

Introduction

The Center for Computer Research in Music and Acoustics (CCRMA) at Stanford is one of the world's most advanced facilities in the field of computer composition. It boasts an impressive, growing list of publications and award winning musical compositions. This creative output presently exists at CCRMA without bibliographic control. Since these materials represent significant research and technological advances, it is important that they be made accessible not only to Stanford, but to other academic communities as well. The following is a proposal for a pilot project to establish bibliographic control over the computer-generated sound recordings and publications which have been produced at CCRMA. It includes further details on the Center and on the logistics of the project (cataloguing concerns, required personnel, and a list of estimated costs).

Background

Stanford's Center for Computer Research in Music and Acoustics (CCRMA) is a facility dedicated to the exploration of the computer as a new musical and artistic medium. It emphasizes providing composers and researchers with access to the most advanced technology in order to enhance and assist their creative endeavors.

The Center attracts scholars from all over the world, and from such diverse fields as Music, Engineering, Mathematics, Medicine, Physics, and Computer Science. These people are interested not only in music composition but also in research on digital audio techniques, psychoacoustics, and signal processing.

The creative output of this community is innovative and unique, since CCRMA is presently at the front of the field of computer music. An impressive list of publications has appeared in technical journals, and numerous compositions realized at the facility have won international awards and acclaim. At the recent International Computer Music Conference, CCRMA members and affiliates gave a total of 13 papers, and had 7 of its compositions played. Many of the researchers and composers are funded by NEA and NSF grants, and the Center itself just received a \$2.6 million grant from the Systems Development Foundation to be used over period of 5 years.

In addition to being a research community, CCRMA is also a teaching community which offers its work to the public. Popular classes on computer composition are given during the year through the Stanford Music Department. A crowded summer workshop has to turn applicants away. Informal demonstrations are given monthly, and concerts draw more than 900 people to listen to the latest compositions. Members of the staff are often invited to give lectures and colloquia in the U.S. and abroad.

An exchange of personnel has been going on for several years between main computer music centers (particularly with Pierre Boulez' facility in Paris), and has resulted in exchanges of ideas and information. CCRMA has also served as a prototype for other Centers including Columbia, Colgate, Clark, Carnegie-Mellon, Michigan State, George Lucas' Marin facility, Queen's University, and the University of California at San Diego.

Objectives

Computer music as a compositional movement is beginning to gain momentum. Not surprisingly, CCRMA as one of the main proponents receives numerous requests for copies of its frequently-cited publications and particularly for sound tapes of the compositions. These requests come from the general public, other researchers and composers, radio stations, composition competitions, and various technical conferences.

Presently, the CCRMA resources exist as a loosely organized mass of materials with no bibliographic control. I volunteered to take a preliminary inventory and to gather all the materials in one place. The result is a pile of reprints, and several shelves full of sound recordings. A quick assessment places the count at approximately 50 computer-generated sound tapes of compositions realized at the Center (This does not represent all of the pieces, however. Some only exist on tapes in the possession of the composers). There are about 70 CCRMA publications, 120 magnetic tapes containing machine-readable data files, and 5 computer disk packs of computer-generated sound files. Approximately 70 sound recordings and 50 publications from other facilities are also housed at the Center.

Plans are currently being made for a more formal information exchange between computer music facilities. Implementation of these plans will mean an exponential increase in the number of tapes and publications at CCRMA in the coming years.

Clearly, some provision will have to be made to establish and maintain bibliographic control over these materials, since they represent significant research tools and technical advances in several disciplines. It is particularly essential that some bibliographic control be established immediately over the Stanford materials. Putting records into RLIN would make the information available to the Stanford campus and to the rest of the RLG community.

Proposal

Attempting to catalogue all of the materials presently at CCRMA is too large a project at this time. Therefore, first priority should be given to Stanford tapes and publications. This would be a pilot project. It is hoped that it will attract more permanent funding for its continuation. Successful conclusion of the project would enhance my ability to draft a strong proposal for a grant from the Systems Development Foundation which has already expressed an interest in the future of CCRMA. I have discussed this project with the Music Librarian who agrees that access to this portion of the Music Department's resources is extremely desirable.

The CCRMA publications would be given full standard cataloguing using the Library of Congress interpretations of AACR2 rules. Library of Congress subject headings will be used, and all records will be in accordance with the RLG standards required of member institutions.

Computer-generated sound tapes of compositions realized at the Center represent the most unique part of the CCRMA collection and have aroused the most outside interest. These would also receive full standard cataloguing. Due to the uniqueness of the materials, existing Library of Congress subject headings do not provide a level of specificity which would be useful to patrons interested in the field of computer music. Therefore, specialized headings providing information on digital and analog synthesizers and synthesis techniques will also be devised and entered as local access points. These will be built using the Library of Congress subject headings as a model.

Personnel

In order to accomplish this project a professional cataloguer and a Level II student assistant are required.

The cataloguer must have experience in music cataloguing and be familiar with AACR2 rules and MARC music formats. He will be expected to search the publications and sound recordings in RLIN and reconcile access point conflicts between the Music Library catalogues and RLIN or AACR2. He will then assign Library of Congress subject headings and classification numbers to the publications, and devise useful and consistent headings for the sound recordings. Finally, he will prepare worksheets with full MARC coding for the inputter.

The student assistant will input the records prepared by the cataloguer into the RLIN database. This will require some familiarity with music formats and experience with RLIN inputting.

As a member of the CCRMA community, I am naturally concerned that its output be accessible. Therefore, I would like to undertake this project. Since I did the preliminary inventory, I am familiar with the nature and content of the materials. I have an M.L.S. from U.C. Berkeley, have worked in Stanford's Music

Cataloguing Unit for several years, and am presently a Ph.D. candidate in the Stanford Music Department. I feel I am qualified and will be able to do a job which will meet university and RLC standards.

Costs

Computer-Generated Sound Recordings

Professional cataloguer at \$22,000/yr.	
50 Sound tapes at 2-3 hrs. apiece—ca. 125 hrs	\$1,375.00
Student assistant Level II	
Inputting 50 records at 20 min. each—17 hr. at \$4.85/hr	80.83
Materials for dubbing CCRMA compositions not yet on tape (high quality reels of tape, splicing materials, labels)	100.00
(No RLIN charge for full standard cataloguing)	00.00
Subtotal	\$1555.83

CCRMA Publications

Professional cataloguer at \$22,000/yr.	
70 Publications at 1-2 hrs apiece -- ca. 105 hrs	\$1,155.00
Student assistant level 2	
Inputting 70 records at 11 m. each--13 hr. at \$4.85/hr	62.24
(No RLIN charge for full standard cataloguing)	00.00
Subtotal	\$1217.24

Computer-generated sound recordings	\$1555.83
Publications	1217.24
Total	\$2773.07