



Arts & Humanities  
Research Council

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# Research Grant Final FEC Report

Scheme: Research Grants (e-Science)

Document Status: With Council  
AHRC Reference: AH/E006361/1

#### Award Holding Organisation

Organisation	University of Bedfordshire	Research Organisation	
Division or Department	Faculty of Educ and Contemporary Studies	Reference:	

#### Title of Research Project

Relocating Choreographic Process: The impact of Grid technologies and collaborative memory on the documentation of practice-led research in dance

#### Project Details

Start Date	02/09/2007	Duration of Grant (months)	24
End Date	01/09/2009		
Report Due Date	01/12/2009		

#### Funds Awarded

Description	Full Economic Cost	AHRC Contribution	Percentage Contribution by AHRC
Total Grant Value	£ 421,271.25	£ 337,017.00	80 %

#### Investigators/Fellow

Role	Name	Organisation	Division or Department	Hours per week to be worked on the grant as stated in the proposal (Estimated Average)	Actual hours per week worked on the grant
Principal Investigator	Ms Helen Bailey	University of Bedfordshire	Creative Arts and Technologies	17.95	17.95
Co-Investigator	Dr Simon Buckingham Shum	Open University	Knowledge Media Institute	2	2
Co-Investigator	Dr Sita Popat	University of Leeds	Sch of Performance & Cultural Industries	14.95	14.95
Co-Investigator	Mr Michael Daw	The University of Manchester	Research Computing Services	2	2

#### Summary

Please provide a revised summary of your project or programme expressed in a manner suitable for a non-specialised audience. If the summary in your original proposal is shown you may copy and edit this.

#### Original Summary

The Relocating Choreographic Process project provides radical new opportunities for exploring the ways in which dance, the most ephemeral of art forms, might be documented. In particular the project will take advantage of cutting edge developments in e-Science to explore new opportunities for documenting the creative process in dance making. This will provide access to activities that have remained previously inaccessible even to the practice-led researchers themselves. The project will create digital memory traces of ephemeral moments that can be archived, interrogated and reused in a range of different contexts.

Relocating Choreographic Process (RCP) is a collaborative project exploring the interplay between dance/technology and e-Science, bringing together a unique combination of researchers and software developers from the Universities of Bedfordshire, Leeds, Manchester, and the Open University. RCP focuses on the novel ways in which practice-led dance research might be documented and enhanced by videoconferencing, recording and annotation tools. In turn, RCP will investigate how choreography can improve the user experience of e-Science tools in domains other than computing. RCP will also explore transdisciplinary interests in issues such as collective sensemaking, process capture, collaborative memory, and non-linear narrative.

The project will deliver an integrated suite of software tools to enable choreographers to visually annotate video of rehearsals and performances, to plan pieces that exploit the new possibilities of networked virtual spaces over the internet, and to weave material from recordings into live performances. It seeks to explore a new form of collaborative choreography. How do choreographers and dancers negotiate the paradoxical position presented by the distributed creative environment of being separate, in different physical locations, yet together in a virtual space?

The project will conduct an extended dialogue with the dance and performance research community through a series of workshops and publications. Attention will focus on the new ways of working that a hybrid physical/virtual space both demands and enables, on advancing the artistic and technical design of the venues that are connected by video over the internet, and on commissioning new dance pieces in order to test both the new software, and the expressive and creative possibilities of this exciting new medium for performance art.

#### Revised Summary

The e-Dance Project provides radical new opportunities for exploring the ways in which dance, the most ephemeral of art forms, might be documented. In particular the project will take advantage of cutting edge developments in e-Science to explore new opportunities for documenting the creative process in dance making. This will provide access to activities that have remained previously inaccessible even to the practice-led researchers themselves. The project will create digital memory traces of ephemeral moments that can be archived, interrogated and reused in a range of different contexts.

The e-Dance Project is a collaborative project exploring the interplay between dance/technology and e-Science, bringing together a unique combination of researchers and software developers from the Universities of Bedfordshire, Leeds, Manchester, and the Open University. RCP focuses on the novel ways in which practice-led dance research might be documented and enhanced by videoconferencing, recording and annotation tools. In turn, e-Dance will investigate how choreography can improve the user experience of e-Science tools in domains other than computing. e-Dance will also explore transdisciplinary interests in issues such as collective sensemaking, process capture, collaborative memory, and non-linear narrative.

The project will deliver an integrated suite of software tools to enable choreographers to visually annotate video of rehearsals and performances, to plan pieces that exploit the new possibilities of networked virtual spaces over the internet, and to weave material from recordings into live performances. It seeks to explore a new form of collaborative choreography. How do choreographers and dancers negotiate the paradoxical position presented by the distributed creative environment of being separate, in different physical locations, yet together in a virtual space?

The project will conduct an extended dialogue with the dance and performance research community through a series of workshops and publications. Attention will focus on the new ways of working that a hybrid physical/virtual space both demands and enables, on advancing the artistic and technical design of the venues that are connected by video over the internet, and on commissioning new dance pieces in order to test both the new software, and the expressive and creative possibilities of this exciting new medium for performance art.

#### Changes

You will be logged out automatically after two hours of system inactivity. Typing in a text box is not detectable by the system and is regarded as system inactivity. Please remember to save text regularly.

*Please indicate any changes, during the lifetime of the research programme, to the original Aims and Objectives.*

No changes were made to the research aims or objectives of the project during the lifetime of the project. However the project title was revised and for brevity the project title became 'the e-Dance Project'.

*Please indicate any changes, during the lifetime of the research programme, to the original Research Questions.*

No changes were made to the research questions that underpinned the project throughout the lifetime of the project.

*Please indicate any changes, during the lifetime of the research programme, to the original Research Methods.*

No changes have been made to the original research methods

*Please indicate any changes, during the lifetime of the research programme, to the original Outputs.*

In the original proposal we indicated that we would provide the following public outputs in all cases the outputs were either met or exceeded in number:

1. Enhanced software tools for the practice-led researcher

The software tools developed on the project 'e-Dance Scene Editor' and 'e-Dance Compendium' are available on Google Code and through the project wiki.

2. Four stakeholder workshops

There were six research intensives undertaken on the project, in each case opportunities were provided for key stakeholders to engage in the research process. The nature of the workshop events and the constituency of each varied depending on the particular developmental stage of the research.

3. Four refereed conference presentations

The project team has exceeded this predicted number and have produced twelve refereed conference papers during the lifespan of the project.

4. One distributed live/AG hybrid performance event

The project team has exceeded this predicted number and produced eight practice-led performance outputs. These vary in length from 8-minute duets to a 60-minute quartet.

5. One-day project symposium event

This one-day event was held on 3 March 2010. It included a presentation of the research, the final practice-led output and a question and answer session.

6. Four co-authored publications

The project team has exceeded this predicted number and produced seven publications, comprising three journal articles and four published conference proceedings.

7. Online resources

The project website provides access to a project blog that has documented research activities, key findings, project achievements and dissemination activity.

*Please indicate any changes, during the lifetime of the research programme, to the original Dissemination plans.*

No changes were made to the original project dissemination plan. Further opportunities for dissemination through a variety of national and international academic networks and e-Science schemes have been taken advantage of to provide further project impact. These are discussed further in the section of this report that outlines the project achievements.

*If a technical appendix was completed, please indicate any changes during the lifetime of the research programme, to the original Technical Specification.*

There have been no changes to the original technical specifications set out in the project application.

*Please indicate any changes, during the lifetime of the research programme, to the original Timetable of Activities.*

Year One (September 2007 - August 2008) of the project was completed in line with the timetable of activities set out in the original project proposal.

The first five months of Year 2 (September 2008 - February 2009) was completed in line with the project timetable of activities as outlined in the proposal.

Due to a combination of personal and professional reasons the Principal Investigator (PI) requested a project extension of

[REDACTED]

This three month extension allowed the final milestone timetable to be extended until the end of the calendar year providing opportunity for the project to be completed as planned.

Please indicate any changes to the People who have worked on the research programme.

There was no change to personnel on the project.

Please indicate if you have Missed Milestones during the research programme.

All project milestones were achieved. However as previously mentioned the Year 2 timescale for milestones was affected

[REDACTED] Exempt under FOIA, Section 40: 'Personal information'

If there are any additional unforeseen changes to the research programme, please provide details and reasons below.

There were no further changes made to the research programme

### Achievements

Using your original aims and objectives as a framework for your response, please briefly identify the achievements or highlights of your research programme. Your response should, where possible, be evidence-based. If your aims and objectives have been amended following consultation with the AHRC, please refer to the amended version. Please also refer to Help, as scheme-specific guidance may apply.

The project had two interrelated aims articulated through the research questions. Firstly, what unique opportunities does the distributed Access Grid environment provide for developing new approaches to choreographic composition and process and within this context how can we find new, appropriate and meaningful methodologies for capturing and modelling practice-led research? Secondly how can choreographic/embodied knowledge and sensibility help to shape e-Science practice to make its applications more useable within the field of performance arts practice-led research as well as the broader Arts and Humanities context? The primary means by which these aims have been interrogated is through a series of research intensives. The project has had six research intensives which have involved researchers from the fields of dance and e-Science working collaboratively within a studio/laboratory context. These research intensives have varied in length from two days to five weeks. These workshops provided the context for detailed subject-based research, interdisciplinary research and software tool development. The outputs from these research intensives have exceeded the original project team expectations. A key objective for the project was to utilise the practice-led research laboratory setting as a context to establish a methodology drawing on both disciplines and based on the design life-cycle common to both software development and choreographic composition. This was a particularly successful model and from the first research intensive it became clear that the most effective means of gaining new knowledge and insight was to produce prototypes within and between each discipline. Therefore each research intensive was used to test software developments through the creation of a short distributed dance work. The first year research intensives focused on an interrogation of the Access Grid as a context for choreographic practice and the documentation of that practice through the development of a bespoke software tool to enhance and support the use of the Access Grid in this way. This resulted in the development of the e-Dance Scene Editor tool. This tool provides an interface that allows the manipulation of multiple media streams across multiple locations in real time and the recording and reuse of these media streams. The second year focused on the development of methods for documenting this practice. A tool for hyper-medial documentation of practice utilising a specialised form of the dialogue mapping tool Compendium was developed. This provides the means by which nodal maps can be integrated into video streams to provide a non-linear representation of the creative process, in which a variety of media formats can be integrated. The results of the research workshops have been disseminated widely through public performance events, a significant number of conference presentations and through the publication of articles. Alongside this there has been ongoing public engagement with the project through the project website and the project blog. The project blog has provided the opportunity to disseminate ongoing information and insights into the project as the research process has been undertaken.

If there are any additional achievements that do not clearly relate to your aims and objectives, please indicate these below. You may, for example, wish to provide evidence of intangible achievements that could not have been anticipated when you commenced the research programme. If you have identified such achievements under the 'Changes' section, there is no need to repeat the information here.

An area of achievement for the project that was not envisaged in the original proposal has been in the use and integration of other technologies not initially planned for to capture and visualise movement. This has focused on the use of motion

capture technology to capture the spatio-temporal trajectories of movement and then to develop methods for visualising this data. This has been particularly successful resulting in what have been termed 'choreographic morphologies'. These visualisations have been used in a variety of contexts as scores for further creative and compositional engagement and as models for analysis. This particular set of findings has resulted in the development of further research collaborations in the interdisciplinary intersections between choreography and archaeology. Outputs in the form of public performance, conference papers, invited presentations and publications have resulted from this further activity not originally envisaged.

The expertise developed through the project concerning the design imperatives of the Access Grid physical environment as a space for performance has resulted in consultancy activity that was not initially envisaged. The project Principal Investigator provided advice and consultancy in the development of the Anatomy Theatre space at King's College London in 2008 in this area.

Beyond the academic context the project has had achievements that were not initially expected. The Arts Council of England commissioned a report in 2008 to consider the national strategic development of dance and technology in the professional independent arts sector. The project Principal Investigator was invited to be a consultant on the report and to advise on future strategic directions for national support and investment in this area.

The project team has been invited by the British Library to contribute e-Dance Project research findings and outputs in the form of the software tools and documentation of performance outputs to a major public exhibition planned for 2010. The exhibition titled 'Digital Research Futures' will open in October 2010 and will run for 12 months.

### Importance

Please comment on the potential importance of the project and its findings in advancing creativity, knowledge and understanding in the following areas and also in stimulating further projects. You should ensure that you refer to Help for further guidance.

### Subject Area

The e-Dance project is significant to the subject area of dance in several ways. It is the first research project of its kind to directly engage with e-Science methodology and approaches and has therefore advanced knowledge and understanding significantly in this area.

Specifically the project has made considerable developments in furthering the creative engagement with internet technology for dance in the area of the impact of mediated environments on compositional approaches. Although previous projects have explored the internet from a performative perspective, none have pursued a systematic investigation of the impact on compositional method. The project has also been important to the subject area in that it has provided the opportunity to develop software tools to enhance this environment developed in an interdisciplinary context in which dance artists had directly contributed to the testing and development.

This has resulted the advancing of knowledge and understanding of the virtual research environment for dance and practice-led research from a variety of other perspectives beyond the purely compositional. In particular it has provide knowledge and understanding of the working process, documentation and the design imperatives for the physical Access Grid environment.

The project has developed new methods of documenting practice that reveal data that might otherwise be difficult to access and analyse. Both areas of software development have provided tools that enhance practice-led research methodology.

The project has had significant impact upon the e-Science community in particular foregrounding the significance of 'motion' and also embodied engagement with technologically mediated communication. This project has been significant in both the subject context and the e-Science context in terms of its capacity to engage critically with the technology. In other words the project has foregrounded the transformational aspects of e-Science approaches to the discipline itself. The Access Grid environment has required a review and development of compositional approach and documentation that go beyond the instrumental use of e-Science tools to simply enhance existing research practices.

### Grade for Subject Area

<input checked="" type="checkbox"/> Considerable	<input type="checkbox"/> Moderate	<input type="checkbox"/> Low	<input type="checkbox"/> None
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### Outside Academia

The project has importance outside academia. During the project, Principal Investigator was invited to participate in the MIIMA (Moving Image Media Artists) workshop co-hosted by Troika Ranch US-based Dance and Technology Company and the 3DL Center in New York, USA. Artistic Director of Troika Ranch, Mark Coniglio has developed a software tool called 'Isadora', that is the only piece of software currently commercially available that has been developed specifically for the manipulation of media in performance for a dance specific context. This workshop provided the opportunity to discuss the e-Dance software development and disseminate knowledge in to an international professional arts audience.

The Arts Council of England has provided further support in the form of a 'Grants for the Arts' Award to the Principal Investigator of the project to provide support for knowledge transfer. This has resulted in the development of 'Here and There', an evening's length performance work integrating the software developed as part of the e-Dance project. This dance work will tour nationally to professional theatre venues and will provide further dissemination of the research to a general public audience.

The project team has been invited by the British Library to contribute e-Dance Project research findings and outputs in the form of the software tools and documentation of performance outputs to a major public exhibition planned for 2010. The exhibition titled 'Digital Research Futures' will open in October 2010 and will run for 12 months. This will provide direct access to the research to a general public audience.

#### Grade for Outside Academia

<input checked="" type="checkbox"/> Considerable	<input type="checkbox"/> Moderate	<input type="checkbox"/> Low	<input type="checkbox"/> N/A
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Further research directly arising from the project, including specific projects that you or your project partners are undertaking, whether funded or not.

As a direct result of the e-Dance project further research in the area of the application of technology and e-Science methods to dance will be continued and furthered through the Movement in Place Platform project. This is an AHRC funded DEDEFI project. The project builds on informal collaborative relationships that have been established as a result of the e-Dance Project. Primarily this is builds on the collaborative relationship developed in the area of the application of e-Science at the intersection between choreography and archaeology to visualise spatio-temporal structure. This informal collaborative relationship between Helen Bailey (PI) and Stuart Dunn, Senior Research Fellow in Digital Humanities at King's College London will be formalised through this project. The lead institution for the project is University of Sussex at which Kirk Woolford and Sally-Jane Normal are both based, informal networking relationships have been established with these individuals as a result of the e-Dance project and this new project will provide the context for a more formalised arrangement to develop.

#### Grade for Further Research

<input checked="" type="checkbox"/> Considerable	<input type="checkbox"/> Moderate	<input type="checkbox"/> Low	<input type="checkbox"/> None
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# People

Role Name	Name / Post Identifier	Grade on Joining	Current Grade	Position on Joining	Current Position	Start Date	End Date	% FTE	Comments
Co-Investigator	Dr Simon Buckingham Shum			Senior Lecturer	Senior Lecturer/ Acting Director of SocialLearn Project	02/09/2007	31/08/2009		This project has provided opportunity to develop further research expertise. To develop new collaborative relationships across diverse subject domains and with researchers from HEIs within the UK and internationally.
Co-Investigator	Dr Sita Popat			Senior Lecturer	Senior Lecturer	02/09/2007	31/12/2009		This project has provided opportunity to develop further research expertise. To develop new collaborative relationships across diverse subject domains and with researchers from HEIs within the UK and internationally.
Co-Investigator	Mr Michael Daw			Collaborative Working Technologies Team Leader	Head of Research Computing	02/09/2007	31/08/2009		This project has provided opportunity to develop further research expertise. To develop new collaborative relationships across diverse subject domains and with researchers from HEIs within the UK and internationally.
Principal Investigator	Ms Helen Bailey			Principal Lecturer	Head of Department	02/09/2007	31/12/2009		This award has provided me









## Interactions, Collaborations and Networking

Interaction Details	New Interaction	Interaction Locations
The award provided the context to develop a formal collaborative partnership between the University of Bedfordshire and the University of Manchester, Research Computing.	Yes	Other UK Research Organisation
The award provided the context to establish a formal collaborative relationship between University of Bedfordshire and the Open University, Knowledge Media Institute.	Yes	Other UK Research Organisation
The award provided the context to develop a formal collaborative partnership with Leeds University, School of Performance and Cultural Industries	Yes	Other UK Research Organisation
The award facilitated collaboration with AHeSSC (Arts and Humanities e-Science Support Centre). This organisation provided support to the project through hosting the project website and providing networking and dissemination opportunities.	Yes	Other UK Research Organisation
Invitation for PI helen Bailey to become a member of the New Paradigms in Performance international research group hosted by University of Salford. This research network brings together academics from UK, and international HEIs and research organisations.	Yes	Other UK Research Organisation Non-UK Research Organisation  Non-UK Locations: United States
Helen Bailey has been invited to be a member of the TAPRA (Theatre and Performance Research Association) New Technologies for Theatre working group.	Yes	Other UK Research Organisation
The project team has developed an ongoing relationship with AHeSSC (Arts & Humanities e-Science Support Centre). This organisation has hosted the project website and provide support for networking opportunities and events.	Yes	Other UK Research Organisation

Based on the information provided, how would you describe the importance to the project of formal collaborations, either within the project team or with external partners	Considerable
Based on the information provided, how would you describe the importance to the project of less formal networking activities?	Considerable
Was your research multidisciplinary?	Yes
Was your research interdisciplinary?	Yes

## Outputs and Outcomes

Electronic Outputs - Interactive website	
<b>Originally Envisaged: 2</b>	<b>Completed: 2</b> <b>Not Yet Completed: 0</b>
Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Project blog
Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Project wiki

**Electronic Outputs - Software****Originally Envisaged: 2****Completed: 2****Not Yet Completed: 0**

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	eDance Compendium

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	The eDance Screen Editor

**Electronic Outputs - Website****Originally Envisaged: 1****Completed: 1****Not Yet Completed: 0**

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Project website

**Outcomes - Adviser to individual, private or public body****Originally Envisaged: 0****Completed: 2****Not Yet Completed: 0**

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Helen Bailey invited to be an advisor in the technological development of the Anatomy Theatre as a performance space at King's College London

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Helen Bailey was invited to be an advisor for Arts Council of England strategic report on national support for dance and technology

**Outcomes - Advisory position on academic panel****Originally Envisaged: 0****Completed: 0****Not Yet Completed: 0**

Outcomes - Advisory position on non-academic panel		
Originally Envisaged: 0	Completed: 0	Not Yet Completed: 0

Outcomes - Conferences/seminars (facilitator/organiser)		
Originally Envisaged: 0	Completed: 1	Not Yet Completed: 0
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	Yes	
Further Details	Organised and facilitated a panel at the DRHA 2008 Annual International conference held at University of Cambridge, UK	

Outcomes - Conferences/seminars (presentation-not keynote)		
Originally Envisaged: 0	Completed: 5	Not Yet Completed: 0
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	Yes	
Further Details	Invited presentation 'e-Dance: Relocating Choreographic Process', New Performance Paradigms International Symposium, University of Salford, UK	
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	Yes	
Further Details	Invited presentation 'e-Dancing: Embodied Practice in the Virtual Research Environment' at Digital Representations in Performance, AHDS Performing Arts Summer School, National e-Science Centre, Edinburgh University	
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	Yes	
Further Details	Invited presentation on the e-Dance Project to the JISC funded VERA project steering group at University of Reading, UK.	
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	Yes	
Further Details	Invited presentation to the Joint Arts and Humanities - National Grid Service Working Group at the Rutherford Appleton Laboratory, University of Oxford, UK	
Completed (Y/N)?	Yes	

Originally envisaged (Y/N)?	No
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	Invited to provide guest lecture for the MA Digital Culture programme at King's College London on e-Dance

#### Outcomes - Inflow of students (eg for PG supervision)

<b>Originally Envisaged: 0</b>	<b>Completed: 0</b>	<b>Not Yet Completed: 1</b>
Completed (Y/N)?	No	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	No	
Further Details	Two new PG research students undertaken by PI Helen Bailey in the area of dance and technology	

#### Outcomes - Invitations to be conference chair/panelist

<b>Originally Envisaged: 0</b>	<b>Completed: 0</b>	<b>Not Yet Completed: 0</b>
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#### Outcomes - Invitations to give plenary/keynote presentations

<b>Originally Envisaged: 0</b>	<b>Completed: 1</b>	<b>Not Yet Completed: 1</b>
Completed (Y/N)?	No	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	Yes	
Further Details	Helen Bailey has been invited to provide a keynote at e-Research Australasia Annual International Conference 2010	
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	Yes	
Further Details	Helen Bailey was invited to give the opening plenary presentation 'Assessing the impact of e-Science on practice-led research through the e-Dance project' at AHM2009 Annual International UK e-Science Conference, Oxford University	

#### Outcomes - Invitations to visit overseas HEIs

<b>Originally Envisaged: 0</b>	<b>Completed: 0</b>	<b>Not Yet Completed: 0</b>
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#### Outcomes - Membership of academic network

<b>Originally Envisaged: 0</b>	<b>Completed: 3</b>	<b>Not Yet Completed: 0</b>
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	

International Audience (Y/N)?	Yes
Further Details	Invited member of New Performance Paradigms International Research Group hosted by University of Salford, UK
Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	Invited membership of TAPRA Performance and Technology internationala working group
Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	membership of the Society of Dance History Scholars

#### Outcomes - Other outcome

<b>Originally Envisaged: 0</b>	<b>Completed: 1</b>	<b>Not Yet Completed: 0</b>
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	Yes	
International Audience (Y/N)?	Yes	
Further Details	Invitation to attend and participate in week-long MIMA (Moving Image Media Artists) international research workshop hosted by Troika Ranch at the 3DL Center, New York, USA	

#### Outcomes - Patents/Licenses

<b>Originally Envisaged: 0</b>	<b>Completed: 0</b>	<b>Not Yet Completed: 0</b>
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#### Outcomes - Printed press coverage

<b>Originally Envisaged: 0</b>	<b>Completed: 3</b>	<b>Not Yet Completed: 0</b>
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	Yes	
Further Details	Article on e-Dance project in EPSRC news letter	
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	Yes	
Further Details	Article on the e-Dance project in JISC newsletter	
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	Yes	
International Audience (Y/N)?	Yes	

Further Details	The e-Dance Project was reported as part of an article in THES on the impact of e-Science on the Arts and Humanities through the AHRC-EPSRC-JISC scheme
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<b>Outcomes - Projects – collaborative</b>		
Originally Envisaged: 0	Completed: 0	Not Yet Completed: 0

<b>Outcomes - Projects – commercial or consultancy</b>		
Originally Envisaged: 0	Completed: 0	Not Yet Completed: 0

<b>Outcomes - Projects – other</b>		
Originally Envisaged: 0	Completed: 1	Not Yet Completed: 0
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Non-Academic Audience (Y/N)?	Yes	
International Audience (Y/N)?	Yes	
Further Details	Arts Council of England Grants for the Arts Award to support production and touring costs for dance work development based on e-Dance Project research	

<b>Outcomes - Radio/TV coverage</b>		
Originally Envisaged: 0	Completed: 0	Not Yet Completed: 0

<b>Outcomes - Review in specialist publication</b>		
Originally Envisaged: 0	Completed: 0	Not Yet Completed: 0

<b>Outcomes - Visits made by overseas visitors</b>		
Originally Envisaged: 0	Completed: 0	Not Yet Completed: 0

<b>Paper/Printed Outputs - Conference Paper</b>		
Originally Envisaged: 4	Completed: 12	Not Yet Completed: 0
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	No	
Joint Output (Y/N)?	No	
Paper Title	Archaeology/Choreography: Interdisciplinary crossovers in the use of digital visualisation methods	
Conference Title	Sites of Performance: Mapping/Performance/History International conference	
Published date	09/03/2009	
Non-Academic Audience (Y/N)?	No	
International Audience (Y/N)?	Yes	
Further Details	Conference held at University of Nottingham, UK	



Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Paper Title	Choreographic Morphologies: digital visualisation of spatio-temporal structure in dance and the implications for perform
Conference Title	EVA2008 (Electronic Visualisation in the Arts) International Conference
Published date	01/07/2008
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	The conference was held at the British Computing Society, London, UK

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Paper Title	Choreographing the past: Interdisciplinary crossovers between 3D methods in dance and archaeology
Conference Title	Visualisation and Knowledge Formation VIA2008 Visualisation in Archaeology Research Workshop
Published date	12/11/2008
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	This international workshop was held at the University of Southampton, UK

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Paper Title	Connecting Dancers: Remote Choreography
Conference Title	Access Grid International Retreat
Published date	15/03/2008
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	The conference was held at Simon Fraser University, Canada

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Paper Title	Dancing on the Grid: Using e-Science tools to extend choreographic research
Conference Title	UK e-Science All-Hands Meeting Annual International Conference
Published date	03/09/2008
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	The conference was held at the University of Edinburgh, UK

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Paper Title	e-Dance: digital topographies and knowledge cartography in networked performance
Conference Title	ISEA 2009 (International Symposium of Electronic Arts) 15th Annual International Conference

Published date	04/09/2009
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	Conference held at University of Ulster, UK

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Paper Title	e-Dance: Relocating choreographic practice as a new modality for performance and documentation
Conference Title	ISEA2008 (International Symposium of Electronic Arts) 14th Annual International Conference
Published date	05/07/2008
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	The conference was held at the National University of Singapore, Singapore.

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Paper Title	e-Dance: using digital cartography to map the choreographic process
Conference Title	Topographies: Sites, Bodies, Technologies, Society of Dance History Scholars 32nd Annual International Conference
Published date	08/07/2009
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	Conference held at Stanford University, USA

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Paper Title	Embodying Interfaces: Stereobodies and Choreographic
Conference Title	DRHA 2008 (Digital Resources in the Humanities and Arts) Annual
Published date	09/09/2008
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	The conference was held at the University of Cambridge, UK. The project team were responsible for convening a panel and provided multiple presentations.

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Paper Title	Embodying Interfaces: the e-Dance Project
Conference Title	DRHA 2008 (Digital Resources in the Humanities and Arts) Annual
Published date	09/09/2008
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	The conference was held at the University of Cambridge, UK. The project team were responsible for convening a panel and provided multiple presentations.

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Paper Title	Relocating Choreographic Process: The Impact of Collaborative Memory
Conference Title	DRHA 2008 (Digital Resources in the Humanities and Arts) Annual
Published date	03/09/2007
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	The conference was held at Dartington College of Arts, Devon, UK

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Paper Title	The e-Dance Project: Performing Telepresence
Conference Title	Performing Presence: from the live to the simulated, International Conference
Published date	02/04/2009
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	The conference was held at the University of Exeter, UK

#### Paper/Printed Outputs - Journal Article (refereed)

<b>Originally Envisaged: 4</b>	<b>Completed: 5</b>	<b>Not Yet Completed: 2</b>
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Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Article Title	Choreographic Morphologies: digital visualisation of spatio-temporal structure in dance and the implications for perform
Journal Title	EVA2008 International Conference Proceedings
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	Published by British Computing Society, UK ISBN 978-1-906124-07-6

Completed (Y/N)?	No
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Article Title	Choreographic Morphologies: Mapping the Virtual in technologically mediated dance
Journal Title	International Journal of Choreographic Practices
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	The paper has been accepted for publication by this new Intellect journal and is currently in-press.

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Article Title	Dancing on the Grid: Using e-Science tools to extend choreographic research

Journal Title	Philosophical Transactions A, The Royal Society
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	ISBN 978-0-85403-757-5

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Article Title	e-Dance: digital topographies and knowledge cartography in networked performance
Journal Title	ISEA 2009 15th International Conference Proceedings
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	ISBN 978-981-08-0768-9

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Article Title	e-Dance: Relocating choreographic practice as a new modality for performance and documentation
Journal Title	ISEA2008 International Conference Proceedings
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	ISBN 978-981-08-0768-9

Completed (Y/N)?	No
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Article Title	e-Dance: using digital cartography to map the choreographic process
Journal Title	Topographies: Sites, Bodies, Technologies, Society of Dance History Scholars 32nd Annual International Conference procee
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	The paper has been accepted for publication and is currently in-press.

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Article Title	Ersatz Dancing: Negotiating the live and mediated in digital performance practice
Journal Title	International Journal of Performance Arts and Digital Media
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Vol.3, No. 1, Intellect ISSN 14794713.

#### Performance/Visual Media Outputs - Exhibition or installation

Originally Envisaged: 0	Completed: 0	Not Yet Completed: 1
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Completed (Y/N)?	No
Originally envisaged (Y/N)?	No

Joint Output (Y/N)?	Yes
Organisation Types:	Not-for-profit organisation
Title	Digital Research Future
Venue	British Library
Audience Size	10000
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	The project team has been asked to contribute to the British Library's year-long 'Digital Research Future' project, which will open in October 2010 and will run for one year. The project will foreground leading-edge digital research across a range of disciplines and aims to provide interactive access to the e-dance software tools and research outputs.

Performance/Visual Media Outputs - Other Performance/Visual Media outputs		
Originally Envisaged: 1	Completed: 1	Not Yet Completed: 0
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	Yes	
Joint Output (Y/N)?	No	
Non-Academic Audience (Y/N)?	Yes	
International Audience (Y/N)?	Yes	
Further Details	Edited video documentaries of performances generated as part of the project have been screened at a range of conferences nationally and internationally as a part of the presentations listed within this submission under the sub-section 'conferences'. These will be made available on the project website.	

Performance/Visual Media Outputs - Performance, film or recording		
Originally Envisaged: 1	Completed: 8	Not Yet Completed: 0
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	Yes	
Joint Output (Y/N)?	No	
Title	Composite Bodies	
Venue	University of Bedfordshire	
Audience Size	56	
Non-Academic Audience (Y/N)?	Yes	
International Audience (Y/N)?	Yes	
Further Details	This live networked performance brought together multiple locations within the University of Bedfordshire campus across which audience and performers were distributed. This quartet was performed by Catherine Bennett, River Carmalt, Amalia Garcia and James Hewison, each performer was in a separate location with an audience. This 12-minute work provided the opportunity to test software developments. Video and photographic documentation of this piece has subsequently been shown at several international conferences as part of paper presentations.	
Completed (Y/N)?	Yes	
Originally envisaged (Y/N)?	Yes	
Joint Output (Y/N)?	No	

Title	Here and There
Venue	University of Bedfordshire Theatre, Bedford UK
Audience Size	185
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Live networked performance. 60-minute quartet choreographed by Helen Bailey, integrating the e-Dance Scene Editor software developed on the project. Performed by River Carmalt, Marina Collard, Amalia Garcia and James Hewison. This output of the project recieved further funding from the Arts Council of Engalnd through a Grants for the Arts Award.

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Title	Morphologies
Venue	University of Bedfordshire Theatre, Bedford UK
Audience Size	245
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Live dance work integrating projected stereoscopic digital animation and interactive motion-tracking software. Quartet performed by Lee Awanah, Amalia Garcia, James Hewison, Lisa Spackman, 25-minutes in length. Video and photographic documentation of this piece has subsequently been shown at several international conferences as part of paper presentations.

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Title	Situate/Resituate
Venue	University of Bedfordshire
Audience Size	28
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Live networked performance, duet performed by River Carmalt and Amalia Garcia, 12-minutes in length. it was developed during a research intensive to test software developments. Video and photographic documentation of this piece has subsequently been shown at several international conferences as part of paper presentations.

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Title	Space/Placed
Venue	University of Bedfordshire Theatre, Bedford UK
Audience Size	97
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Live networked performance, duet performed by Catherine Bennett and James Hewison, 15-minutes in length. It was developed during a research intensive to test software developments. Video and photographic documentation of this piece has subsequently been shown at several international conferences as part of paper

	presentations.
Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Title	Touching Duet I
Venue	Open University and University of Manchester
Audience Size	20
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	Live screen-based networked performance event. Duet performed by Louise Douse and Sita Popat. The piece was 10-minutes in length and was developed during a research intensive to test software developments. Video and photographic documentation of this piece has subsequently been shown at several international conferences as part of paper presentations.

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	Yes
Joint Output (Y/N)?	No
Title	Touching Duet II
Venue	Open University and University of Manchester
Audience Size	14
Non-Academic Audience (Y/N)?	No
International Audience (Y/N)?	Yes
Further Details	Live screen-based networked performance. This 13-minut duet was performed by Helen Bailey and Sita Popat. It was developed during a research intensive to test software developments. Video and photographic documentation of this piece has subsequently been shown at several international conferences as part of paper presentations.

Completed (Y/N)?	Yes
Originally envisaged (Y/N)?	No
Joint Output (Y/N)?	No
Title	Trace
Venue	University of Bedfordshire
Audience Size	28
Non-Academic Audience (Y/N)?	Yes
International Audience (Y/N)?	Yes
Further Details	Live networked performance, duet performed by Catherine Bennett and James Hewison, 8-minutes in length. It was developed during a research intensive to test software developments and in particular the integration of graphics tablet hardware into the system. Video and photographic documentation of this piece has subsequently been shown at several international conferences as part of paper presentations.

## Electronic Resources

Are there any digital resources arising from the project? **Yes**

Have they been offered to the AHDS? **No**

Please outline briefly the strategy for maintaining any such resource(s) in the longer-term.

The digital resources that arise from the project are in the form of software tools. These tools are freely available via

Google Code and the project website. Neither require ongoing maintenance. The project website is currently hosted by AHeSSC (Arts and Humanities e-Science Support Centre) at King's College London. When and if necessary the hosting of the project website can be undertaken by the University of Bedfordshire.

Have you established a web-site? **Yes**

Have you informed Intute ? **Yes**

Please provide the URL

[www.ahessc.ac.uk/e-dance](http://www.ahessc.ac.uk/e-dance)