Lights, Camera, Action: Down Beat!

The Media Task Force Final Report

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INTRODUCTION AND CHARGE

The Media Task Force was initiated March 29, 2005 by Robert Sewell, Associate University Librarian, with the following charge:

Media Task Force

Media materials are being used more extensively in teaching and research in such dispersed areas as film studies, anthropology, environmental studies, history, and language learning. The majority of the types of material being used in classroom settings and research are commercially available and include feature/fiction films, TV dramas and sitcoms, news broadcasts, documentary films, educational videos, and sound recordings (music and voice). Within the Rutgers University Libraries, these resources are located in the Media Center and Music Library in New Brunswick and in Newark's Media Center and Institute for Jazz Studies. There are also unique video and sound recordings in Special Collections and University Archives and in the Institute for Jazz Studies. In these two locations in particular, an important preservation effort related to moving image material is underway. Finally, Rutgers, like other universities, has begun to investigate if and how it should invest in and distribute entertainment media products for student use.

It is important for Libraries to determine what we think our involvement in media should be as we plan for the next five years. Before we can do this, we need to take an environmental scan of the media landscape: What's happening now at Rutgers and within Libraries? What are the identifiable needs for media at Rutgers? What are the possibilities within and beyond Rutgers for the acquisition and delivery of media? How should the Libraries partner with other operations within and outside of Rutgers?

In order to investigate these areas, the Media Task Force is being formed with the following charge:

1.) Assess the needs for media in teaching and research at the university.
2) Describe how the Libraries are currently delivering video and sound media and the Libraries' potential for delivering digital media.
3.) Investigate what discovery tools, access mechanism and level of integration of media resources are necessary.
4.) Define what the Libraries' role should be in collecting and delivering media in relation to RUTV, TEC and OIT (Office of Information Technology, formerly OIT).
5.) Identify the available commercial modes of delivering media, such as Napster, Cflix, and Sony, and recommend what role the Libraries might have in the delivery of these.
6.) Identify what commercial media collections, such as Films for the Humanities & Sciences, are available and recommend whether the Libraries should acquire them.
7.) Identify what national and international digital media projects, such as Project Gramophone, exist and recommend if the Libraries should be involved in them.
8.) Investigate NJEdge's initiatives in media delivery and determine if the Libraries' should partner with these initiatives.
The charge has proven to be comprehensive and led the task force in many disparate directions during its three meetings. We have attempted to focus in the most detail on the immediate digital future regarding presentation and playback of established collections and the building of future library collections.

For the purposes of this report, **Media** is defined as non-print media that exists in time, requiring special playback equipment or software. It does not include two dimensional still images or three dimensional works.
I. CURRENT MEDIA NEEDS

In a university environment, there are **three areas of need** for moving image and sound collections, services, and facilities:

- Acquisitions and access to secondary resources, generally commercial content produced in support of the academic programs, and to primary resources in special collections and university archives
- Provision of entertainment for the student population
- Production capabilities for faculty research, student assignments, and syllabus development, including the information and instructional services needs of the library

The first two needs require the same set of personnel skills and facilities. In the case of commercially acquired analog content, whether acquired for academic or entertainment use, user viewing requires an area dedicated to stations with the necessary playback equipment, or, for digital content, PCs with DVD/CD drives or Internet software players. Viewing stations either use earphones for sound or are enclosed to allow the use of speakers. Access staff must be able to page and checkout materials, maintain different formats, help users navigate software players, and troubleshoot playback equipment. A smaller number of staff must be able to purchase and maintain appropriate equipment, hardware, and software.

The third need requires new skills, and different types of hardware and software, especially servers. Unlike writing and speaking skills learned in the course of a typical education, authoring skills for moving images and sound are highly specialized. While news, educational, and training films have been produced throughout the history of motion pictures, in the past they required an audience large enough to justify the expense of production. Today, however, a mix-tape, for instance, is easily made for an audience of one, and is a frequent substitute for a written email, just as a "gallery" of still photos is. The breadth of specialized ways that multimedia authoring tools may be used for training, marketing, and everyday interpersonal communication is a result of increasingly user-friendly hardware and software. In the Rutgers University Libraries, short tutorials on such topics as “how to find e-reserves”: 
http://www.rul.rutgers.edu/rul/libs/robeson_lib/ereserve/er_ilink_video.html and “how to find a peer reviewed journal article”:
http://www.rci.rutgers.edu/~estec/tutorials/scholarly.htm, are already being made using screen capture software, which creates moving image files of PC activity. These tutorials make clear the similarities of traditional moving images to the internet environment: a stable screen with an image that moves up and down or sideways within the frame, and an audio component. There is also a major difference: movement is controlled by the viewer, and an interactive component is possible.

Because we use the Internet increasingly for communication, and because PC screen activity itself is a series of "moving images," albeit controlled by the user at the keyboard, the need to commandeer this aesthetic for our own communication uses is becoming more and more apparent. Students now grow up the passive recipients of all kinds of information gathered via moving images. As noted, the compilation of audio tracks, along with the compilation of still images in the online "photo album," is a common part of the communication arsenal of young people. In the future, moving image quotations will be integrated into formal communication with ease, just as Internet links are inserted into text now.

The uses of media in the Rutgers university environment are extensive. Last year in classrooms, over 13,000 students watched 3,000 titles in 250 courses. Non-print units (Music, Media Center, Dana) circulated and/or booked approximately 25,000 items. Instructors also placed 1,162 titles on reserve at Music, 140 at Media, and another 200 at Dana. The Libraries' Mediavision channel 20 (part of the RUTV Network) cable cast 115 titles for 28 courses. Faculty and graduate students also requested digitized video for conference presentations and other research uses. Considering that the library collections are not available to undergraduates for entertainment use (i.e., circulation), but must be viewed in-house, these circulations are considerable, especially compared to the significantly less total number of titles available, approximately 10,000 videos/DVDs, and 30,000 audio recordings. The lack of access for undergraduates to these items is an increasing concern, and one of the advantages of online access is its ready blending of academic and entertainment use.

Academic departments with the highest portion of use are the arts: Music, Dance, Theater, Fine arts, and Film studies, which is taught through the language and area studies departments at Rutgers. Other areas of heavy use for motion pictures are history, sociology, and cultural studies taught in departments such as Anthropology, History,
II. CURRENT RUTGERS SERVICES

II. A. LIBRARY SERVICES AND COLLECTIONS

II. A. 1. Moving image and sound collections

The Libraries' film, video, and DVD collections comprise over 10,000 titles. These collections are located in the Dana Library and the Institute for Jazz Studies on the Newark Campus, and in Special Collections and University Archives, the Art Library, the Music Library, and the Media Center in New Brunswick.

In New Brunswick, the largest collections in Music and Media are part of the Multimedia Services Unit, which also includes Presentation Services, providing fee based audio-visual support to the New Brunswick campuses. The 1,000 titles in the 16mm film collection in the Media Center recently underwent a preservation study, completed this year. Recommendations for the testing of the collections for vinegar syndrome, the devising of "Film projectionist notes," new shelving for storage of the reels flat (rather than on their side) has been implemented. The 2005 final report on that project indicates a small number of the reels have sufficient vinegar syndrome to require their being isolated.-

Regarding scope and size, the moving image collections are approximately 2/3 the average ARL (Association of Research Libraries) collection. In 2003, Rutgers ranked #71 in this area, compared with an overall ranking of 29th. -See attached December 30, 2003 memo "Increasing the Level of Funding for Moving Image Materials in the Libraries"

The audio collections in the New Brunswick Libraries comprise over 18,000 analog discs, over 10,000 digital discs, and approximately 300 tape cassettes. Additionally, there are several thousand reel-to-reel tapes mostly Rutgers faculty and student performances in the Music Library, but there will be no access to these until they can be assessed for digital preservation.

With the exception of material in the Institute for Jazz Studies, the vast majority of the Libraries' special collections audio and moving image materials are not cataloged and lack adequate storage facilities or a preservation plan. Special Collections and University
Archives is in the process of counting their moving image collections and assessing for preservation and digital access, in preparation for writing an NEH preservation grant in 2006. Audio collections remain outside this effort, but include important areas in need of attention, including the reel to reel tapes described in the previous paragraph and transcription disks of radio and other local performances. University Archives is the recipient of large amounts of moving image materials intended for news broadcasts and produced by departments in connection with RUTV, now Academic Video Services (see below for descriptions). Many of these currently arrive with personnel lists and database indexes describing them.

II. A. 2. Access through the Booking Service

Faculty and graduate students on all campuses use the Sirsi Booking service, which allows them to request media items for delivery on a specific date to six pickup locations in New Brunswick (Art, Alexander, Chang, LSM, Media, and Music) as well as Robeson/Camden and Dana/Newark. Materials are shipped via UPS (United Parcel Service) among the three major campuses. Within New Brunswick, items are delivered Monday - Friday via the Multimedia Services automobile, driven by a part-time student worker.

Collections at the Dana Library (Newark), the Media Center, the Art Library, and the Music Library are booked for all campus users via the Media Materials - Booking Form. Bookings are processed using the Booking Module of the Libraries' Sirsi system; end user booking is proposed in SIRSI but not yet implemented.

Booking response and travel time among the various campuses, particularly across the state, from Newark to Camden and back, is a continuing source of problems and concerns for users.

II. A. 3. Circulation, reserves, and onsite viewing

Non-print units at Music, Media, and Dana circulated and/or booked approximately 25,000 items last year. Instructors also placed over 1,500 titles on reserve and/or in online digital reserves.

In the Dana Library, onsite viewing is provided in four group rooms and several individual carrels, which accommodate use of video cassettes, audio cassettes, CDs, and
DVDs via the Crestron distribution system.

New Brunswick units circulate video cassettes, DVDs, audio cassettes and CDs using the Sirsi circulation modules. The small collection at the Art Library does not circulate, but must be viewed in the library, where there is one viewing station. Faculty and graduate student users can walk up to the Music Media desk at Douglass and the Media Center desk at Kilmer and check out most media items. Undergraduates must view and/or listen on site. Onsite viewing and listening at Music Media is done by circulating the item for use in a playback machine; at the Media Center, tapes and DVDs are piped into twelve group and individual viewing stations via a customized switcher.

II. A. 4. Digital reserves

Multimedia Services in New Brunswick also provides a pilot digital service for streaming course reserves. Faculty may request that any audio item be digitized; portions of video are also eligible for streaming. Audio streaming is done by the Music Media staff using Cdex freeware and RealProducer, the files are then sent by ftp to the Systems department for serving. A small number of streaming video requests have also been accomplished using a Matrox/Adobe Premiere workstation at the Media Center. An Osprey workstation is also available for the creation of streaming video files. In 2003, this service was considered for system-wide implementation, but the required resources were not available at the time. Technical efficiencies inaugurated since, along with staff changes, indicate this successful service should once again be assessed to the end of making it a system-wide service.

II. A. 5. Mediasvision cable television channels in New Brunswick

Since Fall 2002, when the Libraries implemented RUTV cable channel 20, there have been twenty cable cast slots per week available to instructors to place a title they are using in a class. Because RUTV is scheduled viewing, and also primarily available in student dormitories, its utility for any particular course, which typically includes significant numbers of commuter students, is limited. Slots have generally been filled by supplemental showings of material presented in the classroom and/or available on reserve (on demand). At breaks and other times, slots have been filled with special programming for student entertainment around African Americans Month, Women's History Month, and National Library Week.
II. B. DISCOVERY TOOLS

II. B. 1. Cataloging and Indexing

With the important exception of special collections materials (Special Collections and University Archives, and of the Institute of Jazz Studies), all moving image and sound recordings in the Libraries are cataloged. Another exception is a static collection of spoken word recordings, housed in the Douglass Library.

However, most all moving image and sound related items are inadequately represented in catalogs because:

1) Their many layers of different authorship, from original score/script to live performance or filmed versions, to transcribed versions of a specific final product, are rarely recorded in detail.

2) Their relatively recent mass marketing in cassette, CD, and DVD formats. Moving image and sound reproductions before this era were accessible to a very small audience, frequently stored outside the library, and therefore largely uncataloged. In the case of video and DVD reissues of existing motion picture works, the original date of the work is recorded (if at all) in a "general note" in preference to the date of the reissue, making precise access to the original work difficult.

3) Catalog access is further complicated by the need to catch up with the entire history of motion picture and sound items. Along side this backlog is the labor involved in fully cataloging an item that lacks an index or table of contents, and that must be viewed in real-time.

4) The outmoded belief that "fictional" material -- like novels and fictional films – does not need subject access.

5) Cataloging records are inconsistent: some list all the tracks, some have synopses, others don't. "Faceted" access, providing additional information that is helpful to users, such as instruments used, or locations depicted is rare, but highly desirable from a user standpoint.

II. B. 2. Other finding aids

Lack of indexing and table of contents also makes browsing shelves significantly less effective than it can be for books. The most frequently used discovery tool is word of mouth and personal experience.
Second tier access to media items is provided by published discographies, filmographies, and videographies placed in the reference collections. These tools complement the catalog's primary function as access to local titles. At Rutgers, such print access tools are limited in their usefulness because of their placement in dispersed locations, such as Music, Alexander, and Art.

In the "Media Collections" Research Guide at Rutgers, there are eighty subject listings providing access to the Libraries' moving image collections located in the Media Center and Dana. While some discipline specific library guides, like "General Business" and "Women's Studies," incorporate links to video related sources, or the Rutgers media collections, most do not.

Integration of discovery and access
Ideally, catalog tools and access would be integrated, but the number of formats works against that. Some level of integration with the PC environment is essential and has been accomplished in the area of streaming reserves, for example, though reformatting (digitizing) presents a significant additional step in the provision of such access.

II. C. OTHER NON-PRINT LIBRARY SERVICES

Luna Imaging Project/Insight Software
Insight software, allowing the creation and manipulation of collections of still images, also includes an audio and video component. Short files can be placed there and accessed through a Quicktime Player after downloading. Features like advanced Boolean searching, and the ability of users to create slide shows with arrangements of image comparisons and image annotation, are not straightforwardly applied to moving images files, but do present potential. Use of Insight software is considered a digital project and proposals are encouraged from any university unit. They are reviewed by the Libraries' Digital Repository Review Committee. From the user standpoint, Insight is not significantly different than the Digital Reserves pilot service, which makes files accessible through the Sirsi Reserve module, and utilizes RealPlayers.
http://lunaproject.rutgers.edu/supportdocumentation/

Presentation Services at the Media Center in New Brunswick offers duplication of non-copyrighted materials, including reformatting from analog to digital. Materials purchased for use in classrooms are routinely reformatted and placed in the collections. It is possible to digitize 16mm film in this unit. Moving image files of all kinds can be
created using the Media Center's Matrox/Adobe Premiere workstation, and an Osprey streaming file workstation. Editing is accomplished using Adobe Premiere. Faculty in need of this service for their research pay an at-cost fee, or may use the equipment to accomplish the work themselves. **Videotaping and equipment rental** for on campus events and conferences is provided for all Rutgers departments, for an at-cost fee.

http://www.rul.rutgers.edu/rul/libs/media/presentation_services.shtml

The **Dana Digital Media Lab** in Newark offers several PCs (3 Windows PCs and 1 Mac) with a selection of software for digital audio and digital video editing, encoding, and compression. One computer workstation is set up for analog to digital video conversion, and there is also equipment for analog video dubbing and editing.

**Videoconferencing** is available at the Scholarly Communication Center

http://www.scc.rutgers.edu/schome/facilities/facilities.htm, and in Room 10 of Kilmer Library (through the Media Center), both for an at-cost fee.

**II. D. Other Units Offering Media Related Services**

**OIT** (Office of Information Technology) has contracted this year (2005) with a digital media service provider called **Cdigix** to offer Rutgers students, faculty, and staff access to digital music and video. Two separate subscription-based services are available: Ctrax requires a monthly access fee (for an unlimited number of tethered downloads) plus a charge for each permanently downloaded song track; Cflix also charges a monthly fee as well as an additional viewing fee for each feature film or video. More information is available at http://cdigix.rutgers.edu. Cdigix will also be offering a free trial of their "Clabs educational service," which will provide access to "Rutgers owned educational media to all appropriate users via the network," sometime in the near future.

**OIRT** (Office of Instructional and Research Technology) [http://oirt.rutgers.edu/](http://oirt.rutgers.edu/). Bob Gerdes, their Project Manager, and Tom Grzelak, the Associate Director for Research Technology, are investigating streaming video technology for this unit. They would like to experiment with **Vbrick** technology in connection with the Internet2 **Research Channel** [http://www.researchchannel.org/](http://www.researchchannel.org/) to multicast streaming video. They are also interested in providing cable television service via the web, as is done at the University of Wisconsin.
The Learning Centers provide "Multimedia Course Support" by working with faculty to make faculty owned media items available to students. http://rlc.rutgers.edu/support.htm.

CAT, the Center for the Advancement of Teaching, offers a video-taping service for teachers who want to improve their performance. http://cat.rutgers.edu/.

Aside from its cable cast network, RUTV in New Brunswick offers videotaping and streaming of course reviews by professors. http://rutv.rutgers.edu/tutorials.shtml. They also have an "Online Video Archive" of miscellaneous Rutgers materials: http://rutv.rutgers.edu/online.shtml. RUTV has organized a group to program their entertainment movie channel, which works from a contract with Swank distribution. They also have an "Acquired Program Subcommittee," with participation from the Libraries. While they have purchased a small amount of commercial material for use on RUTV stations, there has not been a focused effort to build commercial collections of material. Instead, they primarily depend on the Libraries for the content they need. Nonetheless, this committee, last year led by Jeanne Boyle and now led by Jane Sloan, from the Libraries, initiated a survey of RU users of moving image materials in the classroom, which could be adapted to survey library users. See Appendices.

Digital Media Lab offers generic multimedia support for image and video manipulation: http://rucs-nbp.rutgers.edu/services/instruction/services-dml.php.

Continuous Education and Outreach supports Rutgers Online http://rutgersonline.net/, including an Interactive Video Classroom. They are focused on distance learning and do not offer general services to individuals. A sub-unit there, the Rutgers Academic Video Services, offers full scale video production, including a television studio, videotaping of lectures, conferences, and special events at your location, documentary field production, design and scripting services, satellite uplink services, output to DVD or videotape, duplication services, AVID Non-Linear Video Editing, graphics for TV and Multimedia. It also plans to offer courses in video editing (FinalCut Pro) to students. All of these are fee-based services; however, the unit is in a state of transition and very interested in working more with the academic community. Peter Troost, their Manager of Technical Operations, says there are a number of past productions, including televised lectures such as a series on bio-terrorism produced for Cook College, that would be ideal RU-TV viewing. At this writing, the finished tapes are given to the department that pays for them, and are eventually deposited in University Archives. A method for increasing the timely transfer of these materials to the Libraries would increase their usefulness considerably.
Camden Computing Services http://iis.camden.rutgers.edu/ and Newark Computing Services, http://www.ncs.rutgers.edu/streaming_media.html offer a RealPlayer server for assistance to faculty wanting to create streaming files. Creation of the files is the responsibility of the faculty member, and they are given an account and login to upload.

III. MEDIA RELATED SERVICES OUTSIDE RUTGERS

III. A. CONSORTIA

NJEdge http://www.nedge.net. Brian Gately, Manager of Special Projects, has expressed interest in serving commercial video. He has met with the Libraries' cabinet and FMG on demand http://www.films.com/FMGOndemand.aspx. Aside from FMG, which provides access to users from their own server, NJEdge is interested in obtaining files from the many important video distributors that are not large enough to set up such a service themselves. -As part of their EATF (Educational Activities Task Force) George Laskaris, the director of NJEdge, has put together a Digital Video on Demand Subgroup to look at purchasing a video server for member institutions, and other issues around streaming video. Jane Sloan will be participating from the Libraries.

New Media Consortium http://www.nmc.net/. Rutgers is an institutional member of NMC. They offer annual conferences, organize collaborative grant projects, and provide publications and technical expertise. At this writing, the Libraries' have not taken advantage of this resource.

MIC (Moving Image Collections) http://mic.imtc.gatech.edu/ is a union catalog site of member records. Since it is partially based at Rutgers through its grant funding, it is capable of providing local expertise. Additionally, it provides a useful searchable database of private, corporate, and public moving image collections, and has the potential to provide a structure for cataloging enhancements. MIC also includes a comprehensive database of archival organizations that collect moving images beyond those represented in the union catalog.

ResearchChannel http://www.researchchannel.org/. Rutgers is an institutional member of this Internet2 site, composed entirely of streaming media. It has contributed three programs to the Video Library at

III.B. CURRENT COMMERCIAL SERVICES

Current Internet-based commercial digital music services provide users with access to huge catalogs on demand (typically over 1 million song tracks), dependable high-quality audio files (no decoys or bad files), clean organization of catalogs, and easy, reliable access. These services fall in two main categories: those that charge for each song track that is downloaded (e.g. Apple iTunes), and those that charge a monthly or annual subscription for unlimited tethered downloads (e.g. Napster) plus an additional fee for each permanently downloaded track.

The Cdigix Ctrax service available at Rutgers draws from the same catalog as the service offered by Yahoo Music Unlimited but is priced differently. Over a twelve-month period, students will pay Cdigix $36 while faculty and staff will pay $72. By comparison, the Yahoo service is $60 a year.

Current Internet-based commercial digital video services vary widely in their offerings and pricing schemes. MovieFlix ($7) and Starz Ticket ($13) charge a monthly subscription; Movielink has a pay-per-view fee that varies ($2 - $5) by the movie; and CinemaNow combines pay-per-view ($3 - $5) for some movies and a subscription (two levels: $10 or $30) for access to others. With its $6 monthly subscription plus a fee ($2 - $4) for each film, the Cdigix Cflix service at Rutgers has a different pricing model so the average annual cost is difficult to compare. Its library size falls between that of MovieLink (about 800 titles) and CinemaNow (about 5,000 titles) but the selection is tailored to the 18-24 year old student.

Services offering an inventory suitable to academic use are:

**FMG On Demand**
http://www.films.com/FMGOnDemand.aspx FilmsMediaGroup, formerly Films for the Humanities and Sciences. Contact has been made with this company to determine pricing. They are working with NJEdge and VALE for consortium access.
African American Song
http://www.alexanderstreetpress.com comprising the history of African American song, this file will be released in September. Annual pricing: starts at $995 for three simultaneous users, $600-$3000 for additional reference resources, consortial and network pricing on request. Access: streaming audio.

Classical Music Library
http://www.alexanderstreetpress.com includes selections from 32 commercial labels (ca. 30,000 tracks). The content is primarily classical. Annual pricing: starts at $995 for three simultaneous users; $4,995 for unlimited access for academic Libraries; consortial and network pricing on request. Access: streaming audio, individual downloads. Future developments: negotiations are underway with labels to sell their selections outright to libraries (one-time payments).

Database of Recorded American Music [DRAM]
http://dram.nyu.edu This wide-ranging collection of American music from New World Records and nine other labels is in development. Annual pricing: $1,900 for unlimited access. Access: streaming audio.

Naxos Music Library
http://www.naxosmusiclibrary.com includes the complete catalogs of Naxos, Marco Polo, and Da Capo labels, plus selections from others (over 85,000 tracks). Annual pricing: starts at $750 for five simultaneous users; consortial and network pricing on request. Access: streaming audio. Future developments: keyword search, individual logins, and individual downloads.

Smithsonian Global Sound

"In all of these services, faculty and librarians can set up folders or playlists as assignments: the pieces in the current week's unit, for instance, or all the pieces needed for an entire semester (just like a reserve list). Each track also has a static URL that may
be embedded in a web page or course management system.”

The Rutgers University Libraries currently subscribe to Naxos Music Library, and two professors in the Music Department have used the Naxos playlist feature to supplement streaming audio course reserves accessible through the Libraries website. At $750, Naxos, with its 85,000 tracks (and growing) is a much better value than Classical Music Library. Moreover, Naxos includes a growing world music and classic jazz repertoire. If Libraries were to subscribe to the other three services, they could provide course reserves for many subjects in addition to music: history, political science, English and American literature, women and gender studies, etc. For example, students studying Moby Dick could find in DRAM recordings of New England whaling songs from the time of Melville (personal information from Herman Krawitz, President of New World Records).

In addition to the commercially available streaming audio databases described above, there are at least a dozen commercial music download services. Pennsylvania State University currently has an agreement with one of these -- Napster -- allowing its students legally to download music files for a fee. The agreement was negotiated by Penn State's President -- not the Dean of the Penn State Libraries -- both as a service to the university's students and as a means to protect Penn State from possible litigation related to illegal music downloads. Only after the contract with Napster was negotiated did Penn State's Dean of Libraries ask the Music Librarian, Amanda Maple, to investigate the value of Napster's services for course reserves. She briefed faculty about the service, but because Napster provides access primarily to pop and rock music, the only teaching application was in one course on world music (personal information from Amanda Maple). Clearly, with the availability of both Naxos Music Library and Smithsonian Global Sound, even world music can be better served with commercial streaming audio databases.

IV. Task Force RECOMMENDATIONS

1. Improve base funding for moving image collections to the level recommended in Appendix II report below.

2. Create a central support team/unit providing computing expertise in audio visual digital media. This unit would support librarian and staff efforts in multimedia authoring for information and instructional projects, provide leadership in configuring workstations and servers, and contribute to collections projects involving digital archiving, preservation, and access. This unit would also actively participate in the New Media
3. Design and execute a survey instrument for all Rutgers instructors, which will assess the use of moving image and recorded sound library materials in the classroom. This can be based on the "RUTV Survey Draft" found in Appendix III.

4. Enhance existing non-print operations through:
   - Improved local catalog (IRIS) access.
   - Integrating video related Internet sites and Media Collections Lists into all appropriate Library Subject Guides.
   - Expanding and improving facilities for special collections of all non-print materials.
   - Following up on the special collection moving image preservation grant efforts with a similar focus on audio items.
   - Expanding the digital audio reserves pilot project.

5. Continue current digital media initiatives:
   - Continue close work with NJEdge in the area of media streaming.
   - In digital audio collecting, concentrate on subscriptions to streaming audio databases.
   - Leave negotiations about entertainment services to the university's administration, due to the legal complexities of download services and the limits of their application to teaching.
   - Have a library representative engage in the OIT initiated trial for "Clabs educational services," from Cdigix.

6. In the long run, perhaps as part of the Douglass 21 renovation, develop a "New Media Center" for users offering:
   - Digital video editing and authoring.
   - Help using digital media, and access to scanning and digital AV equipment.

NOTES

1. June 10 Sirsi report of all non-print format (av-kits, c-discs, cassettes, discs, dvd, v-disc, video) circulation for all library locations, plus manual circulation totals for the Media Center from RU Library Statistics page, http://www.scc.rutgers.edu/rul_stats/. This does not include bookings that were never charged.

2. Email to Chuck Hedrick, Director of NB Computing, forwarded by Jeanne Boyle,
Chuck,
As we have the Cdigix service and server on campus and have decided to extend the current entertainment services thru at least the end of the year, I would like to offer a free trial of the Clabs educational service to the Rutgers team. I know that in my initial Rutgers conversations, there was a great interest in the Clabs service in providing access to Rutgers owned educational media to all appropriate users via the network. I know that this was particularly appealing to members of the Camden campus library/media team. Please let me know a convenient time to schedule a call, and I would look forward to discussing this with you.

Mike Queen
Vice President, Sales & Marketing
Cdigix
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303 349-3499 (c)
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APPENDIX I

DEFINITIONS

**Media formats** are **analog**, meaning storage or transmission via continuous, varying signals, or **digital**, meaning storage or transmission by a set of discrete fixed points. The two types are incompatible with one another. Because digital formats are discrete steps, all digital conversion of analog material involves some kind of lossy compression, or loss of information between the steps. Digital signals themselves are more stable and do not suffer from noise or distortion, or loss in duplication, as analog formats do.

**Quality** in digital files has to do with **pixels or dots** (a single point in a picture image), which are represented in **bits** from one bit (simple black and white) to 32 bits (high-definition color). **Resolution**, or the ability of any particular format to reproduce clear detail, is expressed in dpi (dots per inch) or total number of pixels in the frame (640-by-480 resolution screen displays 640 dots on 480 lines, or about 300,000 pixels). After storage, transmission has another important quality indicator, **bandwidth**, which refers to the amount of data that can be transmitted in a fixed amount of time, and describes both digital circuits (in bits per second, bps) and analog circuits (in cycles per second, or hertz).

**Analog media** includes magnetic tape cassettes, and vinyl records. **Motion picture film** is a special combination of analog sound and series of discrete still photographic images, another type of media altogether. **NTSC** (National Television System Committee) **VHS** videocassette tapes are played on VCRs (videocassette recording and playback machines) **PAL** and **SECAM** VHS are standards used outside the United States and require special players or reformatting.

**Digital media** includes optical discs such as **CDs/compact discs**, **DVDs/digital video disks**, and digital video magnetic tape. CDs and DVDs are played in a personal computer or a DVD/CD player. Recordable or writable digital discs are a separate category, which is not addressed here. Related and often an integrated part of a format are **Codecs**, (compression/decompression or coder/decoder), technology for compressing and decompressing data that are then implemented in software, hardware, or a combination of both. Compression, that is, making files smaller, is essential to transmission over the Internet. In telecommunications, codecs refer to an actual device, which encodes or decodes a signal, in the process, compressing or decompressing. As software programming, Codecs
convert analog to digital and back. **MPEG-2** (cable quality) is one of the family of digital video compression standards and file formats developed by the Moving Picture Experts Group. DVD uses MPEG-2 to compress video data. Real Media and QuickTime are examples of other formats that are of lesser quality but provide internet players for streaming that are readily available. Flash technology will also accomplish the integration of video into web pages. All digital files are coded or decoded by special hardware or software. **MP3** is an audio version of MPEG-1.

All of these technologies have networked applications on the Internet, on radio and television, and on cable. Downloading and streaming of moving picture and sound files is of adequate quality only through an Internet2 site, such as Researchchannel.org. Within such an environment of streaming media on the Internet, Multicast distribution utilizes a password system and controls the number and identification of recipients. It must be scheduled, but produces a superior image during streaming. However, the number of items being multicast at any one time from any specific server will affect the quality. **Unicast** presents an on demand stream, specific to the user, who can control reception by starting and stopping. Vbrick technology provides a piece of equipment that takes an NTSC videocassette or DVD and converts it into MPEG2 full screen streaming video. A server manages these files for on-demand access or for scheduling. The serving environment regarding file space and number of concurrent users affects quality of transmission. **Luna Insight** software offers a complete environment for pass-word access and manipulation of previously digitized files of all types mounted on their server, though how exactly (or if) video files can be manipulated by the user is not clear.

These definitions were culled from:
http://www.webopedia.com/TERM/N/NTSC.htm
OR
http://www.thescratchpost.com/resources/fx/vfx_dict_d.shtml
APPENDIX II
[email December 30, 2003]
To: Robert Sewell
AUL for Collection Development

From: Jane Sloan
Media Librarian and Head, Multimedia Services
New Brunswick Libraries

Re: Increased level of funding for Moving Image Materials in the Libraries

This is to propose a higher level of collection support for the moving image [video and DVD] collections at Rutgers, particularly the Media Center in New Brunswick. Strategies suggested here are stable annual funding allocated from the central budget, purchase of both analog and digital file material in all subject areas, and one-time purchase of retrospective materials to fill in gaps. It is important that Rutgers Libraries own a wide, representative variety of the most important films and videos as a way to strengthen our academic offerings across the board. Curriculum needs at Rutgers indicate significant growth in this area, and use of this collection reflects not only the multi-disciplinarity of the academic programs at Rutgers, but the exceptional diversity of the students and faculty.

RATIONALE:

Compared to other Association of Research Libraries members, the number of Rutgers moving image titles runs well below the ARL median of 12,306. We rank 71st in this area, compared to a 2002 rank of 29 for our collections overall.

Moving image [video and DVD] materials are in increasing demand for two reasons – their importance to 20th century history as primary documents, and the facility with which they stimulate discussion of complex ideas and contexts. As the body of in depth work in this format grows, its usefulness in the classroom -- to clarify issues, make substantive points, and round-out material that is presented in lectures and readings -- also grows.

Strengthening this collection will allow access to increased information for students who are doing independent research for their undergraduate papers, or graduate theses or dissertations. It also guarantees that students will be able to see films if they miss class, or require a second viewing for purposes of exams and papers.

Purchase of digital files will prepare us for the Internet near future of full-screen display of this format. Rutgers has invested in LUNA imaging software, which will deliver quality video (.avi files) to the desktop.

We are also currently invested in cable channels dedicated to instruction. Collaboration with RU-TV dictates the acquisition of moving image materials that incorporate rights for cable cast, meaning prices are now higher, and retrospective purchase of rights must be funded.

Because there is no media collection in Camden, the Media Center serves users there just as those in New Brunswick. Digital delivery also poses this material as increasingly analogous to electronic resources. These factors indicate a central budget would be a significant positive factor for growth.
SUBJECT AREAS of retrospective funding:

1. Multi-disciplinary areas of high interest to Rutgers instructors. Many humanities and social sciences courses, particularly undergraduate ones, focus on race and ethnicity, globalization, education, family, environment, justice and human rights, sexuality and sex roles, cultural productions of all types, popular culture, and technology. Material that places these topics in political, social, historical, psychological, and philosophical context will be a priority.

2. Areas of highest interest: history, sociology, political science, anthropology, and all area studies.

3. Area of current non-print collection strength: women's studies.

4. Areas with the most significant gaps: environment, geography, performing arts, psychology

SELECTION PLAN:

1. Gather recommendations from faculty on all three campuses.
2. Work with specific academic distributors who are focused in above areas and will provide discounts for bulk orders and cable cast rights.
3. Purchase sets providing a discount
4. Work with smaller distributors for individual titles.
5. Negotiate to obtain cable cast rights and/or digital files as appropriate.

BUDGET: One-time: $60,000 – 300 titles or $120,000 for 800 titles (assuming increased discounts)
Annual base: $40,000
APPENDIX III
RU-TV Survey Draft

Introduction

The Rutgers University Television Network Advisory Council seeks your comment on the RU-TV moving image (videotape, DVD, laser disc) acquisition program. RU-TV maintains a collection of moving image programs and acquires additional programs each year. They are currently made available via the television network on the New Brunswick and Piscataway campuses. Your answers to this survey will help us redesign the program so it can better support teaching across the university.

Acquired Programming Subcommittee
Rutgers University Television Network Advisory Council

1. Have you used moving image materials in your instructional programs?
   - Yes   - No
   If yes, indicate media used: (check all that apply)
     ___ VHS
     ___ DVD
     ___ Film
     ___ Live

   If no, indicate why not and skip to question 7: (check all that apply)
     ___ never heard of Rutgers University moving image materials
     ___ am familiar with Rutgers University moving image materials, but have not found relevant media
     ___ use of Rutgers University moving image materials is not convenient
     ___ other, please explain:

2. How have you used Rutgers University moving image materials? (check all that apply)
   ___ in class
   ___ as a supplement to a course
   ___ other, please explain:

3. How many titles do you use during the typical semester?
   ___ 1-5
   ___ 6-10
   ___ 10 or more

4. How do you acquire those materials? (check all that apply)
   ___ personal purchase
   ___ departmental purchase
   ___ rental/lease
   ___ RU-TV
   ___ Rutgers University Libraries
   ___ other library(ies)
   ___ produce myself
   ___ other, please explain:
5. If you purchase or rent/lease, would you be interested in a cost-sharing program?
   ☑ Yes    ☑ No

6. Would you use more of these materials if they were easily available?
   ☑ Yes    ☑ No

7. What limitations do you currently see to using moving image materials? (check all that apply)
   ___ access to RU TV viewing
   ___ availability on the internet
   ___ appropriate materials not available at Rutgers
   ___ not aware whether materials exist or not
   ___ other, please explain:

8. What would you recommend to make Rutgers University moving image materials a better teaching resource? (check all that apply)
   ___ expand moving image collection
   ___ make scheduling easier
   ___ make viewing easier for students
   ___ make viewing easier for faculty
   ___ other, please explain:

9. Would it be useful to you and your students to have these moving image materials available for viewing over the Internet?
   ☑ Yes    ☑ No

10. Would it be useful to you and your students to have materials broadcast over the cable network available in: (check all that apply)
     ___ dormitories, student centers, libraries in New Brunswick/Piscataway
     ___ your classroom
     ___ other, please specify:

11. Have you had opportunities to view satellite delivered programming or conferences in the past year?
    ☑ Yes    ☑ No

    If yes, were they: (check all that apply)
    ___ academic support
    ___ professional development
    ___ other, please specify:

12. Have you developed your own material?
    ☑ Yes    ☑ No

13. Would you be interested in developing your own material?
    ☑ Yes    ☑ No

14. Campus affiliation ____________________

15. Departmental affiliation ____________________
The digital audio reserves project has been piloted for three semesters; aside from music and spoken word files from CDs and LPs, video files from tape and DVD also have been successfully digitized and placed on the web [see sample files at the IRIS Reserve Desk/Instructor: Sloan, Jane E/User name: sloanj/Password: musmed].

User need
- primary use to Music Faculty
- pilot included requests from departments like American Studies and Labor Relations
- special advantage for Rutgers Camden users, where the Robeson Library does not have a media collection or listening/viewing facilities

Current Resources and Duties
- Routine duties are management of requests, conversion and digitization of files, creation of SIRSI records, and communication with faculty. At the supervisor level, oversight, training, and technical development
- Pilot total for these activities averaged 15 hours per week of staff time
- Equipment: Dell Optiplex GX400 workstation, disk cleaners and playback equipment, Dell Precision 530 digital video workstation, RUL Systems server space

Additional resources needed to implement service across RUL
- one staff person to New Brunswick Multimedia Services for day to day aspects of the operation in New Brunswick. This line would free up the non-print collections supervisor for training and support of the Newark operation, for regular attention to hardware and software upgrades, for keeping up with new multimedia technology, and for participation in planning of new multimedia development.
- more dedicated server space and integration into the routine of the Systems Dept. regular upgrades of hardware and software with the goal of handling larger amounts of material with increasing speed and flexibility
- access problems for students must be addressed; currently RUCS labs are used

Digital Video
- Have technical capability, but issues below impede
- Conversion time for tape medium is real-time, and requires precise coordination with faculty, due to the absence of conveniently discrete “tracks” for capture and digitalizing.
- Server space for such files is significantly more than audio needs

J Sloan 1/28/03