

SEMINAR NOTICE:

A User-Centered Design of a Personal Digital Library for Capturing and Organizing Musical Moments

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**Wednesday, November 23 at
11:45 a.m to 12:30pm
@ ADSC - Level 8,
Fusionopolis, Connexis North**

Abstract:

In this talk I will present the evaluation of a personal digital library environment designed to help musicians capture, enrich and store their ideas using a spatial hypermedia paradigm. The target user group is musicians who primarily use audio and text for composition and arrangement, rather than with formal music notation. Using the principle of user-centered design, the software implementation was guided by a diary study which suggested five requirements for the software to support: capturing, overdubbing, developing, storing, and organizing. Moreover, the underlying spatial data-model was exploited to give raw audio compositions a hierarchical structure, and---to aid musicians in retrieving previous ideas---a search facility is available to support both query by humming and text-based queries. A user evaluation of the completed design indicated that musicians, in general, would find the hypermedia environment useful for capturing and managing their moments of musical creativity and exploration. More specifically they would make use of the query by humming facility and the hierarchical track organization, but not the overdubbing facility as implemented.

Biosketch:

Personal Description

I received my Bachelors degree in Computer Science from the University of Edinburgh in 1991 (class medalist). For the following two years I worked in the area of CAD/CAM design as a research engineer for Thorn EMI (London). In 1993 I was awarded a Commonwealth scholarship to undertake a PhD at the University of Canterbury (NZ) to study the problem of optical music recognition. I joined the department at Waikato in 1996, completing my PhD part-time a year later.

Research Interests

Since moving to Waikato I have continued to broaden my interest in digital media, while retaining a particular emphasis on music. I am an active member of the [Greenstone Digital Library Project](#), recipient of the [Namur award](#) in 2004 for its IT development for humanitarian aid. Through this work I have collaborated with several United Nations Agencies, the BBC and various public libraries. Our digital music library system, [Meldex](#) illustrates some the ideas we are exploring in musical domain, including the ability to retrieve songs by humming part of the tune.

Other media I have experimented within a digital library context include oral history, historic primary source documents, and video (music) clips. In collaboration with Imperial Collage I am developing direct content methods for handling mixed media formats such as newspapers and film footage. I also work with University College London Interaction Centre (UCLIC) on HCI related topics. I have published in the areas of image processing, music information retrieval, digital libraries, human computer interactions, data compression, and text mining.