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MLA-L at Twenty

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MLA-L at Twenty

Richard Griscom

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Abstract

MLA-L, the electronic-mail distribution list for music librarians, is now twenty years old. Before the establishment of the list in 1989, professional communication among music librarians was paper based and slow. The growth of computer networks in the early 1980s led to the development of applications to promote group communication, including LISTSERV, an e-mail distribution application released in 1986. With the help of Mary Papakhian, a member of the information technology staff at Indiana University, Ralph Papakhian established MLA-L as the first distribution list on the university's LISTSERV server. Growth of the list was rapid: by the end of 1995, there were over 1,000 subscribers, and since then the number has slowly increased to over 1,100. The topics of discussion on MLA-L cover all aspects of the profession, and the archives of messages posted to the list provide a rich resource for the study of the history of music librarianship.

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Introduction

A quick glance through issues of the *MLA Newsletter* from the late 1980s gives a good picture of how music librarians shared information with each other in the years before the Web, when even e-mail was

still a novelty. In those issues there was a regular column titled "Musical Queries," compiled by Karl Van Ausdahl. If you had a question you couldn't answer using the resources available in your library, you sent it to Van Ausdahl, and a few months later he published it in the column. Readers who could answer the question sent in replies, and Van Ausdahl published them in the next issue. In the March–April 1988 column, for example, we find:

> *Query #2:* Anna Seaborg (King County Library system, Seattle, WA) is looking for information on a French tango singer named Francis Cabrel. This singer was mentioned in the recent film "Broadcast News."[1]

Six months and two issues later, Van Ausdahl reports that Bonnie Jo Dopp had sent him copies of the French text of the song sung in the movie as well as publication information for the cassette it appeared on, but no reader had been able to supply biographical information on Cabrel.[2] In the following issue, though, the question is answered. We learn, thanks to Monique Lecavalier of the University of Montreal, that there is an entry for Cabrel in Pascal Sevran's *Dictionnaire de la chanson fran cais* (1988) and that the singer was born in Astaffort, France, in 1953.[3] The time that had elapsed between the posing and the answering of this question was nine months.

The end of the 1980s was a busy time for MLA and its members, and these issues of the newsletter include many brief announcements and requests as well as lengthy committee and chapter reports. There are announcements of future meetings, grant opportunities, and essay contests. Committee chairs ask colleagues to send copies of local copyright guidelines and collection-development policies so that they can be studied, analyzed, and reported on for the benefit of all. A librarian asks whether someone could supply a photocopy of a missing journal issue, while others offer runs of journals that are no longer needed. There are reports of newly acquired special collections, such as the Rudy Vallée Collection at the American Library of Radio and Television. The New England and California chapters announce the publication of guides to music collections in their regions. Ohio State University notes the arrival of a music librarian from China who will be completing an internship in the library. A few months after the 1988 annual meeting in Minneapolis, a lost-and-found column reports that "A silver-colored metal pin, about two inches in diameter and resembling a poppy, was found on the dance floor after the MLA banquet, Friday 12 February."[4]

By the early 1990s, most of these queries and announcements had disappeared from the pages of the *MLA Newsletter* and moved to a forum that had been announced by Ralph Papakhian in spring 1989:

> Indiana University is now hosting an electronic mail distribution service for the Music Library Association. Participants can mail messages to one address which will be distributed to all "subscribers." This distribution is limited to users of BITNET and the INTERNET. The "mailing list" is intended for communications relevant to MLA activities of general interest and to other matters of concern to the music library community at large. It is not intended for narrowly defined communications such as committee correspondence or local online systems users groups. For additional information contact the MLA Executive Secretary, A. Ralph Papakhian….[5]

The founding of the Music Library Association Mailing List (MLA-L) was a watershed moment in the history of music librarianship. For the majority of music librarians working today, MLA-L has been a central part of professional communication for most—if not all—of their careers. Nevertheless, it is easily taken for granted, since it rarely fails and there is nothing particularly remarkable about its technology. It is little more than an automated e-mail distribution list—the software simply takes a copy of an e-mail message and sends it to everyone who has subscribed to the list.

[1] *MLA Newsletter*, no. 72 (March–April 1988): 6.
[2] *MLA Newsletter*, no. 74 (September–October 1988): 4.
[3] *MLA Newsletter*, no. 75 (November–December 1988): 3.
[4] *MLA Newsletter*, no. 72 (March–April 1988): 10.
[5] *MLA Newsletter*, no. 76 (March–April 1989): 16.

The technology might be simple—even primitive by today's standards—but with the advent of MLA-L, communication within the profession changed fundamentally. Through a simple e-mail message, information could now be exchanged with hundreds of colleagues nearly instantaneously. A query about an obscure French singer that had taken over nine months to answer in the *Newsletter* could now be answered in hours—even minutes. And the owner of a poppy-shaped pin lost at the banquet could claim it within seconds.

In March 2009, twenty years will have passed since the first messages were distributed over MLA-L. On the occasion of this anniversary, I offer an account of MLA-L's founding and history.

Communication before MLA-L

Music librarians are specialists within the field of librarianship, and our numbers have always been relatively small. There are only 950 individual members of the Music Library Association, and roughly half that number assembles each year for the annual meeting. The typical music librarian works with a collection that is part of a larger college, university, or public library system. While a few large research libraries employ several music librarians, most of us work alone—or perhaps with one other colleague—in a modestly sized music library within a college or university library.

Remember (if you are of that age) or imagine (if you are not) life before the Internet. Most music librarians, working in isolation, had limited opportunities to engage with the larger community of music librarians.[6] For the formal communication of research and reports, there were the official publications of the association: *Notes*, the *Newsletter*, and the Technical Reports and Index and Bibliography series. For the informal and more immediate communication that is essential to our jobs—finding someone to supply a copy of the missing last page of a Sibelius symphony or to look up a work number in the Sammartini thematic catalog your library does not own—the options were few.

Until the mid-1980s, unless you resorted to the telephone—something that was done rarely because of the high cost of long-distance calls—you wrote letters. For example, when I began working in my first job at Northwestern University in 1981, I typed letters to Papakhian, Richard Smiraglia, and other music catalogers to ask for advice as I dealt with the problems I encountered in my work. I'd mail a letter, and a few weeks later, I'd receive a reply. Exchanging letters was the norm for both formal and informal professional communication.

The place for a freewheeling exchange of ideas was the annual meeting, the one time in the year for a music librarian to communicate easily and informally with a large number of colleagues—to be introduced to a librarian from Texas who shares an interest in Handel bibliography or to ask a cataloger from the Library of Congress why there is a hyphen in the subject heading “Double-bass music” but not “Bass clarinet music.”

Networking in the Late 1980s

BITNET and E-mail

By the late 1980s, electronic mail had become generally available in academia, but use was not widespread. As with all technologies, there were early adopters who took up the technology and explored its potential, but many years would pass before use became pervasive. The Internet was gaining critical mass as a number of independent research networks began interconnecting using the internet protocol suite developed for ARPAnet by the Defense Advanced Research Projects Agency,[7] but use of the network at that time was restricted primarily to the military and federally funded scientists.

[6] In 1991, Deborah Campana studied the written communication—both formal and informal—of music librarians in her article “Information Flow: Written Communication among Music Librarians,” *Notes*, 47, no. 3 (March 1991): 686–707.
[7] Robert H. Zakon, “Hobbes' Internet Timeline,” http://www.zakon.org/robert/internet/timeline, accessed 8 July 2008.

The prominent network for colleges and universities was BITNET (Because It's Time NETwork), a tree-structured chain of IBM mainframe computers that received and forwarded messages, files, and e-mail from one “node” to the next until they had reached their destinations. The first BITNET link was established between Yale University and the City University of New York in 1981, and the network quickly expanded to include a dozen east-coast universities. With the backing of a grant from IBM, the network continued to grow, and at its peak in 1989, BITNET connected about 500 institutions over 3,000 nodes.[8] It was a loosely organized network; joining BITNET required little more than a commitment to pay for a leased telephone line from your node the nearest node on the network and to allow a future connection to your node.[9]

When you sent e-mail over BITNET, you could follow your e-mail's passage across the network through on-screen messages that announced its arrival at each node on the path to its destination. When a node was down, the network attempted to find another path, but sometimes messages could be trapped for hours or days at an inactive node until the connection was restored.

Compared to the speed of today's Internet connections, the BITNET network was extraordinarily slow. The two lines connecting North America to Europe, for example, transferred data at a rate of 9,600 bytes per second. At this speed, it would have taken nearly two minutes to transfer one megabyte of data—the equivalent of about six seconds of CD-quality audio.

Discussion Groups

Usenet

The two major computer networks that emerged in the early 1980s, ARPAnet and BITNET, were accessible only to a select few in the early years when resources were scarce and expensive. As the networks grew, the demographics of network users diversified. Access was granted to researchers beyond the hard sciences, and eventually nonacademic professionals and the general public were stirred into the mix.

At most academic institutions, access to electronic mail and computer networks was available free of charge, and programmers were eager to create tools to make the most of these new technologies. One area of early development was group communication. Although e-mail made it possible to communicate with individuals, there were was no easy way to share information with groups of users.

The first widely used application for group information sharing was Usenet (also known as Netnews). Like many groundbreaking computer technologies, Usenet was developed by college students, in this case students at Duke University and the University of North Carolina, who wrote the program in 1979 to enhance network communication between the two campuses. Because the software was open and freely distributed, the Usenet network grew quickly during the early 1980s.

Usenet served as an electronic bulletin board for posting news and announcements. The postings were organized broadly by topic and then individually by “thread.” Eventually, tens of thousands of sites maintained Usenet feeds, read by millions of participants.[10] It was not necessary to subscribe to a Usenet group; by simply adding the group to your newsreader you had the ability to read and post at will without intervention by a moderator. Because the newsreader was a stand-alone application, the Usenet postings did not clutter e-mail inboxes. Because they were clustered into “threads,” it was possible to screen postings quickly and skip over topics that held no interest.

[8] David Alan Grier and Mary Campbell, “A Social History of Bitnet and LISTSERV, 1985–1991,” *IEEE Annals of the History of Computing* 22, no. 2 (April–June 2000): 40.
[9] Vijay Gurbaxani, “Diffusion in Computing Networks: The Case of BITNET,” *Communications of the ACM* 33, no. 12 (December 1990): 68. For more on the history of BITNET, see Grier and Campbell, “Social History,” and Zakon, “Hobbes' Internet Timeline.”
[10] Zane L. Berge, “Electronic Discussion Groups,” *Communication Education* 43 (April 1994): 104.

Usenet was open to participation by anyone, and for many years this policy worked well in practice. Because use was free and anonymous, though, Usenet became a prime target for abuse: the proliferation of inappropriate postings, advertisements, and illegal content eventually limited the utility of Usenet as a public forum. As of summer 2008, most major internet service providers had discontinued access to Usenet feeds.[11]

LISTSERV

The other major network application for group discussion was LISTSERV, developed in 1986 for use on the BITNET network. Like Usenet, LISTSERV was a student project. Eric Thomas, a graduate student studying computer science in Paris, recognized a need for an application to support group communication on BITNET and decided to write it himself.

The LISTSERV software automated the process of sending e-mail to a "list"—a collection of e-mail addresses—and made it possible for individuals to subscribe to the list without human intervention. Each list has a "listowner" with administrative privileges to add and delete subscribers manually and—if desired—to serve as a gatekeeper for e-mail posted to the list.

The first version of LISTSERV was written for mainframe computers running the IBM VM (Virtual Machine) operating system—used by most BITNET nodes—but eventually versions were released for other operating systems. By February 1989, forty-six sites were running LISTSERV servers, and over 130 discussion groups were up and running. Growth of LISTSERV was rapid: by fall 1991, two hundred LISTSERV servers were supporting three thousand discussion groups.[12] As of September 2008, there were 51,596 public lists hosted on 2,418 LISTSERV sites.[13]

The Founding of MLA-L

In February 1988, Papakhian was appointed executive secretary of the Music Library Association, and I was beginning a two-year term on the MLA board of directors as a member-at-large. We had stayed in touch after I graduated from the music librarianship program at Indiana University in 1981 and began my job as a music cataloger at Northwestern. Initially, there were the letters, but as e-mail became available on the IBM VM mainframes at Indiana and Northwestern, we began using this new technology, and by the time we were working on the board together, we were regular users of e-mail over BITNET.

The members of the MLA board of directors were interested in exploring the potential of e-mail technology for official communication, but they were affiliated with a variety of institutions, some of which did not yet offer access to e-mail. New commercial e-mail networks like Compuserve and MCIMail were options, but it was difficult at that time to send e-mail from one of these commercial networks to addresses on another network.

By the late 1980s, "relays" existed to allow e-mail to be sent from one network to another[14] (the original meaning of "internet" communication), but the addressing conventions were complicated. It was far from the seamless Internet we work with today. To simply matters, Papakhian recommended in 1988—his first year as executive secretary—that the board experiment with ALAnet, an independent e-mail service offered on a subscription basis by the American Library Association.[15] Each member of the board was assigned an ALAnet account, removing the need to route notes through relays from other networks.

[11] Sascha Segan, "R.I.P. Usenet: 1980–2008," *PC Magazine*, 31 July 2008, http://www.pcmag.com/article2/0,2817,2326848,00.asp, accessed 3 September 2008. In August 1993, a Usenet gateway was set up for MLA-L postings. At that time, several subscribers reported preferring to read MLA-L postings via a Usenet newsreader, but by the end of the 1990s, the MLA-L feed had become overrun by spam, and it was no longer a practical way to monitor the list.
[12] Grier and Campbell, "Social History," 35, 39.
[13] "CataList, the Official Catalog of LISTSERV Lists," http://www.lsoft.com/lists/listref.html, accessed 19 November 2008.
[14] Zakon, "Hobbes' Internet Timeline."
[15] "MLA Testing ALANET," *MLA Newsletter*, no. 74 (September–October 1988): 5.

Papakhian kept up with new developments in network technology, paying special attention to those that could benefit MLA and its members. LISTSERV was one of these. He learned of the program through his wife, Mary, who was an IBM VM systems operator for Indiana University Computing Services (IUCS). With Ralph's encouragement, Mary installed the LISTSERV software on the IBM 3090 mainframe computer she managed and set up MLA-L as the first list on the server. [16]

As soon as MLA-L had been configured and was live on the network, Papakhian added me as a co-listowner and set up the two of us, along with Lenore Coral (who had just finished her two-year term as president and was on the board as MLA past president), as the initial subscribers. The first notes on MLA-L were distributed among the three of us late in March 1989. These early notes were not archived, and copies apparently do not survive, but they were probably something along the lines of "This is a test." "Looks like it's working." "Yes."

Papakhian announced MLA-L in the March–April 1989 issue of the *MLA Newsletter*[17] and reported on the creation of the list at the June 1989 meeting of the board of directors in Louisville, Kentucky. Here is the account from the minutes of the meeting:

> As a test, Indiana University has installed LISTSERV for MLA. Currently, material submitted is distributed via e-mail to 96 recipients. Papakhian has received many favorable comments about this service; it displays considerable potential for facilitating data storage and distribution among large numbers of interested parties.[18]

It is interesting that the focus of the board's remarks—at least as reflected in the minutes—was not on the potential of MLA-L as a discussion forum for music librarians but as a tool to store and distribute files.

In summer 1989, Papakhian announced the creation of the list on "Netmonth," an electronic newsletter that promoted the use and development of BITNET:

> Indiana University is now hosting a mail distribution service for the Music Library Association on a trial basis. The name is MLA-L.
>
> We intend that the list be used for various activities of MLA that can benefit by wide-scale distribution (such as announcements of deadlines for NOTES and the Newsletter, news items, general inquiries about MLA activities, etc.). The list could also be used for reference inquiries, and other topics of interest to the music library community.
>
> The list will initially be limited to mail distribution. No archives will be maintained and no file/document server capability will be utilized (these additional features may be considered at a later time).[19]

In fact, automatic archiving of postings on MLA-L was not put in place until after the list had existed more than a year. Papakhian announced on 18 July 1990 that IUCS was implementing "mail logging."[20] The messages would be accumulated monthly, but because disk storage was expensive, there was no commitment to maintain an ongoing archive of messages. Papakhian wrote, "Because of disk space considerations, it is probable that the logs will be kept for only six months. With experience, we shall see how much disk space is consumed."

[16] Ralph Papakhian, e-mail to the author, 12 June 2008. As of 4 September 2008, Indiana's LISTSERV site hosted 278 public lists. See "LISTSERV Site Search," http://www.lsoft.com/lists/site_q.html, for statistical information on LISTSERV sites.
[17] See Papakhian's announcement of MLA-L above.
[18] Minutes of the meeting of the MLA board of directors, 2–4 June 1989, p. 3, as amended in the minutes of the meeting of 22–24 September 1989, p. 1.
[19] *NetMonth* 4, no. 1 (July/August 1989), http://nethistory.dumbentia.com/nm8907.html, accessed 19 November 2008.
[20] The coverage of the MLA-L archive actually extends back three months earlier, to 11 April 1990, because of personal archives of MLA-L postings Doug Anderson and I had maintained, which were uploaded to join the system-generated logs. (Ralph Papakhian, MLA-L posting, 4 September 1990).

Either the volume of messages was lower than expected or—more likely—the falling price of disk storage removed the need to delete older logs. In any case, none of the logs was deleted, and by April 1993 the increased volume of MLA-L messages actually led to an increase in frequency for the logs from monthly to weekly. The notes posted to MLA-L continue to be archived as they are posted and organized into weekly logs available through the Indiana University LISTSERV site.[21]

Following the successful start up of MLA-L, Papakhian created other lists on the LISTSERV server to support the work of various administrative groups within MLA: the board of directors (spring 1991),[22] roundtable coordinators (May 2000), chapter chairs (February 2002), and committee chairs (September 2005). Because these lists are used to conduct MLA business, they have remained private lists, and only current members of the administrative groups have been eligible to subscribe.

MLA-L Filelist and the MLA Clearinghouse

In his 18 July 1990 MLA-L posting, Papakhian also announced that file serving would be put in place for MLA-L during the summer of 1990. Today, when the Web makes it possible to download documents with the click of a mouse, it is easy to forget the utility of the fileserving capability of the LISTSERV software, but it was an appealing feature—one that apparently attracted the interest of the MLA board at its June 1989 meeting.

As the use of computers became commonplace during the 1980s, documents were routinely created and stored in digital form, and demand grew for tools to share these files over networks. In the days before the Web and e-mail attachments, when networks were slow and of limited capacity, there were few ways to distribute files electronically. One was FTP (File Transfer Protocol), which provided a real-time transfer from one computer to another over the Internet. Another was Gopher, a short-lived terminal-based, menu-driven technology developed in 1991 at the University of Minnesota (home of its namesake, the ‘Golden Gophers").[23]

The LISTSERV “filelist” service was command driven, and its advantage over these other technologies, oddly enough, was that it was not a real-time service. In an age when servers were unreliable and network paths were often clogged and slow, real-time transfers using FTP and Gopher were risky: servers could drop connections unexpectedly several minutes into a transfer, often requiring the process to be restarted. With the LISTSERV file server, a user sent a request for a file to LISTSERV, and the file was sent in an e-mail message (or for users of BITNET, the file was delivered directly to the user's inbox). The time required of the user was minimal, and there was no need to monitor the transfer of the file. Once the command had been sent, LISTSERV did the rest.

The first file Papakhian uploaded to the MLA-L filelist was the directory of e-mail addresses I had begun maintaining in 1987.[24] At that time, before the Web made it easy to track down contact information for colleagues, this directory of music librarians' e-mail addresses was among the most frequently downloaded files on the MLA-L filelist.

As executive secretary, Papakhian was responsible for distributing a number of documents on behalf of the association, and over time the MLA-L filelist evolved into the MLA Clearinghouse (MLAC), a repository of documents that users could request in electronic form. Papakhian announced the new service in January 1992:

[21] To read and search the archives of MLA-L from April 1990 to the present, see http://listserv.indiana.edu/archives/mla-l.html. A link to the archive is provided in the “Resources” area of the MLA Web site, http://www.musiclibraryassoc.org , both sites accessed 19 November 2008.

[22] In recognition of Papakhian's work in establishing MLA-L and facilitating the board's e-mail communication while serving as executive secretary, the Music Library Association board of directors honored him in 1992 with a Special Achievement Award, which “recognizes and commemorates your countless efforts to bring the Association into the electronic age of communications.” Letter from MLA President Don L. Roberts, quoted in the *MLA Newsletter*, no. 88 (March–April 1992): 3.

[23] An amusing bit of trivia from that era: “archie” and “veronica” were network-based tools developed to search the content of, respectively, FTP sites and Gopher sites.

[24] The compilation of the directory was announced in the *MLA Newsletter*, no. 68 (March–April 1987): 5.

> I want to announce the existence of the MLA CLEARINGHOUSE via the MLA-L FILELIST stored at IUBVM.[25] This clearinghouse is for information of relevance to music librarianship. With the approval of the MLA Board of Directors it should also be known that this CLEARINGHOUSE is my personal project and not related to the office of the MLA Executive Secretary.[26]

The note continues with a set of guidelines Papakhian developed for the Clearinghouse. In keeping with his philosophy of promoting the open, unmediated exchange of information among music librarians, Papakhian included a disclaimer in the guidelines: "Unless OTHERWISE stated, NO material distributed by the MLAC is (a) endorsed by the Music Library Association, (b) subject to editorial scrutiny, (c) subject to peer review."[27] As a service to those MLA members who did not yet have network access, Papakhian offered, for a nominal fee, to photocopy documents and send them through the mail.

The documents offered through the MLA Clearinghouse included official MLA publications (the text of the *MLA Newsletter*, the MLA Placement Service's "joblist," the *Directory of Library School Offerings in Music Librarianship*, and the texts of promotional brochures), MLA administrative documents (the constitution and bylaws, official calendar, administrative structure, handbook of policies and procedures, and annual reports), various cataloging resources and reference tools (including the Music Publishers Agency list), and network resources (the MLA e-mail directory and "The Cleveland FreeNet Music SIG list of lists").

By December 1994, access to the Web had become commonplace, and Papakhian migrated the content of the MLA Clearinghouse from the MLA-L filelist to a Web server hosted by the IU School of Music.[28] With the launch of the MLA website in April 1998,[29] the official MLA documents moved from the Clearinghouse to the official site. The other documents remain on the Clearinghouse site, but because new content is not added, the site now serves primarily as a historical repository.

Hardware and Software

When MLA-L was founded in 1989, the LISTSERV installation at Indiana University ran on an IBM 3090 computer, a high-end System/370 mainframe model first manufactured in 1985. The water-cooled central processors were about the size of refrigerators, and the external disk storage units resembled dishwashers, so a typical 3090 installation might be mistaken at first glance for the appliance aisle of a department store.[30]

In the early 1990s, academic computing centers began migrating from IBM mainframes like the 3090 to smaller—and more affordable—Digital VMS, Unix, and IBM Windows NT servers. Most computer departments brought the new servers up on the Internet, which offered greater speed than BITNET and communicated more easily across networks. Because IBM mainframes were the foundation of BITNET, the adoption of these cheaper Internet servers also led to the demise of BITNET after 1996.

The LISTSERV software, which ran only on the IBM VM operating system over the BITNET network, was tied to aging technologies that were quickly becoming obsolete. Eric Thomas decided to take his freely available software, adapt it to work with the new technologies, and turn it into a business. He founded L-Soft in 1993, and in March 1994 the company released a new IBM VM version of LISTSERV that was

[25] IUBVM was the name of the BITNET node at Indiana University that ran the LISTSERV software.
[26] Ralph Papakhian, MLA-L posting, 20 January 1992. A similar announcement was published in the *MLA Newsletter*, no. 88 (March–April 1992): 6.
[27] Ibid.
[28] Ralph Papakhian, MLA-L posting, 15 December 1994. The address of MLA Clearinghouse website is http://www.music.indiana.edu/tech_s/mla/index.htm.
[29] Music Library Association website, http://www.musiclibraryassoc.org, accessed 14 Sep. 2008.
[30] For a photo of the IBM 3090 and other historic IBM mainframes, see http://www-03.ibm.com/ibm/history/exhibits/mainframe/mainframe_album.html, accessed 11 July 2008.

compatible with Internet communication. A few months later, the company had produced versions of the software for the VMS and Unix operating systems, followed in 1995 by versions for Windows NT and Windows 95.[31]

By early 1994, IUCS had retired the IBM 3090 mainframe and had begun using an existing mid-range IBM 4381—a smaller System/370 mainframe—to run legacy VM applications like LISTSERV.[32] IUCS decided to purchase the commercial version of LISTSERV in January 1997[33] and migrated its LISTSERV installation from the IBM 4381 to a Windows NT server in March 1997.

The change from the VM to the Windows NT version of LISTSERV was transparent to MLA-L subscribers and could easily have passed without comment if it had not also brought with it a change to the e-mail address for MLA-L—from mla-l@iubvm.ucs.indiana.edu to mla-l@listserv.indiana.edu. Papakhian alerted MLA-L subscribers to the change in a note posted as soon as the new server was put into service on 28 March 1997. He also mentioned that the new commercial LISTSERV software offered a web interface that could be used to change subscription settings and search the list archives.[34]

The Windows server running LISTSERV has been upgraded several times since 1997. In 2000, the server had a 200MHz Pentium Pro microprocessor and 256 MB of memory. Today, an application that initially ran on a monolithic mainframe with bulky disc storage units is powered by a server with four CPUs and two gigabytes of memory that is three-and-a-half inches tall and could easily fit into a suitcase.[35]

Growth

After MLA-L was established in March 1989, growth was steady for the first five-and-a-half years. As new subscribers joined, Papakhian posted notes to MLA-L to herald the passing of each new hundred-subscriber mark. Judging from his comments, the speed and extent of the growth came as a surprise. He often commented in these notes on the civility of the participants—less surprising, perhaps, but given the tenor of discourse on many other discussion lists, it was noteworthy.

No formal statistics on the number of MLA-L subscribers have ever been maintained, and because past subscriber lists are not archived by the LISTSERV software, the only record that remains of the growth of MLA-L are these announcements by Papakhian to the list, early board reports, and the few subscriber lists that I have found in my personal e-mail archive.

The numbers from these sources are plotted in Figure 1, “Growth in number of subscribers to MLA-L”, which shows that the list grew by one hundred subscribers every six to eight months during the initial years. When the number reached one thousand in late 1994, growth plateaued, and the number fluctuated between 1,000 and 1,100 through April 2001, when Papakhian posted his last report on the number of subscribers. As of September 2008, the number of subscribers stood at 1,143.

Beginning in March 1992, Papakhian's updates also included information on the number of countries represented on the subscription list. This number grew steadily from nine in 1992 to thirty-one in 1997; as of September 2008 it stands at twenty-one. Table 1, “ Geographic distribution of MLA-L subscribers in September 2008.” shows the current geographic distribution of the list.

[31] L-Soft International, “History of LISTSERV,” http://www.lsoft.com/products/listserv-history.asp, accessed 14 March 2008.
[32] Mary Papkahian, e-mail message to Ralph Papakhian, 15 May 2008.
[33] Indiana University Computing Services, “Senior Management Meeting Summary,” 9 January 1997.
[34] Ralph Papakhian, MLA-L posting, 28 March 1997.
[35] According to Indiana University's LISTSERV manager, the LISTSERV software currently runs on a Hewlett Packard ProLiant DL380 server (Matt Dixon, e-mail to the author, 14 July 2008).

Figure 1. Growth in number of subscribers to MLA-L

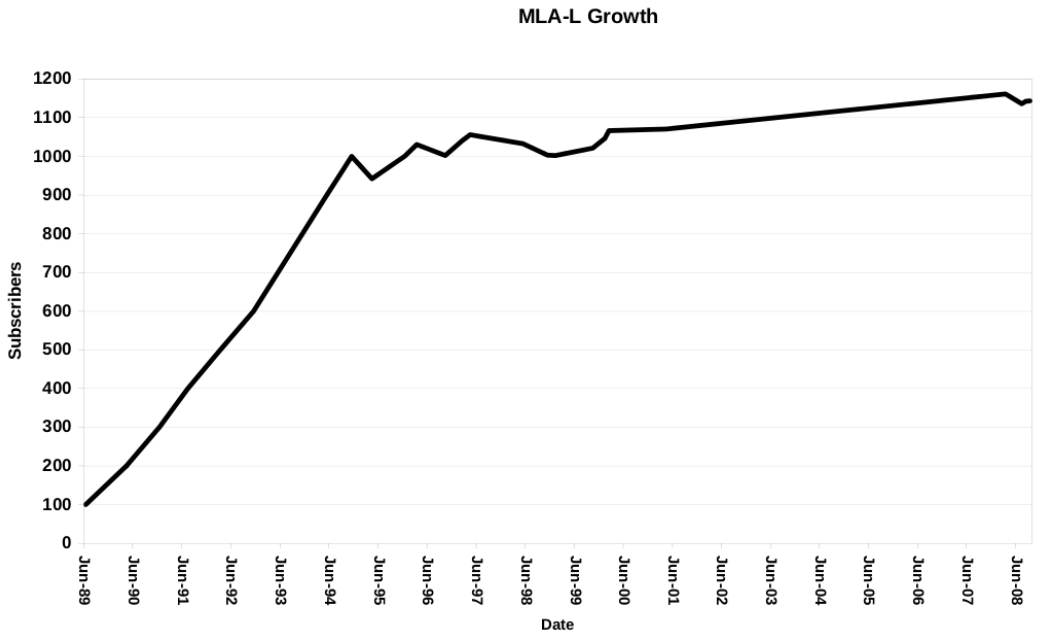

Table 1. Geographic distribution of MLA-L subscribers in September 2008.

Country	Number of Subscribers	Percentage
United States	1030	90.4%
Canada	56	4.9%
United Kingdom	13	1.1%
Australia	7	0.6%
South Africa	6	0.5%
Japan	4	0.4%
Germany	3	0.3%
Greece	3	0.3%
Sweden	3	0.3%
Italy	2	0.2%
Other (France, Hong Kong, Israel, Netherlands, New Zealand, Norway, Poland, Portugal, Singapore Taiwan)	10	0.9%
Unknown	3	0.3%

Participation

On the occasion of LISTSERV's tenth anniversary in 1996, Papakhian posted a note that included participation statistics he had gathered using a command available on the VM version of LISTSERV:

> While MLA-L is not 10 years old, I can report that the first MLA-L message was distributed on March 28, 1989. Since then, 17,931 messages have been distributed,

> averaging 6 per day. These messages have been sent by 2900 different addresses. I guess music librarians are verbose.[36]

Unfortunately, when LISTSERV moved to the Windows NT server, it was no longer possible to extract these statistics from the system. We can guess, though, based on the average number of postings reported in 1996, that during the twelve-and-a-half years since Papakhian sent this note, well over 30,000 messages have been posted, yielding a total of about 50,000 postings that have been distributed since the founding of the list.[37]

Over the past twenty years, as the subscriber base of MLA-L has grown, so has the number of messages posted to the list. Looking at the first twelve full months of archived postings (May 1990–April 1991), there were 1,160 messages posted (about three a day) by 276 different subscribers, so each contributing subscriber posted an average of four messages over the course of the year. We know from a note posted by Papakhian in December 1990 that the number of subscribers during this period passed the 300 mark,[38] so about 90 percent of the subscriber base posted at least one message to the list over the course of the year.

Looking at the statistics for a similar twelve-month period in 2007–8, we see something a bit different. From April 2007 through March 2008, there were 3,119 messages posted (almost nine a day) by 607 individual subscribers, so each participating subscriber posted an average of five notes over the course of the year—not much different from seventeen years earlier. The number of subscribers during this period, though, was about 1,100, so just a little over half (55 percent) of the subscribers contributed to the list.[39]

There is a likely reason for this decline in the participation rate among MLA-L subscribers . The early subscribers learned of the list through traditional MLA channels—the notice in the Newsletter, announcements made at meetings, casual exchanges between colleagues—so during the first few years, the MLA-L subscriber base was made up mostly of active, full-time music librarians. These subscribers could be expected to be engaged and frequent contributors to the list.

Over time, the subscriber base broadened to include paraprofessional staff, vendors, and general music enthusiasts. Many of these subscribers were interested in simply monitoring the list for current awareness and ended up participating infrequently, if at all. As MLA-L grew and the subscriber base became more diversified, the ratio of active contributors to passive subscribers naturally decreased.

Nonetheless, the participation rate of MLA-L subscribers has always been high compared to other lists. In 1997, Alejandra Rojo and Ronald G. Ragsdale surveyed 187 subscribers of eleven discussion lists to identify and measure patterns of participation.[40] In their survey, Rojo and Ragsdale discovered that most of their survey respondents (over 82 percent) had "never or seldom" contributed to the discussion list.[41] Most users who did contribute posted only a single message or at most a few; only a small group of users contributed more frequently.

Although discussion lists are designed to provide a forum for all subscribers to share and contribute, in reality, it is a fairly small group of subscribers who post while the rest are passive readers—a "few-to-many exchange pattern," as Rojo and Ragsdale describe it.[42] It is this small core of subscribers that sustains the list—whether they realize it or not—by keeping the content relevant and interesting, which in turn attracts and retains the passive subscribers.

[36] Ralph Papakhian, e-mail note posted to "LISTSERV List Owners' Forum," 23 October 1996.
[37] The MLA-L postings represent a small fraction of the activity on the Indiana University LISTSERV server. According to the LISTSERV manager, the installation hosts 7,482 lists (public and private) with 1,494,189 subscribers. During the past year (mid-July 2007–mid-July 2008), the server distributed 980,179 postings to 128,902,578 recipients (Matt Dixon, e-mail to the author, 14 July 2008).
[38] Ralph Papakhian, MLA-L posting, 3 December 1990.
[39] Since statistical utilities are not available on Indiana University's LISTSERV server, the statistics reported here were compiled by downloading the archived MLA-L notes from http://listserv.indiana.edu/archives/mla-l.html and running Unix search utilities against the logs to count the number of messages, extract the names of the contributors, and identify duplicate names. Further duplications were identified and deleted manually.
[40] Alejandra Rojo and Ronald G. Ragsdale, "A Process Perspective on Participation in Scholarly Electronic Forums." *Science Communication* 18, no. 4 (1997): 320–41.
[41] Ibid., 330, 336.
[42] Ibid., 338.

But why do subscribers post notes to MLA-L in the first place? After all, there is no built-in incentive to contribute, since every subscriber receives all of the content regardless of whether anything is contributed in return. A subscriber could read MLA-L for years without ever posting a note—and surely many have.

There are incentives to contributing to the list; otherwise, no subscriber would bother. Rojo and Ragsdale identified three modes of participation in the discussion groups they studied, and each is evident among the subscribers of MLA-L: those in "fishing for information mode" are interested in current awareness and typically do not post notes unless they have a specific question—or feel confident enough in their knowledge of a topic to answer a question. Subscribers in "enjoying debate mode" see the list as a forum for engaging colleagues in discourse and will often post provocative notes or play devil's advocate to pull others into the exchange. Finally, there are those in "social networking mode" who contribute to the list to meet other subscribers with similar interests and viewpoints, to keep in contact with their professional community, and to keep themselves visible among their colleagues. After all, as the authors put it, "If you do not contribute a message, you are not visible!"[43]

Moderating the List

Independence from MLA

Papakhian recognized the potential value of MLA-L as a way for the administration of MLA to get official announcements out to the membership quickly and easily. While this use alone was sufficient to make MLA-L worthwhile, Papakhian saw the role of the list as far broader. MLA-L should be a forum available to all music librarians to discuss any topic that might be of concern to the community. In order for MLA-L to succeed as an open forum, however, subscribers would need assurance that the list was indeed open and completely free of control by the professional association. Although Papakhian founded MLA-L during his term as executive secretary, he always made it clear that his responsibilities as listowner were not tied to his office, and that despite the name "Music Library Association Mailing List," the management of MLA-L was completely independent of the association.[44]

Over the past two decades, this arrangement has worked well for MLA and MLA-L. Judging from the board minutes, the independence of MLA-L has been of little concern to the administration of MLA. The list is available to the administration for the distribution of announcements, reports, and other official communications, but the association also remains free of any responsibility or liability for other content posted on MLA-L. And because the association exercises no control over the list, subscribers are more likely to engage in frank, open discourse.

Err on the Side of Openness

For a number of reasons, list managers may choose to serve as gatekeepers for the lists they manage, reviewing (and sometimes editing) notes before releasing them to the list for distribution to subscribers. Sometimes gatekeeping is done by choice and other times by necessity. In response to disruptive and inappropriate postings, a list manager may feel forced to begin moderating a list to keep it collegial and on topic. For particularly active lists, the manager may moderate the list as a convenience to readers, gathering together postings on the same topic and releasing them as a single note instead of half a dozen. Early in the history of LISTSERV, before the software provided spam filters, some listowners chose to moderate their lists simply to filter out the junk mail—some of which was generated by LISTSERV itself when it had trouble delivering messages.[45]

[43] Ibid., 322.

[44] This model stands in contrast to the mailing list of the American Musicological Society, for example, which is an official service of the society and is administered by its executive director.

[45] It was a barrage of LISTSERV-generated junk mail and not subscriber behavior that led the listowner of HUMANIST to begin moderating the list six months after it was founded. See Willard McCarty, "HUMANIST: Lessons from a Global Electronic Seminar," *Computers and the Humanities* 26 (1992): 210.

Because of his belief that MLA-L should remain an open forum where music librarians can share their ideas freely, Papakhian has always resisted the idea of moderating or censoring postings. Any screening of content, no matter how inclusive, is still censorship, and the review and release of each posting inhibits the spontaneity of the list by delaying the distribution of postings.

Disruptive Subscribers

A list that is unmoderated is open to abuse by disruptive subscribers. Postings that are disruptive to a mailing list generally fall into two categories. The first are those posted by legitimate subscribers who may have a genuine interest in the topic of the list but nonetheless cause discord by monopolizing discussions, posting inflammatory notes, or attacking other subscribers. In a 1999 article published in the web journal Slate, Austin Bunn described how disruptive behavior by single subscribers resulted in "spontaneous combustion" on a few academic lists in the 1990s. "Not all mailing lists go through it, and even the bad cases usually survive. But more often than not, a single person lights the fuse."[46] Although most lists survive internal conflict and disruptive subscribers, often a large number of subscribers lose their patience and abandon the list, never to return.

Fortunately, MLA-L has been relatively free of the kind of inappropriate and provocative postings that can be the downfall of even the best of lists. Because the majority of subscribers are known to each other, postings are usually collegial and respectful, and the group has been selfpolicing and quick to react to disruptive postings. When a subscriber begins doing damage, other subscribers have stepped in to set things right, and on only rare occasions have the listowners had to take action.

The second type of disruptive postings are the work of subscribers who have no interest in the content of the list and post notes promoting their own views or services, completely unrelated to music librarianship. While these postings are certainly more benign than virulent postings, they are still disruptive and annoying because they increase the level of noise on the list. Since MLA-L has always been open to subscription by anyone, this type of abuse has posed an ongoing challenge. An open list that is free of gatekeeping naturally runs the risk of exploitation by opportunists looking for an open forum to deliver their message.

One small barrier to spam has been the requirement that you must be a subscriber to MLA-L in order to post to the list. Spammers actually have had to go to the trouble of subscribing to the list in order to abuse it, and of course, some of them have done just that. Once their intent was clear, Papakhian would put an end to their postings by deleting the subscription and adding the e-mail address to a list of addresses filtered by the LISTSERV software. If the spammer chose to resubscribe, LISTSERV would block postings from the address.

Over time, spammers created tools that simplified the process of exploiting lists like MLA-L. In December 2005, a particularly wily spammer began posting messages to MLA-L by subscribing under a series of different e-mail addresses. As soon as he had subscribed under the latest address, he would post a note to the list. By the time Papakhian and I had deleted the address from the subscriber list—sometimes only a few hours after the posting—the address was no longer functioning. A few weeks or months later, the process was repeated with a new address.

When Papakhian initially configured MLA-L, anyone who subscribed could immediately post to the list without intervention from the listowners, and up to this point there had been little reason for the list to be configured otherwise. Papakhian and I exchanged notes about the ongoing problem in January 2007 and decided that unfortunately the time had come to review postings by each new subscriber before they were cleared to post without intervention. As soon as this new configuration was in place, the spammer disappeared. We assume he maintained a list of LISTSERV lists that allowed unmoderated posting by new subscribers, and as soon as MLA-L disappeared from that list, it no longer was of interest to him.

[46] Austin Bunn, "Molotovs and Mailing Lists," *Salon*, 3 March 1999, http://archive.salon.com/21st/feature/1999/03/03feature.html, accessed 6 June 2008.

Commercial Postings

MLA-L has served as an electronic bulletin board of sorts—a virtual space for subscribers to pin announcements, questions, requests for things needed, and offers of things not needed. And like a real bulletin board, it has been seen by some subscribers as a convenient place to post free advertising. Because the target market for music-library vendors is a small and well-defined group, most of whom subscribe to MLA-L, the temptation is great for vendors to post promotional notices to MLA-L, knowing they will land in the inboxes of likely customers quickly and without charge.

Vendors have always been eligible to subscribe to MLA-L. Many subscribe to keep abreast of the interests and needs of the customers they serve, and they simply monitor the postings. Other vendors have become active contributors to the list and often step in to provide help with reference questions posted to the list by librarians. Participation by these vendors has been of general benefit to all subscribers.

When a vendor's participation has moved into the area of promoting products and services, it has been more controversial. MLA-L was “intended for communications relevant to MLA activities of general interest and to other matters of concern to the music library community at large,”[47] and for many subscribers, providing support for commerce falls outside the proper scope of the list. Yet certain commercial postings can be seen as “matters of concern to the music-library community at large,” and it is sometimes unclear what actually constitutes an inappropriate commercial posting. A posting seen as a useful announcement by one subscriber may be decried as shameless commerce by another, and the dividing line between appropriate and inappropriate postings can quickly become blurred.

Often the difference between the acceptable and unacceptable lies in how the information is presented and who is presenting it. A posting from a known vendor that simply reports the publication of a new book of possible interest is usually perceived as a public service, while a splashy promotional announcement posted by the book's author would be considered self-serving and objectionable. Similarly, if someone asks whether a particular compact disc by the “Studio der frühe Musik” is in print, a vendor's response of “Yes, try looking under the spelling ‘frühen Musik”' will be viewed much differently from the reply, “Yes, and I can supply it for $9.95—that's two dollars less than my competitors.”

The first debate over commercial postings on MLA-L dates from the early 1991, and subscribers have taken up the topic several times since then. Four years ago, frequent postings by a vendor new to the music-library community prompted several subscribers to complain to the listowners, which led to this note from Papakhian in March 2005:

> The MLA-L list owners would like to propose a short discussion about commercial or semi-commercial postings on MLA-L. As you all know, MLA-L has never been moderated and the “owners” (Ralph Papakhian and Dick Griscom) have been reluctant to censor any sort of discussion. MLA-L, as a discussion forum, has been essentially self-policing, and the outcome has been positive by and large. There have been very few so-called “flame wars” and little in the way of “spam.”[48]

Papakhian then quoted from the statement of MLA-L's purpose and made the case for keeping the list open to commercial postings:

> In my view, “other topics of interest to the music library community” is very broad and would include announcements of new publications, information about how to obtain music in various formats, etc. This broad interpretation would suggest that commercial announcements (hopefully brief) would be acceptable posts to the list. And this interpretation also takes into account the delicate condition of the classical music industry, the rather small industry which makes music libraries possible. I don't think we

[47] See Papakhian's announcement of MLA-L above.
[48] Ralph Papakhian, MLA-L posting, 31 March 2005.

> are talking about corporate conglomerates inundating us with daily offers of the latest top 40 hits and the like. I also have assumed that at least some MLA-L subscribers have benefited from such announcements by finding about new publications and learning about avenues for purchase of such materials. Finally, I would note, that many of the vendors who have posted messages on MLA-L have also been supporters of MLA, both in terms of exhibiting at our conventions and donating resources to the organization.[49]

The purpose of the discussion was to determine whether there was "a strong consensus one way or the other."[50] In response to Papakhian's note, subscribers made it clear that vendors who are perceived as abusing the list will ultimately experience negative results: "As a subject selector myself, I find frequent inconsequential postings from Vendor A to be an excellent recommendation of the services of Vendors B–Z."[51] Several vendors replied that using MLA-L to advance their own commercial interests would be an abuse of a forum intended to promote communication among music librarians. (One vendor, in a call to me, said "he was happy to observe the discussion from the sidelines, terming himself the Chauncey Gardiner of MLA-L.")[52]

In the end, we decided to impose no restrictions on commercial postings. A central factor in the decision was the long history of unfettered, civil discourse on the list, and Papakhian and I wanted to build on that history rather than introduce new barriers. As I put it in my report on the discussion:

> MLA-L, which celebrated its sixteenth anniversary last month (b. 28 March 1989—now eligible for a driver's license), has always been an open and uncensored list. This approach has succeeded through the years because MLA-L subscribers for the most part have been civil and have exercised good judgment when posting notes to the list.
>
> Ralph and I have tried to avoid the business of serving as gatekeepers for the list, and we'd very much like it to stay that way. Central to the work of librarians are the concepts of lending, giving, and sharing, and I imagine it's no coincidence that these concepts have also shaped the discourse on MLA-L.

MLA-L through the Years

MLA-L Digest

In the early years of MLA-L, only a small fraction of the MLA membership had access to e-mail and was able to read and contribute to the list. Unlike today, when most people who do not use e-mail typically avoid it by choice, in the early 1990s there were many people who wanted e-mail whose institutions had not yet made it available. When they learned that music librarians were sharing information, ideas, and the occasional bad joke on MLA-L, members without e-mail felt as if there were a party going on and they had been left off the invitation list.[53]

In the interest of keeping the disenfranchised in the loop, the Information Sharing Subcommittee initiated "E-mail Digest," a column published in each issue of the *MLA Newsletter* over the course of the next twelve years, from the 1990 to 2002.[54]

[49] Ibid.
[50] Ibid.
[51] Stephen Luttmann, MLA-L posting, 31 March 2005.
[52] Richard Griscom, MLA-L posting, 14 April 2005.
[53] In a 1991 newsletter article, I described how members could participate in MLA-L by using private e-mail accounts set up on Compuserve and MCIMail (*MLA Newsletter*, no. 85 [May–June 1991]: 5). Some of the unconnected members were vocal about their plight at annual meetings, inspiring H. Steven Wright to write his opinion piece "But I Don't Have Access to E-Mail!" (*MLA Newsletter*, no. 92 [March/April 1993]: 3, 8), in which he describes the frustration experienced by the have-nots and offers sensible advice on setting up access to a personal e-mail account at home.
[54] Mark McKnight wrote the columns appearing in nos. 83 (November–December 1990)–97 (May/June 1994); Roger Olson, nos. 98 (September–October 1994)–108 (March–April 1997); and Stephen Mantz, nos. 109 (May–June 1997)–128 (March–April 2002).

Since one of the principal reasons for publishing "E-mail Digest" was to keep the unconnected informed, once e-mail access became commonplace, there seemed little reason to continue the column. Yet when Roger Olson raised the question of discontinuing the column in 1996, responses made it clear that even those who read MLA-L regularly "find the summary useful for highlighting specific postings, for placing discussions in perspective, and for providing reminders of points missed or forgotten."[55]

The column continued another six years. In 2002, Stephen Mantz concluded the series by writing, ". . . [A]s technology has become more ubiquitous, the number of librarians without e-mail has dwindled dramatically. Generally, those wishing to participate or eavesdrop on MLA-L are able to do so. . . . In short, the need for the 'E-mail Digest' has passed." By this time, the *MLA Newsletter* itself was available only in electronic form, so "we currently find ourselves in the ironic position of having a 'print' summary of a listserv appearing in a newsletter that is available only online."[56]

MLA-L Content

The MLA-L archives quite likely provide the only historical record of e-mail correspondence between music librarians. The archives are certainly the oldest and the largest repository, since very few—if any—of us have kept personal archives of e-mail extending back as far as 1990.[57] No richer resource exists for the study of issues in our profession over the past two decades. Practically everything of consequence to the profession and the work we do in our libraries has been the subject of a posting on MLA-L. A review of the forty-six "E-Mail Digest" columns reveals that postings to MLA-L typically fall into a number of broad categories.

Reference Questions

MLA-L has been the place to turn to when a music librarian is unable to answer a reference question or is stumped about where even to begin. The most common queries have been searches for songs and music on specific topics (the ocean, insects, libraries, Halloween) or honoring particular occasions or people (the end of World War II, the Columbus quincentennial, AIDS victims, mothers), the music performed during certain events (the sinking of the Titanic, the funeral of Princess Diana of Wales), and the history of individual songs (the "Kootchie" dance, "My Old Kentucky Home," "Greensleeves").

Other questions have been more mainstream: requests for help in locating a published edition of a particular work ("a Dussek piece listed in Hinson") or sources to answer various "I need a list of" questions (sibling performing teams, chamber operas, "trouser" roles, movies about music teachers, deaf composers, operas that include doctors, orchestra jobs in France, completions of Mahler's Tenth Symphony, buildings and monuments that memorialize musicians).

Some questions have appeared repeatedly through the years ("why is 'Pomp and Circumstance' performed at graduations?"; "where can I find reproductions of the paintings portrayed in *Pictures at an Exhibition*?"), and some questions are so unusual, it is no surprise that the poster resorted to MLA-L ("where can I find information on calliope builders?" or "who plays jazz on a conch shell?")

Cataloging

Some of the most extended discussions on MLA-L have been about cataloging,[58] which is not surprising. Because the catalog is the tool we rely on to locate materials in our collections, the decisions made by catalogers end up affecting all of us. Postings to MLA-L have covered all aspects of cataloging: the

[55] Roger Olson, "E-mail Digest," *MLA Newsletter*, no. 105 (May–June 1996): 7.
[56] Stephen Mantz, "E-mail Digest," *MLA Newsletter*, no. 128 (March–April 2002): 12–13.
[57] This is true of e-mail correspondence in most professions: "Only with the appearance of LISTSERV programs—programs that managed e-mail lists and distributed mass mailings—do we find systematic archives of electronic mail and a coherent picture of the early general user." Grier and Campbell, "Social History," 32.
[58] "E-mail Digest," *MLA Newsletter*, no. 112 (May–June 1998): 5.

description of materials (how to treat oddly shaped CDs, whether to include durations in content notes), the access provided to them (the choice of main entry for videorecordings of operas, how to construct the uniform title for a string nonet), their subject analysis (what heading to assign to a composition for comb and tissue paper, how to apply the "Scores" subdivision), their classification (how to organize non-Western sound recordings, when to use serial and opus numbers in call numbers), and encoding all of this data so computers can read it (which MARC field to use for the author of a song text, how to code the International Standard Music Number).

Catalogers have been posting questions to MLA-L since the founding of the list. At times the discussions have become so technical that subscribers—both catalogers and noncatalogers alike—have questioned whether MLA-L is the best forum for these topics. Yet an esoteric question can often lead to a broader discussion of more general interest. In 1997, for example, a subscriber questioned the Library of Congress's choice of uniform title for Steve Reich's "Music for 18 Musicians." The heading "Music, women's solo voices, instrumental ensemble (1979)" seemed nonsensical, the kind of uniform title that falls into the category of the "willfully bizarre."[59] The discussion of the Reich title drifted into an extended reflection on the history of uniform titles and their role in the catalog. By the end of the exchange, both catalogers and noncatalogers had a better understanding of the use and purpose of uniform titles and why adherence to rules is important. Some might believe that discussions like this are irrelevant to anyone but practicing catalogers, but most subscribers have seen value in at least keeping aware of the issues confronting their cataloging colleagues.

Although posting a cataloging query to MLA-L ensures it will reach most music catalogers, queries that touch on general cataloging policy are sometimes better answered by expert generalists on other distribution lists. Over the past decade, the frequency of MLA-L postings on cataloging issues has seemed to diminish slightly, perhaps because activity has shifted to lists devoted exclusively to cataloging, such as AUTOCAT (for general cataloging) and the MOUG-L list (for music catalogers). Another possible reason for the decrease is that the practice of music cataloging has evolved over this period. With greater emphasis now placed on shared cataloging, less time and effort is spent on the kind of original cataloging that generates questions of theory and practice.[60]

Practical Matters

As we work with printed music and sound recordings—the materials that distinguish our collections from general book collections—we all encounter problems in housing, circulating, and preserving our holdings. Because many of these practical matters are unique to music libraries, colleagues at our local institutions often can provide only limited help. Instead, we turn to our fellow music librarians to draw on a common base of experience.

Many of these questions have to do with shelving and protecting the various types of materials we collect: compact discs (how do we mark, shelve, secure, and repair them?), small and large scores (should they shelved with the other scores or segregated?), sound recordings that accompany printed materials (should they be shelved with the host items or added to the recording collection?), and unusual bindings (what is to be done with nuisance comb- and spiral-bound scores?)

Other topics have included gifts (how does one deal delicately with those calls that begin "I was just cleaning out my basement and"?), criteria for weeding collections (is the last circulation date really a reliable measure of use?), general security and theft issues (how can we keep headphones, compact discs, videocassettes, and styluses from disappearing?), and providing access to local sound recordings (what is the appropriate level of cataloging, and should we allow them to leave the building?). Another frequent question in the early years of the list had to do with sources for out-of-print books and compact discs, a problem that no longer exists now that the used book and compact disc trade is thriving on the Web.

[59] MLA-L postings, 15–20 January 1998. Reported in "E-mail Digest," *MLA Newsletter*, no. 112 (May–April 1998): 5.
[60] E-mail correspondence between the author and Ralph Papakhian (7 August 2008), Mark Scharff (19 August 2008), and Kerri Scannell Baunach (21 August 2008).

Technology

The advances in computer and networking technology that made MLA-L possible in the late 1980s also led to extraordinary changes in the services we were able to offer in our libraries. Librarians have turned to MLA-L whenever they have had questions about adapting to these changes—or have felt compelled to voice frustration over what technology has wrought. Through notes posted on MLA-L, we can trace our path as we coped with the fairly rapid transition from paper to digital resources in the 1990s and the introduction of new technologies like streaming audio and the DVD.

As popular resources like RILM, Music Index, and the New Grove Dictionary of Music and Musicians migrated from paper to electronic formats, two common themes emerged on MLA-L: dissatisfaction with the user interfaces and their search capabilities, and questions about whether to retain the print copy of the resources. There was also a period—fortunately brief—when reference tools were issued on CD-ROM, which left librarians puzzling over how to provide access to a growing collection of CD-ROMs through "jukeboxes" and networked towers that were never able to function well.

With the rise of the Web in the 1990s came calls to index and organize music-related sites. At that point, Yahoo and Google did not exist, and we learned of websites exclusively through printed materials, MLA-L postings, other websites, and word of mouth. Some subscribers suggested that MLA maintain a list of Web sites—the network-resource equivalent to A Basic Music Library—and Indiana University maintained such a site for several years.[61]

Ethics

Should music librarians add illegal fakebooks to collections? Should we boycott Vienna Philharmonic recordings because the orchestra refuses to hire female musicians? Should we deny a patron's ILL request because the score is in print and our patrons should bear some responsibility for the financial support of composers? Should we accept off-the-air tapes of Metropolitan Opera broadcasts? Should we be expected to purchase the performing editions that students need for their private instruction? Should we acquire the explicit versions of rap CDs?

Most of us want to do the right thing, and when the right thing is not obvious, we sound out our colleagues for their opinions. Some of these ethical questions have touched on unexpected and controversial topics, but MLA-L subscribers usually have been thoughtful in their responses. By the end of the exchange, the original poster may not be left with a clear answer, but with the various sides of the argument aired and clearly articulated, the poster is prepared to make a decision.

Copyright

One topic that is regularly revisited on MLA-L is the copyright law, an ongoing source of puzzlement, frustration, and misunderstanding for subscribers. Copyright questions are usually posted in response to patron requests and almost always concern reproduction: a patron wonders whether it is okay to photocopy music for her accompanist; another asks if it is all right to photocopy a piece that is known to be out of print; someone else needs a public-domain recording and wants to know if the usual copyright term limits apply to commercial recordings. (The answer was no in these cases.) Other questions are administrative: should a library reject gifts of taped copies of LPs or radio broadcasts? Is it legal to provide image scanners and tape duplicators in the library? Can I make digital preservation copies of my LPs and VHS tapes? (In these cases, the answer was yes.)[62]

[61] William and Gayle Cook Music Library, Indiana University School of Music, "Worldwide Internet Music Resources,"http://library.music.indiana.edu/music_resources, accessed 16 September 2008. According to the site, the content was last updated 6 June 1999, and access is no longer provided by a link on the library's home page.

[62] Many of these questions can now be answered by the site "Copyright for Music Librarians," http://www.musiclibraryassoc.org/copyright, accessed 20 September 2008, which has been maintained by the MLA Legislation Committee—in various forms with various URLs—since October 1996, when the original "Guide to Copyright for Music Librarians" was added to the MLA Clearinghouse.

MLA-L has also been a place for commentary on copyright legislation as it progresses into law. The passing of the Copyright Term Extension Act and the Digital Millennium Copyright Act in 1998 was an occasion for comment from publishers, librarians, and content creators. (Many librarians lamented that they would not see another work enter the public domain during their careers.) The case filed by the rock band Metallica against Napster and three universities in 2000 sparked an extended discussion of filesharing, copyright in the age of the Internet, and the case's effect on the future of music.

Circulation Policies

Music libraries have always been the home of special formats—sound recordings that require special equipment for playback and special care for conservation, and performing materials in multiple pieces intended for use by multiple performers. Each format poses particular challenges for circulation policies and procedures, and every music librarian must grapple with the questions of how—or whether—to circulate certain types of materials, and to whom.

The needs of every user community are different, and policies and procedures that work well for one institution might be disastrous if implemented at another, so most of the questions related to circulation policy posted to MLA-L are conceptual: how to set policies that protect collections, what to do when materials that are returned with markings, and the age-old question of how to get materials back from faculty.

When questions have dealt with specifics, they usually involve the complications of dealing with items that contain multiple pieces, be they sets of performing parts or recordings: Should the individual pieces be circulated separately from the whole? If one piece is missing, should the other pieces remain in circulation? If an item is returned without some pieces, should the borrower be charged for the entire item or just the pieces that are missing?

For sound recordings, local needs and use patterns play a large part in determining policy, but one interesting trend has emerged over the decades. During the LP era, most libraries set tight restrictions on use because of the fragility of the recordings. Many libraries, for example, limited use to the library and circulated LPs only to faculty for classroom use. When CDs were introduced, these existing policies were automatically applied to the new medium, possibly because the durability of compact discs had not yet been tested, but more likely because it was easier to apply an existing policy to the new format than to devise and implement a new one. Over time, as CD collections grew and LP collections were shuttled off to storage areas, many music librarians—either on their own or under pressure from users—reconsidered their circulation policies for compact discs and readjusted them to strike a better balance between protecting the collection and providing easy access to listeners.

Assisting Colleagues

Libraries occasionally receive materials that are not what they should be. Scores may contain blank pages or interloper pages from other publications. A compact disc labeled and packaged as a Brahms piano quartet may play Monteverdi madrigals when inserted into a player. When librarians encounter peculiarities like these, they post a note to MLA-L to confirm that other copies bear the same production error and to alert others who may not have noticed the problem. In this way MLA-L has been used as a public alert system to call attention to problems that will likely affect others.

Here are two examples. In 1992, dozens of libraries inexplicably received boxes of scores of music by Aaron Copland. After a few recipients puzzled over the gift in postings on MLA-L, the source was uncovered: Copland had specified in his will that scores of his works should be sent to the forty-five institutions that had honored him during his lifetime. In 1997, librarians began encountering compact discs that would no longer play because of “bronzing.” Several subscribers described the problem on MLA-L, and before long, others were able to list the specific labels and years of production that were affected, and what recourse librarians had for replacement.

MLA

The members of the board of directors of the Music Library Association make decisions that set the course for the organization, and they have often posted queries to MLA-L to sound out the membership on matters under consideration. Some topics that led to lengthy discussion on the list were the shift to an electronic-only format for the *MLA Newsletter*, the practice of the association selling its mailing list to vendors, the association's attempts to reach out to paraprofessionals, the decision to combine the positions of treasurer and executive secretary, and the role of roundtables in the association.

Sometimes individual members have brought up topics related to the association, and these exchanges can sometimes veer off in unexpected directions. In June 2008, a subscriber who had amassed a large number of conference tote bags during her career suggested the idea of reusing bags instead of collecting a new one each year. Responses to this note explored several possible solutions to the tote-bag problem: purchasing tote bags made of recycled materials, sponsoring a bag swap, and switching to another style of bag that could be more easily used as a grocery bag. Along the way, bag advocates and bag detractors weighed in. Seizing on the topic of MLA's carbon footprint and taking it in another direction, a subscriber then proposed that the association meet in cities with convenient train service, which incited a debate over the practicality and cost of train travel as an alternative to air travel. Eventually, an exchange that had begun with a proposal that conference tote bags be recycled ended with a suggestion that the association consider webcasting or teleconferencing as an alternative to face-to-face meetings.[63]

Future

Because technological innovations are increasingly short-lived, it is usually safe to predict their imminent demise, but one must be careful when considering the future of a technology that is over twenty years old. When Web technology gained currency in the mid-1990s, it would have been reasonable to expect the information sharing that occurred on MLA-L to migrate quickly to a Web-based forum, but that did not happen. Who would have thought that music librarians in 2008 would still be communicating primarily through an e-mail–based distribution list—a technology that has essentially remained unchanged since the early 1990s?

As each new network technology has emerged, the early adopters among us have taken it up and applied it to our professional communication. Conference organizers, regional chapter officers, and individual librarians have set up blogs and wikis, yet in most cases these sites have been surprisingly underused. Facebook is the latest popular network technology whose capabilities extend far beyond simple text communication. The few dozen music librarians that have populated Facebook are busily friending colleagues and acquaintances, reading their minifeeds, and “poking” each other. Through social-networking platforms like blogs, wikis, and Facebook, music librarians can share images and sound files, create specialized interest groups, post links, and monitor the activities of colleagues. Most music librarians are familiar with these new technologies, and many of us have enthusiastically adopted them, yet none of them has replaced MLA-L.

MLA-L has survived because it is a simple and durable technology—like a rubber band. In March 2008, the New York Times published an article that considered the phenomenon of these older technologies that somehow manage to endure despite reasonable predictions of their demise. The radio, the movie theater, the mainframe computer, and the railroad are a few of these “survivor technologies,” each of which has one thing in common: “some enduring advantage in the old technology that is not entirely supplanted by the new.”[64]

The enduring advantage for MLA-L clearly has been its ability to get information out to a well-defined set of colleagues quickly and easily, and what has made that possible is electronic mail, the underlying

[63] MLA-L Archives, http://listserv.indiana.edu/archives/mla-l.html, 25 June–3 July 2008.
[64] Steve Lohr, “Why Old Technologies Are Still Kicking.” *New York Times*, 23 March 2008.

technology that drives it. E-mail is the single network technology that is a common denominator for all music librarians. Some of us may blog, some of us may IM, some of us may tweet, but all of us send and receive e-mail, if only as part of our job. E-mail is ubiquitous, easy to use, and fast, and these qualities have contributed to the longevity of lists like MLA-L. As Avi Hyman wrote in an article commemorating the twentieth anniversary of LISTSERV:

> ListServ has been the great equalizer, allowing all parties to speak in the same manner, regardless of their level of technology and bandwidth access.... Therefore, while the hyperbole continues to swirl around the web as an educational medium, it is reassuring to realize that the quiet e-mail message, magnified through the use of ListServ, continues to dominate academic discourse, staying the course after nearly 20 years of service.[65]

The future of MLA-L is clearly tied to the future of e-mail. Should e-mail disappear, MLA-L would likely disappear with it. E-mail, though, is itself a networking survivor technology, continuing to thrive even as its users have migrated from desktops to laptops to Blackberrys and iPhones.

E-mail has endured because it is based on yet another survivor technology: the written word—perhaps the ultimate survivor technology, having served us thousands of years. Sounds and images delivered on websites can be expressive, alluring, entertaining, and moving, but they are incapable of communicating with the efficiency, nuance, and precision of the written word.

Looking at the work of our association, the written word is what has lasted. The history of our profession resides in words—printed in the pages of *Notes* and the *Newsletter*; recorded in the minutes, reports, and papers housed in the MLA Archives; stored as bytes in the archives of MLA-L. If MLA-L does disappear, we can hope that its successor will allow us to continue to communicate openly and expeditiously through the written word, and that we will be able to tuck these words away in a safe place where those who follow may find them, read them, ponder over them (perhaps with occasional puzzlement and amusement), and gain a better understanding of just who we were and what we did.

[65] Avi Hyman, "Twenty Years of ListServ as an Academic Tool," *Internet and Higher Education* 6 (2003): 23.