**Appendix – Proposal Template**

**JISC Grant Funding: e-Learning programme Embedding Benefits**

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| **Cover Sheet for Bids*****(All sections must be completed)*** | ***JISCcolour15***  |
| **Name of previously funded JISC project:** SCARLET (Special Collections using Augmented Reality to Enhance Learning and Teaching) |
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| **Name of Lead Institution:** Mimas, The University of Manchester |
| **Name of Proposed Project:**  | Embedding AR |
| **Full Contact Details for Primary Contact:** **Name: Laura Shaw****Position: Senior Development Officer (Learning and Teaching)** **Email:** laura.shaw@manchester.ac.uk**Tel: 0161 2756079****Address:** Mimas, Roscoe Building (5th Floor) , The University of Manchester, Oxford Road, Manchester, M13 9PL |
| **Name(s) of Project Partners(s) including JISC services, associations, etc** (except commercial sector – see below) | **The University of Sussex and The University of Creative Art** |
| **This project involves one or more commercial sector partners** **NO** (delete as appropriate) | **Name(s) of any commercial partner company (ies)** |
|  |  |
| **Length of Project:** | **12 months** |
| **Project Start Date:** 1 May 2012 |  | **Project End Date:** | 30 April 2013 |
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| **Which category of funding are you submitting this proposal under?** | A. Micro funding £5000B. Single project C. Collaborative capacity building🗸D. Take-up pilots |
| **Total Funding Requested from JISC:** | **£** |
| **Institutional Contribution:** | **£** |
| **Total Project Costs:** | **£** |
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| **I have looked at the example FOI form at Appendix A and included an FOI form in this bid** | **YES** (delete as appropriate) |
| **I have read the Funding Call and associated Terms and Conditions of Grant**  | **YES** (delete as appropriate) |
| **Summary Description** **Describe your proposed idea in 3 sentences.** |
| The SCARLET (Special Collections using Augmented Reality to Enhance Learning and Teaching) Project was based on this premise; a teacher and group of students gather around a Dante manuscript or early printed edition in the Library. Augmented Reality AR will simultaneously allow students to experience the magic of original materials, whilst enhancing the learning experience by ‘surrounding’ the object with digital images, online learning resources and information on this and related objects held in the Library and elsewhere. This project will allow us to take the lessons learnt from this work and our new understanding of the knowledge, skills and barriers to developing AR to other institutions and different types of collections, further building our understanding of the application of AR and transferring knowledge across the community.  |
| **Proposal Form** |
| ***Category A proposals need only complete sections 1, 2, 3, 4****. All other categories should complete all sections unless it is obviously not applicable e.g. Section 5 partners if you don’t have any.* |

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| 1. Benefits and audienceWhat are the project benefits you wish to embed and who is the proposed audience? The SCARLET project has been working with academics, students and the John Rylands University Library at the University of Manchester to exploit AR to enhance access to their Special Collections with great success (http://teamscarlet.wordpress.com). This project will build on the mixed team approach adopted, and will give two other UK universities the knowledge and skills needed to use Augmented Reality (AR) to enhance access to their collections, by embedding the SCARLET Toolkit.We will be working with enthusiastic staff at the University of Sussex and the Craft Study Centre at the University for the Creative Arts to trial the AR Toolkit with two different types of collections (mass observations and visual arts). This will result in 2 case studies of embedding AR in the wider community and further examples of AR applications.The **benefits of the SCARLET project** that we will embed through this project are as followed, supported by quotes from the SCARLET Team:* The mixed team approach, essential was the need for enthusiastic staff from across the University, e.g:

‘Any initiative aimed at enhancing teaching and learning must have both students and teachers embedded into the project from the outset, rather than librarians and IT specialist presuming to know what they want’. (John Hogson)* The successful application of AR to teaching and learning using Special Collections based on Academic and Student feedback, e.g:

‘I think my number one lesson learned is that the SCARLET app, to be as useful as possible, needs new content to be specific to the objects….their favourite part of the content was my videos. The lesson learned is [the] need to make more specific ‘live’ content’ (Guyda Armstrong)* The processes, barriers and skills required to develop AR (technological and pedagogical) in teaching and learning, e.g:

‘Good wireless provision is crucial. The lack of wireless connectivity in parts of the building has impacted on the classes already run’. (Andy Land)* The expertise developed at Mimas and the University of Manchester cascaded to others
* The Toolkit which captures the above points (in development)

The SCARLET project blog has captured finding throughout the project, something we would replicate for this project, for example there is a post on the reflections of the team part way through the project (<http://teamscarlet.wordpress.com/2012/01/18/reflecting-learning-anticipating/>) and on the student experience (<http://teamscarlet.wordpress.com/2011/11/23/scarlet-focus-group/>). **The primary beneficiaries** will be the 2 partner universities and JISC, with secondary beneficiaries being all other HE and FE institutions. The staff involved and benefiting from this project are split into four categories that will be referred to throughout this bid:1. **Mimas support staff**– Educational Technologist and Project Manager.
2. Mimas and Institutional staff providing **management** – Project Managers and Director (at Mimas).
3. **Intuitional team**– replicating the cross team approach at the University of Manchester (to include Academics or support staff who engage with Students or Researchers, Collection Staff, Educational Technologists, Student Representatives and Project Managers).
4. **Institutional development** – the Educational Technology and a key Academic, these staff will receive more 1-2-1 support.

The knowledge developed by the SCARLET project will be presented as a structured and practical **Toolkit** that outlines the processes, skills and resources required to replicate this elsewhere. Evaluating this Toolkit with other institutions will not only benefit them but will make the Toolkit more accessible and useful to the wider community. **The SCARLET Toolkit** will be available online and will include course content templates for AR, technical specifications, guidelines, an overview of the technical and pedagogical processes and will disseminate lessons learned and describe the benefits of AR for teaching and learning within Collections. This bid will further develop the Toolkit (like a JISC InfoKit for AR) and evaluate it. Based on the Toolkit, Mimas will engage with two other universities resulting in them using AR to enhance access to their collections. The result will be two case studies on embedding AR based on the SCARLET approach.To engage in this project we needed to find partners that had all of the following; digitised content, learning activities based around the digitised content, enthusiastic content developers (either Academics of support staff that engage with Students/Researchers) and staff that could develop the AR skills. We believe we have found ideal partners that also offers an unique opportunity to understand the application of AR to two very different collection. **The Crafts Centre at the University of Creative Art** was involved in a JISC project to digitise their collection and to develop a set of essays from experts. Over 5000 images are now available from their collection that includes; 20C and contemporary British Arts, ceramics, wooden furniture, textiles (print and eave), calligraphy and archives. These images, and associated catalogue records are available on the Visual Arts Data Service (<http://www.vads.ac.uk>).As part of the *Observing the 1980s* project the **University of Sussex** will be digitising around 2500 sheets of Mass Observation Project material ([www.massobs.org.uk](https://outlook.manchester.ac.uk/owa/redir.aspx?C=e0bc980af1d145308b0788a4db97971d&URL=http%3a%2f%2fwww.massobs.org.uk)) by June 2012. These are self-reflecting questionnaires and observations that offer a unique insight into the lives and opinions of British people from all social classes and regions during the 1980s. All material is available under a Creative Commons licence. In addition a number of OERs will be developed over summer 2012 under the direction of Dr Lucy Robinson (Historian) which will compliment and use the digitised materials. **Benefits to partner institutions:**1. The Crafts Centre at The University of Creative Art and the University of Sussex will gain the skills and knowledge to develop a set of AR applications.
2. The Crafts Centre at The University of Creative Art will use AR with their exhibitions to guide their Researchers during visits. Researchers will use AR to get access to contextual information, resources and digitised content whist interacting with objects in the Centre.
3. The University of Sussex’s collections will be moving to The Keep ([http://www.eastsussex.gov.uk/leisureandtourism/localandfamilyhistory/esro/thekeep/default.htm](https://outlook.manchester.ac.uk/owa/redir.aspx?C=e0bc980af1d145308b0788a4db97971d&URL=http%3a%2f%2fwww.eastsussex.gov.uk%2fleisureandtourism%2flocalandfamilyhistory%2fesro%2fthekeep%2fdefault.htm)) in summer 2013. The skills learnt by our staff will be taken to The Keep and disseminated to other departments and external partners. Although the original material for this project was selected on the basis of it integrating into the History curriculum at Sussex, the addition of AR lends itself to involving the School of Music Film and Media and maybe the School of Informatics where there are existing research interests in AR.
4. By working with the Toolkit the partners will get a full understanding of all aspects of the SCARLET project from conception to embedding into academic practices.

**The project will deliver benefits to other UK Higher Education institutions:**1. The full Toolkit will continue to be hosted by the University of Manchester (JRUL) and we will engage with JISC InfoNet to ensure we add to the knowledge-base around the use of AR for the sector.
2. Knowledge and experience acquired during the course of the project will be shared and made freely available (under a Creative Commons licence) to ensure benefits for the wider community. Mimas will continue to promote their experiences with AR through their usual dissemination channels.

**Benefits to Mimas:**1. The project will enable Mimas to continue to lead on embedding an emerging technology within the educational sector, and to build on their expertise in this space to benefit others.
2. It will enhance our understanding of the application of AR to different types of digitised collections.

**Benefits to JISC:** 1. The project will help to evaluate the effectiveness of the Toolkit as an output of the JISC-funded SCARLET project. Testing the Toolkit with 2 UK universities will improve the Toolkit before wider uptake from other institutions within the UK.
2. Embedding good practice from JISC project outputs through collaboration by bringing together:
* **The SCARLET Team** at Mimas and relevant skills and experience of AR.
* **The University of Sussex**: Observing the 1980s (JISC Digitisation and Content Programme) (<http://blogs.sussex.ac.uk/observingthe80s>)
* **The University of the Arts** Crafts Study Centre, JISC-funded project <http://www.jisc.ac.uk/whatwedo/programmes/learningteaching/crafts.aspx>.
1. JISC InfoNet are planning a horizon scan of new mobile technologies to provide an update to their Mobile Technology InfoKit (https://mobilelearninginfokit.pbworks.com) JISC InfoNet are supportive of the SCARLET Toolkit seeing the opportunity to engage with this projet as a time saving collaboration. Reuse of the Toolkit by InfoNet, to enable them to update their AR references, is facilitated by the CC licence it is made available under. (https://mobilelearninginfokit.pbworks.com/w/search?q=augmented).
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| **2. Evidence.** What evidence do you have of the interest/demand/need from other institutions? AR was listed in the 2011 Horizon Report as a two to three years adoption technology (<http://wp.nmc.org/horizon2011/sections/augmented-reality/>) and high profile events such as the Olympics are using AR (<http://www.london2012.com/press/media-releases/2011/12/edinburgh-s-hogmanay-wishes-revellers-an-appy-new-year-w.php>). Based on this AR is certainly a technology that the learning and teaching sector should be investing in. The SCARLET Project has given us a better understanding of the application of AR to learning and teaching and to collections, and it is this that the wider community has show interest in and would benefit from this project being funded. The SCARLET Project has been enthusiastically received by academics, students and the community and has generated a significant amount of interest already with the work capturing the attention of a wide range of people, both within the University of Manchester and beyond. The team blog regularly at <http://teamscarlet.wordpress.com/> and are also on Twitter [@team\_scarlet](http://twitter.com/#%21/team_scarlet). The team have been engaging with the community, transferring our knowledge and experienced. The team have presented or planning to present sessions on SCARLET at 11 major international conferences and events. Articles on SCARLET have featured in two journals and a number of websites and university publications. Feedback is always very positive with a great deal of interest and ideas about applications of AR in other subject areas. Presentations about SCARLET have led to approaches being made to the team by other subject areas. The Faculty of Medical and Human Sciences (MHS) at the University of Manchester are particularly interested in the work and see huge potential within their own subject area. Staff have already met to discuss possible approaches with further meetings planned. The MHS team envisage that AR would provide an exciting opportunity to develop teaching at Levels 1 and 2 for medical students at Manchester. During recent visits to the US, members of the team spoke with prominent members of staff at the Smithsonian Institute in Washington DC and the Harry Ransom Center in Austin, Texas. Both institutions have a keen interest in the work of the SCARLET project and asked to be kept informed of developments. A member of the team has also been invited to speak at the CNI meeting in Baltimore in April 2012 following a meeting at the ELI conference in Austin.The examples above illustrate a selection of interest shown by librarians, archivists, learning technologists, academics and museum curators around the real-life application of AR. This diverse audience reflects interest in SCARLET and the real potential for additional development. |
| **3. Deliverables:** What are the proposed deliverables (please list outputs and outcomes)?(i.e. workshops, online activities, papers, institutional briefings, user guidelines, etc.) with approximate delivery dates and target numbers where applicable as well as what will be available for sharing through existing Toolkits e.g. infoKits **Project Outputs:** 1. **Workshops** run by Mimas for cross team staff at partner institutions (to include Academics or support staff who engage with Students or Researchers, Collection Staff, Educational Technologists, Student Representatives and Project Managers) based on the Toolkit.
	* Target numbers: At least 2 per Institution (Institutions will not at this stage be brought together unless viable to do so).
	* Target date:
2. **1-2-1 support** for institutional key staff from Mimas support staff, likely to include the Educational Technologist and one Academic.
	* Target numbers: as required via face to face and Skype.
	* Target date:
3. **A final online workshop** that brings together other institutions in the UK interested in using AR.
	* Target number: 1.
	* Target date:
4. **An improved SCARLET Toolkit** that has been evaluated by partners and refined, included application to other types of special collections and experiences of partner institutions.
	* Target date:
5. Continued use of **Social Media** **to promote** **the use of AR** that may include blog posts from partner institutions on their experiences.
	* Target date:
6. **Case studies on embedding AR based on the SCARLET approach** that can inform other institutions of the benefits and issues of adoption.
	* Target number: 2.
	* Target date:
7. **Beta development of one AR application** for each partner.
	* Target number: 2.
	* Target date:
8. **An updated JISC InfoNet Mobile Infokit.**
	* Target date:

**Project Outcomes:**1. Knowledge transfer through support from Mimas to two other UK universities, with the result that two partner institutions have the relevant skills to implement AR.
2. Lessons learned with respect to application of AR to other types of collections and how to embed this into institutions, available via the updated Toolkit.
3. Collaboration between Mimas, JISC InfoNet and the sector building on shared expertise, disseminated openly.
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| **4. Activity Plan: Laura****Provide a description of the activities you plan under each of the following activity areas (as applicable).** Include the role of any partnersand show the anticipated outputs (described above)**Packaging** The Toolkit will continue to be developed using a wiki based tool (likely to be PbWorks based on best practice at JISC InfoNet) and all content will be made available under a Creative Commons licence. As part of the evaluation, partners will be expected to provide feedback on the Toolkit, to suggest changes and additions. Partners will also be expected to develop a small number of blog posts (including videos) to add to the SCARLET blog and ultimately the Toolkit. Whilst the Toolkit will be hosted at the JRUL at the University of Manchester, Mimas will regain edit rights beyond the SCARELT project and all content will be available under a Creative Commons licence. **Capacity/events**Three types of events are planned:* + Institutional workshops to transfer knowledge and facilitate the development of a beta AR application.
	+ 1-2-1 support for the institutional staff developing the AR application from the Mimas support staff.
	+ An online workshop for both institutions and the wider community to showcase developments and demonstrate transferred knowledge.

Partner will be expected to assist in organising the events and to host. They will be expected to coordinate the availability of relevant staff.Mimas will facilitate workshops that will use the Toolkit and provide 1-2-1 support both face to face and virtually, taking advantage of tools like Skype. **Take-up pilots** Institutions will not only gain skills but will have the opportunity to engage with relevant staff from across their institutions. Through this engagement we would expect that, as with SCARLET, a decision would be made around scope and theme of the development of a beta AR application. The institutional development staff at the partner institutions, with 1-2-1 support from Mimas, will then develop the application in conjunction with a lead Academic. The partners will be expected to engage with the Toolkit and do development outside of formal workshops.  |
| **5. Details of Partners** Names and contact details for all partner institutions, services, existing JISC projects or other who are to be involved in the idea. State for each the level of commitment e.g. supporting letter attached, existing project partner, interest expressed by email, no contact made.The University of Sussex – Supporting letter attachedThe Craft Study Centre, the University of Creative Arts - Supporting letter attachedJISC InfoNet – email. As discussed under ‘benefits’ JISC InfoNet will be able to use outputs of this project to update their Mobile Toolkit, this is timely and welcomed by JISC InfoNet.  |
| **6. Exit and Sustainability.** How will any outputs listed above be sustained beyond the funding period e.g. outputs deposited in the design studio could be seen as sustainable through JISC servicesThe SCARLET project is being developed alongside other AR developments at Mimas. As such there is a wealth of expertise at Mimas that will help inform the development of the toolkit itself. Mimas has a vested interest in ensuring that the toolkit is sustained and continues to develop beyond the funding period so that others within the team can benefit from project outputs. To ensure sustainability a member of staff will be assigned specific responsibility to maintain the currency of the toolkit. This project is about embedding the outputs of SCARLET into other institutions; it would be their responsibility to ensure the applications developed and the processes implemented are sustainable at their Institution. The project will support each institution to ensure sustainability by providing appropriate support materials, advice and guidance during the course of the project and beyond. The SCARLET project team will have faced the same types of issues as the participating institutions so will be ideally placed to offer advice and support to others dealing with the same considerations.The purpose of the proposed project is to demonstrate tangible benefits through participation and provide a framework for development. Therefore incentives to continue to sustain the developments will be apparent to participating institutions. |
| **7. Evaluation**How will you ensure that the resources are fit for purpose, determine the success of capacity building activities and evaluate any take-up pilots?The project will assess the value, functionality and usability of the Toolkit that was developed by the SCARLET project. The SCARLET project used formative assessment methods to continually evaluate the project outputs. This methodology will be captured in the Toolkit and will therefore form part of the knowledge transferred to the partnersMimas is extremely well placed to evaluate projects of this nature. However the limited amount of funding provides insufficient scope to do this. We would very much welcome further funding opportunities to enable this or to work with JISC to undertake formal evaluation of the project outputs. Two case studies will be developed, based on ongoing feedback, by the partners that will evaluate the project aims. The case studies will review whether the support from Mimas and the use of the Toolkit has given them the expertise to embed AR into their Teaching and Learning practices. It will also review whether AR is also applicable to the collections and will therefore enable us to market the Toolkit as applicable to different types of collections other than those used within SCARLET. A final report will be submitted to JISC that will evaluate the project based on the expected outcomes and outputs.  |
| **8. Risk assessment** How will you manage risks and maximise the successful embedding of benefits?The project will rely on the availability of staff that have worked on the SCARLET project. The skills and knowledge acquired during the course of the SCARLET project will assist the participating organisations who can benefit from the expertise of the team. This is a key issue in helping reduce the risk associated with the project.

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| Risk | Action |
| Project partners fail to work together effectively | Establish communication mechanisms at the outset and review periodically. Provide various communication mechanisms to suit the requirements of the team. Use the workshop to ensure common goals. |
| Failure to disseminate best practices effectively  | Communication channels will be reviewed at the outset of the project and potential issues identified |
| Engagement within institutions is poor | The Mimas team have acquired sufficient knowledge to advise the institutions on best practice and share experience |
| Project is over ambitious  | The project processes have already been tested by the team during the course of the SCARLET project. This should reduce the element of risk associated with the project. |
| The toolkit is not adequately documented to enable development | The project will involve refining the toolkit to ensure it is sufficiently detailed |
| Technical challenges | The SCARLET team have encountered a number of technical challenges and this information will help participating institutions to anticipate and adapt to challenges. |

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**9. Work Packages**

Give brief details of the project timescale, project team, key work packages and outputs. Provide details of the work packages that will lead to your proposed outputs in full and who is responsible.

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| **Tasks** | **Start / End dates** | **Outputs** | **Responsibility** |
| **Work Package 1: Project Management** |
|  | 01/05/12 – 31/04/13 | Project Plan and Reports to JISC | Mimas |
| **Work Package 2: University of Sussex Knowledge Transfer** |
|  | 01/06/12 – 31/02/13 | * Workshops and engagement with the Toolkit.
* A case study on embedding AR based on the SCARLET approach.
 | Mimas and University of Sussex |
| **Work Package 3: University of Creative Art Knowledge Transfer** |
|  | 01/06/12 – 31/02/13 | * Workshops and engagement with the Toolkit.
* A case study on embedding AR based on the SCARLET approach.
 | Mimas and University of Creative Art  |
| **Work Package 4: University of Sussex AR Development** |
|  | 01/08/12 – 31/03/13 | 1-2-1 support | University of Sussex |
| **Work Package 5: University of Creative Art AR Development** |
|  | 01/08/12 – 31/03/13 | 1-2-1 support | University of Creative Art  |
| **Work Package 6: Toolkit evaluation and enhancement** |
|  | 01/08/12 – 31/04/13 | An improved SCARLET Toolkit | Mimas |
| **Work Package 7: Dissemination to the JISC Community** |
|  | 01/05/12 – 31/04/13 | * A final online workshop.
* Use of Social Media to promote the use of AR.
* updated JISC InfoNet Mobile Infokit.
 | Mimas |

**Project Team Members** (do not attach CVs)

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| **Name** | **Institution/Organisation** | **Role** |
| Matt Ramirez | Mimas | Educational Technologist |
| Laura Shaw | Mimas | Project Manager |
| Dr Jackie Carter | Mimas | Project Director |
| Jane Harvell | University of Sussex | Project Manager |
| Dr Lucy Robinson | University of Sussex | Lead Academic |
| Fiona Courage | University of Sussex | Special Collections Manager |
| Vacant Post | University of Sussex | Educational Technologist (Mass Observation Archive Education Officer) |
| Jean Vacher | University of Creative Art | Key Contact and content developer (Collections Manager, Crafts Study Centre) |
| Go Sapia | University of Creative Art | Educational Technologist (PostGrad) |

10. Budget