standards in the areas of desktop computing, web browsers, plug-ins, public service computing, etc. and participate in the identification of and planning for new and expanded user services. Investigate and recommend alternate program or system design approaches.

Develop procedures, documentation, and supporting tools for librarywide implementations of new versions of anti-virus, workstation backup, imaging, email, office, browser, and other client software in coordination with other IT department and various library groups and individuals.

SPECIAL CONDITIONS OF EMPLOYMENT

EMPLOYEES DIRECTLY SUPERVISED

EMPLOYEES SUPERVISED THROUGH OTHERS

#### Functions with corresponding Tasks

#### FUNCTION NAME / TASKS

PERCENT 50 ESSENTIAL

Yes

1. Systems Engineer - Infostations, GIS Lab, and other Public Services Computing Projects

A. Research, recommend and coordinate the selection, testing, deployment, installation and implementation of new workstations and all related hardware, software and peripherals for Infostations, GIS Lab and related projects.

- B. Perform complex installations, configurations, diagnostics, repair, and upgrade functions as directed by Unit Head. Utilize centralized systems management tools and techniques to manage, monitor and maintain public computing services.
- C. Analyze operations and systems and see that equipment and software is configured and utilized for maximum support of computing needs. Develop, alter and repair scripts and applications using Visual Basic, Perl, batch files, and other programming and scripting languages as needed.
- D. Develop innovative, cost effective solutions and applies new and emerging technologies to new and existing problems. Maintains an advanced and thorough knowledge of technical skills, events, issues and solutions utilizing electronic and other means to stay abreast of technologies related to hardware, software and peripherals. Work with a variety of network and computer hardware and software to maximize optimal network performance, reliability, and access of all related workstations.
- E. Contribute to long range planning and development of computing policies and procedures that enhance the delivery of public computing services. Periodically represents the IT department on librarywide groups.
- F. Coordinates with other staff regarding desktop security for Infostations and implements measures to prevent unauthorized access.
- G. Participates in the identification of and planning for new and expanded user services.
- H. Specify alternate program or system design approaches. Factor in user interface and training needs along with technical timeline and resources required. Present alternatives to management. Anticipate and respond to management questions and concerns about each alternative's advantages, benefits, shortcomings and cost in time and dollar terms.

#### FUNCTION NAME / TASKS

PERCENT

ESSENTIAL

2. Systems Engineer - Staff Desktop Systems and Applications

25

Yes

A. Develop procedures, documentation, and supporting tools for librarywide implementation of new versions of anti-virus, workstation backup, imaging, email, office, browser, and other client software. Coordinate work with other Desktop Services staff and DSSLs. Coordinate with library training department for rollout as directed by Unit Head.

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7/26/2007

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- B. Contribute to long range planning and development of computing policies and procedures that enhance the delivery of staff computing services. Periodically represents the IT department on librarywide groups.
- C. Coordinates with other staff regarding desktop security for staff workstations and implements measures to prevent unauthorized access.
- D. Participates in the identification of and planning for new and expanded user services.
- E. Specify alternate program or system design approaches. Factor in user interface and training needs along with technical timeline and resources required. Present alternatives to management. Anticipate and respond to management questions and concerns about each alternative's advantages, benefits, shortcomings and cost in time and dollar terms.

# FUNCTION NAME / TASKS PERCENT ESSENTIAL 3. Tier 3 Desktop Support 25 Yes

A. Troubleshoot advanced operating system, network, and end-user problems. Collaborate and communicate effectively with other IT and public services staff, in identifying, describing, categorizing, documenting, and solving complex hardware, software and peripheral problems. Address and solve simple to complex system related technical issues and problems submitted by users, and associated IT staff by applying innovative techniques to solve problems in a timely and efficient manner. Thoroughly exhaust and document all available troubleshooting methods before escalating incidents to senior staff.

- B. Ensure that Service Desk Incidents assigned to the Desktop Services Unit are resolved within established Service Level Agreements.
- C. Provide courteous and professional customer support to both internal and external customers. Communicate clearly and effectively with non-technical customers in both written and spoken form. Gathers all necessary information from customer to facilitate quick and efficient resolution of incidents.
- D. Provide guidance and training to Tier 1 and Tier 2 support staff on various technical issues.

#### Knowledge, Skills and Abilities

Describe the knowledge, skills and abilities which are <u>essential</u> for successful performance of this position. List them in descending order of importance and describe the requirement-level of each. Finally, indicate the function number(s) related to each KSA statement listed.

Funct Numb		Importance Level:
ALL	Strong analytic, inductive, and deductive reasoning skills	Required
ALL	Ability to think and work in an organized and effective manner in an environment that has rapidly shifting demands and priorities. Able to work independently and meet deadlines.	Required
ALL	Demonstrated work experience with software utilities such as text editors, compilers, and debuggers.	Required
ALL	Experience implementing and integrating systems innovatively	Required
ALL	Advanced knowledge of troubleshooting techniques.	Required
ALL	Demonstrated advanced experience with installation of PC workstations.	Required
1,2	Proven ability to define user needs and requirements, and translate those needs into working systems designs.	Required
1,2	Experience with key programming and scripting languages such as Visual Basic, Perl, C++, and application development environments relevant to systems programming.	Required
ALL	Advanced knowledge of user support applications such as Internet Explorer, Netscape, Word, Excel, etc.	Required
1,2	Experience with key desktop management tools such as Windows Installer, WMI, Systems Management Server, Active Directory, and other tools relevant to enterprise systems management.	Required
ALL	Demonstrated experience with operating system internals, communication protocols and system utilities.	Required
ALL	Skill at clearly and concisely communicating, to both individuals and groups, detailed information over the phone, in writing, and in person. Interpersonal skills such as patience, tact, and the ability to negotiate.	Required
ALL	Knowledge of systems administration and software installation details of microcomputer desktop and server operating systems such as Windows NT/2000/XP.	Required

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#### UCSD JOB DESCRIPTION LIBRARY INTERFACE

Required Knowledge of computer systems configuration to include an understanding of the integration of systems ALL hardware, software, and networks. Demonstrated knowledge of and experience with basic Internet protocols. Required ALL B.S. or equivalent experience in Computer Science, Engineering, or related field. Preferred ALL Required Demonstrated communications skills for group activities including expressing ideas effectively, seeking Al L and respecting the opinions of others, active listening, and willingness to share ideas, and facilitation skills. Knowledge of the mission and goals of the library and the unit. Demonstrated ability to improve processes by assessing procedures, seeking information and opinions, developing and implementing changes as appropriate. Facilitation skills sufficient to participate in and lead discussions.

#### Physical, Mental, Environment

#### Identify the activities and conditions that traditionally apply to the functions of the position:

Function 1: Systems Engineer - Infostations, GIS Lab, and other Public Services Computing Projects (50%, essential)

Systems Engineer - Staff Desktop Systems and Applications (25%, essential)

Function 3: Tier 3 Desktop Support (25%, essential)

#### **Physical Activities:**

Bending: Never Crawling: Never Standing: Occasionally Kneeling: Never Walking: Occasionally Climbing: Never Balancing: Occasionally Sitting: Occasionally Reaching: Frequently Keying: Frequently Feeling: Frequently Seeing: Frequently Handling: Frequently Hearing: Constantly Talking: Constantly Pushing < 20 lbs: Occasionally Carrying < 20 lbs: Occasionally Lifting 00-20 lbs: Occasionally Pushing < 50 lbs: Occasionally Lifting 20-50 lbs: Occasionally Carrying < 50 lbs: Occasionally Carrying 50+ lbs: Occasionally Pushing 50+ lbs: Occasionally Lifting 50+ lbs: Occasionally

# Mental Activities:

Calculating: Frequently Writing: Frequently Reading: Constantly Analyzing: Constantly Reasoning: Constantly Communicating Orally: Constantly

# **Environmental Conditions:**

Confined Areas: Never Noise Exposure: Occasionally Extreme Temperatures: Never Fumes/Odors/Mists/Dusts: Frequently Work Inside: Constantly

# Exposed to Weather: Never Vibrations: Never

Potential Hazards: Never Potential Allergenics: Constantly Work Outside: Never

#### Signatures for Printed Copy

#### A. SAFETY

Based on Labor Code Section 6401.7 it is expected that all employees know and practice all appropriate safety methods and procedures.

# **B. PAYMENT OF OVERTIME**

If this position is designated as eligible for premium overtime and is not subject to any collective bargaining agreement, overtime may be paid by either compensatory time off or cash at the option of the department, unless agreement to this effect is not reached, in which case pay shall be provided.

I certify that the above description is correct, complete and describes my job as I understand it. I have read both the Safety and Overtime Payment statements.

Employee's Signature:	Date:

http://joblink.ucsd.edu/mwb/Staging/all\_review\_lib.html?jobdesc\_id=117974

# UCSD JOB DESCRIPTION LIBRARY INTERFACE

Page 5 of 7

SUPERVISOR'S / DEPARTMENT HEAD'S SIGNATURES  I have reviewed the job description and the above statements and certify to their accuracy.
Supervisor's Signature: Date:
Dept. Head's Signature: Date:
▶ Programmer Analyst Supplement
Job Description Supplement: Programmer Analyst - Computer Resource Specialist
PROGRAMMER / ANALYST - COMPUTER RESOURCE SPECIALIST COMPUTER RELATED SUPPLEMENTAL INFORMATION  THIS SUPPLEMENTAL MUST BE COMPLETED AND INCLUDED WITH THE OTHER REQUIRED INFORMATION WHEN REQUESTING A REVIEW OF A PROGRAMMER / ANALYST, COMPUTER RESOURCE SPECIALIST, OR OTHER COMPUTER RELATED POSITIONS.  ***********************************
PLEASE NUMBER THE PRIMARY FUNCTIONS IN THIS POSITION BEGINNING WITH 1, AS THE MOST IMPORTANT(THE PRIMARY FUNCTION), AND INDICATE THE APPROXIMATE PERCENTAGE OF TIME SPENT ON EACH FUNCTION.  (4) PROGRAMMING (20)% (2) SYSTEMS ANALYSIS (25)% () NETWORK/COMMUNICATIONS SUPPORT ()% () PROJECT MANAGEMENT ()% () STATISTICAL ANALYSIS ()% () DATABASE MANAGEMENT ()% () RESEARCH ()% () RESEARCH ()% (1) SYSTEM ADMINISTRATION (30)% (3) USER SUPPORT (25)% () OTHER: ()%
THE PRIMARY INTENT OF THIS POSITION IS TO: (TYPE AN X FOR ANSWER)  () DEVELOP AND/OR MAINTAIN PRODUCTION COMPUTER PROGRAMS AS THE END PRODUCT.  () USE EXISTING SOFTWARE TO ACCOMPLISH OTHER DUTIES ASSIGNED TO THIS POSITION. (I.E., DATA ANALYSIS)  (X) PROGRAM AND/OR MAINTAIN A NETWORK FOR THE USE OF OTHERS.
DOES THIS POSITION REQUIRE THE KNOWLEDGE OF A SCIENCE OR A DISCIPLINE IN AREAS OTHER THAN COMPUTING? YES() NO(X) IF YES, WHAT SCIENCE AND HOW IS IT TO BE USED?
DOES THIS POSITION SUPERVISE OTHER PROGRAMMER/ANALYSTS? YES() NO(X) IF YES, HOW MANY?
FACILITY (CLICK YELLOW (?) BUTTON FOR DEFINITION OF TERMS)
COMPUTER FACILITY SIZE: VERY SMALL() SMALL() MEDIUM() LARGE(X)
DESCRIBE YOUR HARDWARE ENVIRONMENT. QUANTITY TYPE VENDOR/MODEL COMMENTS () (MICRO, SERVER ETC) (IMAC, PIII, PIV) (CDS, NETWORKED) 1. (300) Public desktop workstations Dell Networked, managed centrally

http://joblink.ucsd.edu/mwb/Staging/all\_review\_lib.html?jobdesc\_id=117974

## UCSD JOB DESCRIPTION LIBRARY INTERFACE

2. (700) Staff desktop workstations Dell Networked, configurations vary widely IF THE POSITION INCLUDES NETWORK ADMINISTRATION INDICATE THE TYPE OF NETWORK(S) AND LEVEL OF CONNECTIVITY: SOFTWARE PLEASE NUMBER THE SOFTWARE RELATED FUNCTIONS IN THIS POSITION BEGINNING WITH 1 AS THE MOST IMPORTANT (THE PRIMARY FUNCTION) AND INDICATE THE APPROXIMATE PERCENTAGE OF TIME SPENT ON EACH FUNCTION. (4) SOFTWARE INSTALLATION (20)% (5) SOFTWARE ANALYSIS/EVALUATION (10)% (6) SOFTWARE TRAINING (10)% (1) SOFTWARE MAINTENANCE (20)% (3) SOFTWARE DEVELOPMENT (20) % (2) SOFTWARE RECONFIGURATION (20) % () OTHER SOFTWARE RELATED () % ...DESCRIBE () IF SOFTWARE DEVELOPMENT AND/OR MAINTENANCE IS PERFORMED, MARK AN X FOR THE TYPE: (X) USING A COMPILED LANGUAGE. LIST LANGUAGE(S): (Visual C++, C# .NET, etc.) (X) USING "SCRIPTS". INDICATE SCRIPTING ENVIRONMENT: (VBScript, JScript, Perl) (X) WITHIN OTHER APPLICATIONS. INDICATE WHICH: (Wise Package Studio) IF YOU ARE USING COMPILED LANGUAGES FOR SOFTWARE DEVELOPMENT AND/OR MAINTENANCE, INDICATE THE COMPLEXITY OF APPLICATIONS DEVELOPED: ROUTINE () MODERATELY COMPLEX (X) COMPLEX () GIVE EXAMPLES OF SUCH APPLICATIONS: -DLLs that expose Windows APIs via COM interfaces for use in scripting environments -Executables that implement Windows APIs for use in automated routines IF YOU ARE DEVELOPING AND/OR MODIFYING SOFTWARE WITHIN EXISTING APPLICATIONS PACKAGES, INDICATE COMPLEXITY: ROUTINE () MODERATELY COMPLEX (X) COMPLEX () GIVE EXAMPLES OF SUCH APPLICATIONS: Creating and/or modifying Windows Installer packages, both as received by software vendors and as developed in-house for custom software packaging and deployment IF YOU REGULARLY PERFORM SOFTWARE INSTALLATIONS, INDICATE THE COMPLEXITY OF INSTALLED SOFTWARE: ROUTINE () MODERATELY COMPLEX () COMPLEX (X) DO YOU INSTALL OPERATING SYSTEMS SOFTWARE? YES (X) NO () GIVE EXAMPLES OF THE TYPES OF SOFTWARE INSTALLATIONS: Deploying software centrally to a network of highly secured and managed public desktop workstations Assisting other technical staff with complex installations on staff desktop workstations PLEASE PROVIDE ANY ADDITIONAL INFORMATION YOU BELIEVE IS IMPORTANT TO THIS REVIEW: This position will routinely work with enterprise systems management tools and methodologies. WE SUBMIT THIS AS AN ACCURATE DESCRIPTION OF THE INFORMATION CONCERNING THIS POSITION. EMPLOYEE: TYPE YOUR NAME AND DATE >> SUPERVISOR: TYPE YOUR NAME AND DATE >> Matthew Clark, 12/1/2005 \*\*\*\*\*\*\* END OF REQUEST FOR REVIEW OF \*\*\*\*\*\*\*\*\*\* \*\*\*\* PROGRAMMER / ANALYST - COMPUTER RESOURCE \*\*\* \*\*\*\*\*\* SPECIALIST - COMPUTER RELATED \*\*\*\*

http://joblink.ucsd.edu/mwb/Staging/all\_review\_lib.html?jobdesc\_id=117974

Revised 7/2003

AREA: Information Technology Services
TITLE: Public Workstation Coordinator

RANK: Computer Technical Support Consultant II (UCP VII)

NAME:

.....

### **Job Summary**

Reporting to the Area Head for Information Technology Services, the incumbent provides workstation, hardware and software management and support for public workstations at the University Libraries, including Regional Campus Libraries. Provides computer training and documentation.

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## **Duties and Responsibilities**

## 1. Desktop Support

- Provides software and hardware support for public computers, including on-site support at Regional Campus Libraries as needed; analyzes and diagnoses computer problems; resolves and/or recommends solutions
- · Coordinates the configuration, installation, and movement of public workstations
- Coordinates the configuration, installation and ongoing maintenance for Microlab and library classroom equipment.
- Coordinates automated public workstation security, management and configuration with the Windows Server Administrator.
- · Performs needs analysis for public workstations
- · Provides backup support for Staff Workstation Coordinator

# 2. Equipment Management

- Acts as primary contact for Library computer equipment specification and procurement. Acts as
  primary liaison between ITS and DOAS/Purchasing Departments to manage and track equipment
  purchases for the library.
- Develops and maintains comprehensive equipment inventory database for the University Libraries for all public and staff equipment.
- Specifies and procures laptop equipment for the University Libraries
- In consort with the Staff Workstation Coordinator and Area Heads, develops long-range plans for standard workstation requirements, hardware modifications, software upgrades for all public equipment.
- Coordinates with designated staff in public service areas, (including RIS, Access Services, Dodd and RCL's) to provide hardware and software management, specification, procurement configuration and installation of public equipment.

#### 3. User Support

- Provides microcomputer technical support to users as needed for a wide variety of hardware, software and networking problems
- Provides primary support for library public printing
- · Participates in the Expert User program

#### 4. ITS responsibilities

Job Descriptions: UConn JobDescription\_Public\_Workstation\_Coord.doc last saved on 8/6/07 2:37 PM Page 1 of 2

- Participates in the full range of ITS responsibilities and programs, including problem solving, staff support, help desk activities, and day-to-day activities of a busy, service-oriented, technology support group.
- Participates in or leads full range of ITS teams, such as the Workstation Team, Server Team, etc.
- Participates in the full range of ITS organizational and governance activities, such as Steering Council, Area meetings, contributing to the discussion of issues of concern to the Information Technology Services Area, serving on search committees, etc.
- Participates in ITS Expert User program by assisting staff in defining and prioritizing technology projects; coordinating projects with other ITS staff; and meeting with Expert Users as needed.
- 5. Participation in Area Teams -- Development and implementation of ITS Area policies and procedures, as well as the Area's day-to-day work is carried out in part via participation on teams. Therefore staff are expected to: a. Become an active member appropriate Area teams; b. Attend and participate in Area meetings; c. contribute to the discussion of issues of concern to the Information Technology Services Area. Specific ITS Team Assignments --
  - Workstation Team. Participates in the Workstation Team, which is responsible for: planning, developing and supporting the Libraries' 500+ workstations; research, definition, prioritization and implementation of workstation projects.
- **6. Professional Service and Development –** ITS staff are expected to participate actively in the general programs of the library, to contribute to the life of the university, and to participate in appropriate professional activities.
  - Maintains current awareness and attends appropriate training to keep abreast of workstation management and user support issues, and current relevant technologies
  - · Attends professional conferences, workshops, seminars, and meetings as appropriate
  - · Participates in UConn Library teams as requested.
  - Provides training for Area and Library staff in new technologies.
  - · Represents ITS on the campus Lab Managers SIG

#### 7. Other Responsibilities

· Performs related duties as required

# Minimum Qualifications:

- Bachelor's degree in a Computer Sciences or related field and 2-3 years of experience in a technical support role, or an equivalent combination of education and experience.
- Minimum three years experience with a variety of server network and workstation hardware and software, including at least some of the following: Windows 2000, NT, MS Office, Netscape.
- Excellent interpersonal and oral and written communications skills; ability to communicate effectively with a wide range of users
- 4. Strong problem solving/analytical skills
- 5. Flexibility and willingness to work in a changing environment
- Strong commitment to quality customer service; ability to work collegially with diverse groups and individuals to set goals, establish priorities, and solve complex problems. Demonstrated ability to work successfully in a team environment.

#### Desirable Qualifications:

- 1. Experience supporting users in a Windows environment
- 2. Working knowledge of Windows NT and HTML.
- 3. User support experience in an academic library; familiarity with the technical issues affecting academic and/or research libraries
- 4. Familiarity with remote workstation management software and mass-configuration software.
- Willingness to maintain schedule flexibility to accommodate peak periods in workstation-related projects as needed

Job Descriptions: UConn JobDescription\_Public\_Workstation\_Coord.doc last saved on 8/6/07 2:37 PM Page 2 of 2

Date prepared: 3-21.05

# CORNELL UNIVERSITY STAFF COMPENSATION PROGRAM

## POSITION ANALYSIS WORKSHEET

Please refer to the	Guidelines for	Preparing t	he Position	Analysis	Worksheet	prior to	completing	this
document.							r	, *****

Instructions:

This form is to be completed by the supervisor of the position.

When completed, refer it to the employee currently in the position for comment.

Note:

As this position analysis worksheet is completed, be certain to include the primary responsibilities and elements of the *position*. The worksheet is used as a tool in evaluating the *position only, not* the specific qualifications, skills, or performance of any incumbent. If you have any questions, please consult your college/division human resource officer or OHR Employment Services at 254-8370.

#### Proposed Position:

University Job Title:	Publi	c Services Librarian	
Working Title (if diff	erent)	Head of Public Computing	
PS Dept Code:		Position	Pay Band:
		#:	,
Department Name Public		Services/Mann Library	TO THE CONTRACT OF THE CONTRAC
Immediate Superviso	r:		
University Job Title: Head of		of Public Services	

#### **POSITION SUMMARY**

Explain the basic purpose of the position and summarize the responsibilities.

Under the direction of the Head of Public Services, provides leadership and administers the public access computing services of the library. Provides reference and computer search services, teaches classes and workshops as assigned and contributes to collection development activities. Develops and maintains expertise in the Cornell computing environment and computing needs and trends for academics. Develops and conducts research and development projects relating to computing, libraries, and information technologies.

# **DUTIES AND RESPONSIBILITIES**

List the required responsibilities of the position. Use brief sentences that begin with action verbs (e.g., conduct, operate, prepare, coordinate, etc.) Estimate the percentage of total annual work time spent on each responsibility listed. (Use additional sheets if necessary.)

Responsibilities	Approximate % of Time, Annualized
<ol> <li>Reference, Consulting and Instruction         <ul> <li>Maintain a detailed understanding of the Mann Library printed and electronic reference collection.</li> <li>Provide extended assistance through consultations both in Mann Library and offsite, especially questions about multimedia creation.</li> <li>Maintain an understanding of electronic resources relevant to Mann services and clientele; acquire and refine searching skills with bibliographic, numeric and full text, and other data.</li> <li>Maintain a general knowledge of the Mann Library print collection and Cornell University Library collections.</li> <li>Contribute to reference services, policies and procedures.</li> <li>Provide general and extended reference services at the Reference Desk.</li> <li>Provide service on weekdays, some nights and weekends.</li> <li>Assist in reference collection development.</li> <li>Participate in classroom instruction, workshops, orientations, tours, etc.</li> <li>Participate in planning and developing the overall Mann Library instruction program.</li> <li>Develop appropriate teaching materials.</li> </ul> </li> <li>Apply varying teaching strategies for instructing students, faculty, and staff.</li> </ol>	30%
<ol> <li>Administer the public access computing facilities and services</li> <li>a. Provide leadership and direction for the public computing services.</li> <li>b. Supervise the computer center student supervisor.</li> <li>c. Coordinate the work of the network technician with the ITS manager.</li> <li>d. Coordinate selection and purchase of new equipment and upgrades of existing equipment with appropriate ITS staff and the CALS Office of Instruction staff.</li> <li>e. Coordinate software acquisition for the public access computers with appropriate CIT and CALS Office of Instruction staff.</li> <li>f. Serve as liaison and advocate to college, Library-wide and campus public computing groups.</li> <li>g. Disabilities services: acquire and maintain the equipment and software for the adaptive technology workstation; serve as the liaison to the appropriate library and campus disability services groups; determine appropriate services for patrons with disabilities and train reference staff as necessary.</li> </ol>	50%

4

4. Professional activities

20%

- Contribute to appropriate library and systemwide committees and working groups.
- b. Assist in the active promotion of public services.
- c. Manage or participate in other library activities and special projects, especially those involving new technologies.
- d. Attend professional meetings, workshops and conferences for training and continuing professional development as appropriate.
- e. Participate in writing grant proposals.
- f. Other duties as assigned.

Total: 100%

#### **FACTOR EVALUATION**

#### I. Education

Describe the minimum level of knowledge/education or equivalency required to perform competently in the position. Specify the field of study or area of training/certification. Include any formal training, certification and/or degrees required:

MLS from ALA accredited school.

#### II. Experience

Describe the minimum amount of job-related experience (including on-the-job training), areas of experience and specific skills and abilities needed in addition to the above-noted level of knowledge/educational equivalency to perform competently in the position:

Excellent communication and interpersonal skills required. Highly desirable: at least two years of professional library experience in an academic setting; supervisory experience; experience with computer and telecommunications technologies for information management, experience with teaching information management and computer technologies. Subject background in life or social sciences also highly desirable.

#### III. Supervision Received

Describe the extent of supervision, instruction, or direction the position receives in performing the job responsibilities:

Minimum supervision, must be able to work independently.

#### IV. Supervision Given

Describe the position's responsibility for supervising, directing, or instructing others, including student and temporary employees:

Occasionally supervise student workers.

#### V. Complexity and Scope

Describe in detail the frequency, complexity and scope of the position's requirement for the application of reasoning, analytical thought, creativity, and innovation:

Complex, rapidly changing environment. Position requires very frequent creativity and innovation.

OHR/OD&ES

## VI. Accountability

Describe the position's decision making responsibility and accountability through scope of impact on operations and/or resources of a section, department, college, unit or University:

Decisions have impact at the college and University level.

## VII. Contacts

Describe the type and extent of contacts with individuals, including other University employees, individuals outside the University, and students:

Works closely with other members of the Public Services Division, with members of the Information Technology Section, and other members of the Mann Library staff. Frequent contacts with undergraduate and graduate students, faculty, extension and research staff, and other members of the College of Agriculture and Life Sciences, the College of Human Ecology, the Division of Biological Sciences, and the Division of Nutritional Sciences. Works with librarians from other units of the Cornell University Library and with staff of Cornell Information Technologies as appropriate. Participates in Cornell committees and external professional associations.

# VIII. Information Management

Describe the role of the position in managing information and communication utilizing computers and other technologies. Include the complexity, degree of programming and other skills required.

Daily work with information management tools and applications. Some programming desireable.

#### IX. Work environment

Describe the type and extent of physical effort, mental and visual concentration, and exposure to potential hazards in which the position regularly operates:

Primary work areas are in the library or in classroom settings.

**GENERAL COMMENT** 

# **Desktop Support Supervisor (Manager, IT)**

The Desktop Support Supervisor oversees the technical support for the automated systems (central servers, network infrastructure, and desktop computers) used by the staff and patrons of the Library. As a member of the central Library Information Systems team, assists end users and departmental technology support staff in diagnosing and resolving problems with computer hardware, software, and network components. This position reports to the Head of Information Systems Support and supervises desktop support analysts.

#### Responsibilities

- Supervises and evaluates staff (FTE, student and/or intern) providing technical support for desktop computers used by Library staff and patrons.
- Desktop support for end users: Assumes primary support for desktop applications for the Perkins Library System; helps manage users and groups in the library's network; supports commercial and locally developed applications; provides technical assistance, trains end users and develops help documentation for department and library staff.
- Software Maintenance: Installs, upgrades, troubleshoots and maintains software application on end user desktops (Windows XP/2000/NT/98/95, MS Office, etc.).
- Hardware Maintenance: Installs, upgrades, troubleshoots and maintains computer hardware for desktop computers, printers and other peripheral devices if needed; coordinates replacement of hardware with vendors when necessary.
- Maintains accurate and current records for hardware inventory, network configuration, software configurations, problem resolution, and repair work; prepares and maintains procedure manuals and documentation for internal use.
- Evaluates new products and emerging technologies for their suitability within the framework of the current network architecture and the needs of the Library.
- As needed, assists end users and departmental technology support staff in diagnosing and
  resolving network, desktop, and other user problems; provides back-up technical support
  to departmental technology support staff, advising on or assuming responsibility for
  escalated problem reports.
- Develops budget requests for hardware, software, service agreements, maintenance, and upgrades.
- Provides after-hours, on-call service in rotation with other team members.
- Performs other duties as assigned.

# Qualifications

It is the expectation that all Perkins Library System staff members will demonstrate exceptional workplace behaviors in the execution of their specific position responsibilities. These behaviors are customer focus, collaboration, creative problem solving, continuous learning and a commitment to diversity. In addition, managers and supervisors are expected to help develop a common vision by providing clear direction and priorities, clarifying roles and responsibilities, and promoting mutual understanding through effective communication. They are also expected to take the time to effectively plan and evaluate performance, provide feedback, recognition and coaching, and develop employees to achieve their personal and organizational goals.

#### **EDUCATION:**

Required: Bachelor's degree in Information Systems or related field, or equivalent education and experience

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Preferred: BA/BS

#### **EXPERIENCE:**

Signatures

Required: Minimum five years of experience in installing and supporting desktop/laptop, PCs and Macs, software applications, operating systems and network connectivity; prior supervisory experience with at least two years of supervising technical employees; strong technical competence; must have extensive knowledge of Windows 2000/XP, Microsoft Office, Lotus Notes, Web Browsers, Network Operating Systems, communications protocols, and other commonly used business software; must have extensive knowledge of PC hardware and peripherals; excellent interpersonal, oral and written communication skills; able to work independently and as a member of a team; demonstrated commitment to providing outstanding customer service and ability to be proactive in anticipating and resolving problems.

Preferred: Professional certifications such as Help Desk Institute's Customer Support Specialist (CSS) or Help Desk Analyst (HAD), A+, MCSE, MCP and MCSEA; extensive knowledge of Mac OS; prior experience working in an academic research library; working knowledge of SAP R/3; working knowledge of Integrated Library System (ILS) Software.

Employee:	Supervisor:	
Name/Date	Name/Date	

# Position #81564 - Information Technology Specialist for Microcomputer Support

#### **Duties and Responsibilities**

This is complex, advanced professional and supervisory work related to microcomputer and client/server hardware and software technology used in the University of Hawaii at Manoa Library (Hamilton Library and Sinclair Library). Position is responsible for work of technical independence involving installation, configuration, troubleshooting, modification, upgrading, administration, maintaining and enhancing desktop microcomputer workstations and network servers, data communications devices and microcomputer peripheral equipment such as printers, barcode readers, digital scanners. In addition this position works in a collaborative team environment with other technical and professional staff within the unit to support internet/world wide web connectivity, library services and processing operations.

A key technical responsibility of this position is the support of all desktop equipment and software in consultation with the Librarian Head of the Desktop Network Services department. This position requires both a wide range of technical expertise and good communication skills. Work in the unit involves planning, troubleshooting, coordinating, scheduling and participating in ongoing installation, administration, maintenance, reconfiguration and expansion of an elaborate distributed computing environment consisting of a variety of hardware and software installations. Work includes coordination/supervision/scheduling of student assistants performing technical support duties, developing budget projections and monitoring student salary expenditures. Tasks include participation in the help desk operation (which supports students and faculty accessing information resources, library staff performing service, processing and office operations, and faculty using library classroom facilities). Work also includes assisting with system administration support for 9 or more Windows and Unix-based servers, including the library web page server and proxy server.

Work entails consultation and coordination with departmental IT and library administrators, faculty and staff; utilization of specialized skills and knowledge in the areas of microcomputer and resource networking technology. Work requires analysis of user needs and examination of alternative solutions which might meet those needs; ability to apply results of analysis to make appropriate and cost-effective decisions, devise long term strategies and direct students performing day-to-day microcomputer-related technical support activities. The person filling this position must have the ability to work with people possessing a wide range of knowledge levels. Flexibility and ability to operate independently are essential. Attention to detail and ability to manage intricate office and purchasing procedures, adherence to policies, understand, interpret and apply Library, campus and State procedures, practices and standards is required. Work is performed under general administrative direction, with appropriate consultation and guidance from librarians and IT Specialist in the unit; responsibilities are exercised with independent initiative and judgement. Supervision received is minimal and non-specific. Work is reviewed through observation of results and reports.

\* Examples of the kinds of equipment and software involved in the position's activities are: data communications circuits and cabling systems, network routers (Cisco in particular), data communications test equipment, UNIX and Windows NT and Windows2000 servers, Windows 9x and NT and Macintosh computer workstations, networked printers; network and server OS software, datacomm equipment testing software, workstation software, and other equipment and software related to the activities listed below.

1.

Oversees support of all public and staff microcomputer, printing and related distributed computing equipment. Coordinates the timely deployment of equipment and software and ensures proper configuration and completion in accordance with plans. Performs or directs installations, configuration, operation, maintenance; tests, modifies, upgrades microcomputer, data communications and peripheral equipment. Equipment includes, but is not limited to: data communication hubs, routers, microcomputer systems (client and servers), networked and standalone printers, CD ROM drives, scanners, and other peripherals. Uses service manuals, diagrams, schematics and appropriate software and test equipment to determine correct operation, troubleshoot defective equipment and circuits, locate faults, repair and/or replace defective components. Resolves complex microcomputer hardware and software problems by collaborating with other specialists, technicians and vendors and by applying knowledge of the limitations, capabilities, uses and service requirements of equipment and software. Works with Head of Department and IT Specialist to review and improve procedures as necessary, recommend upgrades and determine ongoing hardware and software requirements.

- 2. Plans, organizes, and directs complex projects involving reconfiguration or upgrading of 10% microcomputer and networked printing resources, based on consultation with librarian faculty, department heads and library administrators. Projects may include redesign of public computer installations and reallocation of datacomm hub equipment in order to maximize workstations available to library patrons. Such projects require documentation of existing infrastructure and environmental limitations and consultation with vendors. Prepares recommendations, reports and diagrams to explain projects to administrators, library faculty and staff. Researches and prepares requests for quotations, sole source and/or sole brand justifications and request for written quotes or proposals for acquisition of new or additional microcomputer systems, upgrade components, software, peripheral devices. Advises the library fiscal officer in matters related to the procurement of microcomputer and network printing hardware.
- 3. Prepares technical instructions or documentation and provides instruction in the operation of the wide variety of equipment described above in item #1. Participates in, and coordinates provision of service by, the department help desk operation. Reviews and prioritizes computer and printer-related work order requests from library departments. Assists users of facilities in resolving day-to-day problems with communications and electronic computer equipment and in devising new methods for maximizing available resources. Assists professional librarian and information specialist staff in microcomputer-based tasks and projects.
- 4. Modifies existing microcomputer-related equipment to improve or change functions performed. Work includes tasks such as planning, installing, configuring upgrades of RAM; researching, locating, installing software and firmware upgrades and/or patches that resolve hardware function problems, or close "bug" and "hacker" security flaws; consulting with vendors and obtaining, installing, configuring firmware patches and upgrades for equipment such as networked laser printers, video cards, system chips within computer CPUs which add new or improved features or prevent and/or bypass problematic functions thereby preventing system crashes, hangs, erroneous performance

10%

of software, or incompatibilities with connecting equipment and software programs. Confers with department staff, Head and/or others to determine desired operation of modified equipment. Monitors performance of programs or scripts which facilitate the functioning of networks, equipment and software; performs or assists with performance of system recovery on mission-critical microcomputers and network servers (i.e. hacker or virus attack on debit-printing server, or staff LAN server). Performs basic server system administration tasks related to adding users, checking license compliance, maintaining security patches, backups, troubleshooting. Serves as backup administrator for library computing services comprised of NT/Windows2000 and Unix servers, and Ethernet network supporting over 300 nodes.

- 5. Oversees and coordinates work of highly technically skilled students; manages student employment budget and student personnel related tasks, including timesheets, budget projections, preparing allocation requests, tracking of expenditures, etc.
- 6. Coordinates with suppliers and contractors of microcomputer equipment and components to insure timely maintenance, parts exchange, repairs and receipt of newly ordered material. Oversees and/or packs and ships microcomputer and data communications equipment. Acts as office contact and/or coordinates testing and repair of communication circuits and microcomputer-related equipment. Oversees preparation of requisitions for purchase and repair of equipment, software and supplies. Oversees scheduling of installations and repairs to insure timely performance of work. Develops, recommends, enforces and revises standards and procedures used in provision of support for all desktop computing and printing operations. Evaluates workstation security software and directs ongoing virus protection program, alerts staff to virus attacks.
- 7. Maintains detailed inventory of all owned and leased microcomputer, data 5% communication and peripheral equipment in the Library Services Program. Utilizes inventory information to generate reports and provide management information to library administration. Supervises preparation of disposal and transfer memos. Oversees compliance with software license agreements.
- 8. Performs other duties as assigned.

Managing Public Computing · 87

#### Skills, Knowledge, Abilities

Any combination of experience and training which provides the following:

- \* Considerable knowledge of practices necessary for installing, configuring and maintaining computers and peripherals.
- \* Knowledge of the uses, and service requirements of network application and print servers, microcomputers and related equipment.
- \* Ability to understand installation and configuration instructions for a wide variety of microcomputer systems and peripheral equipment.
- \* Knowledge of the methods, materials, and tools used in the troubleshooting, maintenance and repair of microcomputer equipment and peripherals.
- Ability to troubleshoot a wide variety of common problem situations encountered in the installation and usage of microcomputer systems, software and peripheral equipment.
- \* Ability to establish and maintain effective working relationships with colleagues, civil service staff, library faculty.
- \* Ability to plan, direct and supervise the work of technically-skilled student personnel.
- \* Ability to participate in the work of professional and technical team members.
- \* Skill in the use of datacomm fabrication and microcomputer repair tools.
- \* Ability to read and interpret basic electronics diagrams.
- \* Ability to read and interpret basic floorplans, building blueprints.
- \* Knowledge of the maintenance of workstations and servers running Windows, Macintosh and UNIX/Linux operating systems.
- \* Knowledge of the limitations, capabilities, uses, and service requirements of network and peripheral equipment in a TCP/IP or related environment.
- \* Ability to communicate effectively both orally and in writing.
- \* Ability to maintain paper files and prepare written documentation; logs of daily activities and reports of projects.
- \* Ability to work evenings and weekends as needed.

### Experience in an environment which includes:

- \* Large numbers of multi-type multi-use microcomputers
- \* Unix and Windows2000 and NT servers
- \* client-server operations
- \* fiber and twisted-pair cables
- \* wide range of datacomm equipment (hubs, routers, switches)
- \* networked and single user printers
- \* CD ROM, scanners and other peripherals.

# KENT STATE UNIVERSITY JOB DESCRIPTION - UNCLASSIFIED Developed for Equal Opportunity

CLASS TITLE: Lead IT User Support Analyst

DATE ISSUED: 10/30/06 DATE OF LAST REVISION: New

KSU Class Code: AH37 EEO Code: 3B FLSA: Exempt Pay Grade: 06

#### **BASIC FUNCTION:**

Lead a team responsible for direct and indirect support of end user devices. Assist in implementing end user device infrastructure services to support file sharing, print sharing, identity management, problem management, centralized device management, and automated remediation.

The IT User Support job family includes jobs that may require specialized knowledge in multiple technical competencies. The defining functional role for employees assigned to these jobs is direct and/or indirect support to end users of IT devices. It also includes those responsible for the infrastructure standards and systems to support file sharing, print sharing, identity management, problem management, centralized device management, and automated remediation.

# CHARACTERISTIC DUTIES AND RESPONSIBILITIES:

- Responsibilities include leading a team that configures, installs, monitors and maintains complex users' desktop software and hardware; support mobile workforce.
- Leading a team to provide consultation to IT users for all aspects of very complex end-user computing and desktop-based LAN systems software.
- Leading a team to provide technical support and guidance for complex issues, through Tier 2 support and works with vendors to resolve Tier 3 issues.
- Leading a team responsible for documenting solutions to problems. Provide on-site training to users.
- Lead the evaluation, maintenance, modification (e.g., creates macros, templates) and documentation of complex desktop application packages.
   Lead the testing and evaluation of new desktop packages.

 Consults with and makes recommendations to IT users on selection of hardware and software products to address moderately complex business requirements.

## JOB COMPETENCIES:

- Lead support and implement complex solutions or new services to ensure proper functioning of end user devices, and end user device infrastructure for a large department, school or campus.
- Lead team that determines user needs and incorporate them into the design and overall plan for end user device and end user device infrastructure support for a large department, school or campus.
- Lead team providing complex Tier 2 and Tier 3 problem resolution, set-up, integration, testing and installation for a large department, school or campus.
- Lead the documentation of solutions to complex problems and development of end-user guidelines.
- Makes recommendations to IT users on selection of hardware and software products to address business requirements based on IS standards.
- Ensure established end user device performance metrics are met for a college, campus, school or division.
- Coordinating IT support for a regional campus, Kent Campus college, school
  or large administrative zone.
- Evaluate, maintain, modify (e.g., creates macros, templates) and documents desktop application packages.
- · Lead testing and evaluation new desktop packages.
- Perform analysis and judgment regarding interdependencies of very complex processes / applications / technologies.
- Work effectively with very limited oversight.
- Provide insight and recommendation to supervisor for decision-making.
- Establish estimates and timelines for specific projects and take direct accountability for results.
- Responsibility for guiding team members and for key client relationships with a large scope (University division, college).

Page 2

- Interact effectively with client management; monitor client satisfaction on a regular basis; make recommendations about changes needed to satisfy clients.
- Oversee development of communication plans for matters with broad impact.
- Effectively lead team decision-making.
- Assume responsibility for decisions affecting team.
- Recognize connections across multiple projects; develop effective integrated solutions; assist team members in developing alternative solutions.
- Understand IS, Client, and University goals and priorities.

### Additional competencies may be required to support some areas:

- Management of web pages and hyperlinks, support for multi-media content, file management for internet published media, tracking and reporting usage of technology and providing general technical support for content providers.
- Implementation and maintenance of single- and multi-user applications for a department / college / campus.
- Implementation of server hardware platforms and operating systems.
- Local technical support concerning system software and utilities.
- Administration and control of data and/or voice networks.

#### REPORTS TO:

Designated Administrator

# LEADERSHIP AND SUPERVISION:

Leads and directs support staff and students to provide guidance of employees who work on a project or assignment.

# **GENERAL QUALIFICATIONS:**

All applicants for jobs in this family will be expected to possess the following general capabilities. Individual job postings will specify languages, platforms, scope and complexity of work, etc. Experience and educational requirements for each level of job in this series are listed below.

#### Working knowledge of:

 Problem diagnosis procedures and problem request reporting and monitoring tools.

Page 3

- Selection, acquisition, installation, configuration, trouble-shooting, maintenance and/or repair of end-user devices (pc's, printers and other peripherals, pda's, etc.).
- Installation, configuration and ongoing maintenance of desktop operating systems.
- Installation, configuration and ongoing maintenance of end user infrastructure services; file sharing, print sharing, identity management, centralize device management, and automated remediation.
- Installation, configuration and user assistance with university-supported desktop software applications.
- Communication and monitoring of university-wide and departmental data security standards. May include responsibility for administering access to departmental data or hardware assets.

# Demonstrated ability to:

- Communicate effectively, orally and in writing, with technical and nontechnical users to elicit information necessary to resolve problems.
- Establish and maintain cooperative working relationships with end users, colleagues, and technical staff.
- Manage time and resources and effectively balance multiple priorities.

## MINIMUM QUALIFICATIONS:

Individual job postings will specify languages, platforms, scope and complexity of work, etc

Education and experience: A baccalaureate degree in an appropriate field and six or more years of relevant professional experience.

# Working knowledge of:

- Advanced problem diagnosis procedures and problem request reporting and monitoring tools.
- Complex selection, acquisition, installation, configuration, trouble-shooting, maintenance and/or repair of end-user devices (pc's, printers and other peripherals, pda's, etc.).
- Complex installation, configuration and ongoing maintenance of end user devices and end user device infrastructure.
- Installation, configuration and user assistance with university-supported desktop software applications.

- Communication and monitoring of university-wide and departmental data security standards. May include responsibility for administering access to departmental data or hardware assets.
- Implementation of new hardware platforms and operating systems, including analysis and recommendation of optimum configuration of new or existing hardware platforms and operating systems.
- Project management and team building.

# Demonstrated ability to:

- Lead team in support of end user devices, end user device infrastructure, and the implementation of new end user services.
- Communicate effectively, orally and in writing, with technical and nontechnical users to elicit information necessary to resolve problems.
- Establish and maintain cooperative working relationships with end users, colleagues, and technical staff.
- Manage time and resources and effectively balance multiple priorities.

#### PHYSICAL REQUIREMENTS:

Light work: Exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or negligible amount of force constantly to move objects. Typically requires sitting, walking, standing, bending, keying, talking, hearing, seeing and repetitive motions.

Incumbent may be required to travel from building to building frequently and off campus occasionally.

The intent of this description is to illustrate the types of duties and responsibilities that will be required of positions given this title and should not be interpreted to describe all the specific duties and responsibilities that may be required in any particular position. Directly related experience/education beyond the minimum stated may be substituted where appropriate at the discretion of the Appointing Authority. Kent State University reserves the right to revise or change job duties, job hours, and responsibilities

Page 5

# **Rutgers University Libraries**

### **Systems Department**

# **Unit Computing Manager Job Description**

#### Part I: Duties & Responsibilities

Key duties are based on the position description and mutual agreement with the employee. Please list the key duties in order of importance.

- 1. Oversee and prioritize maintenance and installation as well as annual upgrading of hardware and software throughout library system.
- 2. Establish computing standards and policies for installing and configuring new hardware, software and peripheral equipment. Evaluate and recommend hardware and software configurations for purchase
- 3. Manage and service local area networks throughout library system. Respond to problem calls, maintenance and repairs of network infrastructure.
- 4. Develop or assist with the development and implementation of policies and procedures consistent with those of RUL to ensure efficient and consistent computing operations throughout library system.
- 5. Select, train, supervise, and evaluate Unit Computing Specialists and student workers for Systems Department.

#### Part II: Performance Standards

Please list the standards for the Meets Standards level of performance as developed during the performance planning meeting. Each key duty listed above must have a corresponding standard.

- 1. Provides reliable microcomputers, network devices, and peripheral equipment as close to 100% of the time as possible by providing timely installations, repairs, and solutions to software problems.
- 2. Provides timely analysis of new or upgraded software and provides concise, written evaluations of the product being reviewed.
- 3. Works independently on assigned projects, taking the initiative to understand all functions performed in the Systems Department and how the project relates to ongoing work. Demonstrates a working knowledge of both wide area networks and local area networks and is able to diagnose network problems.
- 4. Effectively develops and implements policies and procedures that meet University standards and guidelines in a way that promote understanding and acceptance by librarians and staff.

RΙ	ITG	FRC	UNI	VFR9	TI:
nı	,,,,	rn	111/11	VFR	

5. Closely supervises full-time staff student employees doing hardware and software installations. Monitors trouble tickets to ensure that work is being completed accurately and promptly. Communicates with users the status of repairs and installations. Promptly hires and trains new student employees when needed.

#### POSITION DESCRIPTION

Incumbent:	CSN: <u>N9327</u>
Present Classification: <u>Procedures and Systems Analyst III</u>	Date: <u>January 29, 2007</u>
Proposed Classification: <u>Assistant Manager.2421</u>	

Department: Library Affairs, Support Services, Systems Services

#### **ORGANIZATIONAL RELATIONSHIP**

Dean of Library Affairs

|
Associate Dean for Support Services

|
This Position

Procedures & Systems Analyst II (2 positions), Communications Network Specialist II

Student Assistants

# **FUNCTION OF JOB**

Under administrative direction of the Associate Dean for Support Services, this individual is responsible for managing the service aspects of computing services for library staff and public computers. The individual in this position assists in the long term planning of the department and provides documentation for services and projects.

# **DUTIES AND RESPONSIBILITIES**

Supervise the Procedures and Systems Analysts and Communications Network Specialist, including the development and maintenance of plans and the defining, prioritizing, and assigning of tasks in the providing of technical support for both hardware (currently 186 public access computers and over 100 staff computers) and software (currently including Microsoft Office, ILLIAD, and Voyager) in Library Affairs. Incumbent is responsible for development and oversight of plans for computer replacement, maintenance, and repair of staff and public access computers (including warranty work). This position maintains the status as an authorized warranty service technician.

Assign the work of student assistants, schedule equipment pick-up and delivery, and train students in the installation and repair of desktops.

Coordinate documentation and long term planning for Systems operations. Provide supervision and guidance regarding implementation of plans.

Provide coordination of communication between library staff and Systems staff.

Provide applications administration on various programs and services supported by Systems for library staff, including maintenance of group policies and active directory, courtesy card accounts, interlibrary loan program configuration, and IP management.

#### KNOWLEDGE REQUIRED FOR THE JOB

Extensive knowledge of PC hardware and software applications used in the Library.

Ability and experience in supervising staff, assigning work, and evaluating performance.

Ability to analyze patron and staff service needs as well as staff resources. Ability to develop plans of work to meet those needs.

Understanding of overall Systems operations and ability to work with others in Systems to develop documentation for services and infrastructure within Systems.

Ability to communicate well with others.

Knowledge of administrative aspects of computer applications used by library staff. Ability to work with other Systems staff and Information Technology staff to maintain accurate information regarding accounts, access to services and security issues.

## RESPONSIBILITY

#### A. Supervisory Controls

The incumbent will work under the general direction of the Associate Dean for Support Services.

#### B. Guidelines

Follows general principles and policies of SIUC and Library Affairs administration. The incumbent will receive instructions in oral and written form.

# **DIFFICULTY**

#### A. <u>Complexity</u>

This position requires a high degree of problem-solving skills and troubleshooting abilities. The incumbent must possess knowledge of software, computer programming, electronics, and telecommunications. The incumbent must possess good supervisory and oral and written communication skills.

## B. Scope and Effect

Because of the Library's dependence on computers, this position is vital to keeping the Library operating smoothly, both for staff and Library users. As this position interacts with every department in the Library and with persons in departments external to the Library, the incumbent needs to maintain good relations with those areas.

# SOUTHERN ILLINOIS UNIVERSITY CARBONDALE

# PERSONAL RELATIONSHIPS

The incumbent will be required to deal with department heads and other staff members of the Library, as well as Information Technology and other systems support personnel inside and outside the Library.

# **ENVIRONMENTAL DEMANDS**

Reviewed by:

Associate Dean for Support Services

The incumbent will work indoors but n	nay, on occasion, be required to work outdoors while
	equires the incumbent to be capable of lifting equipment a ability to work in very confined spaces such as wiring
closets and under desks.	
Incumbent:	Date:

Date: \_\_\_\_



# EMPLOYEE WORK PROFILE

# WORK DESCRIPTION/PERFORMANCE PLAN

[Parts I and II should be used alone to establish a new position and/or to change a position's duties and responsibilities. Parts I through IV should be completed annually between September 1 and December 31, discussed with the employee and retained in the department's files. Parts V through IX must be used to conduct the annual evaluation and then the entire EWP must be submitted to University Human Resources to complete the annual evaluation process.]

TIPS FOR FILLING OUT THIS FORM USING Microsoft® Word

This form is a Word document and is protected. This preserves the formatting while allowing you to complete the form. Should the need arise to remove protection (to insert the organizational chart at the end of the document, for example), you may do so by selecting "TOOLS", then click "UNPROTECT". If you don't see the option to unprotect, click the down button in the list. There is no password necessary to unprotect the document.

PART I – Position Identification Information				
1. 🛛 Univ. of VA (207) 🗌 Univ. of VA's College at Wise (246) 🗎 Southwest VA Higher Ed Center (948)				
2. School/Dept: Alderman Library	Org Code: 31060			
3. Position Information:				
Position Number: C0825				
Incumbent's Name:				
Incumbent's ID: 175423				
Role Title (HR Use):				
Role Code (HR Use):				
Work Title: Information Technology	Specialist III			
Pay Band Level (HR Use):				
4. Supervisor Information:				
Supervisor's Name:				
Supervisor's ID: 146764				
Supervisor's Title: Director, Library IT Systems				
Supervisor's Position Number: C3087	Supervisor's Role Code (HR Use):			
5. Position Level Indicator:  ☐ Employee ☐ Supervisor ☐ Manager Employees Supervised: Does employee supervise 2 or more employees (FTE's)? ☐ Yes ☐ No	6. FLSA Status (HR Use):  ☐ Exempt ☐ Non-Exempt  Exemption/Partial Exemption Test (if applicable):			
7. Effective Date: Statement of Economic Interests Required? (HR Use)	8. Occupational Family & Career Group (HR Use):			
9. EEO Code (HR Use):	10. SOC Title & Code (HR Use):			

## PART II - Work Description and Performance Plan

- Organizational Objective: [Brief statement of how the position relates to the work unit, division or agency's objectives.]
   This position will supervise Library LSP providers for the University of Virginia Libraries under the direct supervision of the Director of Library IT Systems.
- 2. Purpose of Position: [A statement explaining why the position exists. Specify the most important service or product expected from the employee in this position.]

To facilitate the work of the University of Virginia Library by:

- 1. Supervise the system administration and maintenance of public and staff PC and Macintosh based computer systems and peripherals.
- Providing Supervision, Technical leadership and mentoring to direct reporting LSP individuals (5 or more).
- 3. Providing Technical leadership, guidance and mentoring to other (non-direct reporting, or dotted lined) individuals.
- 4. Participating in strategic infrastructure planning for future and existing systems.
- 5. Provide LSP duties where the main areas of responsibility but not limited to are:
  - a. All University of Virginia Libraries (14).
- KSA's and/or Competencies required to successfully perform the work: [Describe the expertise required to
  successfully perform the assigned work. Provide a narrative of at least three (3) KSA's/competencies, but not more than five (5) that are required
  to perform the work.]

Preferred experience in supervising five or more technical people. (KSA 1001,1000,1012, 1024,1025,6006)

Superior organizational skills

Strong interpersonal skills in a team-oriented environment

Demonstrated experience with Windows (NT,2000,2003,XP,XP Professional) (KSA 5701, 5769) Demonstrated experience with key software applications and utilities to provide administration requirements. (KSA 1237)

Demonstrated experience with Altiris or equivalent Desktop management environments. Demonstrated experience with Windows Scripting and scripting environments (KSA 1237) Preferred experience with Macintosh (OSX) (KSA 5770)

KSA Summary 5701 Manage WinNT/2000 Server Systems

- 5769 Manage Windows Workstation
- 4. Education, Experience, Licensure, Certification required for entry into position: [State the educational background that is minimally required and/or preferred and list any occupational certifications or licenses that the employee must hold.] Masters, Bachelors degree or equivalent experience in Information Management or Computer Science Apple Certification, MSCE or equivalent experience.
- 5. Level of Independent Activity [State the work actions and/or decisions the employee makes without prior approval. State to what extent the employee receives advice and guidance from the supervisor. State examples of the type of supervisory advice and guidance that is given as well as actions or decisions the employee makes without prior approval.]

Negotiates with staff and users on software and interface issues, purchase hardware and software within budgetary limits, apportion resources among servers and give technical leadership to other staff, LSP's and LSA's. Seeks guidance and approval for large expenditures.

6. Contacts of Position [List and explain the contacts the employee has both inside and outside the State Government, if any, as a routine function of the work. Do not list contacts with supervisors, co-workers, and subordinates.]

Persons or Organization	Purpose	How Often	Inside/OutsideState Gov't
Hardware and Software vendors	Technical queries, problem resolution, and other	Weekly	Outside

	inquiries		
Students, faculty, and staff of the University Library	Assistance with problems	Weekly	Both
	<sup>3</sup> 4.		
Employee's Signature: 200 W	À		
Print Name:(Zeke) Jeffrey Crate			
Supervisor's Signature:Guy Mengel		1	
Supervisor's Signature:Guy Mengel Print Name:	<i>Q</i>	Date: 4//	24/2007
Have the duties and responsibilities of this			∏ No

# ATTACH - ORGANIZATIONAL CHART

	Performar	nce Plan
% Time	7. Responsibilities [List, in order of importance, the major duties or functions which are primary and essential to the position. Statements in the section should be concise.]	8. Measures for Responsibilities [Identify the qualitative, quantitative and timeliness measures against which each responsibility will be assessed.]
20%	A. Performance Management (for all employees who supervise others)	Measures for Performance Management: Insures that expectations are clear, well communicated, and relate to the goals and objectives of the department or unit Insures that staff receive frequent, constructive feedback, including interim evaluations as appropriate Insures that staff have the necessary knowledge, skills, and abilities to accomplish goals Insures that the requirements of the performance planning and evaluation system are met and evaluations are completed by established deadlines with proper documentation Insures that performance issues are addressed and documented as they occur Consistently strives to insure a safe work environment through education, assessment and the demonstrated observance of sound safety practices and further demonstrates commitment to reducing lost time by supporting the safe resumption of work by employees with work-related or non-work related illnesses or injuries. Highest standards of appearance and professionalism are demonstrated
40%	B. Supervise direct reporting Library LSP's . Oversee and manage the systems administration and maintenance of public, classroom and staff PC and Macintosh computer systems. Develop procedures and policies as needed. Provide frequent and constructive feedback to direct reports and supervisor.	<ul> <li>Demonstrate minimal downtime for public, classroom and staff computer systems</li> <li>Develop plans and policies for developing and implementing computer system "builds".</li> <li>Insure the security of public, classroom and staff computer systems by providing timely Operating System Patches and Virus protection updates.</li> <li>Maintain and enhance an efficient system for receiving and tracking trouble tickets</li> <li>Prepare budget requests and forecasts for public, classroom and staff computer system replacements, peripherals and / or enhancements.</li> <li>Act as liaison for the DCI Program         <ul> <li>Track DCI Budgets</li> <li>Track DCI System information (S/N, ETAG etc)</li> <li>Co-Represent Library with Supervisor at DCI Steering Committee.</li> </ul> </li> <li>Meet regularly with each of the departments and each Library to determine current and future PC and Macintosh needs. Develop plans, and budget forecasts to meet these needs.</li> </ul>

		,
25%	C. Provide leadership, coordination and direction to teams of LSP's working across all libraries. Create project plans and schedules for various short and long term projects to meet current and future library goals.	Develop and re-vamp current LSP training requirements, guidelines and policies.     Develop in-house courses     Determine external course needs     Develop and re-vamp current Staff training requirements, guidelines and policies.     Develop in-house courses     Determine external course needs     Develop other miscellaneous policies as needed
10%	D. Professional Development	Update and maintain Personal Development plan, and Learning Plans. (on-going). Execute and Implement Personal Development and Learning Plans in a timely fashion. (on-going) Stay abreast of trends and new developments regarding hardware and software as well as other technologies. Attend relevant conferences.
5%	E. Special Projects as needed.	
%	F.	
N/A	G. May be required to perform other duties as assigned. May be required to assist the agency or state government generally in the event of an emergency declaration by the Governor.	

100%

# **UNIVERSITY OF VIRGINIA**

9. 1	iysicai Demanos Checklisi	[	Position Numb	er:	
Comp C = c	olete each physical demand by onstant F = frequen		in the box whether the physical demand is: O = occasional N=never		
0	Light lifting (<20 lbs.)	F	Sitting (for sustained periods of time)		Subject to hazards such as:
0	Moderate lifting (20-50 lbs.)	F	Walking (moving about on foot to accomplish tasks)	N	Working with electrical current
0	Heavy lifting (>50 lbs.)	F	Repetitive motion (sustained movements/motions of the wrists, hand and/or fingers)	N	Working on scaffolding and high places
0	Standing (for sustained periods of time)	F	Bending	N	Exposure to high heat
0	Reaching (extending hand(s) and arm(s) in any direction)	0	Pushing/pulling		Others, specify:



# **EMPLOYEE WORK PROFILE**

# EMPLOYEE LEARNING/CAREER DEVELOPMENT PLAN

[This form should be updated annually (no later than December 31) after completion of the annual performance evaluation and retained in a confidential departmental employee file.]

# PART III - Employee Learning/Career Development Plan

- 1. Personal Learning Goals [List any learning goals identified by the employee and/or by the supervisor and specify who has listed the goal. Goals should be relevant to the current duties and responsibilities of the employee and or to future career growth in the current or a related field
  - 1. Stay abreast of trends and new trends and developments in hardware and software.
  - 2. Persue Masters degree in Library Science.
- 2. Learning Steps/Resource Needs [List specific steps that need to be taken and by whom to accomplish the learning goals. This may include training, coaching or other learning methods.]
  - 1. Supervisor, to plan for and fund conferences and training programs.
  - 2. Formally apply at a University .

#### WASHINGTON STATE UNIVERSITY

http://www.wsu.edu/~cornish/pd-2007.pdf

## Washington State University Position Description

Position Number: 39316

Appointment Status: Faculty, Tenure-track, Annual, 100% FTE

Organization and Location: Libraries, Pullman

Working Title: Head, Library Systems

Basic Function: Serve as the day-to-day manager of the Library Systems unit in the WSU Libraries. Provide primary or significant technical support in a number of digital initiatives. Investigate and recommend new technical solutions to improve library services and work processes.

Reports to: Assistant Dean for Public Services and Outreach

#### Responsibilities:

- Manage the Library Systems unit, including budgeting, personnel management (2 librarians, 6 Information Technology Systems Specialists), and technology planning.
- Support the application of new technologies in the Libraries, including the identification and recommendation of new hardware and software products and solutions.
- Chair the WSU Research Exchange Task Force and provide direction and technical support for the university's institutional repository effort.
- Support Libraries' development (fund-raising) activities and grant-supported projects related to library automation and digital collections.
- Provide support for the Libraries' digital collections program, including server and software administration, use assessment, planning, and liaison work with campus research faculty.
- Guide and support local software customization and development efforts in Library Systems and library units.
- Provide technical support for electronic reserves services in the Libraries.
- Support data security efforts in the WSU Libraries, including serving as the organization's Data Custodian.
- Participate in employee education activities (classroom and individual instruction, development of instructional guides, web-based tutorials, and listserv messages) related to information technology within the Libraries.

#### WASHINGTON STATE UNIVERSITY

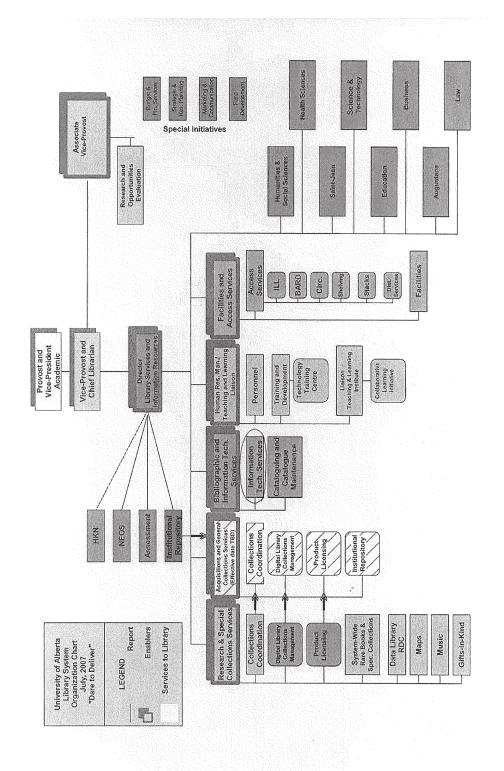
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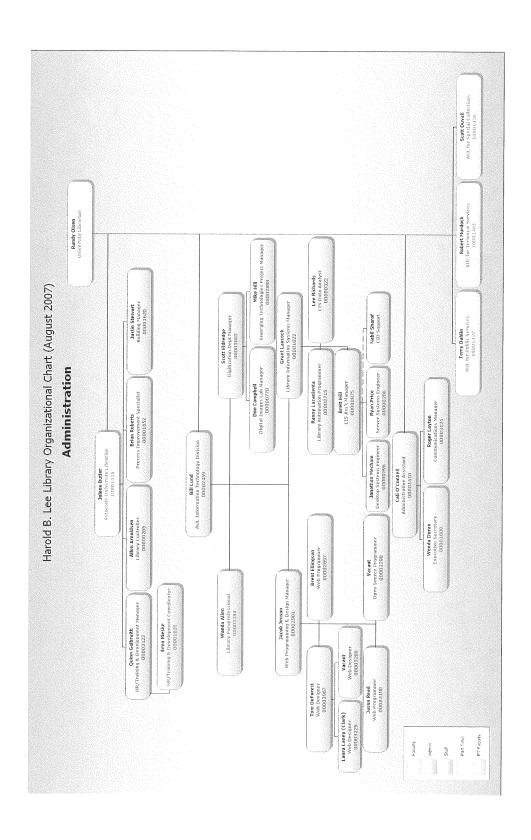
- Serve as an active participant on Libraries and university committees.
- Devote professional time to current awareness of trends and developments in library and information technologies, management, library and information science, and related higher education issues.
- Actively participate in professional workshops, institutes, seminars, and conferences.
- Conduct research for publication or presentation of scholarly papers, particularly in areas related to information technologies and services.
- Communicate well; maintain pleasant, courteous and cooperative relationships; display a professional manner in demeanor and language; and show courteous and effective behavior in meetings.
- Serve as an official WSU Libraries' representative to institutional, regional and national organizations at the request of the unit head, Assistant Deans, or Dean.

Signatures:			
Head, Library Systems	(Date)	Assistant Dean, WSU Libraries (Date)	_

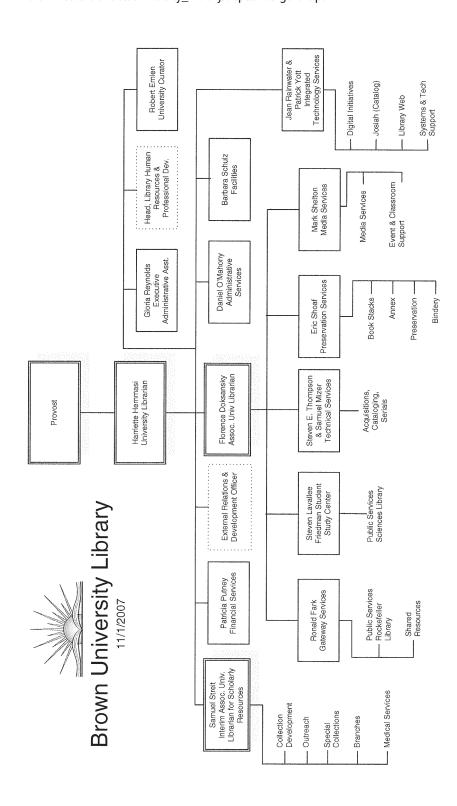
This position description reflects Washington State University's best effort to describe the essential functions and qualifications of the position. This document is not intended to exclude an opportunity for modifications consistent with providing reasonable accommodation. This is not intended to be a contract. Your signature indicates you have read this position description and understand the essential functions and qualifications of the position.

Organization Charts	



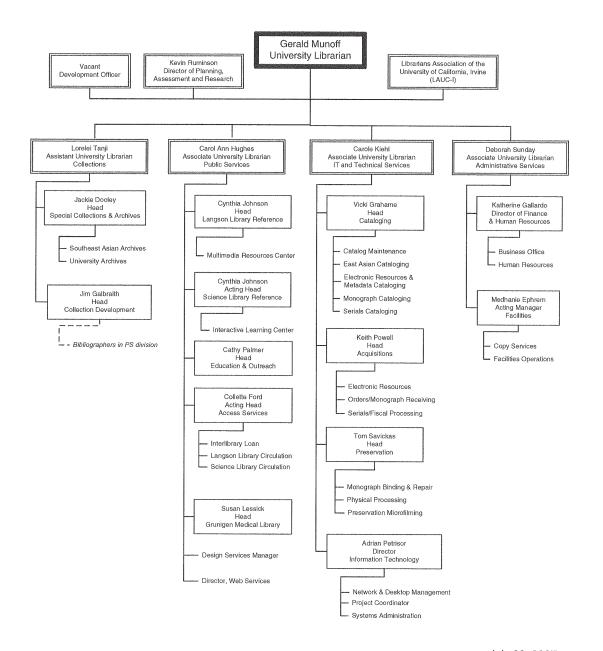


http://www.brown.edu/Facilities/University\_Library/depts/liborgchart.pdf

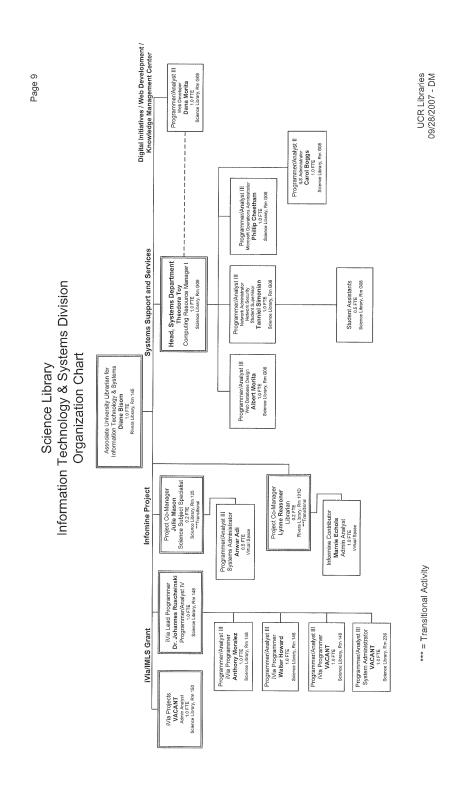


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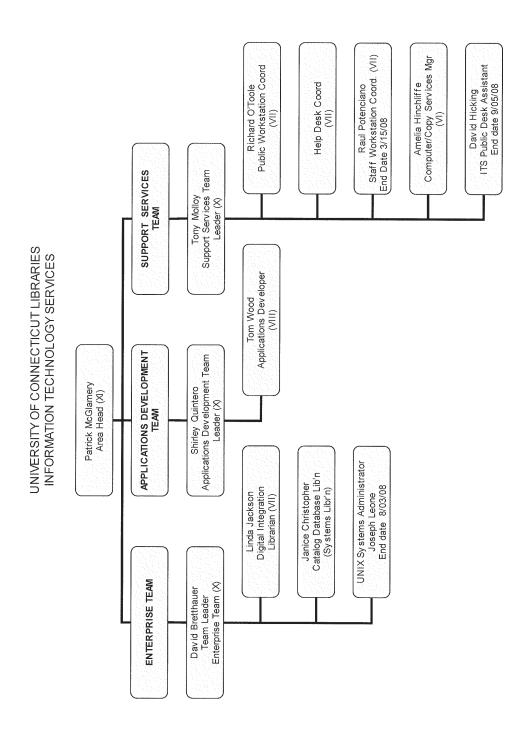
# UCIrvine LIBRARIES



July 30, 2007



http://www.lib.uconn.edu/about/staff/orgcharts/its.ppt



# Organizational charts of Mann Library Public Computing

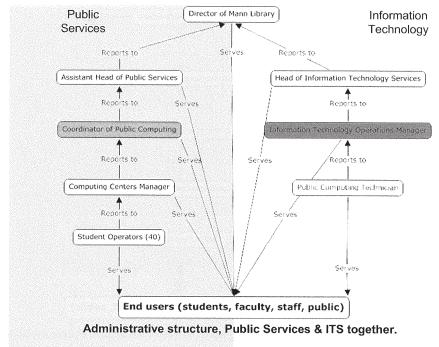
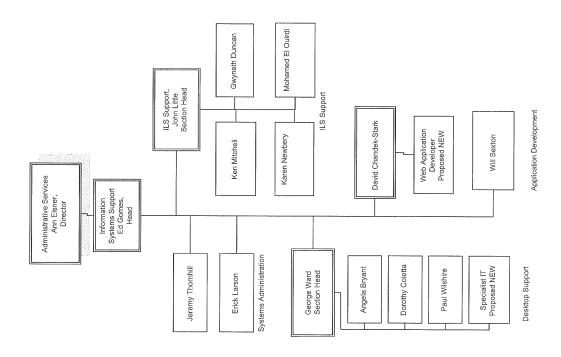
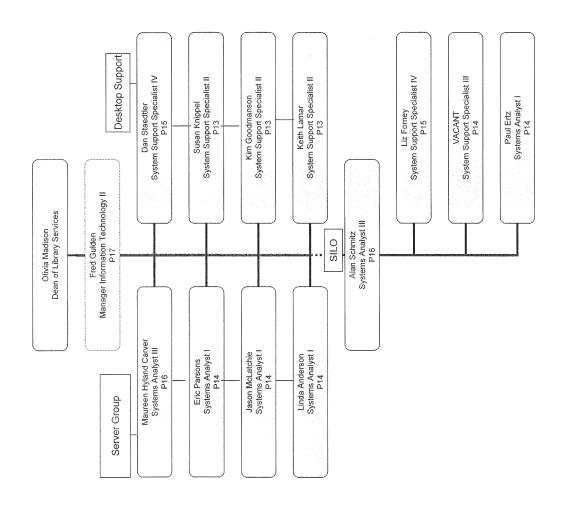
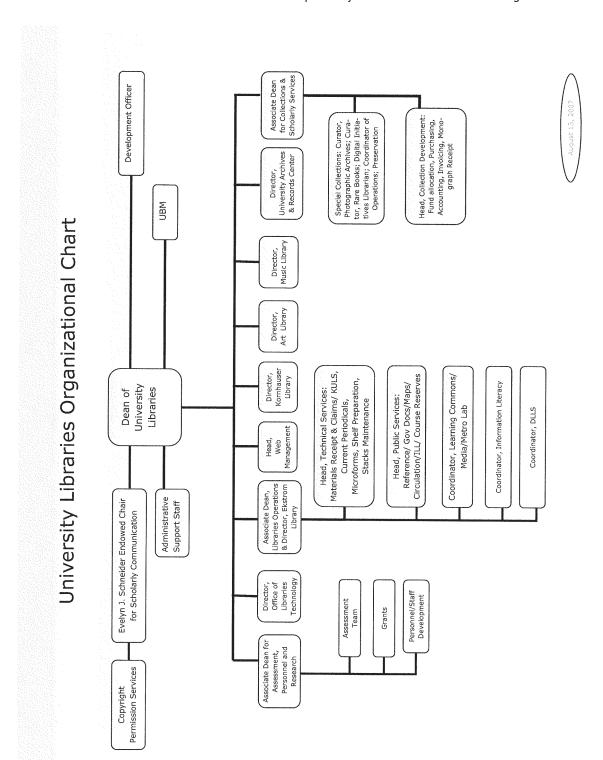


Figure 2. Note: "Coordinator of Public Computing" is now "Head of Public Computing; "Computing Centers Manager" is now "Coordinator, Mann Library Computing Centers".



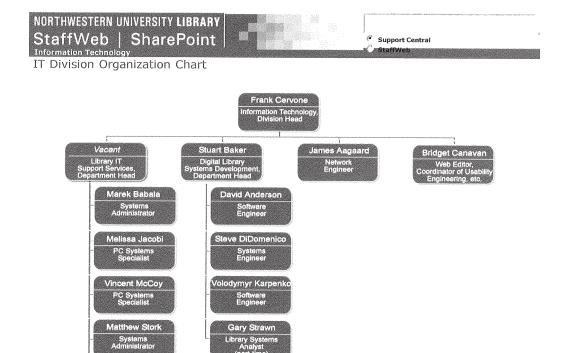


http://library.louisville.edu/administration/OrganizationalChart.pdf



### **NORTHWESTERN UNIVERSITY**

http://staffweb.library.northwestern.edu/it/division/orgchart.html

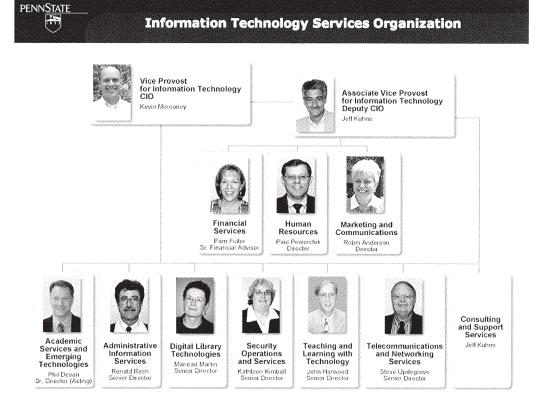




Bob Trautvetter
Systems
Administrator

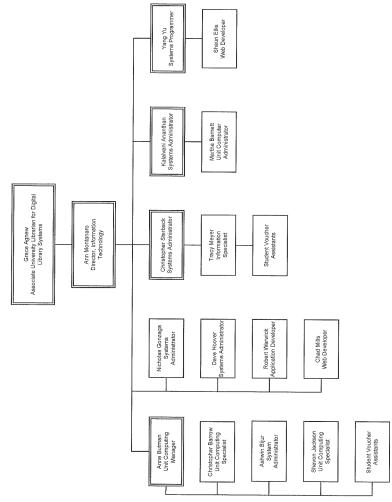
INU Library | Saffiowb | Information Technology Support Central Northwestern Home | Calendar Pilen-It Purple | Sates A-Z | Search Worthwestern Homeromy Library, 1970 Campus Drive, Evenston, 16 (622 Last updated Harch 20, 2007 03/20/2007 World Wide Web Dischimer and University Policy Statements or 2000 Reinflustrate Turnersity

http://its.psu.edu/organization/

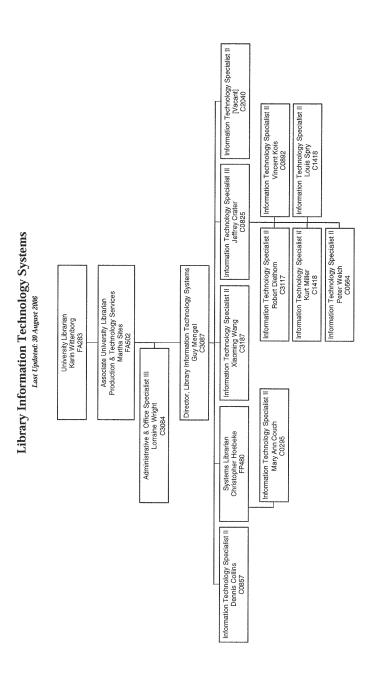


For more information about ITS, see <a href="http://its.psu.edu/about.html">http://its.psu.edu/about.html</a> on the Web.



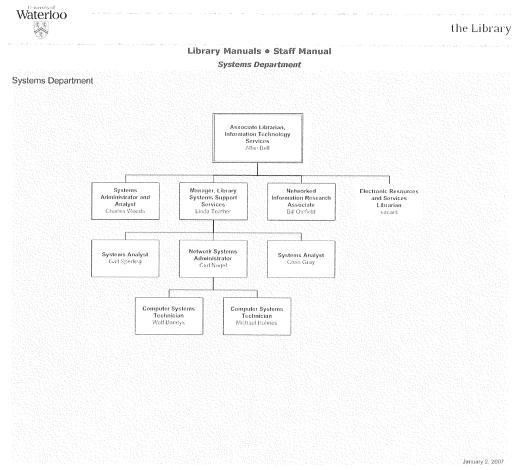


http://staff.lib.virginia.edu/HR/orgcharts/lits.pdf

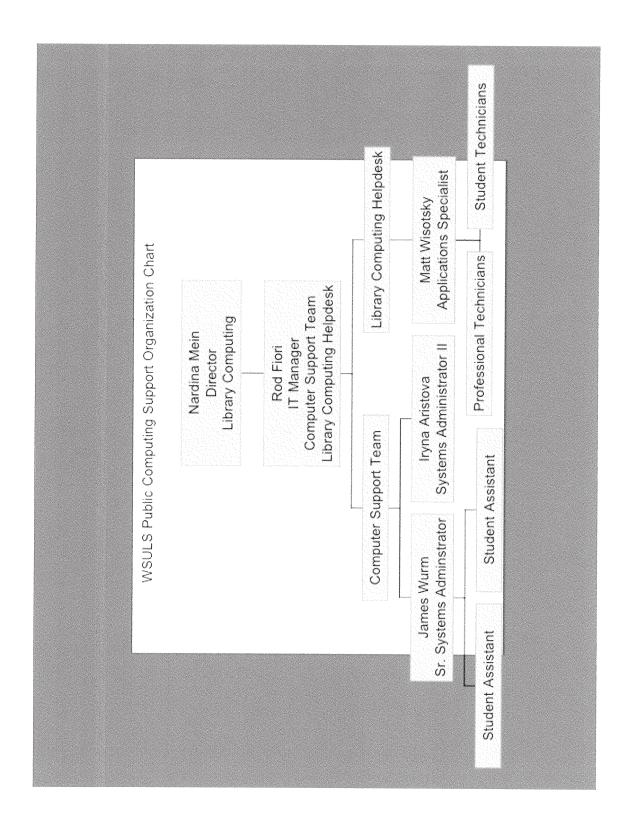


# **UNIVERSITY OF WATERLOO**

http://www.lib.uwaterloo.ca/staff/manuals/staffman/systemschart.html



Close this window



Public Computing Policies	

### UNIVERSITY OF ALBERTA

# http://www.ualberta.ca/AICT/OISS/policies/conditionsofuse.htm



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University of Alberta Campus Computing Conditions of Use

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Office of Accountability: Academic Information and Communication Technologies Office of Administrative Responsibility: Office of Information Systems Security

Approved By: Office of Information Systems Security

Effective Date: Feb 12, 2007

### Purmasa

The University of Alberta works to create an intellectual environment in which students, faculty, and staff may feel free to create and to collaborate with colleagues both at the University and at other institutions without fear that the products of their intellectual efforts will be violated, misrepresented, tampered, destroyed, or stolen. This intellectual environment is fostered by an atmosphere of trust and confidentiality that in part is encouraged by the computing environment that exists at the University.

This policy and related procedures apply to all faculty, students, and staff at the University, as well as all visitors and guests of the University, who use the University's computer or network resources, no matter where physically located. This includes the use of any computing or networking device or resources owned by the University, as well as any device connecting to a computer network owned by the University. This includes the use of any University issued electronic identity (such as computer account and password) The use of certain computing and network resources at the University may be subject to additional policies. In this case the more restrictive of the policies will apply.

### Policy

- All use of University computer and network resources must be in compliance to all federal and provincial laws, as well as all relevant
  University of Alberta policies and procedures. Users will be held accountable for their actions and statements in electronic medium
  according to the disciplinary processes of the University contained in relevant University policies, as well as to the extent of federal
  and provincial laws.
- and provincial law.

  The use of University computing and network resources, including electronic identities is permitted only to authorized individuals to whom this policy applies. Unless otherwise stated, computer and network access including the use of electronic identities are authorized only on an individual basis, and may not be shared by multiple individuals. Anyone granted authorization to use an electronic identity must make all reasonable effort to keep such identification private and secure.

  The computing and network resources of the University are to be used primarily for activities related to the mission of the University, (i.e. educational, academic research, and administration purposes). Limited personal use that does not violate the other sections of this policy, or other policies is permitted, but should be minimised and must not unduly impact the aforementioned primary uses. All other uses are prohibited.

- this policy, or other policies is permitted, but should be minimised and must not undy impact the aforementioned primary uses. All other uses are prohibited.

  All users of University computing and network resources acknowledge the right of others to privacy, you agree to stay within the limits of your authorization to use the facilities provided for your use, to copy information only from authorized sources, and never to delete or change information without permission from its holder. Within the broad context of free academic discussion and debate, all forms of electronic communication are expected to reflect high ethical standards and mutual respect and civility. Users will be sensitive to the public nature of shared facilities and take care not to display in such public locations images, sounds or messages which could create an atmosphere of discomfor or harassment for others. Users will refrain from transmitting to others in any location inappropriate images, sounds or messages which might reasonably be considered harassing, offensive, or defamatory.

  The University retains the right to access all data stored on or transmitted on or using University computing and network resources, However, any such data will be treated by the University and all users as confidential and not to be accessed without authorization, or cause and due process. The University will not normally monitor individual usage or data, although all usage of a general facility may be monitored to enable accurate auditing. The University reserves the right to monitor and record stored or in-transit data, as well as the usage of any computer or network resource in cases of suspected or alleged impropriety, or as necessary to maintain a well functioning and secure computing and network environment. The University has the right to use information to appropriate internal and external investigative authorities.

  The use of University computer or network resources in violation of this policy shall be considered unacceptable use, and an abuse of
- The use of University computer or network resources in violation of this policy shall be considered unacceptable use, and an abuse of computing privileges. Anyone witnessing use of University computer or network resources which is in violation of this policy will report it to University of Alberta Campus Security.

### Investigation of Unacceptable Use

System administrators of computing and network resources have the responsibility to take remedial action in the case of suspected or alleged unacceptable use. Nothing in this policy diminishes that responsibility. System administrators, with the approval of their supervisor and with due regard for the right of your privacy and the confidentiality of your data, have the right to suspend or modify your computer access privileges, examine files, passwords, accounting information, data, and any other material which may aid in an investigation of possible abuse, as per section 6) of this policy.

Investigation into suspected violation of this policy will be governed by the same regulations as other investigations on campus. For example,

### http://www.ualberta.ca/AICT/OISS/policies/conditionsofuse.htm

where academic offences such as plagiarism or professional misconduct involve the use of computing facilities, the same faculty officers involved in a more traditional case will be involved in the computer-based case with computer specialists being used as resources. Suspected or alleged violations of federal or provincial law may be reported to the appropriate law enforcement authorities.

The University reserves the right to withhold access to the computing and network facilities to any individual if there are reasonable grounds to suspect that their continued access to the facilities would pose a threat to the operation of the facilities or the good name of the University. Where there is substantiated abuse of computing privileges, the University will consider the removal of a users access to facilities in balance between the threat perceived to the community and the inconvenience the user will face. In the event that your access to any or all computing facilities is restricted, the University will inform you of the options available to you to have that access reinstated.

Individuals in violation of this policy may face sanctions and penalties as prescribed in any relevant University policy such as the code of student behaviour and the various collective agreements, in addition to those prescribed in the provincial and federal criminal codes.

This policy has been drafted and approved under the authority of the Director of AICT. Any questions regarding the application or interpretation of these Conditions of Use should be directed to the Office of Information Systems Security.

### Appendix i), Examples of Unacceptable Use

Below are some examples of unacceptable use computing resources in violation of this policy. The list is not comprehensive, but is meant to serve as a guide to users of the type of activities which are not permitted

- A) Unauthorized Access: This includes password or account sharing, attempts to gain unauthorized access to computer accounts, or any activity designed to bypass an installed computer or network security mechanism. Such activities are contrary to section 2) of this policy as well as Section 342.1 and 342.2 of the Criminal Code of Canada.
   B) Excessive resource consumption: This includes excessive network or computer resource use for personal or commercial reasons, such as peer to peer file sharing. Excessive resource use contravenes section section 3) of this policy, as this use interferes with the primary computing and personal reasons.
- such as peer to peer file sharing, Excessive resource use contravenes section so of this policy, as this use interferes with the primary purpose of the University computing and network resources.

  C) Copyright or License violations: This includes installing, reproducing, or distributing copyrighted materials such as any software, publications, or electronic content without permission. Installed software and media on University networks is provided under license agreement and may not be copied or removed without permission. Users may not use University networks is provided under license agreement and may not be copied or removed without permission. Users may not use University networks is provided under license agreement and may not be copied or removed without permission. Users may not use University networks is provided under license agreement and cade may not be copied or removed without permission. Users may not use University computing and network resources to use, modify, or redistribute. Violations here contravene section 1) of this policy.

  D) Plagiarism and Academic dishonesty: Plagiarising someone else's work, cheating on assignments or exams are several examples of plagiarism and academic dishonesty as defined in University policy. This does not change when such offenses occur using an electronic medium. Violations of this nature contravene section 1) of this policy.

  E) Theft or data, Unauthorized Disclosure, or Modification of data: Deliberate alteration or destruction of computer files is a Criminal Code of Canada offence under section 430.1, The inspection, altering, deleting, publishing, copying, or modification of any data an individual is not authorized to access is prohibited. Violations of this nature contravene section 4) and section 1) of this policy.

  F) Vandalism: which includes vandalism of data, also includes denial of service (DOS) attacks, or any behaviour which intentionally degrades, modifies, or adversely impact the behaviour of any computer or network system, for any reason. This



### The University of British Columbia Board of Governors

### Policy No.:

Approval Date: November 2000

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Last Revision: June 2005

### Responsible Executive:

Vice-President, Academic and Provost Vice-President, Learning & Research (UBC Okanagan)

### Title:

# Responsible Use of Information Technology Facilities and Services

### **Background & Purposes:**

This policy applies to faculty, staff and students and is intended for the general support of and to provide a foundation for responsible use of UBC's information technology facilities. The Responsible Executive may adopt guidelines and procedures consistent with this policy. In addition, faculties and departments may adopt implementation procedures that reflect local circumstances, provided they too are consistent with this Policy.

### 1. General

- 1.1. The University of British Columbia (the "University") encourages research and scholarship to increase knowledge and understanding. It upholds the academic freedom of all members of the University to engage in open inquiry and public discourse in an atmosphere of mutual respect.
- 1.2. Computing and communications facilities (including any University owned or University leased computing, telephone and communications services, equipment and facilities) shall be used in a manner which is consistent with the requirements of the University.
- 1.3. Computer IDs, accounts, and other communications facilities are to be used for authorized purposes. Incidental personal use is acceptable as long as it does not interfere with use of the facility for its intended purpose and, in the case of employees, as long as it does not interfere with his or her job performance.
- 1.4. Users are prohibited from accessing other users' computer IDs or accounts and communications, without specific prior authorization from the appropriate administrative head of unit.
- 1.5. Users are responsible for the uses to which their computing accounts are put. Users must not share the passwords to any accounts to which they have access.
- 1.6. Users must not misrepresent their identity as senders of messages nor the content of such messages.
- 1.7. Breaches of this Policy may be subject to the full range of disciplinary and other formal actions. In addition to any other sanctions that the University may levy in the event of a violation, UBC may withdraw computing privileges and network access.

1.8. All users must adhere to University policies and all laws that govern the use of the University's computing and communication facilities. Applicable legislation includes, but is not limited to, the Criminal Code of Canada, the B.C. Civil Rights Protection Act, the B.C. Freedom of Information and Protection of Privacy Act, and the B.C. Human Rights Code.

### 2. Privacy and Security

- 2.1. Users must
  - 2.1.1. preserve the privacy of data to which they have access;
  - 2.1.2. respect the privacy of others by not tampering with e-mail, files, or accounts they use; and
  - 2.1.3. respect the integrity of computing systems and data.
- 2.2. For example, users must not: intentionally develop programs or make use of already existing programs to harass other users, infiltrate a computer or computing system, damage or alter the components of a computer or computing system, gain unauthorized access to other facilities accessible via the network, or inappropriately use the telephone system.
- 2.3. The University reserves the right to limit, restrict or extend computing privileges and access to its computing and communications resources, including all information stored therein.
- 2.4. No guarantees can be given for the privacy of files but the user community can be assured that system administrators will not examine personal files without the individual's knowledge, except in emergencies or under unusual circumstances.
- 2.5. The University will comply with all applicable legislation including the B.C. Freedom of Information and Protection of Privacy Act especially with respect to the sale of personal information (such as names and addresses) to third parties.

### 3. Intellectual Property

- 3.1. Users must respect the legal protection provided by copyright laws for computer programs and data compilations and for all other works (literary, dramatic, artistic or musical). Also, users must respect the legal protection provided by trademark law and the common law for names, marks, logos, and other representations that serve to distinguish the goods or services of one person from another.
- 3.2. Users must respect the rights of others by complying with all University policies regarding intellectual property regardless of medium (i.e. paper or electronic).

### 4. Freedom of Expression

4.1. The University does not and will not act as a censor of information available on our campus network but will comply with applicable legislation. To the extent that the latter requires specifically identified information to be banned pursuant to a court order, the University will comply.

### 5. Discrimination and Harassment

5.1. Users must recognize that the University, as a community sharing a commitment to study and learning, upholds the principles of academic freedom, mutual respect and equality of opportunity for all. The University's Policy on Discrimination and Harassment specifically prohibits discrimination and harassment on any of the protected grounds as identified under the B.C. Human Rights Code, including but not limited to, age, ancestry, colour, family status, marital status, physical or mental disability, political belief, place of

origin, race, religion, sex, sexual orientation, and unrelated criminal conviction. With respect to penalties and sanctions, related documents include, but are not limited to, the student discipline policy, collective agreements with faculty and staff, and the terms of employment applicable to non-unionized staff.

### 6. Examples of Illegal Uses

- 6.1. The following are representative examples only and do not comprise a comprehensive list of illegal uses:
  - 6.1.1. uttering threats (by computer or telephone);
  - 6.1.2. distribution of pornographic materials to minors;
  - 6.1.3. child pornography;
  - 6.1.4. pyramid schemes; and
  - 6.1.5. copyright infringement.

### 7. Examples of Unacceptable Uses

- 7.1. The following are representative examples only and do not comprise a comprehensive list of unacceptable uses:
  - 7.1.1. seeking information on passwords or data belonging to another user;
  - 7.1.2. making unauthorized copies of proprietary software, or offering unauthorized copies of proprietary software to others:
  - 7.1.3. copying someone else's files, or programs, or examining such information unless authorized;
  - 7.1.4. attempting to circumvent computer security methods or operating systems (e.g. subverting or obstructing a computer or network by introducing a worm or virus);
  - 7.1.5. using University-provided computer accounts for commercial purposes such as promoting by broadcast non-educational profit-driven products or services;
  - 7.1.6. intercepting or examining the content of messages, files, or communications in transit on a voice or data network;
  - 7.1.7. interfering with the work of other users of a network or with their host systems, seriously disrupting the network (e.g. chain letters or spamming), or engaging in any uses that result in the loss of another user's files or system; and
  - 7.1.8. harassing or discriminatory telephone messages.

### 8. System Administrators

8.1. This policy shall not be construed as preventing or restricting duly authorized system administrators or other technical personnel from carrying out their duties. Complaints under this policy may be directed to the administrative head of a unit or to the Associate Vice President, Information Technology.

### 9. Note

9.1. This Policy is not intended to set forth an exhaustive list relating to the use of University computing resources. All users continue to be subject to all applicable laws and university policies (see UBC Policy Website http://www.universitycounsel.ubc.ca/policies).

http://brown.edu/Facilities/CIS/policy/aup.html

### Brown Administration



# Acceptable Use Policy

### 1.0 Purpose

The computing resources at Brown University support the educational, instructional, research, and administrative activities of the University and the use of these resources is a privilege that is extended to members of the Brown community. As a user of these services and facilities you have access to valuable University resources, to sensitive data, and to internal and external networks. Consequently, it is important for you to behave in a responsible, ethical, and legal manner.

In general, acceptable use means respecting the rights of other computer users, the integrity of the physical facilities and all pertinent license and contractual agreements. If an individual is found to be in violation of the Acceptable Use Policy, the University will take disciplinary action, including the restriction and possible loss of network privileges. A serious violation could result in more serious consequences, up to and including suspension or termination from the University. Individuals are also subject to federal, state and local laws governing many interactions that occur on the Internet. These policies and laws are subject to change as state and federal laws develop and change.

This document establishes specific requirements for the use of all computing and network resources at Brown University.

### 2.0 Scope

This policy applies to all users of computing resources owned or managed by Brown University. Individuals covered by the policy include (but are not limited to) Brown faculty and visiting faculty, staff, students, alumni, guests or agents of the administration, external individuals and organizations accessing network services via Brown's computing facilities.

Computing resources include all university owned, licensed, or managed hardware and software, and use of the university network via a physical or wireless connection, regardless of the ownership of the computer or device connected to the network.

These policies apply to technology administered in individual departments, the resources administered by central administrative departments (such as the University Libraries and Computing and Information Services), personally owned computers and devices connected by wire or wireless to the campus network, and to off-campus computers that connect remotely to the University's network services.

### 2.1 Your Rights and Responsibilities

As a member of the University community, the university provides you with the use of scholarly and/or work-related tools, including access to the Library, to certain computer systems, servers, software and databases, to the campus telephone and voice mail systems, and to the Internet. You have a reasonable expectation of unobstructed use of these tools, of certain degrees of privacy (which may vary depending on whether you are a University employee or a matriculated student), and of protection from abuse and intrusion by others sharing these resources. You can expect your right to access information and to express your opinion to be protected as it is for paper and other forms of proceeded representations. non-electronic communication.

In turn, you are responsible for knowing the regulations and policies of the University that apply to appropriate use of the University's technologies and resources. You are responsible for exercising good judgment in the use of the University's technological and information resources. Just because an action is technically possible does not mean that it is appropriate to perform that action.

As a representative of the Brown University community, you are expected to respect the University's good name in your electronic dealings with those outside the University.

### 3.0 Policy

### 3.1 Acceptable Use

- You may use only the computers, computer accounts, and computer files for which you have authorization.
  You may not use another individual's account, or attempt to capture or guess other users' passwords. [Computing Password Policy]
  You are individually responsible for appropriate use of all resources assigned to you, including the computer, the network address or port, software and hardware. Therefore, you are accountable to the University for all use of such resources. As an authorized Brown University user of resources, you may not enable unauthorized users to access the network by using a Brown computer or a personal computer that is connected to the Brown network. [Network Connection Policy]
  The university is bound by its contractual and license agreements respecting certain third party resources; you are expected to comply with all such agreements when using such resources.
  You should make a reasonable effort to protect your passwords and to secure resources against unauthorized use or access. You must configure hardware and software in a way that reasonably prevents unauthorized users from accessing Brown's network and computing resources.

- must configure hardware and software in a way that reasonably prevents unauthorized users from accessing Brown's network and computing resources.

  You must not attempt to access restricted portions of the network, an operating system, security software or other administrative applications without appropriate authorization by the system owner or administrator. [Guidelines for Safeguarding Information]

  You must comply with the policies and guidelines for any specific set of resources to which you have been granted access. When other policies are more restrictive han this policy, the more restrictive policy takes precedence.

  You must not develop or use programs that disrupt other computer or network users or that damage software or hardware components of a system.

  Do not download and/or use tools that are normally used to assess security or to attack computer systems or networks (e.g., password "crackers", vulnerability scanners, network sniffers, etc.) unless you have been specifically authorized to do so by IT Security in CIS.

See Acceptable Use Examples to clarify Brown's interpretation of acceptable use

### 3.2 Fair Share of Resources

Computing and Information Services, and other University departments which operate and maintain computers, network systems and servers, expect to maintain an acceptable level of performance and must assure that frivolous, excessive, or inappropriate use of the resources by

### http://brown.edu/Facilities/CIS/policy/aup.html

one person or a few people does not degrade performance for others. The campus network, computer clusters, mail servers and other central computing resources are shared widely and are limited; therefore, resources must be used with consideration for others who also use them.

The University may choose to set limits on an individual's use of a resource through quotas, time limits, and other mechanisms to ensure that these resources can be used by anyone who needs them. Please review the Fair Share of Resources section of the "Acceptable Use Examples" for further clarification.

### 3.3 Adherence with Federal, State, and Local Laws

As a member of the Brown University community, you are expected to uphold local ordinances and state and federal law. Some Brown guidelines related to use of technologies derive from that concern, including laws regarding license and copyright, and the protection of intellectual property.

As a user of Brown's computing and network resources you must:

- Abide by all federal, state, and local laws.
   Abide by all applicable copyright laws and licenses. Brown University has entered into legal agreements or contracts for many of our software and network resources which require each individual using them to comply with those agreements.
   Observe the copyright law as it applies to music, videos, games, images, texts and other media in both personal use and in production of electronic information. The ease with which electronic materials can be copied, modified and sent over the Internet makes electronic materials extremely wilnerable to unauthorized access, invasion of privacy and copyright infringement.
   Do not use, copy, or distribute copyrighted works (including but not limited to Web page graphics, sound files, film clips, trademarks, software and logos) unless you have a legal right to use, copy, distribute, or otherwise exploit the copyrighted work. Doing so may provide the basis for disciplinary action, civil illigation and criminal prosecution.

Please visit Brown University's Copyright and Fair Use web pages for full discussion of your legal obligations. See also the Copyright Infringement Policy, which details the policies and procedures Brown University follows in responding to notifications of alleged copyright infringements on the University network.

### 3.4 Other Inappropriate Activities

Use Brown's computing facilities and services for those activities that are consistent with the educational, research and public service mission of the University. Other prohibited activities include:

- Activities that would jeopardize the University's tax-exempt status.
   Use of Brown's computing services and facilities for political or personal economic gain.

### 3.5 Privacy & Personal Rights

- All users of the university's network and computing resources are expected to respect the privacy and personal rights of others.
   Do not access or copy another user's email, data, programs, or other files without the written permission of Brown's IT Security Officer, who is bound to the procedures of <u>Temergency Email Access</u>.
   Be professional and respectful when using computing systems to communicate with others; the use of computing resources to libel, slander, or harass any other person is not allowed and could lead to university discipline as well as legal action by those who are the recipient of these actions.

While the University does not generally monitor or limit content of information transmitted on the campus network, it reserves the right to access and review such information under certain conditions. These include: investigating performance deviations and system problems (with reasonable cause), determining if an individual is in violation of this policy, or, as may be necessary, to ensure that Brown is not subject to claims of institutional misconduct.

Access to files on University owned equipment or information will only be approved by specific personnel when there is a valid reason to access those files. Authority to access user files can only come from the Vice President of Computing and Information Services in conjunction with the Provost and the General Counsel. External law enforcement agencies and Public Safety may request access to files through valid subpoenas and other legally binding requests. All such requests must be approved by the General Counsel. Information obtained in this manner can be admissible in legal proceedings or in a University hearing.

For more information on privacy issues, see the Guidelines for Safeguarding Information. See also the Checklist for Protecting Information.

### 3.51 Privacy in Email

While every effort is made to insure the privacy of Brown University email users, this may not always be possible. In addition, since employees are granted use of electronic information systems and network services to conduct University business, there may be instances when the University, based on approval from authorized officers, reserves and retains the right to access and inspect stored information without the consent of the user. Please see Brown's Electronic Mail Policy for further details.

### 3.6 User Compliance

When you use University computing services, and accept any University issued computing accounts, you agree to comply with this and all other computing related policies. You have the responsibility to keep up-to-date on changes in the computing environment, as published, using University electronic and print publication mechanisms, and to adapt to those changes as necessary.

### 4.0 Related Policies & Links

Acceptable Use Examples
Computing Password Policy
Network Connection Policy
Guidelines for Safeguarding Information | Checklist for Protecting Information
Copyright and Fair Use | Copyright Infringement Policy
Electronic Mail Policy | Procedures for Emergency Email Access
Computing Policy for Brown University (home) | Policy Enforcement

Questions or comments to: ITPolicy@brown.edu

Effective Date: August 1, 2003

# http://lib.colostate.edu/infodesk/eic/policy.html



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Electronic information Center

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Loan & Reserve Interlibrary Loan Computers Course Reserves Research Disabilities

# Policy for Computer and Internet Use

users. The Internet provides access to a vast array of information, ideas. and research tooks, including materials beyond the scope of resources unrestricted access to the Internet to support the scholarly, education mation needs of the University's diverse community of library The Colorado State University Libraries provides free, equal and selected by the Libraries. and info

ibranans and staff do not endorse any viewpoints represented on the Internet. They are not responsible for the content of Internet resources. other than those developed on official Library Web pages or sites selected for inclusion in the Library's online catalog. They are also not responsible for censoring access of protecting individuals from While the Internet presents material that is personally, culturally and professionally enriching for all ages, it also provides access to some material that may be offensive, disturbing, maccurate or even illegal under United States or Colorado (aw. As with other library materials.

Hardware and Software

Printing

Location

Hours

Internet as a research and information tool. Parents, legal guardians, or care providers are responsible for their children's use of the Internet and for intentional or inadvertent viewing or reading of other users' screens. It is the controversial or offensive material. Librarians and staff will offer assistance,

Assistive Technology Presentation Rooms Instruction Labs

Data Recovery

Policy

Access is granted subject to University and Libraries policies and local, state, and federal laws as noted in the

esponsibility of users to analyze and scrutinize information on the Internet for reliability and point of view

Computing and Networking Resources and Library Use Pols

American Lahrary Association's Library Ballof Rights which supports access to information and denounces. Libraries endorse:

censorship, labeling materials based on content, and restricting access to information

To encourage the free exploration of ideas, which is central to the University's education and research missions, the

Campus Computer Labs

- Code of Ethics of the American Library Association that states "We protect each library users right to privacy and confidentiality with respect to information sought or received and resources consulted, borrowed, acquired or
- Interectual Freedom Principles for Academic Libraries: An Interpretation of the Library Bill of Rights
- Access to Electronic Information, Services, and Networks

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### **Cornell Library Public Computing Policies**

Library hours

Research Tools

About CU Library: Policies: Public Computing

Instruction

Technical Support

Services

Inside CU Library

Help

ASK A LIBRARIAN email | chat | phone

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These policies are intended to ensure efficient, safe, and ethical use of Cornell University Library's public computers. They apply to any device that uses our networks, including laptops brought in by patrons and laptops loaned out by the Library. Individual libraries may have additional policies.

### For all Cornell University Library Computers:

**Priorities of use:** Priority use of the computing equipment is for academic rather than recreational purposes. If there are people waiting to use a computer and you are engaging in non-academic pursuits, you may be asked to give up the computer you are using.

**Use of machines:** The Library is not responsible for damages or loss of files should you connect your personal peripheral devices to its public computers. Illegal copying of software from the Library computers is prohibited, as is the installation of any form of malicious files or software. Due to both security and safety issues, it is expressly forbidden to connect a laptop to a desktop computer.

**Unattended computers:** Be advised that if you leave your machine unattended you may lose what you were working on. To allow for fair and equitable access to our resources, staff are authorized to remove personal belongings from unattended workstations. Belongings that have been removed may be retrieved from the lost and found at the Circulation desk.

**Support:** Other than re-booting computers, do not attempt to fix any computing equipment on your own. Report all computer or printer problems to Library staff. Computing supplies such as paper and toner are to be managed by library staff.

You are responsible for keeping backups of your work, by emailing or otherwise transfering it to yourself, or via your own storage media. Work saved on the local hard drive may be lost due to such events as hardware failure at any time and without notice. Be sure to save your files often and before you leave the computer, and log out of Kerberos when you are done.

### For Cornell University Library Computers and Personal Computers in the Library:

**Behavior:** The user is responsible for observing all copyright laws. Illegal copying of licensed software, music, movies, etc. is a violation of federal copyright laws and of Cornell University policy. Please see <a href="www.cit.cornell.edu/computer/responsible-use/">www.cit.cornell.edu/computer/responsible-use/</a>.



All users must wear headphones when listening to audio. The volume must not distract other users. Study groups may use computers as long as conversations and noise levels do not disrupt the work environment of other users.

Support: The Library does not diagnose or repair personal laptops.

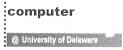
Use of all university computers and networks is governed by university policies, codes, and applicable federal, state and local laws.

For more information visit:

http://www.library.cornell.edu/about/policyPublicComputing.html

Information Technology Rights & Responsibilities: www.cit.cornell.edu/computer/responsible-use/ CIT's Policies web site: <a href="www.cit.cornell.edu/computer/policies/">www.cit.cornell.edu/computer/policies/</a> Cornell's Responsible Use of Electronic Communications policy: www.policy.cornell.edu/vol5 1.cfm Rev. April 2007

### http://www.udel.edu/ecce/student-toc.html



### Responsible Use of the Campus Network A Student Handbook



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Computer Security Home

University Policy Manual

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Stamp Out the Bandwidth Bandits

Be a Civilizing Influence on the Electronic Frontier

### A "Most Wired" Campus

Move-in day for a new student is a once-in-a-lifetime experience-- stacks of boxes and suitcases, crowds of new people to meet, paths and places to explore, a room to settle. There will be the telephone, the fridge, the TV and your PC.

Arrival Survival staff, student and alumni volunteers will have answers to a lot of your questions. Residence Hall Computing Consutants--RCCs-will be on hand to answer your PC questions! RCCs are fellow students who are dedicated on Move-in day to helping you connect your PC to the campus network. This connection will be a vital link in getting the good education you came to Delaware to receive.

You and all the other UD students will learn quickly that the campus network is essential to your academic success and you will expect it to do its job well. You have to do your part, too: You will have to understand and follow the policies that ensure its good performance—first and foremost the <u>Policy for Responsible Computing</u>, which contains general principles regarding appropriate use of computing equipment, software and networks.

# The Way It Is-at UD

- We live by the <u>Code of the Web</u>

- We do not violate copyright law,
  We respect the laws of the land.
  We use virus protection.
  We do our part to keep the network secure.
  We are good neighbors in the electronic community.
  We share the bandwidth,





### The Campus Network-What It's For

UD's prize-winning campus network, supporting fast Ethernet connections to the user and gigabit Ethernet connections in the backbone, was built by the University to support its academic, research and public service missions.

All students take classes that require the use of the campus network. Many professors deliver a substantial portion of their instructional materials on the web. You may need to search for information on the web for homework assignments.

The researchers in every discipline use the network in a wide variety of ways for their projects. Some of the

### http://www.udel.edu/ecce/student-toc.html

most avid network researchers are the thousands of graduate students who say they would be "dead in the water" without the network, as they compose, revise and submit their theses to their advisers.

As a student, you must be available on the UD e-mail service and read your e-mail in a timely manner. Your professors will send you e-mail with important information about your classes. You will receive official messages containing time-sensitive and sometimes critical, public safety and public health otices. These messages will be sent to your "udel.edu" e-mail address. If you prefer to use a different e-mail service, you must be sure you forward the "udel.edu" messages. You are responsible for making sure that your e-mail forwarding is working so that you can continue to receive and read your e-mail in a timely fashion.

You must also make regular visits to the University's web site--www.udel.edu--to know what's happening on campus and to conduct basic University business. You will be able to use "UD&me" to create a personal portal to the University's web of services and information. You can create a personal portal that links to registration, the campus social events calendar, a daily weather report, UDaily (UD's daily news service), and web pages for your courses, for instance. Your portal can help you organize your life.

The University welcomes you to its electronic community where citizens live by the law and practice good citizenship on the electronic frontier. In short, you must follow what's known on our campus as the <u>Code of the Web</u>. As a member of the University community, your network and computing resource access is a privilege. To keep it, you are required to make responsible use of computing and information resources and to guard against abuses.

### You Are Not An Island - You're Part of a Commu-net-y!

The computer you bring to campus is personal-yourPC-until you connect it to the campus network. What your PC does while on the network can significantly impact everyone else who is connected-many thousands of fellow students and faculty and staff or

You own your personal computer. The University owns the network-all the wires, cables, routers and network pathways (i.e., the infrastructure). The network exists to support the University's mission of teaching, research and public service. Keeping it running smoothly is a top priority. You are expected to use computing resources responsibly in accordance with the University of Delaware mission and in compiliance with its policies and all applicable laws and regulations. This principle is the basis for the following general acceptable use guidelines, which are reinforced through a continuing Western-themed educational campaign known as the Code of the Web.

Be considerate of others. Do not run processes or engage in network activity that denies others the use of shared resources. In the words of the Code of the Web, <u>don't be a bandwidth bandit.</u>

You may not access or use any University computer, facility, equipment, software, network or other resources including e-mail without authorization or for any activity other than that for which access or use was assigned or authorized. Don't be a rattlesnake, the Code advises, but use the network responsibly.

Respect the integrity of the University network. Improperly configured or inappropriate processes running on your system can have a destabilizing effect on the network. The University reserves the right to constrain and remove applications, services or improperly configured systems running on the network that may be negatively impacting its performance. For instance, you may not share your University network access with unauthorized users. If you set up a wireless router and do not secure it, others can use your network connection. You will be held responsible for what they do over your port. <u>Don't be a claim jumper</u>, the Code of the Web encourages, and bar the door to anyone who would jump your claim.

Respect the intellectual property rights of others. <u>Copying or distributing copyrighted movies, songs, software or pictures without permission is against the law.</u> In the words of the Code of the Web, <u>always honor the brand.</u>

As the Code of the Web recommends, abide by the principles of decency, fairness and respect for the rights of others-e.g., the right to privacy and confidentiality. In short, <u>be a good e-citizen</u>.

Bottom line: If your PC violates any of these acceptable use guidelines, you may lose your privilege to use the University network. Although this certainly will create inconvenience, the University has no choice because of its obligations to the members of the University community who do use the network responsibly.

### Respect the Laws of the Land

### Copyright Law

You must not violate copyright law. Downloading and/or sharing copyrighted videos and songs is stealing. It is no different from walking into a store and shoplifting a CD or a DVD. Downloading and/or sharing a song or a movie that you haven't purchased is illegal. Some songs and movies can be legally obtained through online subscription services, but generally swapping MP3s and MPEGs with Gnutella, BitTorrent, Lime Wire or other PZP applications is illegal.

Copyright law protects a person's property-something original that someone wrote, performed or portrayed. When you make a copy for yourself without the permission of the author or performer, you violate that copyright and break the law.

Students who violate copyright law will - even if their P2P application is sharing without their knowledge - face sanctions in the University student judicial system and may be sued by copyright holders. It is very difficult, if not impossible in some instances to configure P2P applications to not share your gal music or movie collection, or even the contents of your hard drive, including your personal banking and other files. Be safe - the best advice is to delete P2P applications from your system before coming to campus. Click here to read more about P2P applications that share too much.

### Federal, State and Local Laws

You know that harassment, fraud and identity theft are criminal behavior. You should understand that criminals who use computing and network facilities in committing these crimes are not, somehow, innocent or different or "excused" in

### http://www.udel.edu/ecce/student-toc.html

The State of Delaware and the federal government have laws that make computer crimes a serious offense.

### You Must Secure Your PC

### A National Priority

The National Strategy to Secure Cyberspace asks us "to secure the portions of cyberspace" that we own and operate. For most of us, this means our own PCs.

You are responsible for securing your piece of cyberspace--your PC--from the threats of intruders who may want to use your network identification and authorization to cause national harm. Be sure your PC operating system is updated with the latest security patches; protect your PC with a password; install and update virus protection software; and do not do anything that would cause your PC to be open to others on the network. For more information on securing your PC, see the Security Tool Chest on the UD Computer Security web page.

### Secure your Wireless Access Point (WAP)

If you set up a wireless access point in your room, you are responsible for whatever goes over the port. If it is not secured, any wireless-capable system within range is free to jump on - with all traffic being attributed to you. It's like lending your car to bank robbers - the tag is registered to you and you will have an uphill battle proving you weren't driving or didn't authorize its use. Click here to learn more about securing your WAP.

### Run Anti-Virus Software

Remember all those shots you got before you started school? They protected you from germs and viruses. You need to take the same good care of your PC, now that it is plugged into the campus network and exposed to the world beyond. You are required to install <a href="mailto:nitral">nti-virus</a> software on your PC and keep it updated. The University provides the software free of charge.

Be cautious of freeware and shareware. Be sure your anti-virus software is configured to scan all executable files for viruses before running them. This will help protect your PC from viruses, worms and trojans that corrupt files and system software, and it will help keep these foreign invaders from spreading to the PCs of your fellow students and others, as well.

### Keep Operating System Up-To-Date

Unfortunately, PC operating systems have holes in them that often expose them to being hacked and used by others for their purposes without the PC owner's knowledge. You must do this-routinely <u>update your PC operating system</u> as holes are discovered and patches are issued so you can fuffill your pcoposability to help keep the campus network secure. Microsoft, Apple and others issue operating system patches and updates from their web sites that close these holes. Microsoft NEVER sends patches by e-mail. Beware of e-mail claiming to be from Microsoft with attached Windows patches (See How to Tell if a Microsoft Security-Related Message is Genuine). Microsoft does provide an <u>e-mail alert service</u> informing subscribers when security update announcements are released.

### Password Protect Your System and Accounts

PCs are often compromised because they lack  $\underline{strong}$  passwords or any password protection against unauthorized changes by others. Be sure to set a good password for your PC and all computer accounts.

Your UDelNet password is a valuable secret key. It protects your personal files, information-even your money. And it makes certain that the privilege the University gives you to use its electronic campus is not stolen or "orrowed" by someone else.

Don't let fellow students, relatives or any other person gain access to the campus network through the access code given to you. This destroys accountability. You will be held responsible for any abuse of the network by persons you allow to use your access code or password.

You are required to choose a password that is 5 to 8 characters long and combines letters, numbers and special characters. Do not choose a password that is part of your birth date. The year of your birth is most likely no secret to your classmates. Commit your secret password to memory. Don't write it down and don't tell it to anyone-not even your best friend.

### Stamp Out the Bandwidth Bandits

Should you ever find yourself in the infuriating situation of needing desperately to finish an on-line homework assignment when the network slows down to the speed of a turtle, then you will know why we use the term, bandwidth bandits.

When network users run peer-to-peer (P2P) file-sharing software-e.g., KaZAa-and download copyrighted movies and music, they not only break the law and University policy, they usually use an excessive amount of network bandwidth, without a care or thought about those who are trying to complete assignments. If your P2P software is configured to share downloaded files, the strain on the network is multiplied because a single downloaded file will be automatically offered, or shared-out, to the word through your peer-to-peer software. When others make copies of the file, more and more bandwidth is used, slowing things down for everybody.

Download anything from a source you don't know or trust can cause many problems. If the downloaded file contains a worm, virus or trojan and you have not been vigilant in securing your system, it can not only affect your PC but others, as well. Your PC may be used remotely to spread the malicious code by network scanning for vulnerable systems to infect. It may become a busy file-swapping server or spam relay, sending out files you didn't know you had or spam you've never seen and consuming large amounts of network bandwidth in the process. Remember, you are accountable for what you or your PC do on the network, whether it is intentional or not.

### **UNIVERSITY OF DELAWARE**

# http://www.udel.edu/ecce/student-toc.html

Most of what you need to do takes up very little of the high-speed network's capacity. When you are working on the network, you generate quick, short bursts of activity, which leave the network open and ready for the next person.

Bandwidth bandits and negligent users lose their privileges on the campus network. When their PCs hog bandwidth, and worse, break laws, they will be subject to full disciplinary action within the Student Judicial System and/or face legal liability. Most of what you need to do takes up very little of the high-speed network's capacity. When you are working on the network, you generate quick, short bursts of activity, which leave the network open and ready for the next person.

Don't ride with the outlaws! Don't be a bandwidth bandit! A good way to avoid this is to <u>not run P2P applications</u>. If you are using a P2P application for legal purposes, be sure to <u>turn off</u> or responsibly manage the file-sharing feature. Likewise, limit shared directories on your PC so that they are not available to anyone in the Internet, and only place non-copyrighted material in them, such as digital photos or videos you or your friends have taken.

### Be a Civilizing Influence on the Electronic Frontier

The vast and unexplored spaces and places on the Internet make us think of it as the "electronic frontier". The Internet is in many ways a frontier, a wilderness, a community-in-the-making. On the frontier, you need to be an active participant in establishing a civilized settlement by following the code of behavior that stakes a law-abiding and responsible claim into unsettled territory. At UD, that's the Code of the Web. Responsible computing is one section of the <u>Student Guide</u> to <u>University Policies</u>. These rules for acceptable behavior must guide you in your use of the <u>campus network</u>.

Questions / comments? Last modified: 08/02/2007 16:18:39 Copyright 2004, University of Delaware. http://www.oit.duke.edu/netid-security/security/policy/acceptableuse.html

# **Duke Office of Information Technology**

Computing and networking: acceptable use

Please note that while the following are examples of acceptable and unacceptable behaviors on the network, this document is not the university's official Acceptable Use Policy (AUP). The university is currently considering a more formal AUP, in the meantime, users may be interested in the University's Policy on Computing and Electronic Communications: Security and Privacv.

in making acceptable use of resources you owest

- · Use resources only for authorized purposes.
- Protect your userid and system from unauthorized use. You are responsible for all activities on your userid or that
  originate from your system. Your userid and password act together as your electronic signature.
- Access only information that is your own, that is publicly available, or to which you have been given authorized
  access
- · Use only legal versions of copyrighted software in compliance with vendor license requirements.
- Be considerate in your use of shared resources. Refrain from monopolizing systems, overloading networks with
  excessive data, degrading services, or wasting computer time, connection time, disk space, printer paper, manuals,
  or other resources.

to making acceptable are of resources you purel not

- Use another person's system, files, or data without permission (note that permission from an individual user may not be sufficient – some systems may require additional authority).
- Give your password to another person. Contact the OIT Help Desk if you need assistance with giving other people
  authority to access your files or email.
- · Use computer programs to decode passwords or access-control information.
- · Attempt to circumvent or subvert system or network security measures.
- Engage in any activity that might be purposefully harmful to systems or to any information stored thereon, such as
  creating or propagating viruses, worms, or Trojan horse programs; disrupting services; damaging files; or making
  unauthorized modifications to university data.
- Make or use illegal copies of copyrighted software, store such copies on university systems, or transmit them over
  university networks
- Use mail or messaging services to harass or intimidate another person, for example, by broadcasting unsolicited messages, by repeatedly sending unwanted mail, or by using someone else's name or userid.
- Waste shared computing or network resources, for example, by intentionally placing a program in an endless loop, printing excessive amounts of paper, or by sending chain letters or unsolicited mass mailings.
- Use the university's systems or networks for commercial purposes; for example, by selling access to your userid or by performing work for profit with university resources in a manner not authorized by the university.

 $Duke \ Office \ of \ Information \ Technology - \underline{www.oit.duke.edu} - (919) \ 684-2200 - \underline{help@oit.duke.edu}$ 

http://www.uflib.ufl.edu/computeruse.html

University of Florida

Hours | Ask a Librarian | Online Requests | Remote Logon

George A. Smathers Libraries

Library : Library Computer Use Policy

### **Library Computer Use Policy**

The Smathers Libraries provide public use computers to facilitate University community access to locally held and remotely stored electronic data. Equipment and electronic resources are accessible during all library service hours. Staff are available to assist users in meeting their information needs with the computers.

In compliance with University Of Florida policy, the George A. Smathers Libraries require individuals to use a 14-digit number in order to use library computers. This number appears on Gator One, Special Borrower, and Library Computer Access cards and identifies who is using a computer at a specific time.

Computers and networks are state assets. Use them in a responsible, ethical and lawful manner. Comply with local, state, and federal laws (including copyright law), with University rules and policies (see http://www.it.ufl.edu/policies/aupolicy.html), and with applicable contracts including software licenses. Commercial activities not related to meeting academic information needs of the University of Florida are prohibited.

Respect other users of Library computers and do not harass or interfere with them.

Observe posted time limits and regulations.

Respect the privacy and property of all files on the computer system. Do not alter or erase a file without explicit permission to do so. The ability to alter a file does not imply permission to do so

Observe copyright notices and warning screens and comply with copyright law. Digital content and materials on the Internet are protected under copyright law. Unauthorized distribution, reproduction, or transmission is illegal, and offenders are subject to prosecution

Deliberately crashing, vandalizing, or otherwise compromising a computer or network, degrading performance, or consuming large amounts of system resources are serious offenses and may result in loss of library privileges and disciplinary action.

Absolutely no food or drink is permitted on or near the computers.

Use your correct name and identification number whenever prompted. Do not attempt to bypass computer security facilities, discover passwords, make unauthorized connections or break into or affect the performance of any other computer system on local or world-wide networks

The Library has the right to examine any file, backup archive, electronic mail, or printer listing as part of normal system administration.

Recreational use of computers is permitted, contingent on the availability of computers. Academic information needs have priority.

Display of pornographic materials in any form is strictly prohibited.

The Libraries monitor all computer activity and may terminate any computer session that is consuming excessive resources or refuse access to any person who has violated Library or University policy. The Libraries will report infractions of these policies to the Office of Student Affairs or the appropriate law-enforcement agency. Any infraction could result in the loss of library privileges and disciplinary action

Report improper incidents or other apparent violations of University policies to a library staff member immediately.

Library Computer Access Card Policy

### **UNIVERSITY OF FLORIDA**

# http://www.uflib.ufl.edu/computeruse.html

The Library Computer Access card allows campus visitors to register for access to library computers. It does not allow the borrowing of library materials or remote access to databases

Campus visitors and the general public may register for a Library Computer Access card at any Smathers Libraries circulation desk during all hours the library is open.

A picture ID and proof of current address must be presented to obtain a Library Computer Access card. Registration requires that the Libraries record your name, address, phone number, and email address (if available).

Use the 14-digit number on the card to access the library computers. You must bring this card with you each time you use library computers.

The card issued to you will be valid for six months from the date of issue and may be renewed at any Smathers Libraries circulation desk.

Computers must be used in accordance with library and university policy and procedures listed above. Any violation may lead to loss of these privileges. For your protection, report any lost or stolen card immediately and ensure you log-off your account at the end of use to protect your privacy.

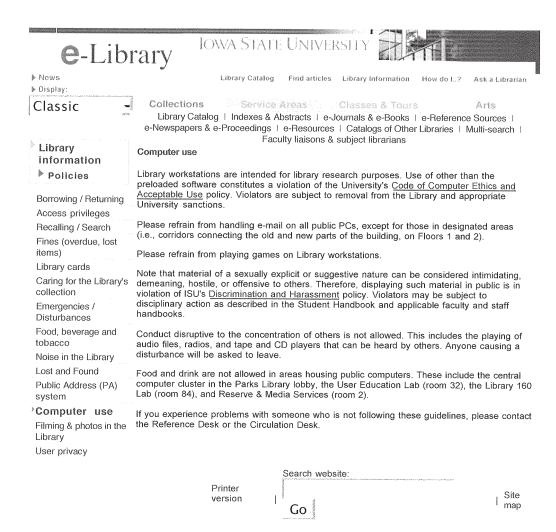
George A. Smathers Libraries, University of Florida. Adopted 03/31/99. Revised 04/03/06

Staff Web | Staff Directory | Departments | Privacy Policy

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http://www.lib.iastate.edu/cfora/generic.cfm?cat=gen libinfo&navid=11060&parent=3033&disp=classic&pagemode=



Send questions or comments about this page
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Fax: (515) 294-5525

http://www.library.kent.edu/page/10509





LMS Policies

## **Acceptable Use Policy for LMS Workstations**

#### Introduction

Libraries and Media Services (LMS) provides access to World Wide Web resources as a service to its users: the faculty, staff, and students of Kent State University and members of the local community.

All users of workstations located within LMS have a responsibility to use these



resources in an ethical and legal manner. The guidelines that govern the use o these workstations are derived from University policies, from other legal considerations, from standards of common sense and decency that apply to the use of any shared resource, and from concerns to maintain these workstations as effective, available resources.

## **Guidelines for Appropriate Use:**

- 1. Use of LMS workstations is limited to educational purposes. These incluresource discovery that fulfills class assignments, enhances career development, and promotes general knowledge gathering.
- 2. The use of these workstations to play computer games or to participate in chat rooms is prohibited. Users may not load their own software on thes workstations nor in any way modify their system hardware configuration
- 3. LMS endorses the Library Bill of Rights and the Freedom to Read statement of the American Library Association. It does not censor access material or protect users from offensive and/or inaccurate or incorrect information. However, it fully supports the University's commitment to civility as key to the meaningful exchange of ideas. Therefore, the public LMS Web workstations are not to be used with the intent to intimidate, harass, or display hostility toward others (e.g., hate literature, pornography). Users are also asked to be sensitive to material that others a public place might find offensive.

http://www.library.kent.edu/page/10509

- 4. Users must abide by current copyright law.
- 5. LMS provides laser printing at a central print station. A user's Flashcard debited for each page printed. Users are encouraged to exercise caution when printing, as many Web pages require multiple printed pages to obta a complete hard copy. LMS will not provide refunds for unwanted print jobs.

Approved by Libraries & Media Services Council September 3, 2003

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http://www.uky.edu/Libraries/page.php?lweb\_id=288



#### LIBRARY PUBLIC COMPUTER USE GUIDELINES

- Software on University Libraries' public computers is licensed for educational use only. Illegal use of computer hardware and software is prohibited under Kentucky Criminal Law (KRS 434.850 - 434.860).
- Only software installed by the University Libraries is allowed. Please do not download or install software on this workstation.
- Attempting to bypass system restrictions, tampering with system files or applications, or otherwise misusing computer or network
- The primary purpose for library public computers is to allow patrons to gather and view educational and research information; therefore, patrons who are writing papers or using email, chat, or games may be asked to relinquish machines during busy periods. Please limit your time to 30 minutes when others are waiting; there is a limit of one PC per person. Printing costs 12 cents per page and requires a UK or BCTC student I.D. card or DART card.

- Personal files left on this computer will be deleted.
- Food and beverages are not allowed near computer workstations
- The University of Kentucky is not responsible for a patron's lost files or data or for a patron's lost or damaged media or peripheral equipment.
- 10. Training rooms open to the public can be reserved by instructors for class use. Training rooms will be restricted to people participating in reserved training sessions during designated time periods.
- 11. Patrons should be aware that the Libraries do not restrict use of the Internet. The Library does not monitor or control Internet content and cannot be held accountable for information or images accessed through the Internet. Patrons are responsible for choosing which sites they access. Parents, legal guardians, or other adults chaperoning children are responsible for children's use of the Internet and for intentional or inadvertent viewing or reading of other patron's screens.
- 12. Due to the public nature of the Libraries, individuals should demonstrate respect for others' right to privacy and freedom from intimidation or harassment. Patrons are asked to be sensitive to the fact that some on-screen images, sounds, or messages might create an atmosphere of intimidation or harassment for others. The Libraries may take steps to promote an environment conducive to study and research. Library workstations may not be used for the purpose of any illegal activity. Patrons should speak to a library staff member if concerned about materials viewed on Library workstations.

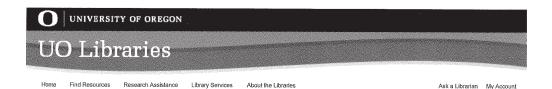
  13. Flagrant violation of computer use policies may result in the loss of library privileges

Please also refer to the Policy Governing Access to and Use of University of Kentucky Computing Resources.

For suggestions and complaints, please speak to a library staff member or send an email to the Reference Desk

Last update: 2007-10-03 16:34:01

http://libweb.uoregon.edu/systems/pubinfo/use.html



## **Library Systems Department**

Tips for Public Workstations: Acceptable Use

Acceptable Use Locations Printing Plugins Fonts

The primary function of the public workstations is to provide the widest possible access to bibliographic, full-text, and multimedia resources (online and offline). In addition to Internet access, Academic Stations, limited to UO students, faculty and staff, provide software for the creation or production of information or communication (word processing, Web publishing, etc.). Headphones are available at Library Reference desks for listening to audio on public workstations.

Non-academic use of Internet Only workstations is limited to 15 minutes. Non-UO public may be asked to give up a public workstation for UO students and staff doing academic work. To insure equitable access to computers and to all of the Library's electronic resources, library staff may discourage the use of activities such as email, games, chat rooms, etc.

Activity at the UO Libraries's public workstations must also comply with the UO Computing Center's "Acceptable Use of Computing Resources" guidelines.

Maintained by: SNB, snb@uoregon.edu
Last Modified: 09/24/2007

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## http://oit.rutgers.edu/acceptable-use.html



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## Acceptable Use Policy for Computing and Information Technology Resources

It is the policy of Rutgers University to maintain access for its community to local, national and international sources of information and to provide an atmosphere that encourages the free exchange of ideas and sharing of information. Access to this environment and the University's information technology resources is a privilege and must be treated with the highest standard of ethics.

The University expects all members of the community to use computing and information technology resources in a responsible manner; respecting the public trust through which these resources have been provided, the rights and privacy of others, the integrity of facilities and controls, and all pertinent laws and University policies and standards.

This policy outlines the standards for acceptable use of University computing and information technology resources which include, but are not limited to, equipment, software, networks, data, and telephones whether owned, leased, or otherwise provided by Rutgers University.

This policy applies to all users of Rutgers computing and information technology resources including faculty, staff, students, guests, external individuals or organizations and individuals accessing external network services, such as the Internet via University facilities.

Preserving the access to information resources is a community effort that requires each member to act responsibly and guard against abuses. Therefore, both the community as a whole and each individual user have an obligation to abide by the following standards of acceptable and ethical use:

- Use only those computing and information technology resources for which you have authorization.
- Use computing and information technology resources only for their intended purpose.
- Protect the access and integrity of computing and information technology resources.
- Abide by applicable laws and university policies and respect the copyrights and intellectual property rights of others, including the legal use of copyrighted software.
- Respect the privacy and personal rights of others

Failure to comply with the appropriate use of these resources threatens the atmosphere for the sharing of information, the free exchange of ideas and the secure environment for creating and maintaining information property and subjects one to discipline. Any member of our community found using information resources for unethical and unacceptable practices has violated this policy and is subject to disciplinary proceedings including suspension of system privileges, expulsion from school, termination of employment and/or legal action as may be appropriate.

Rutgers reserves the right to limit or restrict the use of its computing and information technology resources based on institutional priorities and financial considerations, as well as when it is presented with evidence of a violation of University policies, contractual agreements, or state and federal laws.

Although all members of the community have an expectation of privacy, if a user is suspected of violating this policy, his or her right to privacy may be superseded by the University's requirement to protect the integrity of information technology resources, the rights of all users and the property of the University. The University, thus, reserves the right to examine material stored on or transmitted through its facilities if there is cause to believe that the standards for acceptable and ethical use are being violated by a member of the University community.

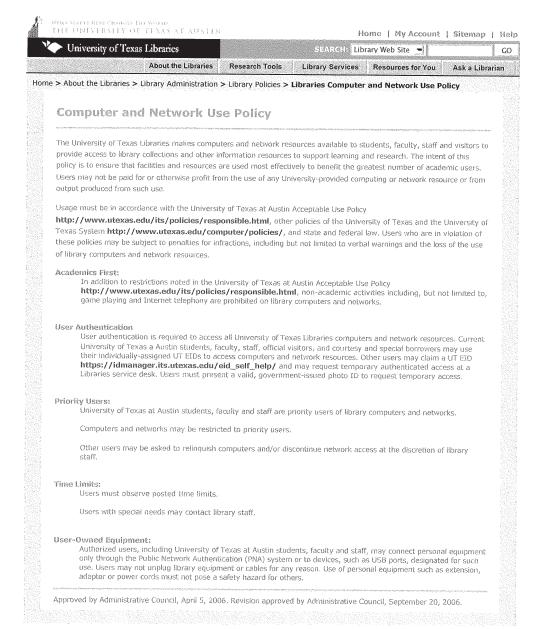
Specific guidelines for interpretation and administration of this policy are given in the Guidelines for Interpretation and Administration of the Acceptable Use Policy These guidelines contain more specific examples of offenses, and procedures for dealing with incidents.

For OIT systems, you should also see the OIT Acceptable Use Supplement, as well as any specific rules that may be posted in labs or pointed to in the login message on systems that you use.

BACK TO TOP

For questions or comments about this site, contact webmaster@nbcs.rutgers.edu.
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## http://www.lib.utexas.edu/vprovost/policies/computer-use-policy.html



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http://www.lib.virginia.edu/policies/use.html



## Use of the Libraries

The University of Virginia Library system seeks to provide all patrons with a welcoming, comfortable, and safe environment that promotes free intellectual exploration, research, and learning. The UVA libraries offer well-managed, diverse collections of library resources, with a knowledgeable and helpful staff.

The UVA libraries' primary mission is to serve University of Virginia students, faculty, and staff, as well as researchers and alumni. Members of the general public, our "community patrons," are also welcome to use the library facilities, consistent with our circulation and usage policies. These can be found online at: <a href="http://www.lib.virginia.edu/policies/">http://www.lib.virginia.edu/policies/</a>

The UVA libraries prioritize certain services, resources and space to the University community and affiliated researchers. In particular, library computers are limited in number, and often in high demand. Therefore, priority use of library computers is reserved for students, faculty and staff engaged in education-related activities.

All library patrons are expected to comply with these library use policies. Failure to comply with these policies may be grounds for removal from the UVA library system on a temporary or permanent basis. Use of the UVA libraries is a privilege, not a right.

In addition to generally applicable University of Virginia policies and regulations regarding the use of University facilities and property, the following specific library use and conduct policies apply:

- Library patrons are expected to respect the rights of other patrons to use library resources and facilities in a quiet, clean, and peaceful atmosphere.
- Library patrons are expected to respect and care for all library materials, equipment and property and may not remove such items from the Library without proper checkout or authorization.
- Library patrons must not engage in disruptive activity or other behavior that interferes with the normal use and operation of the libraries. Such behavior includes but is not limited to verbal abuse, intimidation or harassment.
- Library patrons must not maliciously access, alter, damage or destroy any library computer or database.
- Library patrons must respect a staff member's request to relinquish a computer or other equipment for use by another patron.
- 6. Children under the age of sixteen must be supervised by a parent, tutor, youth program coordinator or other responsible adult while in the Library. Exceptions will be made on an individual basis for children under the age of sixteen who are directly engaged in research or educational activities and need to use Library resources. Children should be prepared to show proof of age upon request.

http://www.lib.virginia.edu/policies/use.html

- Library patrons are responsible for their personal property at all times, and should never leave personal property unattended. UVA libraries are not responsible for any loss or damage to personal property.
- 8. In order to provide an optimum environment for using the library, users should conduct cell phone conversations away from study and research areas and turn off ringers while in the library.
- 9. Food and drinks, within reason, are permitted in many library locations. However, library patrons are expected to be considerate of others and to avoid messy, smelly, or noisy food items. Aluminum cans and waste paper should be recycled in the proper receptacles. All other trash is to be disposed of properly.
- Food and drinks are prohibited in Special Collections areas and restricted at computer workstations and microform or other equipment susceptible to damage.
- 11. Library restrooms are not to be used for bathing or other similar purposes.
- Library patrons are expected to comply with the Library's policies (found at Circulation Desks) regarding online viewing of sexually explicit materials.
- 13. Library facilities are open only to UVA students, faculty, and staff from midnight to 7:30 AM.

November, 2004; revised January 2006

University of Virginia Library
PO Box 400113
Charlottesville VA 22904-4113
Charlottesville VA 22904-4113

434.924.3021 • fax: 434.924.1431

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The Rector and Visitors of the University of Virginia

#### **VIRGINIA TECH**

## http://www.vt.edu/acceptable\_use.php



## My VT

VT News

Campaign for Virginia Tech

## Acceptable Use Guidelines

Access to computer systems and networks owned or operated by Virginia Tech imposes certain responsibilities and obligations and is granted subject to university policies, and local, state, and federal laws. Acceptable use always is ethical, reflects academic honesty, and shows restraint in the consumption of shared resources. It demonstrates respect for intellectual property, ownership of data, system security mechanisms, and individuals' rights to privacy and to freedom from intimidation and harassment.

The official policy is Policy 7000: Acceptable Use and Administration of Computer and Communication Systems

#### Guidelines

#### In making acceptable use of resources you must:

- use resources only for authorized purposes.
- protect your userid and system from unauthorized use. You are responsible for all activities on your userid or that originate from your system.
- access only information that is your own, that is publicly available, or to which you have been given authorized access.
- use only legal versions of copyrighted software in compliance with vendor license requirements.
- be considerate in your use of shared resources. Refrain from monopolizing systems, overloading networks with excessive data, degrading services, or wasting computer time, connect time, disk space, printer paper, manuals, or other resources.

#### In making acceptable use of resources you must NOT:

- use another person's system, userid, password, files, or data without permission.
- use computer programs to decode passwords or access control information.
- attempt to circumvent or subvert system or network security measures.
- engage in any activity that might be purposefully harmful to systems or to any information stored thereon, such as creating or propagating viruses, disrupting services, or damaging files or making unauthorized modifications to university data.
- use university systems for commercial or partisan political purposes, such as using electronic mail to circulate advertising for products or for political candidates.
- make or use illegal copies of copyrighted materials or software, store such copies on university systems, or transmit them over university networks.
- use mail or messaging services to harass or intimidate another person, for example, by broadcasting unsolicited messages, by repeatedly sending unwanted mail, or by using someone else's name or userid.
- waste computing resources or network resources, for example, by intentionally placing a program in an endless loop, printing excessive amounts of paper, or by sending chain letters or unsolicited mass mailings.
- use the university's systems or networks for personal gain; for example, by selling access to your userid or to university systems or networks, or by performing work for profit with university resources in a manner not authorized by the university.
- engage in any other activity that does not comply with the General Principles presented above

#### Enforcement

The university considers any violation of acceptable use principles or guidelines to be a serious offense and reserves the right to copy and examine any files or information resident on university systems allegedly related to unacceptable use, and to protect its network from systems and events that threaten or degrade operations. Violators are subject to disciplinary action as prescribed in the Honor Codes, the University Policies for Student Life, and employee handbooks. Offenders also may be prosecuted under laws including (but not limited to) the Communications Act of 1934 (amended), the Family Educational Rights and Privacy Act of 1974, the Computer Fraud and Abuse Act of 1986, The Computer Virus Eradication Act of 1989, Interstate Transportation of Stolen Property, The Virginia Computer Crimes Act, and the Electronic Communications Privacy Act. Access to the text of these laws is available through the Newman Library Reference Department.

#### Information Disclaimer

Individuals using computer systems owned by Virginia Tech do so subject to applicable laws and University policies. Virginia Tech disclaims any responsibility and/or warranties for information and materials residing on non-university systems or available over publicly accessible networks. Such materials do not necessarily reflect the attitudes, opinions, or values of the Commonwealth of Virginia, Virginia Tech, its faculty, staff, or students.

http://www.lib.washington.edu/about/computerusepolicy.html



## Policy on the Use of Computers in University Libraries

The University Libraries supports the University's teaching, research, and clinical functions. The Libraries' public computer equipment is provided to enable library users to access the collections and other information resources and services in support of curriculum and research needs. The following rules apply to use of computers within the Libraries and supplement and interpret University-wide policies on use of computing resources http://www.washington.edu/computing/rules.html

- 1. First priority for use of computers is accorded to University of Washington students, faculty, and staff.
- 2. Use of computing resources is a privilege that depends on individuals using the resources appropriately and in accordance with University policies and local, state, and federal laws. These laws and policies cover such areas as illegal access to computer systems, networks, and files, copyright, and harassment issues. http://www.washington.edu/computing/rules.html
- 3. At times, the demand for library computer equipment exceeds availability. You are asked to be sensitive to the needs of others and limit equipment use during times of heavy demand. The Libraries may take additional steps to regulate computer use, such as restricting email access or setting time limits.
- 4. Due to the public nature of the Libraries, individuals should demonstrate respect for individuals' rights to privacy and freedom from intimidation or harassment. You are asked to be sensitive to the fact that some on-screen images, sounds, or messages create an atmosphere of intimidation or harassment for others. The Libraries may take steps to maintain an environment conducive to study and research.
- 5. Use of computer equipment for recreational purposes such as game playing deters others from using workstations for educational or research purposes, and otherwise makes the Libraries less conducive to study. Libraries may intervene to ensure optimal access to computers for educational and research purposes.
- 6. We welcome the use of laptops and other personal computing devices in the Libraries. Users may connect personal equipment only to the wireless network, or to ports designated for such use. Users may not unplug any Libraries' equipment or cables for any reason. Use of personal equipment, such as extension, adaptor, or power cords must not pose a safety hazard for others.

If you fail to comply with the conditions of this policy, you may be subject to actions outlined in the Libraries Code of Conduct, University Libraries Operations Manual,

Policy on Library Disruptions, Vol. 1, Section B, No. 4, Appendix A. (Lib. 76), http://www.lib.washington.edu/about/codeofconduct.html

September, 2005

#### Contact Us

Last modified: Tuesday September 27, 2005 (jillmck)

- UW Home
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#### UNIVERSITY OF WATERLOO

http://www.adm.uwaterloo.ca/infocist/use2006.htm



University Committee on Information Systems & Technology (UCIST)

## Guidelines on Use of UW Computing and Network Resources

#### Preamble

Computing and network resources are important components of the University infrastructure. These Guidelines govern the appropriate and ethical use of these resources, inform users of expectations and responsibilities assumed in the use of UW computing and network resources, and clarify the context.

## **Guiding Principles**

- UW encourages the use of computing and network resources to enhance the working and learning environment of its members.
- These resources are provided primarily to support and further the mission of UW.
- UW values and strives to provide its members with an environment of free inquiry and expression. Freedom of expression and academic freedom in electronic format have the same latitude as in printed or oral communication.
- Members of the UW community are responsible and accountable for their actions and statements, which includes exercising reasonable restraint in the consumption of shared resources. Users of computing and network resources are expected to be aware of and comply with applicable provincial and federal laws and pertinent UW policies [e.g., Ethical Behaviour #33; Extra-University Activity (Faculty Members) #49; Use of Proprietary Software #64; Conflict of Interest #69; Student Academic Discipline #71; Intellectual Property Rights #73].
- UW strives to protect the privacy of system users and to provide reasonable security for UW computing and network resources. A system user's account is normally accessed only with the user's informed consent.<sup>1</sup> However, circumstances may arise that justify access absent the user's consent; examples include where security is at issue, or apparent breach of applicable laws or UW policies and procedures.

## Rights/Responsibilities

Contained within and following from the Guiding Principles are rights and responsibilities of both the user and the University. Some of these are presented below.

#### ITM Rights and Responsibilities:

- To allocate the use of and access to UW computing and network resources.
- To define access privileges of UW users and, for just cause, to revoke such privileges.
- To inform UW users of their rights and responsibilities in the use of UW computing and network resources, and to communicate clearly the terms and conditions under which access to and use of such resources are provided.
- To ensure reasonable safeguards to protect the privacy of UW users.
- To ensure reasonable security for UW computing and network resources and to act upon complaints.

http://www.adm.uwaterloo.ca/infocist/use2006.htm

User Rights and Responsibilities:

- To a presumption of reasonable privacy in the use of the computing resources assigned to them.<sup>2</sup>
- To use University computing and network resources in a manner which does not unduly interfere with the study, work or working environment of other users.
- To be accountable for the use of computing and network resources assigned to the user.
- To seek permission from the appropriate University authority to use UW computing or network resources for purposes different from those for which they were allocated or acquired.

## Privacy/Adjudication/Disciplinary Action

When circumstances arise that would appear to justify accessing a user's account absent consent, the appropriate course of action will be determined by the supervisor(s) of the user in question, in consultation with the appropriate member(s) of UCIST  $^3$ . When criminal behaviour is suspected, UW Police will provide advice on how to proceed. If the person requesting access is the user's supervisor (directly or indirectly), then his/her supervisor will make the determination. When agreement on a course of action cannot be reached, the issue will be escalated to the next supervisory level, with the final link in the escalation path being the Provost or his/her delegate. The Provost's decision is final. When there is doubt as to what action is appropriate, advice should be obtained from the Associate Provost, Information Systems & Technology and/or the Secretary of the University, who may in turn seek legal advice.

Misuse of the University's computing and network resources may result in disciplinary action within the University. Any such action undertaken will be governed by relevant UW policies [e.g., <u>Staff Employment #18</u>; <u>Ethical Behaviour #33</u>; <u>Student Academic Discipline #71</u>] and the <u>Memorandum of Agreement</u>. Disciplinary measures resulting from alleged infringements of UW policies may be appealed under the grievance processes for <u>staff (Policy 36)</u>, <u>students (Policy 70)</u>, and <u>faculty (Article 9 of the Memorandum of Agreement)</u>.

Approved by UCIST, February 3/06 Endorsed by Executive Council, February 15/06

The set of examples that illustrate the application of this document can be found at: <a href="http://www.adm.uwaterloo.ca/infocist/use2006examples.htm">http://www.adm.uwaterloo.ca/infocist/use2006examples.htm</a>

- $^{1}$  Users should be aware that normal system maintenance procedures, such as regular backups or routine troubleshooting, may involve access without users' consent. In such cases, files are not viewed and personal data are not collected.
- <sup>2</sup> Users should be aware that certain information (login records, network traffic, services used and by whom, etc.) is gathered routinely, and may be used during investigations of possible inappropriate computer or network use.
- University Committee on Information Systems & Technology

Maintained by Melissa Conrad Last Updated: 2006-07-25

University of Waterloo 200 University Avenue West Waterloo, Ontario, Canada N2L 3G1

LEMBRIGA WALER TREST

# Public Computing Procedures

Document outlining the policies for requesting changes to made to the public workstation image. Also contains deadlines for processing requests.

#### **Image Change Policy for Public Systems**

- 1. The public image will be refreshed and modified twice a year: Summer and Winter breaks between semesters
- Public Systems include All Tier 1 and Tier 2 machines in the library system, Training Labs, circulation laptop loaners and look-up stations located in the stacks.
- 3. Requests for changes to the image must be submitted via RT. These requests will be reviewed by a Desktop Support staff member the day they are received. If it is not deemed an emergency, the request will be held over for review by the Desktop Support staff at the next staff meeting. If the request is approved and works within the security parameters of our image it will be incorporated into the image and will be available after the next rollout
- 4. "Emergency Changes" An emergency change will be defined as a change that if not made users will be unable to use the system or university resources. These changes will be made within 24 hours after initial notification
- 5. A beta test image will be made available to library staff for testing one week prior to the image being deployed to the public areas. It is the responsibility of the staff to provide feedback. ISS staff will be responsible for taking staff feedback and making changes if possible.
- 6. The beta test image will be deployed to one system in Bostock, Perkins, and Lilly for testing. This system will be clearly marked for both staff and students. We will also provide a feedback mechanism for students using the system.
- 7. Time Frame for image deployment will be:

## Fall Semester:

- · Software requests due by the end of the first week in July
- Beta image installed third week in July
- Final image deployed first week in August

## **Spring Semester:**

- Software requests due by the end of the first week in December
- · Beta image installed third week in December
- Final image deployed first week in January

#### **Image Change Policy for Training Systems**

- 1. The public image will be refreshed and modified twice a year: Summer and Winter breaks between semesters
- 2. Requests for changes to the image must be submitted via RT. These requests will be reviewed by a Desktop Support staff member the day they are received.
- 3. "Emergency Changes" An emergency change will be defined as a change that if not made the scheduled class will be unable to be offered. These changes will be made as soon as possible this will depend on the availability of the room to be imaged. At least 24 hours notice will need to be given in order to add new software to an entire classroom.
- 4. A beta test image will be made available to training staff for testing one week prior to the image being deployed to the public areas. It is the responsibility of the staff to provide feedback. ISS staff will be responsible for taking staff feedback and making changes if possible.
- 5. Time Frame for image deployment will be:

#### Fall Semester:

- · Software requests due by the end of the first week in July
- · Beta image installed fourth week in July
- · Final image deployed second week in August

## Spring Semester:

- · Software requests due by the end of the first week in December
- · Beta image installed third week in December
- · Final image deployed second week in January

#### UNIVERSITY OF FLORIDA

http://web.uflib.ufl.edu/libsys/mmm/liaisonprgmdescript.htm

University of Florida

George A. Smathers Libraries

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## **Systems Liaison Program Description**

#### **Program Goals**

The Systems Liaison Program in the Smathers Libraries was created to

- · Provide basic local computer support within each Library unit
- Give work credit to people who perform computer support work, even when that is not the major portion of their job assignment
- Increase speed of response for Information Technology (IT) related problems
- Provide tiered support, so that basic problems are handled locally, while more complicated problems are escalated to be handled by the Systems Department

The first goal of the program is an effort to match available resources to need. The Libraries operate almost one thousand networked devices, including eight hundred computers of various types, scattered over nine different physical sites on and off campus. The Systems Department has only three positions that are dedicated to hardware and network support. The Libraries address the shortage of full-time IT staff by formally enlisting staff outside of Systems to cover basic support needs. These needs include keeping track of local IT inventory; initial setup of new workstations, and migration from old machines to new ones; installation of software; relocation of workstations; security functions, such as patching software and keeping virus scanners active; and basic troubleshooting.

The second goal of the program is to ensure that people get full credit for the computer support work they do. Most units have one or more people who are seen as the local computer expert. Whether this is because the person is a computer hobbyist or because the person is just more experienced and skillful at using computers, the result is that the person is called upon to do local computer support in addition to his job. If this is not recognized by management (by explicitly providing work time for the IT support function), the local expert will be constantly stressed between the official and unofficial functions. The Systems Liaison is always assigned at least 10% of his FTE (as recorded in the job description of the position) for computer support work.

The third goal of the program is to increase the speed of response to problems. The Liaison understands local IT needs and workflows, and can frequently fix things without the orientation session that would be required for someone assisting from outside the unit.

Where outside assistance is necessary, the Liaison can speed things up by translating between the local situation and the IT world. This fulfills the fourth goal of the program: Liaisons have Systems Department staff for backup on harder problems. This is more efficient at all levels, and effectively saves everyone time.

#### Liaison Appointment

Liaisons are appointed by their local unit heads, and are chosen to best meet the IT needs in each unit. The criteria for selection vary across units. Each unit is expected to have at least a 10% FTE assignment to the Liaison program for every ten staff or fraction thereof. Units may pool Liaison assignments as long as this proportion is met. For example, two units with five staff each could have a single Liaison assigned to provide support for both areas. Increasing either unit staff by one person would either require the appointment of another Liaison, or increasing the existing Liaison's assignment to 20%. It is the responsibility of any Liaison who feels that insufficient time is being allocated to perform necessary Liaison work to notify the Systems Department.

#### **Procedures**

Liaisons submit requests for routine assistance by calling the Systems Department or sending email to the SysHelp mailbox: This usually results in the creation of a Trouble Ticket, or ongoing record of the problem, which can be viewed at

## http://web.uflib.ufl.edu/libsys/mmm/liaisonprgmdescript.htm

#### http://web.uflib.ufl.edu/ticketview/frames/ticketframe.htm

Trouble Tickets are the primary way problems are tracked and solved. It is important that Liaisons do not send email or leave voice mail for particular Systems staff directly concerning a problem that must be addressed quickly. The absence of that staff member might lead to a long delay. Sending messages and calls to SysHelp enables efficient routing of requests. Please note that SysHelp is not the mailbox for the Systems Department. Sending requests to the entire department both confuses the issue and delays getting someone assigned to the problem.

End users should always go to their Liaisons for help, and not submit requests to SysHelp directly. Systems will keep the local Liaison informed of any IT work or support being done in the area. Following this protocol will minimize duplicative effort and get problems solved faster.

Liaisons must keep records of all IT equipment maintained in their areas, as well as knowing details of network assignment and workstation usage for all computers. These records are sometimes needed to track down problems that are affecting the campus at large, and must be kept current.

When software updates are required to protect network security, they must be installed as scheduled by the Systems Department. In some cases, this will require an immediate full-time effort to the exclusion of all other tasks. This is fully supported by the Library Directors. Unless a Liaison reports to the Systems Department that there is some local obstacle to compliance with this policy, it is his personal responsibility to comply for all of the workstations under his jurisdiction. Failure to do so can lead to serious disruptions, including loss of network connectivity for entire buildings.

Liaison orientation sessions are conducted by the Systems Department to update procedures and introduce new Liaisons to the program as necessary. Individual consultations about IT issues or the program are always available for Liaisons on request.

Staff Web | Staff Directory | Library Hours | Privacy Policy

Cheers and jeers to: debfetz@ufflib uff.edu © 2004-2006 University of Florida George A. Smathers Libraries. All rights reserved. Acceptable Use, Copyright, and Disclaimer Statement Last updated January 10, 2006 - DF



#### GEORGE WASHINGTON UNIVERSITY

http://helpdesk.gwu.edu/hardware/index.html

## Hardware

Posted: 2:46 PM, Thursday, July 10, 2003 Last Updated: 2:46 PM, Thursday, July 10, 2003

ITS will provide hardware support for GW equipment through appropriate repair channels. ITS will diagnose the equipment and determine how best to proceed with the repair. Depending on the manufacturer and warranty status, ITS staff may perform the repairs or assist the client by facilitating a repair with the manufacturer or a service provider.

In many cases, arranging a repair through either the original equipment manufacturer (OEM) or an OEM-authorized service provider is the most effective way to repair the equipment. In these cases, ITS can facilitate the repair process for the client. Such facilitation can include obtaining quotes, obtaining RMAs for depot repairs, and arranging for on-site service when appropriate. Costs incurred in the course of facilitation will be borne by the client.

In other cases, ITS staff members may perform the repairs themselves. The staff member will either order the required parts directly (in the case of warranty repairs), or provide the client with the information needed to order the parts (in the case of non-warranty repairs). The staff member will install the parts once they have arrived, and assist the client with the parts return process.

ITS will provide many value-added services during the course of a repair, which are not covered by the terms of the manufacturers warranty. As such, ITS will asses a standard labor charge for each incident to cover these services.

#### Repair Services by Manufacturer

Dell or Apple equipment that is under warranty will be either repaired or facilitated, depending on the situation and the manufacturers service guidelines.

Dell or Apple equipment that is not under warranty may be repaired or facilitated, depending on the situation and the manufacturers service guidelines.

Toshiba equipment will be referred to a Toshiba authorized service center. Please see the repair contacts list for more information. ITS will facilitate Toshiba repairs at the clients request.

IBM portable computers will be processed via IBMs EZ-Serve depot repair facility. ITS will facilitate IBM portable computer repairs at the clients request.

HP Printers will be either repaired directly or referred to an HP authorized service provider, depending on the nature of the problem.

ITS may facilitate other equipment, depending on the manufacturer.

For equipment such as copiers and multifunction office devices, service should be arranged through the vendors service agreements. Please consult the service agreement for service details.

#### **General Information about Repairs**

All diagnoses and repair attempts are best effort. Problems such as backorders or incorrect part shipments can arise during the repair process that affect the speed and quality of the repair. ITS will make reasonable efforts to prevent and correct such problems, but cannot guarantee the performance of vendors or shippers.

In some cases, repairing a system is not the best course of action. ITS staff members can prove an assessment of the clients needs, but cannot require a department to replace equipment. It is the clients responsibility to determine whether a system should be repaired or replaced.

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Submit My Suggestions

If you would like a response, please send an email to the ISS Suggestion Box at

## **GEORGE WASHINGTON UNIVERSITY**

http://helpdesk.gwu.edu/hardware/index.html

suggest@gwu.edu.

Support & Contact Info: Help Desk: (202) 994-5530 EAS Help Desk: (202) 994-5530, option 4 System Status: (202) 994-5530, option 3 Support: ITHelp Request Suggestions: suggest@qwu.edu

TRUGLORGI WASHINGTON UNIVERSITY Help Desk Hours: Monday-Friday: 7:00AM - 7:00PM 44983 Knoll Square, Bldg II, Suite 351 Ashburn, VA 20147 ITS Fax: (202) 994-0101 Help Desk Fax: (202) 994-5454

## Microcomputer & Peripherals Support in the Rutgers University Libraries

## A Description of Current Policies and Guidelines

Microcomputers in the Rutgers Libraries are purchased, installed, and maintained by the Systems Department and representatives from local units and departments to support the work of the library. This document focuses on support from the Systems Department.

Hardware and software supported in the Libraries is listed below. The list includes supported products currently recommended for purchase as well as older products no longer recommended but currently installed and, therefore, still supported. Factors considered in developing the list are: performance, price, availability, ease of repair, vendor support, and use on campus and within the libraries. This list is not static; it evolves as products and software changes occur. If specific hardware or software is required for a project and it is not on the support list, the Systems Department should be consulted before the purchase. Changes to the public machines to support new software necessary for the curriculum are done only via the regularly scheduled new machine image that is updated twice a year.

## Roles and responsibilities in microcomputer support in the libraries

## The Systems Department

- 1. Reviews microcomputer and peripheral purchases prior to placement of order to ensure the system is complete and appropriate for the defined use.
- 2. Installs all library workstations.
- 3. Installs the initial software (except CD-ROM workstation software) as part of the initial installation of a public microcomputer work station.
- 4. Installs and maintains all Novell servers and assists in the support of NT servers.
- Provides a secondary level of diagnostic or troubleshooting support for supported hardware and software.
- 6. Provides or coordinates maintenance and repair for supported equipment.
- 7. Provides server backup system and tapes and ensures that server backup tapes are changed according to the established schedule.
- 8. Recommends security devices for new installations.
- 9. Provides advice and assistance to the libraries when equipment has to be relocated.
- 10. Coordinates, installs, and, when necessary, orders software upgrades for supported products.
- Maintains and coordinates distribution of the student payroll program for TimeTrack and ClockTrack.
- Advises on hardware upgrades to existing systems (e.g. additional memory, hard disks, etc.)

- 13. Installs or coordinates the installation of all internal CPU components.
- 14. Oversees the RUL microcomputer inventory performed by local PC Coordinators.
- 15. Provides necessary support to CD-ROM workstations.
- 16. Maintains online trouble ticket system.
- 17. Packs or transports equipment for warranty returns, depot maintenance, etc.
- 18. Disposes of equipment no longer in use.

## Current Public Machine Software

## **Operating System:**

• Windows 2000 (Service Pack 3)

## **Browsers:**

- Internet Explorer 6 (Service Pack 1)
- Netscape 7.02

## Plugins:

- Adobe Acrobat 5.1
- Macromedia Flash Player 6
- Macromedia Shockwave 6
- DjVu Browser Plugin
- Alternatiff Viewer (ver. 1 4 3)
- Envoy Viewer
- Notetab
- · Selected machines at Dana
- Chime 2.6 sp3 (Beilstein)
- Isis Draw (Beilstein)
- · NJ Star

## Software:

- · RealOne Player
- Roxio Easy CD Creator (ver. 5.2)
- WinDVD (ver. 4)
- Virtual CD (ver. 4)
- LPTOne
- Luna Client Software
- McAfee (ver. 4.51 or 7.0)

## **RUTGERS UNIVERSITY**

- · Research Insight
  - Camden/Kilmer/Dana
- Beilstein Commander (ver. 6) with Autonom 4
  - Science Machines
  - Kilmer/Dana/Camden
- Scifinder Scholar 2002
  - Selected machines at Dana/Camden/Science libraries
- NetOp School (ver. 2.5)
  - Instructional Lab Machines (Douglas/LSM/Dana/Chang/Kilmer)
- Office 97 or Office 2000
  - Selected machines at Dana as well as eclass teacher machines

http://www.itc.virginia.edu/technical/policies.html



## **Policies**

ITC and University Computing Policies and Security Resources for IT Professionals.

## **ITC Special or Technical Policies**

- IT Security Risk Management Program<sup>1</sup>
- ITC Notification of Potential Service Interruption (Downtimes) Policy<sup>2</sup>
- ITC Press Policy<sup>3</sup>
- Network Access for Third Parties<sup>4</sup>
- UVa <sup>5</sup>IT<sup>6</sup> Policies<sup>5</sup>

## **ITC General Policies**

- Accounts<sup>7</sup>
- Centrally Provided Disk Storage Space<sup>8</sup>
- Revocation of Network Access<sup>9</sup>
- Site Licenses<sup>10</sup>

## University-wide Policies and Related Information

- Electronic Data Removal Policy 6
- Ethics in Computer Usage<sup>11</sup>
- Information Access through Computer Networks<sup>12</sup>
- Monitoring Employee Electronic Communications or Files<sup>13</sup>
- Obscene Materials<sup>14</sup>
- Privacy, Access, and Retention of Computer Files 15
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#### UNIVERSITY OF VIRGINIA

http://www.itc.virginia.edu/technical/policies.html

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## Links

- 1. http://www.itc.virginia.edu/security/riskmanagement/
- 2. http://www.itc.virginia.edu/policy/downtime.html
- 3. http://www.itc.virginia.edu/policy/press-policy.html
- 4. http://www.itc.virginia.edu/policy/thirdpartyaccess.html
- 5. http://www.itc.virginia.edu/policy/
- 6. https://etg07.itc.virginia.edu/policy/policydisplay?id=%27IRM-004%27
- 7. http://www.itc.virginia.edu/policy/accounts.html
- 8. http://www.itc.virginia.edu/policy/storage.html
- 9. http://www.itc.virginia.edu/policy/revocation.html
- 10. http://www.itc.virginia.edu/licenses/req-proc.html
- 11. http://www.itc.virginia.edu/policy/ethics.html
- 12. http://www.itc.virginia.edu/policy/infoaccess.html
- 13. http://www.itc.virginia.edu/policy/filemonitoring.html
- 14. http://www.itc.virginia.edu/policy/obscene.html
- 15. http://www.itc.virginia.edu/policy/fileretention.html
- 16. http://www.itc.virginia.edu/pubs/docs/RespComp/resp-comp-facstf.html
- 17. http://www.itc.virginia.edu/policy/copyright.html
- 18. https://etg07.itc.virginia.edu/policy/policydisplay?id=IRM-006
- 19. http://www.virginia.edu/uvapolicies/
- 20. http://www.itc.virginia.edu/policy/netdevices/home.html



## **SELECTED RESOURCES**

## **DOCUMENTS**

#### **Journal Articles**

- Balas, Janet L. "The 'Magic' of Wireless Access in the Library." *Computers in Libraries* 26, no. 3 (March 2006): 32–35.
- Bolin, Mary K. "The Library and the Computer Center: Organizational Patterns at Land Grant Universities." *Journal of Academic Librarianship* 31, no. 1 (January 2005): 3–11.
- Crockett, Charlotte, Sarah McDaniel, and Melanie Remy. "Integrating Services in the Information Commons: Toward a Holistic Library and Computing Environment." *Library Administration and Management* 16, no. 4 (Fall 2002): 181–86.
- Foster, Andrea L. "Are Computers in Libraries on the Wane?" *Chronicle of Higher Education* The Wired Campus section, October 25, 2007. http://chronicle.com/wiredcampus/article/2489/are-computers-in-libraries-on-the-wane
- Hein, Karen K. "Information Uncommon: Public Computing in the Life of Reference." *Reference Services Review* 34, no. 1.

  http://www.emeraldinsight.com/
- Horner, Perry C., and Dennis Isbell. "Segregating Library Users in a Microsoft Windows Client/Server Environment to Control Access to Public Printers." *Information Technology and Libraries* 23, no. 3 (September 2004): 128–32.
- McKinstry, Jill Morrison, and Peter McCracken. "Combining Computing and Reference Desks in an Undergraduate Library: A Brilliant Innovation or a Serious Mistake?" *portal: Libraries and the Academy* 2, no. 3 (July 2002): 391–400. http://muse.jhu.edu/journals/portal\_libraries\_and\_the\_academy/v002/2.3mckinstry.html
- Rossmann, Brian, and Doralyn Rossmann. "Communication with Library Systems Support Personnel: Models for Success." *Library Philosophy and Practice* 7, no. 2 (Spring 2005). http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1048&context=libphilprac

- Sendze, Monique. "The Battle to Secure Our Public Access Computers." *Computers in Libraries* 26, no. 1 (January 2006): 10–16.
- White, Andrew C. "Toasting the Thin Client as a Viable Solution to Public Web Access Experience at SUNY Stony Brook." *Computers in Libraries* 18, no. 10 (November/December 1998): 20–22+.

#### **Books**

- Barclay, Donald A. Managing Public-Access Computers. New York, NY: Neal-Schuman Publishers, 2000.
- Blixrud, Julia C. *Managing Printing Services*. SPEC Kit 254. Washington, DC: Association of Research Libraries, Office of Leadership and Management Services, December 1999.
- Caswell, Tom, and LeiLani Freund. Scanning Services for Library Users. SPEC Kit 288. Washington, DC: Association of Research Libraries, Office of Leadership and Management Services, September 2005.
- Driscoll, Lori. *Library Public Access Workstation Authentication*. SPEC Kit 277. Washington, DC: Association of Research Libraries, Office of Leadership and Management Services, October 2003.
- Erbshloe, Michael. Trojans, Worms, And Spyware: *A Computer Security Professional's Guide to Malicious Code*. Amsterdam: Elsevier, 2005.
- Haas, Leslie, and Jan Robertson. *The Information Commons*. SPEC Kit 281. Washington, DC: Association of Research Libraries, Office of Leadership and Management Services, July 2004.
- Kwon, Myoung-ja Lee, and Aline Soules. *Laptop Computer Services*. SPEC Kit 275. Washington, DC: Association of Research Libraries, Office of Leadership and Management Services, August 2003.
- Leung, Shirley, and Diane Bisom. *Information Technology Policies*. SPEC Kit 218. Washington, DC: Association of Research Libraries, Office of Leadership and Management Services, October 1996.
- Tuten, Jane H., and Junker, Karen. *Appropriate Use Policies for Computers in College/University Libraries*. CLIP Note #31. Chicago: American Libraries Association, 2002.

#### **Web Resources**

- Foster, Nancy Fried, and Susan Gibbons. "Studying Students: The Undergraduate Research Project at the University of Rochester." Chicago: Association of College & Research Libraries, 2007. http://www.ala.org/ala/acrl/acrlpubs/downloadables/Foster-Gibbons\_cmpd.pdf
- Gutsche, Betha (Ed). "Sustaining Public Access Computing Programs: Technology and Management Competencies." May 2007. http://data.webjunction.org/wj/documents/16963.pdf

Thomas, Chuck, and Robert H. McDonald. "Millennial Net Value(s): Disconnects Between Libraries and the Information Age Mindset." August 15, 2005. Florida State University D-Scholarship Repository, Article #4.

http://dscholarship.lib.fsu.edu/general/4

#### **Notable Innovations**

## **Communicating Public Computing Info to Users**

## Blogs, Bulletin Board/Forums, RSS feeds

Case Western Reserve. KSL Tech Blog

Blog and RSS approach.

http://library.case.edu/ksl/techteam/mission.html

Also see "ITS News."

http://library.case.edu/ksl/techteam/

University of California, Los Angeles. College Library Instructional Computing Commons Includes technical bulletins via RSS.

http://www.clicc.ucla.edu/

North Carolina State University. Talk

Online bulletin board with RSS feed available.

http://www.lib.ncsu.edu/learningcommons/forum/viewforum.php?f=2

## Communication of Policies

University of Iowa. Library Public Computer and Print Management A remarkably well-written explanation to users regarding why the library implemented desktop authentication.

http://www.lib.uiowa.edu/help/faq/faq-computers.html

University of South Carolina. Authentication Requirement for the Library's Public Computers Another example of a well-written explanation to users as to why the library chose to implement the procedure.

http://www.sc.edu/library/systems/authenticate.html

University of Virginia. "When I go to U.Va..."—The Responsible Computing Video Unique campus-level policy communication that benefits the library and its users.

http://www.itc.virginia.edu/pubs/docs/RespComp/videos/home.html

and the "Responsible Computing at U.Va." Web site

http://www.itc.virginia.edu/pubs/docs/RespComp/

## Finding Hardware and Software

University of Kansas. Computer Labs

Interactive and searchable campus-wide directory (includes libraries) of hardware and software by location.

http://www2.ku.edu/cgiwrap/workshops/train/index.php?SCREEN=labs

University of Maryland. Where To Go To Find A Computer Includes the library.

http://www.oit.umd.edu/wheretogo/seeTable.cfm

Michigan State University. Software Search Includes the library.

http://attend.acns.msu.edu/computerLabs/searchSoftware.php

Yale University. Software Search

http://research.yale.edu/css/student/software.jsp

and Equipment Search

http://research.yale.edu/css/student/equipment.jsp

## **Public Workstation Availability**

Boston College. Computer Availability

http://www.bc.edu/offices/infotech/depts/slsc/availability/

University of California, Davis. Computer Rooms Available

http://clm.ucdavis.edu/rooms/available/

Cornell University. Laptop Access

Real-time laptop availability at Mann Library.

http://www.mannlib.cornell.edu/computing/laptops/index.cfm

Duke University. Are workstations available right now?

http://library.duke.edu/services/computing.html

Emory University. Current Learning Commons Usage

http://web.library.emory.edu/learningcommons/usage.php

North Carolina State University. Computers in D.H. Hill Library

http://www.lib.ncsu.edu/compavailability/web.php

and Computers in the Learning Commons

http://www.lib.ncsu.edu/compavailability/lc-web.php

Includes live video. They explain how they created these features here:

http://www.lib.ncsu.edu/dli/projects/compavailability/

University at Albany, SUNY. Computers Availability in University Libraries http://library.albany.edu/infocommons/map.htm

University of Tennessee. Current Labs Usage http://www.labs.utk.edu/usage/currentusage.asp

University of Utah. Lab Status of the Marriott Library Multimedia Center http://labstatus.scl.utah.edu/mmc\_login.php

Yale University. Cluster Support Services

Campus map with pop-ups of lab locations (including libraries) that includes workstation availability. http://research.yale.edu/css/student/clustermap.jsp

## Reserving Public Workstations and/or Laptops

Brigham Young University. Reservations http://www.lib.byu.edu/index.php?tab=tab1&menu=rese\_menu

New York Public Library. Make a PC Reservation http://nypl.org/pcres/reserve.pl

University of Oregon. Booking A Laptop

http://libweb.uoregon.edu/commons/laptops/booking.html

Reservations of collaborative workstations can be done at

http://janus.uoregon.edu/record=b3615397

Note that text messaging to cell phones is also available.

#### Scanning

University of North Carolina at Chapel Hill. How Do I Scan? Flash-based online tutorials.

http://www.lib.unc.edu/reference/eref/howdoiscan.html

#### Software Installation

Northwestern University. Software Installation

A form submission for software installation requests which includes library computing areas.

http://database.at.northwestern.edu/p/SoftwareRequest/SoftwareRequest1.cfm

## **Foreign Languages**

University of North Carolina at Chapel Hill. Typing in non-Roman languages http://www.lib.unc.edu/reference/eref/keyboardcovers.html Also provides information on switching keyboard characters

http://www.lib.unc.edu/house/how\_do\_i/technology/switch\_the\_keyboard\_to\_another\_language's\_characters.html

## "Knowledge," "Information," or "Learning Commons"

Note: although some of the institutions below were respondents to SPEC Kit 281 "The Information Commons" (2004), these URLs were not included in the SPEC Kit on that topic. Because they are public computing "hubs" they are included here.

Brigham Young University. Information Commons

http://net.lib.byu.edu/gen/ic/index.html

University of British Columbia. The Information Commons at the UBCO Library

http://www.library.ubc.ca/ubco/InfoCommons.html

McMaster University. @ Mills Learning Commons

http://library.lib.mcmaster.ca/mills/learningcommons/

North Carolina State University. NCSU Libraries Learning Commons

http://www.lib.ncsu.edu/learningcommons/

Northwestern University. InfoCommons

http://infocommons.northwestern.edu/

Includes an interactive, Flash-based floor plan with detailed information on computing workspaces at http://infocommons.northwestern.edu/features.html.

Ohio University. Learning Commons

http://www.library.ohiou.edu/serv/lc/index.html

University of Saskatchewan. Learning Commons

http://www.usask.ca/learningcommons/

University at Albany, SUNY. Information Commons

http://library.albany.edu/infocommons/

University of Virginia. Scholars' Lab

http://www.lib.virginia.edu/scholarslab/

University of Washington. Computing Commons

http://catalyst.washington.edu/learning\_spaces/computing\_commons.html

Washington University in St. Louis. ARC Library Technology Center http://library.wustl.edu/units/arc/index.html

Wayne State University. Extended Study Center

Provides a mostly 24-hour study area with computers, printers, copiers, study tables, and helpdesk support.

http://www.lib.wayne.edu/services/computing/extended\_study.php

University of Wisconsin-Madison. Steenbock Memorial Library Information Commons http://steenbock.library.wisc.edu/infocommons/index.html and Ebling Library InfoCommons

http://ebling.library.wisc.edu/infocommons/

## **Podcast Production**

University of Southern California. Leavey Library Podcasting Studio http://www.usc.edu/libraries/locations/leavey/podcast/

## **Printing and Scanning Services**

Syracuse University. Digital Imaging Services Center http://library.syr.edu/information/digital\_services/disc/

## **Software & Media Vending**

Kent State University. Computer Disk Vending Machine http://www.library.kent.edu/page/10313

## **User Assistance**

University of Kansas. Deskside Coaching http://www.lib.ku.edu/instruction/it/deskside/

McMaster University. IT Chat help http://library.lib.mcmaster.ca/ithelp.htm

New York Public Library. Computer Page Program http://www.nypl.org/branch/services/pages/about.html Purdue University. Customer Support Online

A twenty-four hours per day, seven days per week way to submit questions or requests for service to the Information Technology Department of Purdue University Libraries.

http://www.lib.purdue.edu/itd/customerservice/cso.html

## **Virtual Workstation**

University of Texas at Austin. Software Installation Station
Virtual PC that gives software installation privileges to patrons.

http://www.lib.utexas.edu/help/libstations/Virtual\_PC/sis.html

## **Web Conferencing**

University of Utah. Virtual Classroom https://marratech.scl.utah.edu:8001/

## Institution Innovations (non-library)

## Remote Access to Public Computers

University of California, Los Angeles. Social Sciences Computing After Hours http://access.labs.sscnet.ucla.edu/

North Carolina State University. Virtual Computing Lab http://vcl.ncsu.edu/

University of Wisconsin-Madison. Computer-Aided Engineering Center http://www.cae.wisc.edu/site/public/?title=fsrwinxp

Note: All URLs accessed November 12, 2007.

# SPEC KIT TITLE LIST

SP187 ILL Trends/Staff & Organ

SP246 Web Page Devel & Managmnt

			vveb i age Devel & Maliagiliit		ill fields/Stail & Organ
			Electronic Reserves Operations		Virtual Library
		SP244	TL 9: Renovation & Reconfigur	SP185	System Migration
SP302	Managing Public Computing	SP243	TL 8: Users with Disabilities		ILL Trends / Access
SP301	Liaison Services	SP242	Library Storage Facilities	SP183	Provision of Comp Print Cap
SP300	Open Access Resources	SP241	Gifts and Exchange Function	SP182	Academic Status for Libns
SP299	Scholarly Comm. Educ. Initiatives	SP240	Marketing and PR Activities	SP181	Perf Appr of Collect Dev Libn
SP298	Metadata	SP239	Mentoring Programs in ARL	SP180	Flexible Work Arrangemts
SP297	Library Development	SP238	ARL GIS Literacy Project	SP179	Access Services Org & Mgt
SP296	Public Services in Special Collections	SP237	Managing Food and Drink	SP178	Insuring Lib Colls & Bldgs
SP295	Remote Shelving Facilities	SP236	TL 7: E-Theses/Dissertations	SP177	Salary Setting Policies
SP294	Managing Digitization Activities	SP235	Collaborative Coll Management	SP176	Svcs for Persons w/Disabilities
SP293	External Review for Promo & Tenure	SP234	TL 6: Distance Learning	SP175	Scholarly Info Centrs
SP292	Institutional Repositories	SP233	ARL in Extension/Outreach	SP174	Expert Systems
SP291	Spatial Data Collections & Services	SP232	Use of Teams in ARL	SP173	Staff Recognition Awards
SP290	Access Services	SP231	Cust Service Programs in ARL	SP172	Information Desks
SP289	Managing Large Projects	SP230	Affirmative Action in ARL	SP171	Training of Tech Svc Staff
SP288	Scanning Services for Library Users	SP229	Evaluating Acad Libr Dirs	SP170	Organization Charts
SP287	Instructional Improvement Programs	SP228	TL 5: Preserving Digital Info	SP169	Mgt of CD-ROM
SP286	Collab for Dist Learn Info Lit Instr	SP227	Org of Doc Coll & Svcs	SP168	Student Employment
SP285	Lib Svcs in Non-Library Spaces	SP226	TL 4: After the User Survey	SP167	Minority Recruitment
SP284	Security in Special Collections	SP225	Partnerships Program	SP166	Materials Budgets
SP283	Grant Coordination	SP224	Staff Training & Development	SP165	Cultural Diversity
SP282	Managing Electronic Resources	SP223	TL 3: Electronic Scholarly Pubn	SP164	Remote Storage
SP281	The Information Commons	SP222	Electronic Resource Sharing	SP163	Affirmative Action
SP280	Library User Surveys	SP221	Evol & Status of Approval Plans	SP162	Audiovisual Policies
SP279	Evaluating Library Instruction	SP220	Internet Training	SP161	Travel Policies
SP278	Library Patron Privacy	SP219	TL 2: Geographic Info Systems	SP160	Preservation Org & Staff
SP277	Lib Pub Acc Workstation Auth	SP218	Info Technology Policies	SP159	Admin of Lib Computer Files
SP276	Recruitment and Retention	SP217	TL 1: Electronic Reserves	SP158	Strategic Plans
SP275	Laptop Computer Services	SP216	Role of Libs in Distance Ed	SP157	Fee-based Services
SP274	Data Mining & Warehousing	SP215	Reorg & Restructuring	SP156	Automating Authority Control
SP273	Chat Reference	SP214	Digit Tech for Preservation	SP155	Visiting Scholars / Access
SP272	Insuring & Valuing Res Lib Coll	SP213	Tech Svcs Workstations	SP154	Online Biblio Search
	Lib Systems Office Organization	SP212	Non-Librarian Professionals	SP153	Use of Mgt Statistics
SP270	Core Competencies	SP211	Library Systems Office Org	SP152	Brittle Books Program
SP269	Integrating Preserv Activities		Strategic Planning	SP151	Qualitative Collect Analysis
SP268	Reference Statistics	SP209	Library Photocopy Operations	SP150	Bldg Security & Personal Safety
SP267	User Authentication		Effective Library Signage	SP149	Electronic Mail
SP266	Staffing the Library Website		Org of Collection Develop	SP148	User Surveys
	Instructional Support Services		Faculty Organizations		Serials Control/Deselection
SP264	Extended Library Hours	SP205	User Surveys in ARL Libs	SP146	Lib Dev Fund Raising Capabilit
SP263	Numeric Data Services	SP204	Uses of Doc Delivery Svcs	SP145	Lib Publications Programs
SP262	Preservation & Digitization		Reference Svc Policies		Building Use Policies
	Post-Tenure Review		E-journals/Issues & Trends		Search Proced Sr LibAdmin
	Interview Process		E-journals/Pol & Proced		Remote Access Online Cats
	Fee-based Services		2001: A Space Reality		Approval Plans
	Corporate Annual Reports		Video Collect & Multimedia		Performance Appraisal
	MLS Hiring Requirement		Automating Preserv Mgt		Performance Eval: Ref Svcs
	Changing Roles of Lib Profs		Benefits/Professional Staff		University Copyright
	Branch Libs/Discrete Collectns		Quality Improve Programs		Preservation Guidelines
	Managing Printing Services		Co-op Strategies in Foreign Acqs		Managing Copy Cataloging
	Networked Info Services		Librarian Job Descriptions		Job Analysis
	Supprt Staff Classifictn Studies		Lib Develop & Fundraising		Planning Mgt Statistics
	Electronic Reference Service		Unpub Matls/Libs, Fair Use		Opt Disks: Storage & Access
	TL10: Educating Faculty		Prov Pub Svcs Remote User		Library-Scholar Communication
	Catalogng of Resrces Digitized		Chang Role of Book Repair		Coll Dev Organization
	Licensing of Electronic Prodcts		Liaison Svcs in ARL Libs		Retrospective Conversion
5P247	Management of Lib Security	5F188	Intern, Residency & Fellow	5P129	Organization Charts

SP128	Systems File Organization	SP085	Personnel Classification Sys	SP042	Resource Sharing
	Interlibrary Loan		Public Svcs Goals & Objectvs		Collection Assessment
	Automated Lib Systems		Approval Plans		Skills Training
	Tech Svcs Cost Studies		Document Delivery Systems		Remote Storage
	Barcoding of Collections		Services to the Disabled		Collection Dev Policies
	Microcomp Software Policies	SP080	Specialty Positions	SP037	Theft Detection & Prevent
	End-User Search Svcs		Internships/Job Exchanges	SP036	Allocation Materials Funds
SP121	Bibliographic Instruction		Recruitment-Selection	SP035	Preservation of Lib Materials
SP120	Exhibits	SP077	Use of Small Computers	SP034	Determin Indirect Cost Rate
SP119	Catalog Maintenance Online	SP076	Online Biblio Search Svcs	SP033	Intergrat Nonprint Media
SP118	Unionization	SP075	Staff Development		Prep, Present Lib Budget
SP117	Gifts & Exchange Function	SP074	Fees for Services	SP031	Allocation of Resources
SP116	Organizing for Preservation	SP073	External User Services	SP030	Support Staff, Student Assts
SP115	Photocopy Services	SP072	Executive Review	SP029	Systems Function
SP114	Binding Operations	SP071	User Surveys: Eval of Lib Svcs	SP028	Gifts & Exchange Function
SP113	Preservation Education	SP070	Preservation Procedures	SP027	Physical Access
SP112	Reorg of Tech and Pub Svcs	SP069	Prep Emergencies/Disasters	SP026	Bibliographic Access
SP111	Cooperative Collection Dev	SP068	AACR2 Implement Studies	SP025	User Statistics and Studies
SP110	Local Cataloging Policies	SP067	Affirm Action Programs	SP024	User Surveys
SP109	Staff Training for Automation	SP066	Planning Preserv of Lib Mat	SP023	Grievance Policies
SP108	Strategic Planning	SP065	Retrospective Conversion	SP022	Private Foundations
SP107	University Archives	SP064	Indirect Cost Rates	SP021	Paraprofessionals
SP106	Electronic Mail	SP063	Collective Bargaining	SP020	Managerial Technical Specialists
SP105	Nonbibliographic Dbases	SP062	Online Biblio Search Svcs	SP019	Staff Allocations
SP104	Microcomputers	SP061	Status of Librarians	SP018	Staff Development
SP103	Asst/Assoc Dir Position	SP060	Lib Materials Cost Studies	SP017	Library Instruction
SP102	Copyright Policies	SP059	Microform Collections	SP016	Reclassification
SP101	User Studies	SP058	Goals & Objectives	SP015	Goals & Objectives
SP100	Collection Security	SP057	Special Collections	SP014	Performance Review
SP099	Branch Libraries	SP056	External Communication	SP013	Planning Systems
SP098	Telecommunications	SP055	Internl Com/Staff & Super Role	SP012	Acquisition Policies
SP097	Building Renovation	SP054	Internal Com/Policies & Proced	SP011	Collection Development
SP096	Online Catalogs	SP053	Performance Appraisal	SP010	Leave Policies
SP095	Lib Materials Cost Studies	SP052	Cost Studies & Fiscal Plan		Tenure Policies
SP094	Fund Raising	SP051	Professional Development	SP008	Collective Bargaining
	User Instructions for Online Cats		Fringe Benefits	SP007	Personnel Class Schemes
SP092	Interlibrary Loan		Use of Annual Reports	SP006	Friends of the Lib Organizations
SP091	Student Assistants		External Fund Raising		Performance Review
	Integrated Lib Info Systems		Automated Cataloging		Affirmative Action
	Tech Svcs Cost Studies		Plan Future of Card Catalog		A Personnel Organization
	Corporate Use of Research Libs		Changing Role Personnel Officer		Status of Librarians
	Collect Descript/Assessment		Automated Acquisitions		Personnel Survey (flyer only)
SP086	Professional Development	SP043	Automated Circulation Sys	SP001	Organization Charts

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