Computing and Museums

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Presentation topics

• **Introduction to CS**
  • Jack Heller and the Museum Computer Network
  • Benevolent Computing and museum projects

• **The Jazz Loft Online Archive**
  • Fieldwork during a pandemic
  • Model project – MOAC and DAMD
  • Jazz Loft Database Schema
  • Wireflow
  • Digitizing assets
  • Media formats and resolutions
  • Prototype
  • “Virtual Visit” user interface
  • Capturing 3D data

• **Presentations**
  • Interactive panoramas of the Jazz Loft
  • Online archive
History: Jack Heller and the Museum Computer Network

In 1970, the chair of the CS department, Jack Heller, developed a digital archival system for the Metropolitan Museum of Art and the NY Public Library. At the heart of the system was the General Retrieval and Information Processor for Humanities Oriented Studies (GRIPHOS).
Prior Work: The Long Island Museum

Student teams from the Benevolent Computing class have developed interactive multimedia exhibits for the LIM, as well as wayfinding applications. Fieldwork is an important aspect of the development process.
Welcome to the Long Island Museum’s Movie Trivia Quiz!
Click the ticket window below and enjoy the show!
Long Island Museum Wayfinding
The Jazz Loft Online Archive

The Jazz Loft presents a number of interesting challenges because of the variety of assets in its collection. From documents and photographs, to recordings and objects, the design of the database has to accommodate many types of queries and displays. However, the pandemic has limited the amount of fieldwork students can do. Lectures were delivered from the Jazz Loft using Zoom.
Fieldwork during a pandemic
In 2000 the Institute of Museum and Library Services funded the development of a digital asset management database to be shared collaboratively by the MOAC partners, which included UC Berkely, the Oakland Museum, the Hearst Museum, the San Francisco Museum of Modern Art, and many other institutions. They chose FileMaker as the development toolkit. The software’s ease of use for administrators and its cross platform support was cited in the decision.
Database Schema

Collection/Artist

Description
Fields:
First
Last
Alias
Birth
Death
ID

Manuscripts
Fields:
Title
Box#
Folder#
Description
Album
Arranger
Composer
Style
Instrumentation
Musical Key
Tempo Class
Groove
Link to Score PDF

Instruments/Artifacts
Fields:
Name
Tag#
Description
Year
Link

Photos
Fields:
Name
Year
Box#
Description
Link

Recordings
Fields:
Name
Box#
Description
Album Name
Year
Record Label
Link

Miscellaneous Documents
Fields:
Name
Box#
Description
Year?
Link

File Naming Conventions:
Song: ScoreTitle_B#F#
Instruments/Artifacts: Description_T#
Photos: Description_B#
Recordings: Description_B#
Documents: Description_B#
Wireflow
Digitizing Assets
Multiple media types, formats, and resolutions

Documents (manuscripts, photos)
- 300 dpi for download (pdf files for scores, png files for photos)
- 72 dpi for display (photos)
- thumbnails for search results (photos)

Audio recordings
- 256 kbps mp3 files for archival purposes, 128 kbps for search results

Video recordings
- 1080p mp4 files for archival purposes, 720 X 480 for search results

3D data will be displayed as glb files

Binary data will not be stored in the database, but will be linked to search results

The directory structure for storing binary data will mirror the database schema
Database Prototype
Creating a “virtual visit” user interface
Capturing 3D data
References

The Museum Computer Network

Benevolent Computing
https://www.stonybrook.edu/magazine/2018-winter/computing-for-social-good

MOAC
https://archive.bampfa.berkeley.edu/media/MOACAnalysis.pdf

Jazz Loft Virtual Visit
https://www3.cs.stonybrook.edu/~tony/JazzLoft/jazzloft_VR/

Jazz Loft Online Archive
https://xsrv2.mm.cs.stonybrook.edu/fmi/webd/JazzLoft2021
Questions?

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