

# ETHOS

A National OAI and Digitisation  
Service for e-theses in the United  
Kingdom

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Open Repositories 2008

# E-theses

- Theses have distinct characteristics
  - They represent the intellectual record of institutional postgraduate activity
  - They contain rich research output
- And yet...
  - Access is limited
  - Preservation at risk from limited copies
- Make use of the digital creation of theses and the ability to digitise print theses
  - E-theses!

# E-theses and OAI

- Institutional repositories
  - Store, share and preserve e-theses
- Open access sharing through OAI-PMH harvesting
  - IR systems all enable use of this protocol
  - Increase awareness and use of theses on open access
- But...
  - Simply exposing the metadata (and/or content) doesn't mean it will be harvested or accessed
  - Sustainable OAI service providers are needed

# What is EThOS?



- EThOS feasibility study, 2005-6
  - JISC project to develop a pilot OAI service provider for e-theses
  - Also tasked with developing a financially viable and sustainable business model
- EThOSnet project, 2007-9
  - JISC project to develop a live service
- EThOS service
  - Due to be available from August 2008

# EThOSnet project



- A partnership between the British Library and UK HE, 2007-9
  - Imperial College (project lead)
  - University of Birmingham (advocacy)
  - Robert Gordon University (legal)
  - Cranfield University (toolkit – see next slide)
  - University of Hull (technical advice and planning)
  - British Library (EThOS hub)

# EThOS Toolkit



- Dual role
  - Advocate e-theses and how to implement the necessary procedures and technology
  - Establish a common process that allows an OAI service provider to work over the many varied institutional repositories providing e-theses
- Information provided by EThOS...
  - ...but also sought from the community
- <http://ethostoolkit.rgu.ac.uk/>
  - New, improved version on the way!

# Four steps

- Step1. Culture Change
- Step2. Business Requirements
- Step3. Technical Implementation
- Step4. Training & Development

# Step1. Culture Change

- Questions and issue to address
  - What are e-theses?
  - Who benefits from e-theses?
  - Acquiring content
  - What impact do they have?
  - Supporting literature



- Getting local e-theses off the ground
  - Business Case
  - Repository Options
  - Metadata
  - University Regulations
  - Service Level Agreement
  - Legal Issues

# Metadata

- Need for comprehensiveness combined with ease of collection and harvesting
  - Must suit repository software being used
- UKETD
  - Uses qualified Dublin Core
  - Core fields with optional additional elements
  - [http://ethostoolkit.rgu.ac.uk/?page\\_id=72](http://ethostoolkit.rgu.ac.uk/?page_id=72)
- EThOS harvester based on UKETD
  - UKETD also structured to enable content harvesting

# EThOS business model

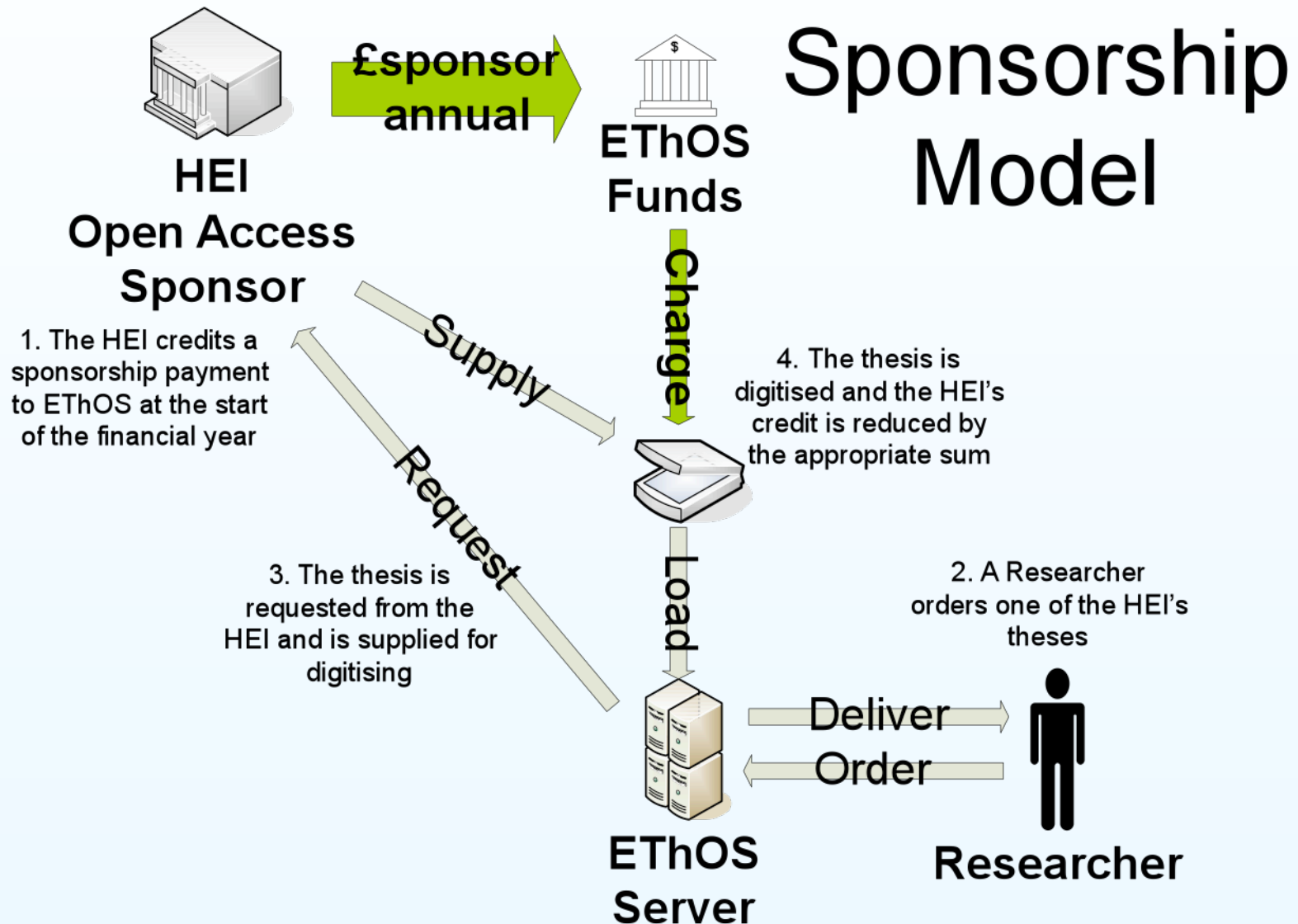


- The British Library, JISC and the HE community requires that EThOS be financially viable and sustainable
- Open access precludes charging for e-theses
  - A common OAI service provider dilemma
- Cost recovery income derived from
  - OA sponsorship by HEI thesis providers
    - Provision of additional services
    - Digitisation, preservation
  - Supply of additional hard copy versions of theses to individuals on request
    - Printed/CD/DVD

# EThOS options

- Business model is built on an open access basis, but not free access!
  - Institutions charged for digitisation
  - Researchers charged for additional added-value services
- This enables
  - Download for free
  - Harvesting for free
- Institutions can choose whether to make their e-theses available on open access

# EThOS business model



## Step 3. Technical Implementation

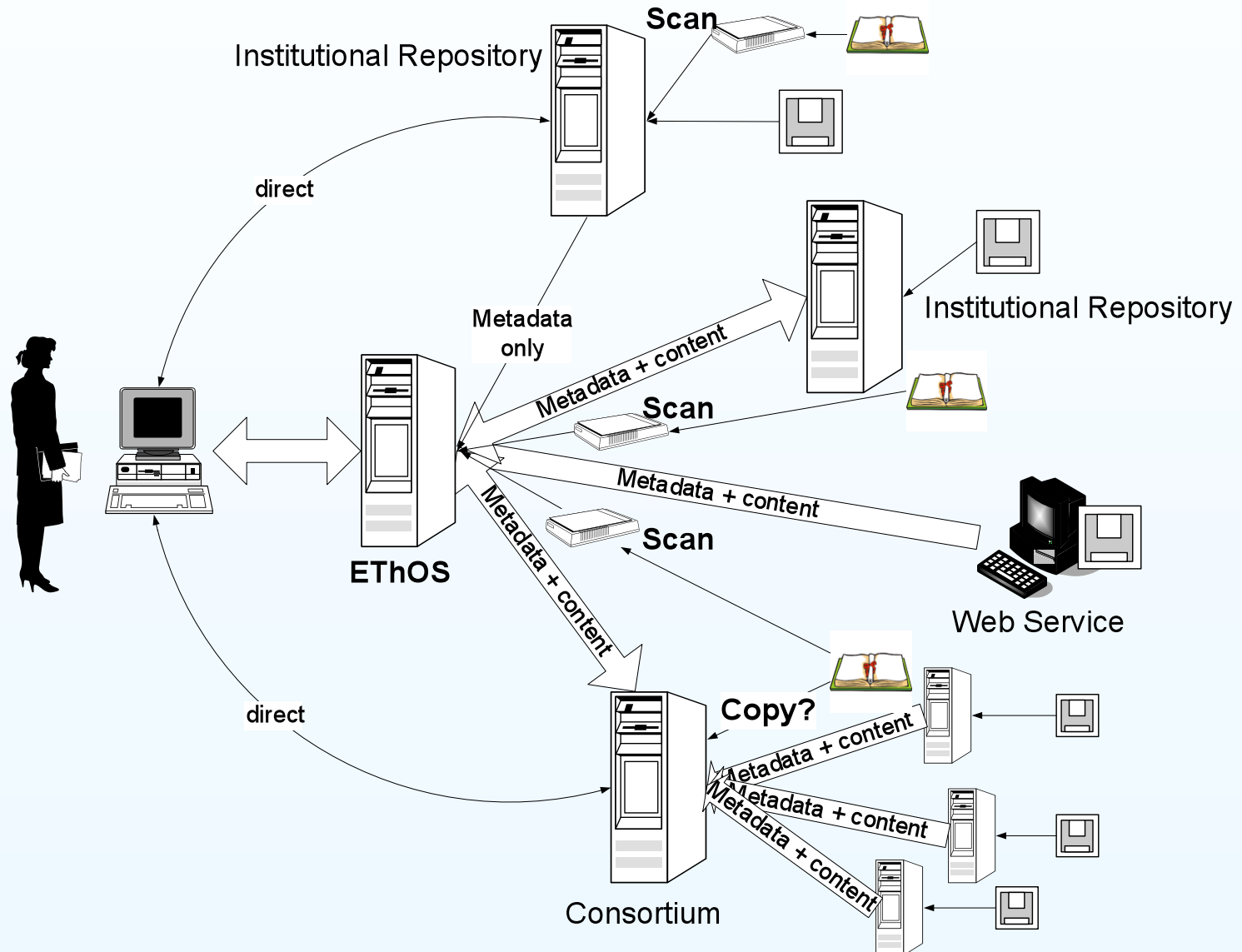
- Flexible approach to cover different circumstances
  - Institutional repository already exists
  - Institutions may share a repository
  - Institutional repository to be setup
  - Not feasible to setup institutional repository but wish to participate in a national scheme
    - Direct submission via web services submission tool
    - OAI-PMH model may be main means of aggregating metadata and content, but it is not the only way

# EThOS hub



- Based on a customised version of EPrints 2 for storing the e-theses
- Using the ARC harvester
- The user interface is derived from BLDirect
- Bespoke development for admin interface
- Bespoke development for web service submission tool
  
- Re-use and modification of existing software saved considerable time and money

# Technical architecture





# Technical futures 1

- Compound e-theses
  - EThOS can deal with multiple files, but not when packaged
    - OAI-ORE may assist here
- Identifiers
  - Key to persisting relationships across repositories

# Technical futures 2

- Data formats
  - Moving beyond PDF to multimedia e-theses
  - Implications for delivery and use
- Interfaces
  - Open up EThOS for re-harvesting
- Architecture
  - Re-visit to aid ongoing service enhancements and scalability

# Aggregate and deliver



## Step4. Training and Development

- Training
  - For Library and I.T. Services staff
  - For Academic staff / supervisors
  - For Registry and admin staff
  - For Students
- OAI service provider model has lots of stakeholders
  - Only one of them is the service provider

# Preservation

- The British Library will store all e-theses harvested and digitised, within its preservation system
  - Digitised copies can be supplied back to the institutions
- Institutions can choose where to focus their preservation needs
  - At the British Library
  - Locally
  - Both

# Summary

- EThOS meets a community need
  - Maximising the value of theses
- OAI provides a simple technical model
  - Adaptation required to meet real world
- Business model built around community involvement in the service
  - Sustainability requires the community
  - All four steps are centred on enabling this sustainability

# Thank you

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