

9-16-2005

## Grant Proposal Writing in Information Systems

Kalle J. Lyytinen

*Case Western Reserve University, kalle@po.cwru.edu*

Jane Prey

*Microsoft Research, jprey@microsoft.com*

Matt Germonprez

*University of Wisconsin-Eau Claire, germonr@uwec.edu*

Balasubramaniam Ramesh

*Georgia State University, bramesh@gsu.edu*

Dong-Gil Ko

*Indiana University, dgko@indiana.edu*

Follow this and additional works at: <https://aisel.aisnet.org/cais>

---

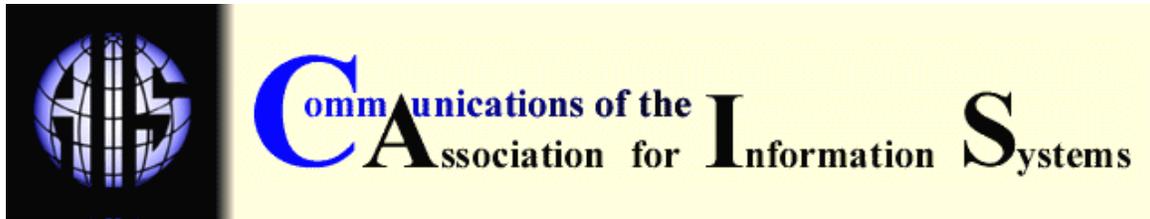
### Recommended Citation

Lyytinen, Kalle J.; Prey, Jane; Germonprez, Matt; Ramesh, Balasubramaniam; and Ko, Dong-Gil (2005) "Grant Proposal Writing in Information Systems," *Communications of the Association for Information Systems*: Vol. 16 , Article 22.

DOI: 10.17705/1CAIS.01622

Available at: <https://aisel.aisnet.org/cais/vol16/iss1/22>

This material is brought to you by the AIS Journals at AIS Electronic Library (AISeL). It has been accepted for inclusion in Communications of the Association for Information Systems by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).



## AMCIS 2005 WORKSHOPS-I GRANT PROPOSAL WRITING IN INFORMATION SYSTEMS

Kalle Lyytinen  
Case Western Reserve University

Jane Prey  
Microsoft Research

Balasubramaniam Ramesh  
Georgia State University

Matt Germonprez  
University of Wisconsin – Eau Claire  
[germonr@uwec.edu](mailto:germonr@uwec.edu)

Dong-Gil Ko  
Indiana University

### ABSTRACT

This paper provides an overview of grant proposal writing in Information Systems. In particular, we focus on where to find calls for grant proposals, how to write proposals, the proposal review process, and what to expect when a proposal is funded. Guidelines for writing proposals include writers becoming involved in the grant review process to gain a better understanding of how the granting process works and avoiding such pitfalls as writing proposals to increase salary, recognition, or university standing. The proposal writing process is a challenging task and this paper, based on a grant writing workshop at AMCIS 2005, provides support for navigating the process.

**Keywords:** grant proposal writing, information systems grants

### I. INTRODUCTION

Proposal writing is a difficult task in any field. Information Systems research is no different. Major concerns for funding organizations include

- the allocation of a generally limited set of funds to support high quality research,

- the definition of the field of Information Systems and
- the definition of which type of IS research is worthy of publishing.

Successful proposals are driven by true research needs. Researchers should be wary of falling in the trap of writing proposals for the need of personal financial gain or school gain, political gains, or as credit towards tenure and promotion. These goals can be achieved in easier ways, although all of them can be secondary outcomes of successful proposal writing and project execution.

In this paper, based on a workshop offered at AMCIS 2006 in Omaha, Nebraska in August 2006, we explore grant proposal writing primarily from the viewpoint of Information System scholars. We did not examine all sources of grants (e.g. nonprofit foundations, university specific, the Society for Information Management), all types of grants (e.g. pedagogical, equipment, travel, summer support), or the assessment of the potential competition in applying for grants. Instead, we looked specifically at the roles that both industry and government agencies play in grant proposal writing in support of individuals and their research, the process and outcomes of these funded grants, and techniques and pitfalls in the proposal writing process.

## II. WRITING GRANT PROPOSALS

Grant proposals go through a competitive selection process and the acceptance rates can be as low as 10% in Information-Systems-related programs. Though there is no silver bullet for writing a good grant proposal, in this paper we provide general rules that can guide a researcher in improving their chances of grant proposal acceptance and funding. Many of these guidelines are a replication/reiteration of tips and tricks already know to successful proposal writers [Porter, 2003].

Information systems, whether in business schools or elsewhere in the University or college, lie in a gray area of research funding - both for federal grants or private foundation grants.

1. Funding agencies are often hesitant about treating proposals from business schools in a "fair" way based on the perceptions that business schools are sufficiently rich that they can fund their own research.
2. Business schools do not have a strong history in obtaining federal government funding for research.
3. Information systems itself is viewed as a domain which lies in the intersection among the engineering sciences, the pure sciences, and the social sciences. Many times funding agencies are not willing to fund "interdisciplinary research." On this last issue, some recent National Science Foundation (NSF) research programs (e.g., The Information Technology Research Program) improved the situation significantly.

To overcome these three concerns, applicants should focus their proposal on tools or ideas that are generalizable beyond business schools and IS context and demonstrate clearly the return on investment that a funding agency will obtain. For example, suggest that your research on computing will involve the business school or businesses only as a starting point or an illustrative case.

Agencies fund high risk research. Therefore, the proposed topics should show significant changes and long term impact to the Information Systems field. As a proposal writer, you must determine if the topic is a new idea, or if it is an add-on to existing idea. Most funding programs clearly identify whether they target revolutionary or evolutionary research ideas. Unless explicitly identified, funding agencies may consider both types of proposals because both can provide key contributions to the field. However, express this difference clearly in the proposal and do not try to do everything in one proposal. In either case, provide strong literature coverage.

Show your own collaboration at the national and international level, because this information improves your ability to articulate the research idea in the context of ongoing research. It also demonstrates your competency in the research domain and the context of study.

In a proposal, formulate clearly

- the research questions and goals,
- the methodology, and
- offer an execution plan that identifies the project risks and limitations.

Write concretely about the deliverables you intend to produce and create trust that you can deliver what you propose. To do so, provide details on research infrastructure and administrative support.

The research plan should include benchmarks and evaluation criteria. Provide a timeline on how to evaluate the project. If necessary, consider including collaborators with expertise needed for successful execution. For example collaborators may conduct a comprehensive evaluation of the outcomes of the research project.

Budgets should directly reflect your plan of work and should be realistic. It is often difficult to negotiate the amount of funding afterwards, though government agencies sometime have room for negotiation in certain instances. In most cases they may expect you to cut 20-30% of your proposed budget with a possible revision in the scope of the project. Remember that budgets include indirect costs charged by universities of about 40% to 50% of the grant money when the proposal is submitted through the university. Industry sponsors are often unwilling to support indirect costs and may choose to provide the funding as a gift.

Make sure you clear up intellectual property issues, human subject issues, non-disclosure agreements, and letters of participation from organizations that you intend to work with prior to submission. If needed for your research, particularly if you work with human subjects, obtain approval from your Institutional Review Board (IRB)..

The research idea must be well articulated and succinctly expressed in the proposal. Peer feedback is a valuable tool in achieving this goal. Revise the proposal several times based on the feedback prior to submitting to a funding agency. When revising a proposal always follow the formatting guidelines. Failure to do so can be grounds for rejection without review. Some researchers use the services of professional writers and members of a university grant office to help with grant proposal preparation.

Begin the proposal early. Do not expect that a proposal started a week or two before the deadline will be competitive. Since a large number of submissions are made close to the deadline, there is a possibility of getting locked out of online submission systems. Typically, you can not appeal for deadline extensions. In addition, when doing a proposal submission, you need to go through the grant office at your university. This procedure can sometimes take three weeks to get your final proposal through the university and to the granting agency. Find out whether your grants office is fast or slow. Remove that time from your available time for preparation. Make sure you submit at least drafts of the proposal early with on-line submissions; you can replace them with revised versions before they are officially submitted.

### **III. GRANT PROPOSAL REVIEW PROCESS**

Reviews performed for government agencies are typically compensated (e.g., National Science Foundation); however, industry reviews are performed as a service (e.g., Microsoft). The background of the reviewers and their expertise in your area of research vary considerably. The review process is most often single blind. In some cases reviews are compiled by a program director and decisions are made by that director. In other cases, review panels are convened to discuss and evaluate proposals. In this process, proposals move up or down in their potential for

being funded and the amount to be funded. In rare circumstances, typically for very large proposals, the funding agencies perform site visits.

In the proposal, you roughly have the first one or two pages to get the reviewers attention. Important aspects of the proposals discussed beyond the early pages of the proposal are less likely to receive the same level of attention because the reader may lose interest, thereby decreasing your chances for funding. From government agencies you will often see the reviews. In industry, you will rarely see the reviews due to litigation concerns. Make sure that you keep in touch with the program manager to learn about the proposal strengths and weaknesses that were not articulated in a review.

#### **IV. GRANT PROPOSAL OUTCOMES**

If you receive funding often requires you to produce research output in the form of conference publications and other publicity. These presentations require demonstrations, progress reports, and discussions of future work. Conference proceedings provide a quick outlet for the results, but you need to make sure that the quality of the proceedings is acceptable. Make sure also to engage industry whenever your proposal entitles and allows you to do it. Some agencies (like DARPA) require on-site presentations of the progress of your work. Some agencies also expect that you share the dataset obtained through a funded grant. If you are unwilling to share the data, you will not likely receive funding.

If you do not receive the grant, revise and resubmit the proposal. A second round proposal will be more likely to succeed. In addition, if the proposal is rejected consider using relevant parts of it into an academic paper to strengthen your track record.

#### **V. FINDING GRANTS**

Many government agency, foundations, and private companies dedicate web sites to listing all available grants (e.g. the ACM [1999]). Appendix I lists additional online resources for available grants. You can also contact agency program directors directly. NSF offers an e-mail service which provides reminders for all forthcoming funding opportunities. Government agencies such as NSF issue requests for proposals three months prior to grant proposal due date. Monthly email newsletters, alternative industry sources, and philanthropy web sites of major corporations list opportunities for funding. To comb the vast listings of available grants, consider funding a student or employee as a resource for the entire department or college.

Information on approved grants is also often available online from government agencies. The fastest way to obtain a copy of the proposal is often to contact the Principal Investigator directly or through the funding agency. Universities may provide a repository of funded proposals.

#### **VI. BECOMING FAMILIAR WITH THE PROCESS**

Volunteering to be on a reviewer of proposals is a good way to gain first-hand experience on how the system works. You can quickly learn what good and bad proposals look like, and make contacts and a good impression inside of the funding agencies.

#### **VII. CONCLUSIONS**

When writing a proposal, follow the call for proposals clearly. Do not retrofit your research to a grant proposal call; write a proposal because your research truly needs funding to succeed. Establish a track record in the field through research collaboration. These collaborators oftentimes can act as mentors to help you write grant proposals [Banta et al., 2004]. Also make sure that you have the infrastructure in place to handle the grant if it is awarded. Keep the lines of communication open to all those involved including mentors, reviewers, and project directors.

Instead of working on isolated research projects, plan a research program in which different, but related streams of research may lead to grant proposals. This strategy will help leverage the significant investment that you need to be successful in this endeavor.

## REFERENCES

- Association for Computing Machinery. (1999). "Grants Information on acm.org", *Communications of the ACM* 42(9), pp. 4,
- Banta, M., Brewer, R., Hansen, A., Ku, HY. (2004). "An Innovative Program for Cultivating Grant Writing Skills in New Faculty Members", *Journal of Research Administration* 35(1), pp. 17-25.
- Porter, R. (2003). "Facilitating Proposal Development: Helping Faculty Avoid Common Pitfalls", *Journal of Research Administration*. 34(1), pp. 28-34.

## APPENDIX I. ONLINE GRANT RESOURCES

Organization	Web Site
National Science Foundation	<a href="http://www.nsf.gov/funding/">http://www.nsf.gov/funding/</a>
National Institutes of Health	<a href="http://grants1.nih.gov/grants/">http://grants1.nih.gov/grants/</a>
United States Federal Grants	<a href="http://www.grants.gov/">http://www.grants.gov/</a>
US Air Force Research Lab	<a href="http://www.afosr.af.mil/oppts/afrfund.htm#Apply">http://www.afosr.af.mil/oppts/afrfund.htm#Apply</a>
US Office of Naval Research	<a href="http://www.onr.navy.mil/02/">http://www.onr.navy.mil/02/</a>
US Army Research Lab	<a href="http://www.arl.army.mil/main/Main/default.cfm">http://www.arl.army.mil/main/Main/default.cfm</a>
European Union Grants	<a href="http://europa.eu.int/grants/index_en.htm">http://europa.eu.int/grants/index_en.htm</a>
Accenture	<a href="http://www.accenture.com/xd/xd.asp?it=enweb&amp;xd=ideasideas_home.xml">http://www.accenture.com/xd/xd.asp?it=enweb&amp;xd=ideasideas_home.xml</a>
Cisco Systems	<a href="http://www.cisco.com/en/US/about/ac48/about_cisco_grants_and_donations.html">http://www.cisco.com/en/US/about/ac48/about_cisco_grants_and_donations.html</a>
IBM	<a href="http://www.ibm.com/ibm/ibmgives/grant/index.shtml">http://www.ibm.com/ibm/ibmgives/grant/index.shtml</a>
Microsoft	<a href="http://research.microsoft.com/ur/us/">http://research.microsoft.com/ur/us/</a>
Texas Instruments	<a href="http://education.ti.com/us/resources/grants/grantresources.html">http://education.ti.com/us/resources/grants/grantresources.html</a>

## ABOUT THE AUTHORS

**Kalle Lyytinen** is the Iris S. Wolstein Professor of Information Systems at the Weatherhead School of Management at Case Western Reserve University and an adjunct professor at the University of Jyväskylä. He is well known for his research in computer-supported system design and modeling, system failures and risk assessment, computer-supported cooperative work and the diffusion of complex technologies. He is currently researching the development and management of digital services and the evolution of virtual communities.

**Jane Prey** is an Academic Innovation Manager at Microsoft Research. She spent 11 years as a faculty member in the Computer Science Department at the University of Virginia. In addition, for 2 years she was the Program Director of the Division of Undergraduate Education at the National Science Foundation.

**Balasubramaniam Ramesh** is Professor of Computer Information Systems at Georgia State University. His research focuses on supporting complex organizational processes such as requirements management and traceability, business process management, and new product development.

**Matt Germonprez** is Assistant Professor in the Management Information Systems department at the University of Wisconsin – Eau Claire. He teaches and conducts research on web-based technologies including interface design, user modification of technology, and mobile computing.

**Dong-Gil Ko** is assistant professor of Information Systems in the Kelley School of Business at Indiana University. He holds a Ph.D. in management information systems from the Katz Graduate School of Business, University of Pittsburgh . His current research focuses on the transfer of knowledge, the exercise of control, and the use of systems for improving the management, performance, and impact of IT-related projects.

Copyright © 2005 by the Association for Information Systems. Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and full citation on the first page. Copyright for components of this work owned by others than the Association for Information Systems must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers, or to redistribute to lists requires prior specific permission and/or fee. Request permission to publish from: AIS Administrative Office, P.O. Box 2712 Atlanta, GA, 30301-2712 Attn: Reprints or via e-mail from [ais@aisnet.org](mailto:ais@aisnet.org).



# Communications of the Association for Information Systems

ISSN: 1529-3181

## EDITOR-IN-CHIEF

Paul Gray  
Claremont Graduate University

## AIS SENIOR EDITORIAL BOARD

Jane Webster Vice President Publications Queen's University	Paul Gray Editor, CAIS Claremont Graduate University	Kalle Lyytinen Editor, JAIS Case Western Reserve University
Edward A. Stohr Editor-at-Large Stevens Inst. of Technology	Blake Ives Editor, Electronic Publications University of Houston	Reagan Ramsower Editor, ISWorld Net Baylor University

## CAIS ADVISORY BOARD

Gordon Davis University of Minnesota	Ken Kraemer Univ. of Calif. at Irvine	M.Lynne Markus Bentley College	Richard Mason Southern Methodist Univ.
Jay Nunamaker University of Arizona	Henk Sol Delft University	Ralph Sprague University of Hawaii	Hugh J. Watson University of Georgia

## CAIS SENIOR EDITORS

Steve Alter U. of San Francisco	Chris Holland Manchester Bus. School	Jaak Jurison Fordham University	Jerry Luftman Stevens Inst. of Technology
------------------------------------	---	------------------------------------	--

## CAIS EDITORIAL BOARD

Tung Bui University of Hawaii	Fred Davis U. of Arkansas, Fayetteville	Candace Deans University of Richmond	Donna Dufner U. of Nebraska - Omaha
Omar El Sawy Univ. of Southern Calif.	Ali Farhoomand University of Hong Kong	Jane Fedorowicz Bentley College	Brent Gallupe Queens University
Robert L. Glass Computing Trends	Sy Goodman Ga. Inst. of Technology	Joze Gricar University of Maribor	Ake Gronlund University of Umea,
Ruth Guthrie California State Univ.	Alan Hevner Univ. of South Florida	Juhani Iivari Univ. of Oulu	Claudia Loebbecke University of Cologne
Michel Kalika U. of Paris Dauphine	Munir Mandviwalla Temple University	Sal March Vanderbilt University	Don McCubbrey University of Denver
Michael Myers University of Auckland	Seev Neumann Tel Aviv University	Dan Power University of No. Iowa	Ram Ramesh SUNY-Buffalo
Kelley Rainer Auburn University	Paul Tallon Boston College	Thompson Teo Natl. U. of Singapore	Doug Vogel City Univ. of Hong Kong
Rolf Wigand U. of Arkansas, Little Rock	Upkar Varshney Georgia State Univ.	Vance Wilson U. of Wisconsin, Milwaukee	Peter Wolcott U. of Nebraska-Omaha
Ping Zhang Syracuse University			

## DEPARTMENTS

Global Diffusion of the Internet. Editors: Peter Wolcott and Sy Goodman	Information Technology and Systems. Editors: Alan Hevner and Sal March
Papers in French Editor: Michel Kalika	Information Systems and Healthcare Editor: Vance Wilson

## ADMINISTRATIVE PERSONNEL

Eph McLean AIS, Executive Director Georgia State University	Reagan Ramsower Publisher, CAIS Baylor University
---	---