Introduction to Digital Libraries

UCT CSC400/403 – Final Exam – June 2005

This question is based on a project called the Contemporary African Music and Arts Archive (CAMA - http://www.cama.org.za/), based at UCT. The CAMA project aims to preserve multimedia information related to music and art in Africa, by creating digital versions of the art/music, their use/performance and supporting information. A brief account of the project – from their website – is attached. Read through this carefully and look through the online site.

Assume that you have been hired as a consultant on the project to design a replacement digital library system to what exists currently. Taking into account the principles and best practices of building digital libraries, write a technical proposal for the design of a software system (or systems) to meet the needs of the client(s), the curator(s) of the collection.

The specifications for the project can be ascertained from the attachment – do not discuss requirements or specifications. For your design, do note:
  ❖ There are multiple sites collecting data.
  ❖ Internet bandwidth is scarce so collecting, disseminating and accessing data is constrained. If the current architecture does not reflect this, appropriate changes should be recommended.
  ❖ There must be an online presence for browsing/searching though the archives, and all digital objects should be accessible through this interface.
  ❖ There must be support for adding/deleting/modifying items in the collection(s).

Clearly state any assumptions and include reasons for design decisions wherever applicable.

Your proposal should approximately follow the following structure:
  - Introduction (no more than 200 words)
  - Distributed System Architecture
  - Discovery and Access Services
  - Metadata Standards
  - Preservation Mechanisms
  - …
  - References
(include additional sections on major issues that you deem important to this project)

You may consult any reference materials (paper or online), but you MAY NOT discuss the problem with any individuals (that includes your classmates and especially persons associated with the project).

Format your proposal as 12pt Times Roman, 2.54cm margins, single-spacing. Your proposal must not exceed 2000 words and must not number more than 8 pages, including figures, tables and references. Include only references to documents you read on topics not covered in the DL course.

Submit a printed copy to the lecturer by 12 noon on the handin date for the exam (17 June 2005). No late handins or handwritten solutions will be accepted.
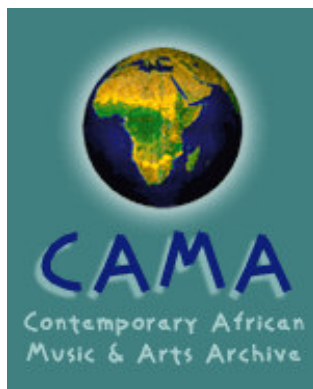
CAMA - Contemporary Music & Arts Archive

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About CAMA

CAMA (Contemporary African Music & Arts) Archive is a multi-media documentary initiative for African arts and culture, based in the Faculty of Science and Montebello Design Centre at the University of Cape Town, South Africa.

Since its inception in 1995, under directorship of its founder, John Turest-Swartz, CAMA has sought to develop a pan-African mass-accessible arts and culture archive, and through this, the means to acknowledge creativity in the arts in Africa on a continental scale.

CAMA is engaged in the ongoing development of tools and strategies in pursuit of its documentary and archival objectives in the promotion of knowledge about African culture. The CAMA Archive Project focuses on documenting and disseminating audio-visual materials about the lives and work of artists, musicians and others who create culture in Africa. Using ICT in an African context, CAMA also seeks to promote a broader knowledge of African culture through facilitating the documentation and dissemination of the wealth of materials from existing holdings within African cultural institutions.

CAMA developed a computer-based "context" focussing primarily on African music, art and ethnography. This development culminated in our largest initiative to date, the establishment of the Culture Africa Network Project - CAN.

CAN - CULTURE AFRICA NETWORK PROJECT

Funded by the Ford Foundation the pilot Culture Africa Network (CAN) Project enabled CAMA to establish documentary centres in seven countries across the African continent: Mali, Ghana, Sudan, Ethiopia, Kenya, Mozambique and South Africa. The project aim is to facilitate the local gathering and sharing of excellent digital documentary resources for education, research and the promotion of Africa's artistic heritage and its `culture-makers`. After initial site visits, these institutions were chosen as CAN project partners on the basis of their

interest in participating in a pan-African culture-sharing project of this nature, and their institutional capacity to host and staff a CAN documentary centre.

The digital resources being developed through this initiative, are intended both for the archival preservation of African cultural artefacts in their host countries, and to be shared between educational and cultural institutions throughout Africa. These include the documentation of living artists, musicians and their work, as well as art, music and ethnographic materials from existing holdings within several participating African museums and universities. Starting in September 1998, CAMA undertook the task of establishing CAN Centres - multi-media and digital video documentation studios and field recording units - in the following seven African countries:

Mali: The National Museums of Mali, Bamako

Ghana: The International Centre for African Music & Dance at the University of Ghana, Accra

Sudan: The Institute of African and Asian Studies, Traditional Music Archive, University of Khartoum.

Ethiopia: The Institute of Ethiopian Studies, Addis Ababa University

Kenya: Kuona Trust at The National Museums of Kenya, Nairobi

Mozambique: The National Cultural Archives (ARPAC), Maputo and The National Museum of Art, Maputo The National Company of Song & Dance, (CNCD) Maputo

South Africa: Contemporary African Music & Arts (CAMA) Archive, University of Cape Town.

Since the continental scale Culture Africa Network project is far larger in scale than its initiator, it has been agreed between the CAN centres that CAMA will host a separate website for Africa CAN, which will in due course also be linked to the web resources of participating institutions`.

The following are members of the CAN Project steering committee;

Prof J.H. Nketia (Chairman) Director, International Centre for African Music & Dance (ICAMD),University of Ghana, Legon, Ghana

John Turest-Swartz, Director, Contemporary African Music & Arts Archive, (CAMA) University of Cape Town, South Africa

Ali al Daw, Director, Traditional Music Archive, Institute of African and Asian Studies, University of Khartoum, Sudan

Dr Samuel Sidibe Director, National Museums of Mali, Mali