

APPENDIX 3

THE FUNDED APPLICATIONS: MORE INFORMATION

This appendix provides further information on the eight funded applications used as examples of good practice in this book.

They were chosen to represent a wide range of funding agencies, disciplines, project types, methodologies and career stage.

Some of the applicants have attended workshops run by the authors and others have run workshops and given talks on grant-writing themselves. Others have no connection with the workshops and are simply successful research grant applicants.

Although a set of eight applications can never be representative of the full range of funded research, the humanities, social sciences and sciences all feature among these case studies. The applicants range from those starting out in their academic careers through to internationally recognised researchers.

The projects themselves include travel grants, one- to five-year research projects, fellowships and large-scale collaborative programmes.

The funding agencies cover a number of different countries and include research councils, government agencies and a charity. None of the applications replicates every piece of advice in this book. However, all succeeded in producing stand-out project proposals that are easy to read, easy to understand and convincing.

A summary of each application follows:

Digital Media Fellowship

Title: Language of the Interface

Applicant: Dr Aylish Wood

Host Institution: University of Kent, UK

The Research Grant: funding for a nine-month fellowship from the Arts and Humanities Research Council (AHRC). The grant included full salary replacement

for the Principal Investigator for the period of the project plus overheads, equipment, travel and funding for dissemination activity.

Project summary from the original application

We know moving image technologies evolve and proliferate. In technologically advanced societies moving images convey ideas and tell stories. But are we aware of the extent to which technological interfaces participate in shaping the language of moving images?

This interdisciplinary project draws from cinema studies, science and technology studies and software studies. Increasingly pervasive, animation is embedded in cinema, digital games, and commercial and educational websites. Animation's widespread and diverse impact makes it ideal to study the following questions:

Q. 1: What does it mean to claim that technology participates or has agency in making images?

Q. 2: Can a technological interface generate an audio-visual language?

Q. 3: Does the language of an interface inform us about how our view of the world is evolving?

The project will be undertaken in four stages. Stages One and Three develop the theoretical ideas underlying the project: situated action and language of the interface. Stages Two and Four involve working with animations, games and web sites to expand and reflect on these theoretical insights.

Stages One and Three: Defining Situated Action and the Language of the Interface

Science and technology studies offer a framework to define the key terms of this project. Bruno Latour argues that technologies have the potential to transform or mediate the ideas of image-makers. In a limited way technology can be understood to participate in the making of images. Lucy Suchman's work on situated action examines the hybrid agency that emerges in interactions between humans and technological interfaces. I use these two approaches to develop and introduce the 'language of the interface' as an analytic tool to explore how technological interfaces influence our understandings of the world.

Stages Two and Four: Analysis of moving images and contextual materials

The theoretical frameworks will be used to explore moving image interfaces. These are divided into four categories: manipulation, play, proliferation, exploration. Each represents different situations. Manipulation focuses on creative work relying on manipulations of imagery, play addresses digital games, proliferation websites and exploration science-based animations.

My research method combines analysis of both moving images and contextual materials – published interviews and software manuals. Published interviews often unintentionally reveal information about complex interactions between practitioners and technology. Software manuals give insights into how interfaces are presented to practitioners.

Moving images studied include Wall-E, experimental works by UK-based animators SemiConductor. Games include Assassin's Creed and F.E.A.R. (Playstation 3), Echochrome (PSP), Flow (Playstation 3 on-line) and touchPhysics (iPod touch devices). Educational web sites to be accessed include science visualization web pages at Cold Spring Harbor and NASA.

My research will also be carried out through observation and interviews with image-makers. I am interested in learning how practitioners negotiate their way around the limits and possibilities of software packages. The material will be used as case studies to reflect on my theoretical ideas.

The participants have been selected on the basis that they cross the boundaries of entertainment and experimental animation, educational games and web sites, and as well as science visualizations. Potential contacts include Interactive Game Studio (Sweden), Institute of Play (US), and Wonky (UK).

Dissemination

The research will be written up as 4 journal articles and presented at 3 conferences, including the Society of the Social Studies of Science, the Society for Animation Studies and Society for Cinema and Media Studies in 2011. A network for continuing dialogue with the animators will be established.

Memory Research Project

Title: The Impact of Memory Reconsolidation on Vocabulary Acquisition: a Behavioural and Neural Investigation

Applicant: Dr Nicolas Dumay

Host Institution: Basque Center on Cognition, Brain and Language, Spain

The Research Grant: funding for a three-year research project from the MICINN (Ministry for Science and Innovation). The grant included funds for a full-time research assistant, other staff, equipment and participant payments.

Project summary from the original application

Traditional views of learning assume that new memories remain shaky for a short period, but soon *consolidate*, becoming resistant to interference from competing learning and amnesic agents (McGaugh, 2000).

However, recent – and not so recent – findings, mostly from animal neuroscience, suggest that this account is incomplete. These show that recalling a consolidated (and supposedly fixed) memory returns it temporarily to an unstable state, making it again susceptible to change until a new cycle of consolidation, or *reconsolidation* is achieved (Nader & Hardt, 2009).

This project bridges the gap between animal neuroscience and psycholinguistics, and looks at the impact of memory reconsolidation on word acquisition at the behavioural and neural levels. In this domain *consolidation* itself is a new concept. As Gaskell and I have shown, sleep plays a major role in feeding into our mental dictionary the words we learnt during the day (Dumay & Gaskell, 2007).

The present research examines the impact of reconsolidation at various levels of word acquisition. Experiments 1–5 are *behavioural* studies which look at the impact of reconsolidation on:

- Vocabulary list learning.
- The acquisition of words as motor sequences of syllables.
- The updating of lexical information.
- Lexical competition at the phonological and meaning levels.

Experiments 6–7 are *functional Magnetic Resonance Imaging* studies which identify the various brain areas involved in the learning, consolidation and reconsolidation of spoken word forms and their meaning.

All seven experiments follow the same logic. They assess the long-term retention of consolidated word knowledge, as a function of whether that knowledge is reactivated immediately before learning potentially corrupting information.

Findings will have strong implications for theories of human memory and models of language processing and acquisition, which all assume the stability of long-term representations. In addition, as this research introduces the idea that revising established knowledge shortly before learning similar information is ill-advised, results should also have substantial practical applications for (foreign) language tuition and remediation techniques.

Theatre and Performance Visiting Fellowship

Title: Visiting Fellowship: Prof. Richard Schechner, New York University

Applicant: Prof. Paul Allain

Host Institution: University of Kent, UK

The Research Grant: a three-month Visiting Fellowship from the Leverhulme Trust, a UK charity dedicated to funding research from all disciplines. The grant included travel, a maintenance grant, technical support and some consumables.

Project summary from the original application

Professor Richard Schechner is as celebrated for his contribution to the founding of the field of Performance Studies as he is renowned for his influential work as a theatre director, most notably with the Performance Group in the 1960s and 1970s.

He has directed numerous collaborative pieces, several of them based on classical texts or adaptations of such, celebrated for their experimentation and political and social engagement as well as aesthetic risk. Many of these have been used as reference points for his own seminal theoretical studies of performance that have spanned four decades.

Our proposal is for Schechner to direct a devised production at Kent University in the Drama department in collaboration with staff and students. This is to enable Kent colleagues and practitioner/researchers to develop their own practice-as-research and theoretical studies to a higher level, by participating with and learning from a world-leading expert, whose career has always combined the close integration of practice and theory.

The emphasis on both lectures and the creation of a performance piece will allow research staff and students to follow through from start to finish a concrete and very specific research process based on preparation, realisation and dissemination through documentation and reflection.

Research Animal Project

Title: Assessing the Welfare of Mice Used in Cancer Research

Applicant: Dr John Roughan, Dr Paul Flecknell

Host institution: Newcastle University, UK

The Research Grant: a three-year research project from the National Centre for the Reduction, Refinement and Replacement of Animal Use in Research (UK). The grant included research staff, laboratory equipment, consumables and travel and dissemination costs.

Project summary from the original application

The use of animals in medical research is a highly sensitive topic and in many cases the public perception is that this should not be allowed. Replacement strategies have been suggested such as culturing tumours outside of the body and then testing anticancer treatments. However, as scientists we know it is currently more appropriate to use animals as drugs [that] might combat cancer in people could behave very differently when tested in culture. Where animals are used we have a moral and legal obligation to minimise pain and suffering.

Animal cancer studies are an area where maintaining high welfare standards can be most challenging. We wish to obtain the highest quality scientific results whilst at the same time ensuring that the fewest animals suffer in the process. The key information we need to know is when pain occurs so that animals can be removed from studies prior to when they might begin to suffer. This is called determining the experimental 'end-point'. In a previous project we used behaviour changes as a method to assess when the animals might have begun to experience pain. This was partially successful in that we were able to identify changes that we think occurred because of pain. However we were unable to accurately determine how severe the pain was because we were not able to compare the results with equally accurate methods of determining how far cancer had progressed. In this new project we will use state-of-the-art scanning technology to regularly measure tumours whilst they are still growing within the body.

Humans are very different to other animals and human pain is a complex 'feeling'. Because of this some people speculate that animals might not be able to experience pain. They argue that animals could experience pain but it might not be something that actually matters to them. To convince them that they do experience pain, and that preventing it is something that we should take extremely seriously, we need to determine if they experience it in a way similar to us. A highly important aim of the work will be to determine whether pain affects them in the same way that it does humans with cancer. This will be achieved using tests designed to allow the mice to tell us how they are feeling. We will monitor whether they seek to obtain pain killing drugs when they are given a choice to do so. Being in pain and not are 2 very different feelings in humans. If these 2 very different states are also 'felt' by mice, then we should be able to train them to perform different tasks to obtain food rewards. How well they learn to complete simple tasks will tell us if they are able to 'feel' pain.

The outcomes of this project will help to improve the abilities of researchers to assess and prevent pain in mice involved in cancer research, and so should have a positive impact upon the welfare of a large numbers of animals. The results of the work will be in the public domain, and will show that concern for the welfare of research animals is a prime concern of the researchers involved.

Rendition and Detention Project

Title: The Globalisation of Rendition and Proxy Detention

Applicants: Dr Ruth Blakeley, Dr Sam Raphael

Host Institutions: University of Kent, Kingston University, UK

The Research Grant: An eighteen-month Economic and Social Research Council (ESRC) project. The grant included investigator time and dissemination activity.

Project summary from the original application

This project asks how the extraordinary rendition and proxy detention of terror suspects have developed and whether they are US-led phenomena.

Although highly secretive by nature, substantial documentary evidence shows that terror suspects are transferred illicitly to other states, where they may be tortured. It is generally assumed that the global system of rendition and proxy detention is US led, but early evidence suggests that it may be much more diffuse. It also appears to be operating differently in the three regions most involved (Asia, the Middle East and Africa), and localised systems of rendition and proxy detention may pre-date the 'War on Terror'.

Our understanding of rendition is based on work by human rights NGOs and investigative journalists. This gives us some knowledge of the roles of the US and UK. However, scholarly inquiry to date tends to focus on the legal aspects. There has been very little analysis on the states that provide proxy detention, or how the system operates globally.

This eighteen-month study will develop a theoretical model for rendition and proxy detention using three case studies of representative 'proxy' states in Asia, the Middle East and Africa. Sources will include as yet unanalysed databases of detention facilities and detainees and the case histories will enable the research team to provide a more robust theoretical basis for this illicit yet widespread phenomenon. In particular, the project will explore three key aspects of the process:

1. Whether the rendition and proxy detention system is hierarchical and US-led.
2. Whether the US is co-opting local and autonomous mechanisms.
3. Whether the system is diffuse, involving networks and collaborations between multiple states.

Findings from this project may challenge public assumptions about rendition and proxy detention as a US response to the 'War on Terror'. The development of a theoretical model will contribute to scholarly debate on security collaborations and state terrorism. Project outputs will also be of practical use to those agencies and individuals involved in legal and human rights' opposition to the practice.

Web Authoring Project

Title: SWAT (Semantic Web Authoring Tool)

Applicants: Dr Richard Power, Prof. Donia Scott, Prof. Alan Rector, Dr Robert Stevens

Host institutions: Open University, The University of Manchester

The Research Grant: funding for a three-year research project from the Engineering and Physical Sciences Research Council (UK). The grant included

two post-doctoral research associates, a project student, travel, dissemination, equipment and meeting costs.

Project summary from the original application

During the last decade the Semantic Web community has established basic standards for representing data and the conceptual systems (ontologies) through which they are defined. However, encoding information in these formalisms (OWL, RDF) remains a technically difficult task. Widespread adoption of these technologies (with their important potential benefits) would be facilitated if transparent interfaces to the technical formalisms were available.

The project aims to show that metadata in OWL and RDF can be viewed and authored through computer-generated presentations in natural languages (e.g., English). The crucial step theoretically will be to develop a model for systematically mapping logical concepts and relations to phrase patterns in natural language. The practical challenge will be to develop a tool through which ontology developers can specify this mapping, without deploying deep knowledge of ontologies or grammars. This tool will draw on existing wide-coverage linguistic resources, so that developers can select from a range of pre-coded patterns rather than having to define new ones. If successful, the project would provide an innovative solution to an urgent and commercially relevant problem (as shown by the letters from our collaborators). The main partners are leading UK experts in the theory and practical application of ontologies (Manchester University), and the design of easily-used tools for knowledge-editing based on generated text (Open University).

Software Testing European Project

Title: ProTest: Property-based Testing

Applicants: Prof. John Derrick (Sheffield), Prof. Simon Thompson (Kent), Dr Lars-Åke Fredlund (UPM), Prof. John Hughes (UGOT/Chalmers/Quviq), Prof. Thomas Arts (Chalmers/Quviq), Anders Kaspár (Ericsson AB), Francesco Cesarini (Erlang Solutions), Victor Gulias (LambdaStream)

Host institutions: University of Sheffield (co-ordinating institution, UK), University of Kent (UK), Universidad Politécnica de Madrid (Spain), University of Göteborg (Sweden), Chalmers University of Technology (Sweden), Ericsson AB, Erlang Solutions, Quviq AB, LambdaStream

The Research Grant: a three-year European Commission Framework Programme 7 STREP ('small or medium-scale focused research project') collaborative project. The grant included investigator time plus funds to support

employment of research staff, innovation activity, dissemination, software, equipment and project management.

Project summary from the original application

This project will develop software engineering approaches to improve reliability in Pervasive and Trusted Network and Service Infrastructures (ICT-2007.1.2). This is achieved today by extensive testing, combined with monitoring and logging in the field. Volumes of automated tests and logging code are written, failures must be analysed and diagnosed – and this accounts typically for half the cost of software. Even so, residual errors impose high costs on users.

We aim to automate much fault-finding and diagnosis, reducing its cost and improving effectiveness, based on properties of the system (specified by developers) which should always hold. Automated tools will generate and run tests, monitor execution at run-time, and log events for post-mortem analysis. When properties fail, the tools will search for simplest failing cases, and analyse trace and coverage information, to assist speedy diagnosis. Concurrency is a major challenge, which will be addressed in part by integrating model checking into our tools. Today's developers are not used to formulating general properties, so we will investigate ways of deriving them from two sources: UML (or UML-like) models, and by refactoring existing test suites. We combine academic expertise in refactoring, model-checking and testing; a tool vendor; and industrial expertise in telecoms. Three partners are SMEs; Ericsson is a leading telecoms supplier. All use Erlang, an open-source concurrent functional language aimed at telecoms and internet servers, which will be a common vehicle for our research – easing the transfer of theory into industrial practice. Erlang's good interoperability will enable our tools to find faults in all kinds of systems.

Our results will improve our tool vendor's products, be adopted by our partners within Ericsson and LambdaStream, and be disseminated by ETC to their customers throughout Europe's telecoms sector. This three-pronged strategy will guarantee real impact.

Project website: www.protest-project.eu

Spoken Word Project

Title: Development and Redevelopment of Lexical and Sub-Lexical Representations

Applicant: Prof. Arthur Samuel

Host institution: Stony Brook University, USA