

In the bigynnyng: the Manchester Middle English Digital Library

1 PROPOSAL AND WORKPLAN

1.1 Introduction

The John Rylands University Library (JRUL), The University of Manchester, has world-renowned research collections and was recently awarded HEFCE status as a National Research Library – the only one in the north of England. The Library's Special Collections are of exceptional importance in a wide range of disciplines, and were one of the first library collections to be designated by the Museums, Libraries and Archives Council in 2005. The Rylands medieval English manuscripts are of paramount importance in a variety of key subject areas, and there is an identified need among the academic community for improved access for taught courses and research. The shift in teaching and learning patterns to enquiry-based and e-learning has resulted in an increase in the demand for electronic versions of original sources. This project aims to digitise all 41 medieval English manuscripts, a total of approx 12,000 images. Images and metadata will be accessible via a dedicated project website, using Luna's image management system (<http://www.luna-imaging.com/>). This is a stand-alone project, but it will also act as a pilot for a more ambitious Manchester Medieval Digital Library – *Incipit* – which will contain manuscripts in other languages and incunabula (pre-1501 printed books). The project is closely aligned with the Library's strategic goals and with the wider strategic development of the University of Manchester (<http://www.manchester.ac.uk/aboutus/facts/vision/2015goals/>). The Library is seen as playing a vital role in underpinning world-class research and is integral to the transformation of teaching and learning.

1.2 Aims and Objectives

The project's aim is to create and publish digital surrogates of the Rylands medieval English manuscript collection to support teaching and learning, to develop new research opportunities, and to make these cultural assets accessible to wider audiences. Our objectives are to:

- Digitise 41 manuscripts, including all folios and bindings, totalling approx. 12,000 high-resolution images;
- Make high-resolution versions of the manuscripts available on-line, taking advantage of the advanced delivery and display functions of Luna Insight 6;
- Produce metadata for each image using Luna's Inscribe software, linked to detailed EAD descriptions of the manuscripts in the Library's online archive and manuscript catalogue, ELGAR;
- Create an attractive dedicated website with links to the images and metadata, links to other online resources, and a feedback form allowing researchers to comment on and amend descriptions;
- Integrate the manuscripts into new teaching, learning and research opportunities;
- Raise the profile of the Rylands manuscript collections internationally;
- Enable access, whilst reducing the need to handle originals, thus aiding preservation; and
- Create a pilot for *Incipit*, the Manchester Medieval Digital Library.

1.3 Project Deliverables

Outputs

1. An interactive website, dedicated to medieval resources, with links to the images and metadata.
2. A database of fully digitised manuscripts, with full metadata, for teaching, learning and research.
3. A symposium on Middle English manuscripts held the Library towards the end of the project.
4. Academic papers published in the Bulletin of the JRUL and placed in our Institutional Repository.
5. GLOs (generative learning objects), produced in association with students in English and American Studies.
6. Virtual reunification of an important Chaucer manuscript.
7. Discussion group and contacts list of those interested in the project and in the Rylands Middle English MSS.
8. Project reports to JISC.

Outcomes

1. New research opportunities and greater awareness of the Rylands manuscript collections.
2. Improved access to and preservation of unique cultural materials.
3. New partnerships with our academic community and with JISC.
4. Enhanced skills and experience of digitisation and project management will benefit future activities in this area.
5. A pilot for *Incipit*, the Manchester Medieval Digital Library, to include other manuscripts and incunabula.
6. New possibilities and opportunities for studying fragmented manuscripts.
7. Fulfilment of the Library's and University of Manchester's Strategic Goals.
8. Increased capacity for us to undertake further digitisation, with a fully equipped imaging studio.

1.4 Methodology

1.4.1 *Secondment*

The Project Manager, Carol Burrows (CB), Technical Support, Jenny Curtis (JC), and Keeper of Manuscripts, John Hodgson (JH) will be directly seconded to the project. It is envisaged that CB's and JC's hours may need to be weighted towards the beginning and the end of the project. CB will dedicate 20% of her time to the project, while JC and JH will work on the project for 15% FTE.

1.4.2 *Recruitment*

Two additional posts (1.5 FTE) will be created for this project. Role descriptions and advertisements will be prepared following submission of the bid, and internal approvals obtained, so that recruitment can begin immediately after 15 August. We expect to second the 50% FTE photographer, James Robinson (JR), from another Library project, which will be back-filled. This will minimize the risks involved in recruitment, and ensure that image capture can begin immediately on 1 October 2008. The full-time cataloguing assistant will be advertised via the University of Manchester website. Previous experience indicates that the post is likely to attract internal candidates and we do not anticipate any difficulty in having a post-holder in place on 1 October. In the unlikely event that recruitment is unsuccessful, an existing member of staff will be seconded to the project and their post back-filled. The JRUL employs over 300 FTE staff.

1.4.3 *Conservation*

A member of the JRUL's Conservation Team will be seconded to the project for a total of 25 days over the course of the project (10% FTE) to compile condition reports for every manuscript prior to and post digitisation, and to undertake any remedial work required to prepare the manuscripts for digitization.

1.4.4 *Image capture*

The Rylands has a dedicated imaging studio at its Deansgate site, currently occupied 2.5 days per week. Our camera and lenses are in use 2.5 days per week in the Deansgate studio and 2.5 days in the Main Library studio. To undertake this project we need to purchase a second camera with a digital back and lenses. These will be requisitioned immediately after notification of the outcome of the bid in August 2008, for a project start date of 01/10/08. The project will have use of all other existing studio equipment, including AppleMac, lights, and calibration and imaging software.

Using a Phase One camera with a P45+ digital back, the photographer will capture and process an average of 250 images per week. Our previous experience of digital image capture has shown that this is a realistic target for a 0.5 FTE photographer. A raw 48-bit file of each image will be archived on tape. 24-bit processed TIFF files will be archived on hard drives and on University servers. University IT Services manage the data back up system. Each image will include a Kodak colour strip and scale rule. The photographer will load a copy of each processed image into Luna via its *Studio* software, which creates a JPEG2000 file for viewing purposes.

1.4.5 *Data capture*

The Cataloguing Assistant (CA) will create a record for each image using Luna's *Inscribe* software. The image-level metadata, embedded in each image, will include any significant details about the folio, plus image capture information. Metadata for each image is held in an Oracle 9 database which underlies the Luna Image Management System. Both metadata and images can be downloaded or printed directly from Luna, or links embedded into web-based materials. Full training on Luna will be given by Carol Burrows. EAD (Encoded Archival Description) XML records already exist for each manuscript and are currently searchable on ELGAR, the Library's archive server. These will be upgraded by John Hodgson to provide more granularity. The CA will create a basic record for the website, to be linked to the EAD record.

1.4.6 *Website*

We will set up a dedicated website for the project, adhering to JISC guidelines. The home page will describe the project, outline the objectives and include sponsors' logos. From here, the user will be able to link via tabs to further pages: an inventory page listing the included manuscripts, a news page, a contacts and project documentation page, and a learning objects page. There will also be links to other online resources and projects, such as the University of Michigan's Brut Chronicle site; Scriptorium: Medieval and Early Modern Manuscripts Online; and the AHRC-funded Imagining History project.¹ From the inventory page, each entry will have further links to the images in Luna, the full EAD description in ELGAR, and a bibliography. Although not an element of the current project, there is potential for a link to transcriptions. Images will be displayed by Luna 6.0 software, released June 2008. Luna 6.0 is a web-based front end to Luna Insight collections, offering Web 2.0 concepts

¹ <http://quod.lib.umich.edu/cgi/i/image/image-idx?c=brut>; <http://www.qub.ac.uk/imagining-history/wordpress/index.php>; <http://scriptorium.english.cam.ac.uk/>

such as embedding and linking. Each manuscript will be publicly available as soon as digitisation and cataloguing are complete, and the records quality checked by the Project Manager.

1.4.7 Timetable

The Project Manager will oversee the progress of the project, liaising with team members, the Project Advisory Board and JISC. She will be responsible for approving publication of the images and records as each is completed. The Project Manager will monitor workflow on a weekly basis. The project team will meet at least monthly in the first five months of the project, then bi-monthly. Project reports will be submitted to JISC at a frequency to be agreed with the Programme Manager. See **Appendix 1**.

1.5 IPR

Copyright in unpublished manuscripts is perpetual under current UK legislation. However, the manuscripts that are the subject of this proposal were produced in the fifteenth century, and are now physically owned by the JRUL. We therefore regard the potential for a claim for rights infringement to be infinitesimally small. The photographer will be an employee of the University of Manchester; and will therefore have no claim to copyright in the images. Authentication configured within the Luna Insight display system controls the available resolution of images, so that they can be made available for direct download only at a smaller size/lower resolution than can be viewed online, thus protecting our intellectual property. Requests for larger images or publication rights will be handled by staff responsible for imaging services and rights management within JRUL.

The manuscript EAD descriptions will be enhanced during the present project, incorporating additional data from Neil Ker's catalogue². The permission of Ker's executors has already been obtained for this.

1.6 Risks

A detailed risk analysis and a mitigation strategy are provided in **Appendix 2**.

1.7 Standards

EAD is based on ISAD(G), the international standard for the description of archives. EAD has been adopted internationally as the standard encoding system for online finding aids. ELGAR is the JRUL's Spoke of the Archives Hub. Cataloguing will be undertaken in XML using the <Oxygen/>® v.9 cross-platform XML editor, for which the JRUL already has numerous licences. The use of an EAD Schema will enable us to embed a TEI (Text Encoding Initiative) Schema directly into EAD instances. This will allow us at a future date seamlessly to incorporate full-text transcriptions and editions of the manuscripts into the EAD records. Images will be catalogued to a locally developed application profile, based on and compliant with VRA 3.0 metadata standards. It is also UK-LOM Core and Dublin Core compliant and mapped to Getty Crosswalk. For authority control we use Library of Congress Subject Headings and the Getty Thesaurus of Geographic Names. We follow TASI guidelines for the preservation of images. The project website will conform to JISC guidelines.

1.8 Exit Plans

Exit plans and sustainability are addressed in 2.2 Sustainability, below.

2 IMPACT

2.1 Benefits

This project will yield major benefits to teaching, learning and research in a wide variety of disciplines within the HE community and beyond. The Rylands Middle English manuscripts are a resource of international importance – probably the most significant collection of such material to be found outside the British Library and the Bodleian Library. The many letters of support demonstrate the significance of the collection, the track record of existing use, and the benefits that digitisation will bring. Digitisation will not only increase the profile of the manuscripts and bring them to the attention of a much wider constituency of researchers; it will also permit for the first time detailed comparative studies between different versions of texts among the Rylands manuscripts, and also between the Rylands manuscripts and other examples worldwide. The inherent fragility and value of the items mean that it is only ever possible for researchers to study one or two volumes at a time. Digitisation and the advanced display facilities of Luna 6.0 will permit multiple texts to be compared simultaneously, and reduce the necessity to handle the originals.

² N.R. Ker, *Medieval manuscripts in British libraries, vol. III, Lampeter-Oxford* (Oxford: Clarendon Press, 1983)

The Rylands Middle English manuscripts are especially relevant to Middle English studies, but they are highly applicable to a wide range of other disciplines. Within the University of Manchester alone, the manuscripts are applicable to undergraduate courses in English Literature, English Literature and Linguistics, History of Art, Medieval Studies, History, and Religion and Theology. We have mapped at least fifteen modules in which the manuscripts are highly relevant. The following MA courses will also make use of the collections: Art History, Biblical Studies; Constructions of the Sacred, the Holy and the Supernatural; English and American Studies; English Language; History; Medieval and Early Modern English Studies; Medieval Studies; Religions and Theology; and Theology, Culture and Society. Several academics at the University of Manchester have stated that they will incorporate the digital resources into teaching and learning, through the use of GLOs (generative learning objects), and directly via the Blackboard Virtual Learning Environment. GLOs will be produced in association with students in English and American Studies and the University Widening Participation team.

Of course, as a National Research Library we have a duty to the wider academic community. One of the principal advantages of this project is that the Rylands' wealth of Middle English material will be opened up to other universities and colleges that do not have such resources for teaching and learning themselves. The project website and the GLOs will also be used to reach out beyond the HE community, particularly to FE students, potential university and college entrants, and life-long learners. The John Rylands Library has a long tradition of making its collections available to diverse audiences outside the HE community, through exhibitions, tours, close-up sessions, events and online resources. We are committed to continuing this work, and the project website will be designed to appeal to a wide range of audiences.

A further benefit of this project will be the reunification of a particularly important manuscript of the Canterbury Tales. The JRUL holds a fragment of two folios of the so-called Oxford Manuscript (Rylands MS 63), while the Rosenbach Museum and Library in Philadelphia holds the other surviving eleven folios. At our prompting the Rosenbach is investigating the parallel digitisation of its own fragment. The virtual reuniting of the manuscript via our project website and Luna will be of major interest to Chaucer scholarship and the wider public.

2.2 Sustainability

<i>Outputs</i>	<i>Benefits</i>	<i>Sustaining the Benefits</i>
1. Interactive website with links to images and metadata, links to other resources, and feedback form	A portal will provide access to detailed descriptions and images of manuscripts. Raises profile and improves accessibility. Resource for undergraduates and postgraduate researchers.	Website managed by JRUL on ongoing basis. Pages will be regularly refreshed by JRUL staff, with links updated, etc. Incorporated into digital medieval library, <i>Incipit</i>
2. Database of fully digitised medieval manuscripts with detailed metadata	Raises profile and greatly increases accessibility of manuscripts. Allows direct comparisons between different mss. Opens mss to wider HE community	Integration into Rylands image library. Images and metadata in non-proprietary format.
3. Symposium on Middle English manuscripts at JRUL	Publicity for project, dissemination among wider academic community.	Papers published in Bulletin of the John Rylands Library and placed in our Institutional Repository.
4. GLOs (generative learning objects) produced in association with English & Am. Studies students	Undergraduates stimulated by innovative enquiry-based learning packages; also aimed at potential university entrants. Widening participation in HE sector.	Integrated into University's School of Arts Histories and Cultures GLO project, maintained by School staff, article in professional literature will disseminate knowledge to peers.
5. Discussion group and contacts list for those interested in the project.	Feedback informs project development and metadata; profile raising; increased use of website and online resources; support for further digitisation.	Project Manager and Keeper of Manuscripts responsible for ongoing maintenance of discussion group and contacts list.
6. Virtual reunification of fragmented Chaucer manuscript	New opportunities for researchers to study both parts of a manuscript divided between Manchester and Philadelphia	Integrated into Rylands image library; ongoing liaison between JRUL and Rosenbach Museum and Library, Philadelphia.
7. Project reports to JISC.	Ensures cost-effective, efficient management of project, knowledge transfer to JISC and other JISC projects.	Reports archived by JRUL and JISC. Lessons from project inform future digitisation projects.

<i>Outcomes</i>	<i>Benefits</i>	<i>Sustaining the Benefits</i>
1. Greater awareness of Rylands manuscript collections.	Increased use of MSS in teaching, learning and research. Boost to Middle English studies locally and nationally.	Ongoing maintenance and development of website; papers and conferences; continual liaison between JRUL staff and academics; images and metadata incorporated into digital medieval library, Incipit.
2. Enhanced scholarly access	Increased use of MSS in teaching, learning and research. New opportunities for comparative research. Innovative online teaching packages.	Continual liaison between JRUL staff, academics and Widening Participation team; images and metadata incorporated into digital medieval library, Incipit.
3. Reduced need to handle manuscripts.	Long-term preservation of the original manuscripts.	Monitoring of the manuscripts through condition reports and usage statistics, to ensure long-term preservation.
4. Development of new partnerships with academic communities, JISC and other funders.	Increased use of the manuscripts in research, teaching and learning; further collaboration with other special collections; greater likelihood of success in future funding applications.	Ongoing liaison between JRUL, other practitioners and academics, through direct contact, conferences, papers, etc.; ongoing liaison with JISC and other funders to exploit funding opportunities.
5. Enhanced skills and experience of digitisation and project management within JRUL.	Experience of this project will inform and direct the Library's future plans for digitisation; knowledge transfer will benefit wider HE community.	Internal knowledge transfer through project workbook, briefing meetings; develop protocols for digitisation and project management.
6. Pilot for Incipit, the JRUL's Medieval Digital Library.	Project will assist in the development of a medieval digital library, yielding major benefits to research, teaching and learning internationally.	Institutional commitment to develop Incipit. Continuity of staff will ensure experience of this project informs Incipit. Seek external funding for further development.
7. Fulfilment of the University of Manchester's and the JRUL's strategic goals.	Project will help the Library to deliver the University's 2015 strategic agenda.	Promote the project within the University; build it into the operational plan.
8. Library's imaging studio upgraded, with improved equipment.	Greater capacity and technical infrastructure to undertake future digitisation projects.	Upgraded facilities will have long-term benefits, sustained by appropriate investment in future as and when required.

We regard this project as a pilot for the ambitious long-term objective of creating a digital library of medieval and early modern manuscripts and printed books, *Incipit*. The JRUL is committed to making its collections as widely available as possible, through innovative yet sustainable methods of delivering digital surrogates and metadata, as well as via direct access. We therefore have a strong interest in the sustainability of this project.

The core members of the project team are all members of the Library's establishment, with extensive experience of digitisation projects. They will be tasked with the long-term maintenance of the website, metadata and image library. The JRUL is a member of the Digital Curation Centre (DCC) Associates Network and DCC Forum and we are in touch with their advice on best practice in the preservation of digital assets. We have taken account of the TASI guidelines on digital resource preservation. Advice on working and long-term storage has been sought from specialists in the University's IT Services Division. The EAD XML catalogue will continue to be made available on ELGAR, the Library's archive server (which is supported by the national Archives Hub), while images will be integrated into the JRUL digital collections, accessible to all via Luna. Luna is in widespread use internationally, with an active users group. Should Luna no longer be supported or be superseded by better delivery mechanisms, migration should be straightforward since the metadata is exportable in XML format and Dublin-core compliant. Use of non-proprietary formats will help to ensure the longevity of image and metadata files.

3 PARTNERSHIP AND DISSEMINATION

We have identified a number of stakeholders in the project, including HE researchers, teachers, students and fellow practitioners. These are detailed in the table below, with an engagement strategy. In order to embed the project into research, teaching and learning, we will establish an Academic Advisory Board comprising experts in the study of medieval manuscripts and in their use for teaching and learning. The group will include:

- Dr Anke Bernau, Lecturer in Medieval Literature and Culture in the School of Arts, Histories and Cultures (SAHC), University of Manchester: research and teaching interests cover a wide range of medieval hagiography, mysticism and popular piety, romance, and national foundation myths and historiography.
- Prof. David Denison, Professor of English Linguistics in the School of Languages, Linguistics and Cultures, University of Manchester: interests include the historical syntax and the history of English generally; joint editor of the *History of the English Language*.
- Mr John Hodgson, Keeper of Manuscripts and Archives at the JRUL: has extensive project management experience; manages a team of eight archivists and manuscript curators.
- Dr David Matthews, Lecturer in the SAHC: interested in English politics and its relation to ideas of nationhood in the 13th/14th centuries, particularly as represented in chronicles and political verses.
- Dr Oliver Pickering, Deputy Head of Special Collections, Brotherton Library, University of Leeds, Senior Associate Fellow in Medieval English, School of English, University of Leeds, Middle English scholar.
- Prof. Stephen Rigby, Professor of Medieval Social and Economic History, SAHC: interested in late medieval English literature in its historical context, author of *Chaucer in Context: Class, Allegory and Gender*.
- Dr Alex Rumble, Reader in Palaeography in the SAHC: interested in inter-disciplinary Anglo-Saxon and early medieval studies, particularly those relating palaeographical and linguistic phenomena to historical context.

The board will meet before the start of the project and then quarterly to provide strategic oversight of the project, review progress against milestones, advise on the development of online learning resources based upon the images and metadata created during the project, and plan the conference at the end of the project. Board members' extensive contacts across numerous disciplines relevant to the Middle English manuscripts will be used to create a mailing list to disseminate information about the project. Information will also be circulated among appropriate JISCmail lists, such as Middle-English-Studies, Medieval-Religion and Mass-Digitisation. The Board will be chaired by Dr Stella Butler, Deputy University Librarian with responsibility for Special Collections.

The principal means of dissemination will be a conference on the project and on the Rylands Middle English manuscripts, scheduled towards the end of the project. Members of the Academic Advisory Board are expected to deliver papers on various aspects of the manuscripts, and on the experiences of the project. We expect to recruit a keynote speaker, who is an internationally-recognized expert in Middle English manuscripts. Papers will be published in the *Bulletin of the John Rylands University Library*, a distinguished, refereed journal. Project members will also attend other appropriate conferences, such as the Leeds International Medieval Congress in 2009, with promotional leaflets and poster displays.

The JRUL already has experience of working with JISC on collaborative projects, and project staff are familiar with the reporting and dissemination procedures. We will work collaboratively with the JISC programme manager, attend programme meetings, and share the experiences of the project with other JISC projects and programmes.

In the event that we finish digitisation ahead of schedule we will digitise key incunabula that support the project, in agreement with the Assistant Keeper of Printed Books. This option will give added value.

Stakeholder	Interest / stake	How we engage	Importance
Academics researching Middle English mss.	Require remote access to manuscripts, high definition images with metadata, ability to compare mss online.	Academic advisory board; email contacts; conference; papers in academic journals; website	High
FE and HE teachers using Middle English manuscripts.	Remote access to manuscripts for their students, ability to compare mss online, integration into VLEs, easy access to secondary sources.	Academic advisory board; email contacts; conference; papers in academic journals; website	High
UG and PG students studying Middle English manuscripts.	Remote access to manuscripts, ability to compare mss online, integration into VLEs, easy access to secondary sources, links to online resources.	Teachers on advisory board; conference; papers in academic journals; website; VLE and GLOs	High
General public, including life-long learners.	Ability to view high-quality images with interpretation, easy access to secondary sources and links to online resources.	Press releases and publicity for project; website; GLOs	Medium
Other repositories holding Middle English mss.	Reciprocal links to website, ability virtually to reconstruct dispersed mss, sharing experience of project.	Academic advisory board; email contacts; conference; papers in professional journals; website	Medium

Organizations promoting mss and their research, e.g. AMARC	Promotion of Middle English manuscripts for research and teaching; dissemination of experience to other repositories; medium for publicity and promotion	Academic advisory board; email contacts; conference; papers in professional journals; website	Medium
JISC and other funding bodies.	Successful management of project, key goals achieved, dissemination of experience to other projects and repositories, benefits to HE community and launch pad for further digitisation.	Project plan; progress reports; direct contact with Programme Manager; attending meetings, conferences; publicity on website	Medium
Other JISC projects or programmes.	Adoption of best practices and standards, knowledge transfer, links to other relevant online resources.	Attending meetings, conferences; email contacts; papers in professional journals; website	Medium

4 BUDGET

We believe that this project represents excellent value for money. All procurements will be undertaken within the University of Manchester's strict financial regulations. Only University-approved suppliers will be permitted to tender for contracts, which will be awarded on a competitive basis. **See Appendix 3.**

5 PROJECT TEAM

Carol Burrows (Project Manager: 0.2 FTE – to be seconded). MA European Languages & Cultures, PG Diploma Librarianship. 24 years total experience in libraries, 9 years in Special Collections. Assistant Librarian (Imaging), manages JRUL Imaging Service, Special Collections on-line image collections and associated staff. Devised the application profile and standards for Luna; member of national and international Luna user groups. Recently project managed the digitisation of the JRUL's Gutenberg Bible in association with Keio University, Japan.

John Hodgson (Manuscript Consultancy: 0.15 FTE – to be seconded). BA (Hons) Classics, Master of Archive Administration; a registered archivist with 19 years' professional experience; Keeper of Manuscripts and Archives at the JRUL since 2004; member of the JISC-funded Archives Hub Steering Group. Experienced in managing manuscript and archive cataloguing, retro-conversion and digitisation projects.

Jennifer Curtis (Technical Support: 0.15 FTE – to be seconded) Head of Digital Programmes at the JRUL, coordinating the development of the University of Manchester Digital Library. Has over 25 years experience of development, administration, delivery and support of electronic information services in university libraries.

James Robinson (Photographer: 0.5 FTE – to be seconded, current post back-filled). BA (Hons) Photography. Currently employed 0.5 FTE as project photographer for the Genizah project (see below) and 0.5 FTE as photographer to the JRUL Imaging Service. Experienced in digitally photographing cultural objects.

Cataloguing Assistant (1 FTE: to be advertised August 2008).

Conservator (0.1 FTE – to be seconded). An experienced member of the Conservation Team will be assigned as appropriate. The JRUL Special Collections employs a team of 4.5 FTE conservators, led by Caroline Checkley-Scott, an internationally renowned expert in this field.

The JRUL has extensive experience of managing digitisation and resource enhancement projects to achieve the agreed outcomes on time and on budget, and staff have highly developed project management skills. For example, in 2006 the JRUL in partnership with the University's Centre for Jewish Studies received £361,000 from AHRC to catalogue and digitise over 11,000 manuscript fragments from the Ben Ezra synagogue in Cairo: see <http://www.library.manchester.ac.uk/specialcollections/collections/specialprojects/genizah/>. Carol Burrows, Jennifer Curtis and James Robinson have similar responsibilities on this project which, with 18 months to run, is currently ahead of schedule. Two workshops and two public lectures by keynote speakers have been held at the JRUL. We are also collaborating with Johns Hopkins University over the digitisation of an important *Roman de la Rose* manuscript.

Carol Burrows will manage this project, supported by John Hodgson, Keeper of Manuscripts and Archives, and Dr Stella Butler, Deputy University Librarian with responsibility for Special Collections. Technical assistance will be provided by Jennifer Curtis, Head of Digital Programmes. All have extensive project management experience. We will of course produce a workplan within a month of the awarding of funding, which will develop the timetable below, with detailed work packages, and quality, evaluation, dissemination, exit and sustainability plans. The Project Manager will monitor workflow on a weekly basis. Workflow, quality, risk, financial and technical issues will be discussed at the monthly internal project meetings, and reported regularly to JISC as agreed with the Programme Manager.

Appendix 1: Timetable

Work Packages	Aug 08	Sept 08	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09	July 09	Aug 09	Sept 09
Advisory group to meet														
Posts advertised														
Requisition of equipment														
Interviews & appointments														
Installation of equipment														
Condition reports and conservation														
Project team assembled														
Project team to meet														
Project plan developed														
Project plan submitted														
Digitisation														
Cataloguing Assistant commences														
Project Manager to train Cataloguing Assistant														
Image cataloguing records produced														
Images uploaded into Luna														
Website construction														
ELGAR records upgraded														
Website populated														
Records go live														
GLOs created														
GLOs added to website														
Call for conference papers														
Conference papers submitted														
Conference														
Evaluation														
Continuation strategy														
Final & completion reports to JISC														
Promotion														
Resource embedded into teaching and learning														

Appendix 2: Risk Analysis

Risk	Category	Likelihood (1-5)	Impact (1-5)	Score (LxI)	Risk Management Approach/Mitigating Actions	Early Warning Signs
<i>Slippage in project timetable</i>	<i>Managerial</i>	3	5	15	<i>Project plan informed by previous experience of similar projects. Rigorous management and monitoring procedures provide early warning of problems. Review imaging and metadata procedures to obtain efficiencies. As last resort provide additional Library resource.</i>	<i>Workflow fails to meet targets in early stages of project.</i>
<i>Loss of key project personnel</i>	<i>Staffing</i>	3	4	12	<i>Motivation via contractual terms, good job design, good working environment and personal development opportunities. Relatively short duration of project reduces likelihood of permanent staff leaving.</i>	<i>Low morale, absenteeism, poor quality of work, low output. Identified through regular meetings and PDR process.</i>
<i>Unable to recruit cataloguing assistant</i>	<i>Staffing</i>	2	5	10	<i>Ensure remuneration is appropriate to skills level. Second in-house staff.</i>	<i>Low numbers of poorly-qualified applicants. Repeated advertisements.</i>
<i>Lack of academic support for project</i>	<i>User interaction</i>	2	4	8	<i>Detailed consultation with academics during project development phase. Regular meetings of steering group. Win support of senior figures in University.</i>	<i>Non-attendance at meetings. Failure to respond to communications.</i>
<i>Conservation issues prevent adequate image capture</i>	<i>Technical</i>	2	4	8	<i>Pre-assessment of condition of manuscripts. Remedial conservation work done in-house to make mss fit for imaging.</i>	<i>Photographer has difficulty in handling manuscripts or cradling them in a way that allows leaves to be photographed.</i>
<i>Loss of metadata or image files</i>	<i>Technical/ Managerial</i>	2	4	8	<i>Rigorous storage and back-up procedures, in line with University of Manchester protocols.</i>	<i>Accidental loss of individual files.</i>
<i>Lack of integration of images, metadata and webpages</i>	<i>Software</i>	2	4	8	<i>Early technical discussions and input from experts at design stages. Consultation with other digitisation projects to learn from their experience.</i>	<i>Lack of clear design brief. Technical consultant raises concerns with project team.</i>
<i>Luna Imaging ceases trading or no longer supports Luna software</i>	<i>Suppliers</i>	2	4	8	<i>Regular liaison with Luna Imaging; active involvement in Luna User Group. Luna supplies many major museums and libraries, so low risk of leaving this market. Metadata and images are in generic formats which can be migrated.</i>	<i>Poor communications with Luna Imaging; failure to respond to queries and requests; rumours of financial/managerial problems.</i>
<i>Failure of imaging equipment</i>	<i>Technical</i>	3	2	6	<i>Obtain warranties from suppliers. Rapid replacement.</i>	<i>Poor reliability of equipment.</i>
<i>Unable to procure specialist equipment</i>	<i>Suppliers</i>	2	3	6	<i>Undertake extensive research online, in specialist literature and by consultation with other institutions. Seek competitive quotes. Use existing contacts among photographic suppliers.</i>	<i>Difficult to obtain competitive quotes; poor availability of equipment, long waiting lists.</i>
<i>IPR problems</i>	<i>Legal</i>	1	3	3	<i>Very low risk of surviving copyright holders. Withhold images until agreement is reached for display online.</i>	<i>Complaints from copyright holders.</i>