CSIP5403: Research Methods and Applications

Lecture 8: Writing a Research Grant Proposal

Shengxiang Yang[1]

[1]Institute of Artificial Intelligence
School of Computer Science and Informatics
De Montfort Universty – UK

DE MONTFORT
UNIVERSITY
LEICESTER

Outline

DE MONTFORT
UNIVERSITY
LEICESTER

Why apply for research funding?

- Expectations
  - Institutions expect it and have a stake in getting research funds. The Research Excellence Framework (REF), for assessing the quality of research in UK higher education institutions, counts research awards as well as research outputs
- Status
  - Winning research funding is a key way to enhance your academic reputation and career marketability
- Entrepreneurship
  - One sure-fire way to create your own job doing exactly what you want, in an area that fires your passion

DE MONTFORT
UNIVERSITY
LEICESTER

Main Funding Bodies

- Government research funding organisations (ESRC, EPSRC, AHRC, European Commission)

- Government contract research (DFID, central government departments/agencies, local authorities)

- Foundations and charitable trusts (Leverhulme, Rowntree, Nuffield, Ford, McArthur, Asia Foundation)

- International organisations, e.g., The Organisation for Economic Co-operation and Development (OECD), World Bank, etc.

DE MONTFORT
UNIVERSITY
LEICESTER

Most Funding Bodies Have

- Funding rounds at specific times of the year
- Restrictions on who can apply
- Very explicit application procedures
- Nominated areas of focus and priority
- Expectations that any projects funded will have significant impact and/or benefit to society
- A positive stance towards collaborative projects covering different disciplines, sectors or countries
- Expectations that there will be deliverables over the duration of the grant as well as at the end

DE MONTFORT
UNIVERSITY
LEICESTER

The Research Idea

- **Benefit to society**: Project should have broad implications
- **Timeframe**: But it should be narrow enough to be completed during the period of the grant
- **Currency**: Projects with current relevance have better chances of getting funded
- **Knowledge**: Proposed project should use relevant 'work experience' and accumulated knowledge
- **Training**: It's also a good idea to build in new subject areas and/or methodologies – funders like knowing the benefits of the research extend to you

DE MONTFORT
UNIVERSITY
LEICESTER

Case for Support

- Pitch projects according to the key themes or research grant areas the funding body has specified as priority
- Think of a target audience to whom you are pitching – who are they, how many, and why should they care
- Stress the social benefits – to academic knowledge, public policy, specific groups, etc
- What would constitute 'success' to you, how would you measure it, and what would it mean to others outside your project?

What Makes a Good Research Proposal?

- Impact – benefit to society is central to the proposal
- Focus – everything in the proposal must support the research aims and objectives
- Collaboration – if you are not an expert in the new research area, then get collaborators who are. In any case, more funding available for collaborative research than for single-investigator projects. But more hassle (intellectual property, auditing finances, coordination)
- Clarity – each sentence should say exactly what you mean – and you should only use positive language

DE MONTFORT UNIVERSITY LEICESTER

Other Things to Consider to Strengthen Proposal

- Potential reviewers – choose a known authority figure and at least one international expert
- Letters of support – from institutions, ministries, etc
- Funding – better to ask for too much funding than too little (impact & 'achievable outputs' more important)
- Continuation – Keep yourself in a lucrative funding cycle by thinking how this project's outcomes may be used to launch future projects

Before Applying for a Grant

- Consider your chances of winning the award – in terms of your previous experience, the project's impact, success rates, etc.

- If the deadline is approaching, consider whether it's worth applying – correlation between time spent preparing a bid and probability of winning funding

- Look at successful and unsuccessful proposals and reviewers' comments – learn from others' mistakes

- Contact funding bodies with any questions on ambiguous points – sometimes they will give you feedback/advice on specific parts of your proposal!

DE MONTFORT
UNIVERSITY
LEICESTER

Case of Support

1. Title + Abstract
2. Introduction: Statement of the problem and succinct outline of proposed research
3. Background: Review of the Literature
4. Proposed work
   - Aims and objectives
   - Rationale
   - Methodology
   - Work Packages
5. Relevance to beneficiaries
6. Identification & consideration of legal, social, ethical & professional issues
7. Justification of resources
8. Work plan

DE MONTFORT
UNIVERSITY
LEICESTER

Background

- Introduce the topic of research and explain its academic and industrial context
- Demonstrate a knowledge and understanding of past and current work in the subject area in the UK and abroad

DE MONTFORT
UNIVERSITY
LEICESTER

Aims and Objectives

- Aim indicates the central thrust of your study
- Objectives identify the specific issues you propose to examine to get aim
- Should be clearly stated and specific in nature – no place for ambiguity
- Measurable objectives against which you would wish the outcome of the work to be assessed
- Use action-oriented verbs, such as:
    - to determine, to find out, to ascertain, to create

DE MONTFORT
UNIVERSITY
LEICESTER

Rationale and Methodology

- Explain why the proposed project is of sufficient timeliness and novelty to warrant consideration for funding

- Detail the methodology to be used in pursuit of the research and justify this choice

- Describe the programme of work, indicating the research to be undertaken and the milestones that can be used to measure its progress

- Explain how the project will be managed

DE MONTFORT
UNIVERSITY
LEICESTER

Work Packages

- Single entities related to objectives
  - But can link
  - Can overlap
- Must have deliverables:
  - What are you going to produce, when and where?
    - Reports, conference papers, articles, books, software
    - Seminars, workshops, courses
    - Project website, datasets...
- Be clear, specific and ambitious – but realistic

DE MONTFORT
UNIVERSITY
LEICESTER

Relevance to Beneficiaries

- Who will benefit from this research?
  - Academics
  - Industry
  - Society
  - Economy

- How will they benefit from this research?

- What will be done to ensure that they have the opportunity to benefit from this research?

DE MONTFORT UNIVERSITY LEICESTER

Justification of Resources

- Explain why the resources you've requested are required to undertake your research project, including implementing the impact plan
  - Staff
  - Travel and Subsistence
  - Equipment

DE MONTFORT UNIVERSITY LEICESTER

Work Plan

- The programme of work for the project should be illustrated with a simple diagrammatic work plan
  - for example, a PERT or Gantt chart
- Ensure that time plan does not exceed time available, and that tasks are ordered correctly
- Include planning time for deliverables

DE MONTFORT
UNIVERSITY
LEICESTER

Things to Remember

- A good case is clear, concise and not cluttered with technical jargon

- Where possible, say how your research project fits within funding body mission and objectives

- What is exciting about the research? Try to convey this to experts in the research field of project

- Provide a convincing case for the originality of your proposal and describe your objectives clearly and succinctly

- Potential applications might be obvious to you, but tell the reader what they are so that they are left in no doubt

DE MONTFORT UNIVERSITY LEICESTER

Summary

- Writing research proposal is important
- Novel ideas and potential impacts are key things for a proposal
- Proposal must be clearly written to convince reviewers and funding body

DE MONTFORT
UNIVERSITY
LEICESTER