

A lightweight digital library framework

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Introduction

Digital Library System services and storage tools have evolved and become complex, effectively making them difficult to maintain, extend and reuse. This is a phenomenon common in environment with limited resources.

One proposed solution is the implementation of a lightweight Digital Library framework for simple online or offline digital archives. The proposed framework has been given the name *simplyCT* and forms the basis for this research.

Objectives

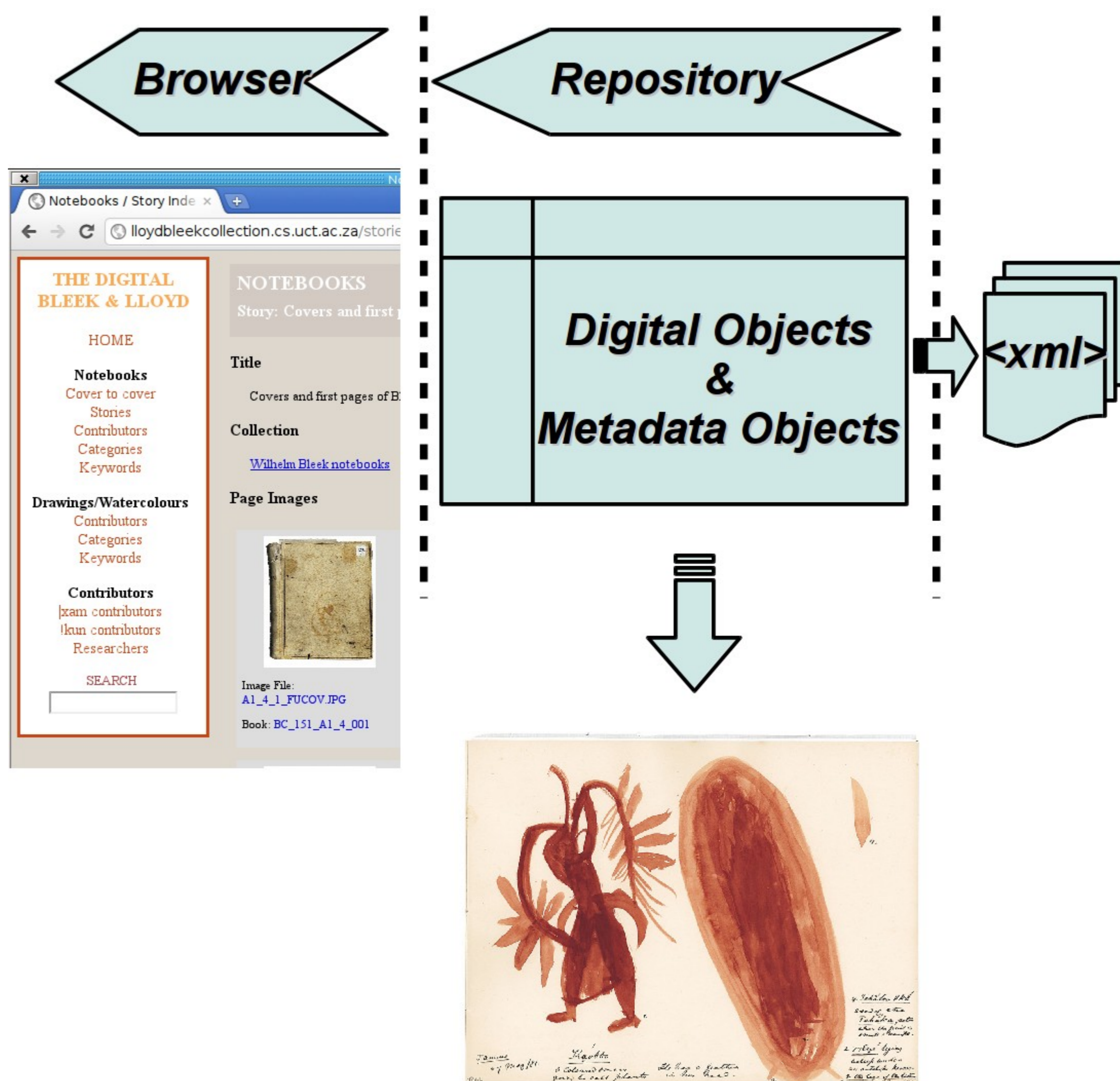
- To investigate the feasibility of implementing Digital Library Systems using simple architectures
- To define simplicity for Digital Library System storage and service architectures
- To compare simple architectures with complex architectures

Methodology

- A preliminary study involving implementing a rudimentary digital library collection prototype is currently in progress
- A theory derivation process will be aided by a case study of existing Digital Library Systems
- The *simplyCT* principles will be derived and a mapping done with results from the case study
- A proof of concept prototype Digital Library System will be implemented and integrated with various real world digital collections

Evaluation

- The overall research assessment will be based on a three axis evaluation strategy
- The *efficiency* will be evaluated using a series of controlled experiments
- The *effectiveness* will involved integration of the prototype Digital library system with real world collections
- The *usefulness* will be evaluated using user studies



Current work

- Digital Library static collection prototype
- Collection has a total of 19,745 images (~6.5GB)
- Dublin Core Application Profile has been created
- Uses qualified Dublin Core Metadata Specification
- Metadata objects linked using relation element
- Makes use of a hierarchical file store

Anticipated outcome

- A formal Definition of simplicity for Digital Library System design
- A proof of concept Digital Library System
- A comprehensive set of unifying concepts behind *simplyCT* framework

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