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Would a Code of Practice Help?

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RESEARCH ETHICS IN INFORMATION SYSTEMS: WOULD A CODE OF PRACTICE HELP?

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PROFESSIONAL;
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ABSTRACT

The ethical conduct of research is a mark of integrity in the academic and professional worlds. This paper, which draws upon discussions conducted in a panel at the 21st ICIS conference in Brisbane, Australia, examines ethical issues associated with three key components of the research process: design, data collection and analysis; writing; and reviewing. The implications of these issues for the IS research community are discussed. Example scenarios are used to illuminate the issues faced by authors and reviewers of articles. After considering the alternatives of strict guidelines enforced by bureaucratic structures, self regulation without guidelines, and self regulation through norms set by a code of practice, the last option is recommended because it can lead to better practice in a constructive fashion without either excessive bureaucratic intervention or a "free-for-all" where "anything goes".

KEYWORDS: research ethics, ethics of data collection, ethical issues in paper writing, ethics of reviewing, implication of ethics for publications

I. INTRODUCTION

The purpose of this article is to encourage the Information Systems (IS) community to consider and debate the ethical values that should inform the research and publication that we undertake. The article is primarily derived from a panel session on research ethics conducted by the authors of this paper at the 21st ICIS in Brisbane [Kock et al., 2000; Appendix I], but it is also informed by the ISWORLD pages on Professional Ethics, and an earlier article in Communications of AIS on professional ethics [Davison, 2000]. Specifically, this article intends to challenge the IS community to consider if a code of research ethics would assist in creating more ethical research practice. One of the key problems in developing a code, quite apart from the extent to which individuals would be influenced by it [Conger and Loch, 2001], would inevitably relate to the avoidance of cultural hegemony, i.e. in this case imposing ethical norms developed in one culture on another.

Dictionary definitions of the term 'ethics' refer to it as 'a body of principles governing right and wrong'. More formal definitions refer to ethics as involving the systematic application of moral rules, standards, or principles to concrete problems [e.g. Lewis, 1985]. Such formal definitions tend to stress the utilitarian nature of ethics, and so are criticised by some researchers [e.g. Snell, 1996] who prefer to focus on the characters and obligations of key actors in any given context. In general, it is agreed that an "ethical dilemma emerges whenever a decision or an action has the potential to impair or enhance the well-being of an individual or a group of people" [Martinsons and So, 2000]. Naturally, many such decisions or actions exist in the conduct of IS research, not least with respect to the use of human subjects, given the many competing values and conflicts of interest that permeate the information society.

The ethics of IS research accordingly demands much more attention than it is commonly given. Considering how ethics might be operationalised in practice, at least three options emerge: (1) strict guidelines, (2) self-regulation and (3) informed self-regulation.

STRICT GUIDELINES

It would be possible to devise strict ethical guidelines enforced through bureaucratic procedures that apply to all research projects, howsoever constructed. Such enforcement could parallel the current status quo in the medical and legal professions. However, such guidelines might be quite impractical, as a researcher could have any number of 'good ideas' that in theory would need ethical approval before they could be put into practice. Furthermore, the bureaucratic burden that would be created by such a system, presumably on academic colleagues who would be required to engage in the ethical vetting of ideas and proposals, might be so great as to inhibit the conduct of research itself. Indeed, an enforcing body would need to be set up with quasi-legal powers to enforce actions against individuals (or perhaps even institutions) found "guilty" of breaching the guidelines.

SELF-REGULATION

The polar opposite to the enforcement of strict guidelines is neither specifying guidelines at all, nor indeed attempting to enforce anything, but simply expecting that each individual will naturally behave in an ethical fashion, i.e. self-regulation. Many people are likely to prefer self-regulation, since it involves no bureaucratic overhead and indeed seems to involve little active compliance at all, relying primarily on the conscience of the individual researcher. However, irrespective of its likely popularity, it can only work if there are common values in the research community to which the vast majority of researchers fortuitously, voluntarily, and willingly adhere. Indeed, it seems appropriate to observe that a self-regulation policy that involves no codification of principles seems to be a Pandora's box - anything goes, so long as you can square it with your conscience.

INFORMAL GUIDELINES

A middle position, which is deemed the most appropriate by the authors of this paper, between bureaucratic enforcement and self-regulation could entail self-enforcement that is informed by a set of expected or preferred guidelines. While such guidelines would not be binding, they would nevertheless reflect commonly held principles. Furthermore, they would be

public, enabling both reviewers and readers of manuscripts to apply them informally.

In the following sections, we identify a number of issues pertaining to the conduct of research that may involve ethical considerations. We then discuss the importance of these ethical considerations in terms of a broader framework for IS research. Our panel at ICIS focused on ethical issues in three broad areas from which the issues discussed below are drawn:

1. research design, data collection and analysis;
2. the writing and submission of research papers;
3. the refereeing of submitted research papers.

II. DESIGN, DATA COLLECTION AND ANALYSIS FOR RESEARCH ON HUMAN SUBJECTS

Issues associated with the design of research, data collection, and analysis are legion, indeed far too many to discuss in a single paper. This section focuses on the treatment of human subjects in both field and experimental investigations. While it is becoming increasingly commonplace for funded research to require human ethics approval, the same is not yet always true in cases where no funding is sought or needed for research. A researcher may simply have a 'good idea', translate this idea in a survey or a simple web site that subjects are required to access and interact with, collect data, and proceed to analysis. The financial resources required may be minimal, and it is eminently practical to proceed with the research without recourse to any level of approval or authority at the researcher's institution. The panel discussion on ethical issues at ICIS 2000 [Kock et al, 2000] related to the treatment of human subjects with respect to design, data collection and analysis. It was stimulated by two scenarios:

Scenario 1. The first scenario involved mandatory student participation in an experiment that was designed to deceive the students by presenting them with information known (by the researchers) to be false but masquerading as correct.

Scenario 2. The second scenario involved a qualitative field investigation in an organisation where employees unwittingly became subjects

of the research. Issues arising from these two scenarios are discussed in the following subsections.

MANDATORY PARTICIPATION

Laboratory experiments involving student subjects are commonly undertaken in IS research. Whether such subjects are appropriate or not for a given research design is beyond the intended scope of this paper, but an ethical perspective nonetheless exists with respect to the subjects' participation. It is often the case that course credit in some shape or form is given for participation. However, would most researchers agree that it is a form of misrepresentation to claim that student participation was voluntary if in fact it was not? Whether research subjects participate on a voluntary or mandatory basis, it does seem essential (at least to the authors of this paper) that the specific circumstances in which research data is collected should be explicitly identified in any research write up. A major concern may emerge in cases where student participation is mandatory, but students themselves feel that they cannot participate in the experiment with a clean conscience. In principle, therefore, we suggest that voluntary participation is preferred to mandatory participation, as it provides subjects with the option of acting in accordance with their consciences rather than the motives of the researcher(s).

A RIGHT TO KNOW?

One might argue that research subjects have the right to know what data is being collected from them, how it will be used, how long it will be kept, where it will be stored, who will have access to it and in what form, and how other people will see it. Such rights would be broadly supported by data privacy laws (where such laws exist). For example, the data privacy legislation of Hong Kong [PCO, 2001], which:

1. provides for the lawful and fair collection of personal data and sets out the information a data user must give to a data subject when collecting personal data from that subject;

2. provides that personal data should be accurate, up-to-date and kept no longer than necessary;
3. provides that unless the data subject gives consent, personal data should be used for the purposes for which they were collected or a directly related purpose;
4. requires appropriate security measures to be applied to personal data;
5. provides for openness by data users about the kinds of personal data they hold and the main purposes for which personal data are used; and
6. provides for data subjects to have rights of access to and correction of their personal data.

Some researchers could argue that strict respect for these rights and providing so much information to research subjects in advance of any treatment might be quite impractical. This objection can be overcome, however, if research subjects are debriefed at the end of a procedure to ensure that their privacy rights are not infringed by the data collected from them during the research. They should certainly have the option at this stage of retrospectively withdrawing their consent to be involved, and so insisting that any data collected from or about them be deleted as well.

DECEPTION

One could argue that deception of an audience is categorically unethical. If the research being conducted is so likely to mislead the audience as to its true intention, then it is perhaps better not reported at all. With respect to research subjects, it might be argued that informing them of the research design in advance would bias the way in which they responded to the research questions, reducing the value of data collected. However, this argument must be weighed against the right of the subjects to know what they are doing and how the data that they provide will be used. It would appear that subjects do have the right to know what is happening - at least at some stage of the research (possibly at the end in a debriefing session). Complications will arise when subjects are involved in a research design that

involves them making decisions that will affect their lives outside the context of the research itself. In such a case, subjects, upon hearing of the true motivation/purpose of the research might feel betrayed in that their life thereafter would be manipulated in a manner not of their free choice but of the research design [cf. Milgram, 1963].

THE PANEL DISCUSSION

During the panel discussion at ICIS [Kock et al., 2000] it became clear that there is no unanimous agreement on the issues outlined in this section, with the exception perhaps of a generalised view that regulations regarding the treatment of human subjects are excessively bureaucratic and lead to delays in the execution of studies. With respect to the voluntary participation of students, most attendees seemed to think that participation should indeed be completely voluntary whenever possible, but other attendees pointed out that this principle is often impractical unless other incentives are present (e.g., financial compensation for participation). Even with respect to deception, while the majority opinion was that it should be avoided, some attendees pointed out that deception is an important element of many experiments - e.g., to control for the "placebo effect" of a subtle technology feature on behaviour.

III. THE WRITING AND SUBMISSION OF RESEARCH PAPERS

The writing and submission of research papers is a fundamental activity in most fields of research, including the field of IS. It is in fact an important component of the overall process of doing IS research, and thus can benefit from ethical guidelines. Problems such as plagiarism are well recognised in IS research, as well as in other disciplines, and these can effectively be addressed with formally codified guidelines. The panel discussion on ethical issues at ICIS 2000 [Kock et al., 2000] related to writing and submission of research papers was stimulated by two scenarios.

SCENARIO 1

The first scenario involved a research candidate required to prepare a conference paper from incomplete research. Under pressure from her supervisor, the candidate glosses over the research method, anticipates outcomes, and encounters difficulties in citation and authorship. After the

paper is accepted subject to revision, the candidate is confronted by further difficulties, because the results do not entirely correspond with those that had been anticipated, the method (which now needs to be explained more fully) was somewhat different from that which had been outlined in the draft, a hint of plagiarism of text needs to be addressed, and detailed citations are required for several references that the author never actually saw.

SCENARIO 2

The second scenario is simpler, but deeper and much more dangerous. A Postdoctoral Research Fellow recently started working within a research programme that is generously funded by a major I.T. provider. Rather than being free to select topics within the attractively broad framework defined in the research programme's Terms of Reference, the researcher discovers that topic choice is heavily constrained. This constraint is not so much as a result of overt pressure from the sponsor, as from nervousness on the part of the Director about what the sponsor will think about some of the possible projects that are dreamt up by recently-graduated staff-members, still imbued with the 'consumer liberation' notions inculcated by the Internet. On the other hand, the researcher is attracted by the programme's available facilities that are not available to regular teaching staff, the access provided to unpublished sources, especially the internal white papers, specifications and other commercial-in-confidence materials of the sponsor and its strategic partners, and the twice-yearly participation in exciting international conferences. Then the researcher starts hearing about how papers are reviewed by senior members of the programme prior to being submitted for refereeing. Although such review has its benefits, in the form of a preliminary peer review, it commonly results in withholding or at least 'vaguing up' of information that is potentially commercially significant, and in suppressing of discussion about negative aspects of technologies.

A resource page, shown in Appendix II, was prepared to support this section of the panel session [Clarke, 2000]. Actions were identified that were likely to be considered unethical by at least a moderate percentage of academics, at least under some circumstances. The actions were loosely

gathered into major topic-areas, and the topic-areas presented in something like the chronological sequence in which they tend to arise. In some cases, 'flavours' (or variants of the issue) are examined by suggesting different contexts that may be associated with the action. The topic-areas are shown in Table 1.

Table 1. Topic Areas

sponsorship	authorship	'school of' manoeuvres
the depiction of the research method used	plagiarism	references and citations
depiction of the research's significance	consideration of the research's implications	economic factors
'political correctness'	choice of submission venue(s)	

The total number of actions identified numbered about 100, far more than could be incorporated into the two scenarios. Feedback is actively sought on the contents of the resource-page.

The participants in the panel session appeared to regard a few of the situations as non-problems (e.g. representative ones), but most appeared to be accepted as realistic and even common. What did concern the panel session participants was the extent to which such problems could be addressed meaningfully. Clearly this area is one for future investigation and recommendation.

IV. THE REFEREEING OF SUBMITTED RESEARCH PAPERS

The refereeing of research papers is the last link in the research process on the path to publication. Furthermore, it is this end goal of publication, defined as the placement of articles into peer reviewed journals, that is the key to survival in the academic world. This fact gives the academic community a strong vested interest in the proper functioning of the review process.

At ICIS 2000, a debate session discussed the review process of IS journals, with specific focus on the “blind review process” [Robey & Zmud, 2000]. Robey defined the review process as the shared goal (presumably by members of the academic community at large) of publishing high quality

research papers, also known as rigorous, relevant, credible work with a process characterised as objective, fair, and just. Despite this goal, as we know all too well, a gap exists between the ideal and the practice.

Examination of the refereeing and review process is not unique to the field of information systems. A quick search of the literature shows that fields as widely distributed as construction [Runeson, 1999], psychology [Kovera, 2000], and medicine [Swartz, 1999] all systematically examine their respective review processes. Questions addressing the review process and the creation of quality results such as 'what behaviour is ethical?' and 'how do we define it?' are frequently asked.

Discussing the review process with a group of academics, the response is frequently charged with emotion. Most of us indicate that, at one time or another, we felt frustrated with the process, sensing (accurately or not) that our manuscripts did not receive objective, fair, and just treatment. With this response in mind, it is possible to make two observations that merit development as they are fundamental to the review process:

(1) The review process is based on trust on behalf of all parties

(2) All parties (Senior Editor, Associate Editor, Author) are expected to assume their respective roles with a high degree of professionalism.

Table 2 provides a list of representative issues – that is neither comprehensive nor exclusive - with which most authors will identify. Each issue can lead to a number of questions pertaining to ethical conduct. For example:

- Are simultaneous submission ethical?
- Who owns intellectual property?
- How blind is a blind review?
- What might interfere with blindness?
- Are blind reviews in fact a good thing?

Furthermore, the reviewer may play the game of trying to guess the identity of the author (and then varying the harshness of the review), or the game of varying the strictness/depth/quality of the review according to the journal. Then there are issues concerned with how original an original submission

needs to be: reviewers may report having seen the submission published elsewhere (perhaps in another language), or having reviewed the submission previously. Finally, are reviewers, editors, or journals biased for or against manuscripts on the basis of their espoused worldview?

Table 2. Issues for Reviewers and Editors

Reviewer	**Editors (Senior, Associate)**
"The game"	Selection bias
Intellectual property	Selection fit
Blindness	Clique nature
Simultaneous submission	Blindness
Expertise fit	Originality of submitted manuscripts
Pseudo reviews	Worldview conflict
Worldview conflict	

The panel discussion related to the review process was stimulated by two scenarios.

SCENARIO 1

The first scenario involved a scholar who is asked to review a manuscript for Journal A (a top journal in the field). The paper is weak, and the scholar recommends rejection. The other reviewers respond in similar fashion and the paper is rejected at Journal A. A few weeks later, this same reviewer is asked to review what appears to be the same paper (based on title and abstract that are sent to the reviewer). The reviewer does not know what, if any, changes may have been made to the paper. Two ethical questions follow: What is our standard and expectation for the community? What are the appropriate behaviours for all parties when the process breaks down? A continuation of the scenario presents additional complexity: The reviewer tells the Associate Editor (AE) about the prior history with the paper, and the AE agrees to use a different reviewer. However, the AE asks to see the scholar's review for Journal A so the AE can determine if the authors addressed the

earlier concerns. The reviewer now finds herself in an awkward position. Natural questions follow: Is the AE's request appropriate? If not, how should it be handled? What is the reviewer's responsibility and options at this point?

SCENARIO 2

The second scenario described a situation that touches all parties involved in the publication process: A scholar is asked to review a manuscript that is a perfect match of research interests. The study is well done and is recommended for revise and resubmit. The reviewer is asked to make a presentation on this same topic to a group of the active research community at a well-known institution. The reviewer presents the conceptual framework of the reviewed study. In time, the author revises the manuscript and returns it to the reviewers. The reviewers unanimously express concern that there is no attribution to their colleague who had presented the framework and infer plagiarism. While the author makes ownership claims to the work, there is no admission of wrong doing on the part of the one reviewer. In the end, the manuscript is not published. The scholar / reviewer goes on to build a reputation on the innovative framework.

No clear agreement emerged regarding the first scenario during the panel discussion, with some suggesting that the reviewer should co-operate with the AE and other saying s/he should refrain from being involved in further reviews of the paper. Regarding the second scenario, one interesting pattern of perceptions emerged from the panel discussion. Several attendees pointed out that the type of unethical behaviour suggested by the scenario was unlikely to occur, with one attendee even saying that behaviour of that type was so rare that we should discuss more realistic situations in the panel. This response is particularly troubling, because this belief is likely to prevent cases such as that described by Kock [1999], involving academic plagiarism in much more serious circumstances than those present in the second scenario, from being identified in time to solve them.

At first blush, it may seem so obvious as to what the appropriate response might or should be. However, can we explicitly identify what are the appropriate behaviours of all the parties: Senior Editor, Associate Editor,

reviewer / scholar, other reviewers, and the author? What is the ethical and professional obligation of the Senior Editor and the AE to the author? What recourse is open to the author and will s/he receive support from the rest of the academic community? Finally, what are the appropriate consequences, how should they be administered, and by whom?

V. DISCUSSION AND CONCLUSIONS

Information systems research embodies an enormous array of potential ethical issues. It would therefore be most remarkable if the conduct and publication of research in any given week did not involve some arguably unethical, and indeed some downright unethical, practices.

What processes exist to ensure that these issues are surfaced, and addressed? To what extent is research ethics embedded in the training that graduate students and research candidates receive? Are authors of research papers required to provide specific undertakings in relation to the contents of their papers and the processes used in conducting the research? Do supervisors, examiners, reviewers, guest editors, journal editors and conference programme committee chairs subject research papers to effective control? Are the people who perform those roles themselves subject to control mechanisms?

Considering how ethical issues can be brought out into the open, it is valuable to compare (Table 3) how the three operationalisations that we identified, viz.: strict regulation, self-regulation and code of practice informed self-regulation, would work in the three phases of research that we described in Sections II to IV.

Table 3. Comparison of Operationalisation Strategy Across Issue Type

	Research	**Writing**	**Refereeing**
Strict regulation	Bureaucratic restrictiveness on what work can be done - enforced at the institutional level, as well as subsequently in the review process. Those who breach guidelines may be barred from conducting research, and so may functionally lose their jobs.	Codified prescriptions of how to write up research, enforced at the institutional level, as well as subsequently in the review process. Those who breach guidelines may be barred from conducting research, and so may functionally lose their jobs.	Strict guidelines imposed by a regulatory body, to whose authority all authors/reviewers/editors need to submit on how refereeing should be conducted, what standards are appropriate, what consequences apply to all stakeholders involved in the process. Those who breach guidelines may be blacklisted, such that their work is ineligible for publication - at least in outlets that submit to the authority of the regulatory body.
Self regulation	No formal specification of any guidelines or regulations at all. Entirely a matter of the individual and his/her conscience, or lack thereof.	No formal specification of any guidelines or regulations at all. Entirely a matter of the individual and his/her conscience, or lack thereof.	No formal specification of any guidelines or regulations at all. Entirely a matter of the individual and his/her conscience, or lack thereof.
Code-of-practice; informed self-regulation	Minimal bureaucratic restrictiveness overlaid by an awareness that certain behaviours are prescribed or proscribed and so that norms specified in the code of conduct may be expected by people subsequently involved in the review process.	Helpful guidelines as to how research may be most effectively written up, effectively prescribing behaviours deemed acceptable by the community.	Each publication outlet is free to devise its own requirements, yet it operates within the broader community and norms established there. These norms have a nominal authority to which reviewers, editors and/or authors can both appeal and be encouraged to adhere.

Considering the three operational possibilities presented here, it seems unworldly to suggest that formal, bureaucratic measures should be imposed. Not only would the bureaucratic overhead be intolerably high, but such measures would inevitably incorporate little flexibility, with formally prescribed and proscribed activities. Many contentious issues admit of no simple solution and may be perceived very differently by people in different countries, different language groups, from different religious or spiritual persuasions, and even in different schools of research philosophy and practice. The alternative of leaving the issue entirely to self-regulation is equally impractical given these widespread variations in practice and thought. Nevertheless, given the seriousness of each of the scenarios presented here, and each of them can be further played out with additional complications and conflicts of interest, it is necessary to ensure that a high ethical standard can be attained for all aspects of the research process.

The authors suggest that there could be considerable value in the expression of a Code of Practice for Information Systems Research, with the expectation that it will be used by the various stakeholders in the research process on a self-regulatory basis. For such an initiative to be credible, it would need to be conducted by a body with standing, such as the Association for Information Systems, would need to be an expressly international and multi-cultural activity, and would of necessity involve a lengthy and multi-stage consultative process. The product would represent source materials for teachers, supervisors, performers, and assessors of research. The process would enable the identification, disputation, and clarification of many issues confronting the discipline. The Code of Practice's public discussion and dissemination would add considerably to its value, since all stakeholders would both be aware of its provisions and recommendations, and be aware of the risks of wilful ignorance of those provisions.

In an email and web-enabled academic environment, the potential for stakeholders to publish their grievances or disagreements - about a paper review, a journal's editorial policy, or the ethical stance (if any) taken in a published paper - is all too real. That potential already exists, but the

development and dissemination of an ethical code of practice should have the effect of regulating and directing this e-correspondence in a more constructive fashion, exposing practices believed to be unethical and opening them up to public debate. Recent examples of such e-correspondence include debates on ISWORLD on the ethical obligations of journals and special issue editors. In the final analysis, it is up to us to decide what ethical standards we wish to apply and how they should be applied. A code of practice can assist us in achieving those standards without either imposing an excessive bureaucratic burden, or leaving the field open to any kind of interpretation. In this respect, we encourage the IS community to take on the task of consulting its constituents and setting about the development of a code of practice.

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APPENDIX I

DESCRIPTION OF THE PANEL ON RESEARCH ETHICS AT ICIS 2000.

Note: This appendix reprints the paper included in the 2000 ICIS Proceedings [Kock 2000].

21st Annual International Conference on Information Systems
Brisbane, Australia
December 10-13, 2000
Panel: IS Research Ethics: Defining Ethical, Barely Ethical and Unethical Behaviour

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[Panelists]

[Welcome message]

[Panel description]

[Ethics resources]

[Referencing this Web site]

Panel Chair:

Ned Kock, Temple University

Panelists:

Robert Davison, City University of Hong Kong

Roger Clarke, Australian National University

Karen D Loch, Georgia State University

Panel discussion documents

Robert Davison's presentation slides

Roger Clarke's presentation slides

Karen Loch's presentation slides

IS Research Ethics

Even though formal codes of ethical conduct for research exist within the scope of individual research institutions, such as research centers and universities, there is no generally accepted ethical code of research for the field of information systems (IS) as a whole. But, should we be concerned about the lack of an ethical code for IS researchers? Is this really an issue of significant importance for the field?

Our answer is “yes”. We do believe that this issue is of vital importance for the field.

Given the very nature of research endeavors, few things can undermine the credibility of IS researchers and the IS

field as badly as behaviors such as plagiarism and data fabrication, behaviors which most people would regard as unethical. The IS field is made up of a large number of IS researchers distributed in many countries around the world, comprising people with often completely different cultural and social backgrounds. Given this, it is only natural that there exist different practices and beliefs as far as what is ethical and what is not in IS research. Furthermore, there may well be significant obstacles to overcome before all can agree upon an ethical code.

GOAL AND FOCI OF THE PANEL

The goal of this panel is to at least start the discussion about the need for an ethical code for IS researchers. We want to try to shed some light on what is seen by IS researchers as ethical, barely ethical and unethical behavior in the conduct of IS research. We will focus the discussion on three main groups of IS research activities:

- Collection and analysis of research data.
- Writing and submission of research papers.
- Refereeing of submitted research papers.

Examples of provocative questions relevant to these research activities that will be addressed by the panelists and discussed with the audience are provided below. These questions will provide the background on which panelists and audience will try to agree on what is ethical, barely ethical, and unethical in the conduct of the IS research activities above.

COLLECTION AND ANALYSIS OF RESEARCH DATA

- Is it ethical to collect research data without the knowledge of all those contributing it? For example, consent to collect case research data at a company is given by management, but employees are unaware that data collection is taking place.
- Is it ethical to offer course credit to students in return for participation in a research experiment, or to claim that such credit was given in a research paper, whereas in practice the students had no choice but to

participate?

- Is it ethical to use data analysis methods that are not very well understood, or to use methods that are well understood, but nevertheless inappropriate?
- Is it ethical to use a research methodology that suits the researcher rather than suiting the research questions being investigated?

Writing and submission of research papers

- Is it ethical to submit the same (identical) research paper to a conference and, if published, later to a journal?
- Is it ethical to submit the same paper to different conferences? Does the same apply to journals?
- Is it ethical for someone who has successfully published in top journals to be added as a co-author in papers with colleagues with little publishing experience in return for getting them into a "publishable" format?

Refereeing of submitted research papers

- Is it ethical to accept an invitation to be a reviewer without knowing much (or anything) about the topics covered in a paper?
- Is it ethical to accept an invitation to be a reviewer when there is a conflict of interest? For example, when the author cites the reviewer's work extensively and strongly agrees or disagrees with it.
- Is it ethical to review a paper "blindly" when the identity of the authors is known? For example, when the paper displays sufficient clues for the authorship to be positively attributable.
- Is it ethical to reject a paper because of its underlying epistemology?

Panel discussion

The panel will have two main segments, "*introduction and definition of IS research ethics"* and "*presentations and debate"*, both described below.

INTRODUCTION AND DEFINITION OF IS RESEARCH ETHICS

This segment will start with Ned Kock providing a brief introduction of the panelists and a description of the goals and format of panel. Ned Kock will also briefly describe a Web site that will be created to enrich the panel discussion (see below the section "Panel Web site"). The *presentations and debate* segment of the panel will begin immediately after this.

Presentations and debate

In this segment, three panelists, who all have made important contributions to ethics research in the IS field, will discuss issues related to IS research ethics in ten-minute presentation modules, illustrating their discussion with examples based on their own experiences whenever possible. At the end of each speaker presentation, Ned Kock will invite the audience to provide their opinions and ask questions, which will be answered by the speaker and the other panelists. It is expected that this panel will feature a high level of interaction between audience and panelists, which will be moderated by Ned Kock. The speakers and IS research ethics topics discussed are as follows:

- Robert Davison will list and discuss IS research practices that are ethical, barely ethical, and unethical in the collection and analysis of research data.
- Roger Clarke will list and discuss IS research practices that are ethical, barely ethical, and unethical in the writing and submission of research papers.
- Karen Loch will list and discuss IS research practices that are ethical, barely ethical, and unethical in the refereeing of submitted research papers.

Panel attendees will be given the opportunity to ask questions at any time during or between individual presentations. In the remainder of the allotted time for this panel the panelists will answer questions from the audience.

APPENDIX II: ETHICAL ISSUES IN THE PREPARATION AND SUBMISSION OF RESEARCH PAPERS IN THE I.S. DISCIPLINE

Roger Clarke

Note: This appendix was prepared as document that was the basis for a presentation as part of the Panel on Research Ethics: defining Ethical, Barely Ethical, and Unethical Behavior at ICIS 2000 in Brisbane, Australia 12 December 2000.

The definitive version of this document is at
http://www.anu.edu.au/people/Roger.Clarke/SOS/ResPubEth.html

Contents

Introduction

The term 'ethics' is subject to many interpretations. In this document, I am intending to refer to moral philosophy, or the body of principles governing right and wrong.

Many observers would be likely to interpret ethics as being confined to abstract judgements about good and evil. An alternative approach to ethics is instrumentalist, in that bodies of principles are expected to have volitional or motivational power, and thereby influence actors' behaviour. For example, "policy makers ... [must] understand the ethical problems of the impact of computer technology on the lives of people. This professional and applied strand must be underpinned by a philosophical examination which builds on the long history of the study of ethics" (Weckert 1999, p.ii); and "Ethics has been defined as involving the systematic application of moral rules, standards, or principles to concrete problems" (Davison 2000).

The ICIS 2000 Conference included a session in which the panellists and audience were invited to reflect on the ethics of their own and their colleagues' behaviour. The purpose of the panel was to investigate what information researchers see as being **ethical, barely ethical, and downright unethical behaviour in the conduct of I.S research**.

The Panel Chair was Ned Kock (Temple University, Philadelphia, PA), and the topic-area was divided into three aspects, each addressed by a different panellist:

- **collection and analysis of research data** (Robert Davison, City University of Hong Kong);
- **preparation and submission of research papers** (Roger Clarke, Australian National University); and
- **refereeing of submitted research papers** (Karen Loch, Georgia State University).

This document relates only to the second of these topics, i.e. the preparation and submission of research papers. A dry-as-dust catalogue of issues is provided at the end of this document. The panel session focused on a pair of scenarios, which attempt to bring the issues to life.

Scenarios

The following two scenarios are fictions based on a wide array of experiences and a small amount of imagination. It would be nice to think that any resemblance between them and reality was accidental; but this is the real world.

Scenario 1

Pat is a postgraduate research student, and is running out of time. Pat's supervisor suggests (fairly firmly) that it's about time a publishable research paper was produced, and nominates the conference that it is to be submitted to. Pat knows that the work is not yet far enough advanced, but also knows that the candidature is at risk, and rushes to meet the deadline for the Call for Papers.

Pat produces a draft, slightly glossing the outcomes in the hope that the supervisor will accept it. After all, the results will be available by the time the conference accepts the paper and requires submission of the revised version.

Pat's supervisor is dissatisfied with both the description of the research method, and the results. The supervisor requires Pat to include more impressive results, and provides wording for the research method. Pat is uncomfortable with the revised description of the research method, because it implies a process rather different from what was actually done.

The supervisor also states that one of the supervisor's own papers should be cited in the explanation of the underlying theory, and suggests that it would be tactically sensible to also cite two other papers authored by members of the conference's programme committee. Pat didn't use the supervisor's paper, and was only vaguely aware of the other two papers.

The supervisor spends an amount of time on editing the paper, suggests that the supervisor's name should be included on the list of authors, and floats the possibility of the Research Director being added as well, because the research was conducted within a broad programme the Director devised some years ago, and used a database purchased using one of the Director's research grants.

In fear of not being given the vital extension of time to submit the thesis, Pat does what Pat is told, amends and embellishes the paper, and submits it.

In due course, the paper is 'Accepted subject to recommended revisions being made'. One referee wants a more detailed description of the research method. This is difficult, because the description in the draft is rather different from that which was actually used, and a more detailed description of what was done would make it obvious that the draft was misleading.

A second referee wants the outcomes examined in greater detail. This also creates a problem, because the more detailed data analysis undertaken in the meantime has shown that the some of the surmised outcomes were incorrect.

The second referee also queries the source of a block of text that seems familiar, and whose style is different from the rest of the paper. Pat thinks that there's a missing citation at the end of that segment, but it was extracted from notes taken at the beginning of the project, and Pat can't remember where it came from.

The Programme Chair wants some further editing performed. One of the problems is that many of the references lack page-numbers. Some of these can be found, but some can't. In a few cases, the only copy of the paper that Pat ever found was in a distant library. In others, Pat relied on citations in other papers, has never seen the paper in question, and doesn't know where to find it.

Pat is worried. Pat goes to the supervisor and asks for advice.

What should the supervisor advise Pat?

Scenario 2

Lauren has recently completed a doctorate, and is now working within a research programme that is generously funded by a major I.T. provider.

Rather than being free to select topics within the attractively broad framework defined in the research programme's Terms of Reference, Lauren discovers that topic choice is heavily constrained. This is not so much as a result of overt pressure from the sponsor, as from nervousness on the part of the Director about what the sponsor will think about some of the possible projects that are dreamt up by recently-graduated staff-members, still imbued with the 'consumer liberation' notions inculcated by the Internet.

On the other hand, Lauren is attracted by the facilities that the programme has available to it, and that are not available to regular teaching staff, the access provided to unpublished sources, especially the internal white papers, specifications and other commercial-in-confidence materials of the sponsor and its strategic partners, and the twice-yearly participation in exciting international conferences.

Then Lauren starts hearing about how papers are reviewed by senior members of the programme prior to being submitted for refereeing. Although this has its benefits, in the form of a preliminary peer review, it commonly results in the withholding or at least 'vaguing up' of information that has potential commercial significance, and the suppression of discussion about negative aspects of technologies.

What alternatives does Lauren have?

A Working Catalogue of Issues

The following lists identify actions that might be considered to be unethical, at least under some circumstances. The actions are loosely gathered into major topic-areas, and the topic-areas presented in something like the chronological sequence in which they tend to arise. In some cases, 'flavours' or variants of the issue are drawn out by suggesting different contexts that may be associated with the action.

Sponsorship

Sponsorship includes:

- support in any form, such as cash, kind, infrastructure, use of facilities, information, provision of contacts, participation, etc.
- support of a specific project, a specific programme, or a specific centre
- support by a corporation, by an academic or research institution, or by a research fund

Issues include:

- accept sponsorship from an organisation that has a direct interest in the outcomes of the research
- accept sponsorship under conditions that restrict the publishability of results (e.g. through intellectual property constraints, censorship powers, or right to review prior to publication)
- select a research-topic because it is attractive to a sponsor or its publication may be favourable to their interests
- de-select a research-topic because it is not attractive to a sponsor or its publication may be against their interests
- devise an approach to a paper that will be attractive to a sponsor
- discard a possible approach to a paper because it will not be attractive to a sponsor
- exclude information from a paper because that information will not be attractive to a sponsor or its publication may be against their interests
- include information in a paper because that information will be attractive to a sponsor or its publication may be favourable to their interests

Authorship

- have the paper 'ghost-written', i.e. substantially prepared by a person who is not on the list of authors
- have the paper edited by a person who is not on the list of authors:
    - to correct grammar and spelling (e.g. where the author's native tongue is not the same as the language in which the paper is written and/or the author's written language is very poor)
    - to adapt the expression to a style appropriate to the discipline, or to the conference or journal to which it is being submitted
    - to improve the paper to the extent that it is substantially re-written by the editor
- include in the list of authors everyone who has contributed to the work, in particular to:
    - the topic
    - key ideas
    - segments of text
    - models (mathematical or diagrammatic)
    - data
    - references
    - laboratory facilities
- exclude from the list of authors someone who has contributed significantly to the work, in particular to:
    - the topic
    - key ideas
    - segments of text
    - models (mathematical or diagrammatic)
    - data
    - references
    - laboratory facilities

- include in the author's list the name of a senior staff-member (sometimes referred to as 'honorary authorship'):
    - initiated by the primary author, in order to enhance the chances of acceptance
    - initiated by the senior staff-member, in order to:
        - increase the publishing record of themselves and/or the department / centre / university
        - associate themselves with a good paper and/or a rising star
- provide as author's name a name that is usually used by someone else, and thereby constructively misrepresent the paper as the work of that person;
- provide as author's name a name that is not usually used by the person concerned;

'School of' Manoeuvres

- leverage off the work of a person who is likely to be involved in the refereeing of the paper:
    - cite with approval
    - apply the same research method
    - cite with approval a list of prior works deriving from a root paper

Depiction of Research Method

- constructively mis-describe the research method
- depict the process undertaken differently from the manner in which the research was actually performed
- describe the research method vaguely, leaving it to the reader to infer that appropriate approaches were adopted
- fail to declare the use of 'convenience' populations, sampling frames and samples
- anonymise, pseudonymise, disguise or mis-represent the organisations in which case studies have been performed, in such a manner that audit of the research and evaluation of the argument are not feasible
- report on a sub-set of the data and results

- report percentages but not counts, leaving it to the reader to infer that the sample-sizes were sufficiently large to justify conclusions drawn
- assert that no prior studies have been undertaken in the area, justifying a claim of the work being 'exploratory research':
    - omitting mention of relevant prior studies
    - undertaking an insufficient search for prior studies
    - devising the work so as to avoid areas that have been previously studied

Plagiarism

Plagiarism is the use (or 'appropriation') of pre-existing material by the author of a new work in such a manner that it appears to be claimed to be an original contribution by that author, in particular because of the absence of a citation of the original work. The categories below follow Martin (1994) [would I dare to omit that citation ???]

- plagiarise an entire work
- plagiarise a segment of material 'word-for-word' (see Findsame). This might be from:
    - a text-book
    - a well-known refereed paper
    - an obscure refereed paper
    - an unrefereed paper
    - an unpublished paper
    - a student paper
- plagiarise by paraphrasing
- plagiarise a secondary source, i.e. fail to cite a work that has been used as an intermediary source of pre-digested information about an original work (often a 'classic') that is cited in the new work. This can be compounded by failure to consult the original work
- plagiarise the reference list of a prior work, especially an uncited work
- plagiarise the argument (as distinct from the text)
- plagiarise ideas

References and Citations

- invent a citation
- invent the page-number of a reference, to satisfy a journal-editor's rules
    - where the reference was seen and evaluated, but the page-numbers weren't noted at the time, and no copy is readily available
    - where the reference has never been seen or evaluated
- cite a paper that's cited in other papers but which:
    - hasn't been seen and evaluated
    - no effort has been made to see and evaluate
- same as the preceding situations, but using a "cited in" qualifier
- fail to cite a paper that the author knows was an important influence in the formative stages of a project, but which can no longer be found
- cite a long list of the author's own previous works:
    - refereed works relevant to the paper
    - unrefereed works relevant to the paper
    - refereed works of modest relevance
    - unrefereed works of modest relevance
- cite a reference that is well-known and highly respected, but is of modest relevance to the paper
- cite a long list of references that are impressive in combination, but have modest relevance to the paper
- omit references that present contrary arguments and information
- omit references to recently-published work that was being conducted shortly before that of the author, and was recently published
- omit important sources because they are not refereed (e.g. correspondence, newspaper articles, commercial reports, grant applications)
- omit important sources because they are commercial-in-confidence documents (which the author has seen because they belong to the research sponsor, or were provided as background information by an interviewee, or which the author had access to in the context of previous or part-time employment)

Depiction of the Research's Significance

- exaggerate the importance of the topic, outcomes or method
- underplay the importance of the topic, outcomes or method (e.g. to avoid negative reflection on a sponsor or a mentor)

Consideration of the Research's Implications

- consider only the positive implications of the research and not the negative implications:
    - play up the economic or commercial advantages but under-emphasise or ignore the social disadvantages
    - focus on the benefits for the organisation, executives, managers or shareholders, and fail to address the impacts on employees and consumers

Economic Considerations

- withhold publication of results in order to provide a window of opportunity for commercial exploitation:
    - by oneself
    - by a sponsor (scope as defined above)
- withhold details in order to provide a window of opportunity for commercial exploitation

'Political Correctness'

- express arguments or describe outcomes in a manner that is intended to:
    - avoid confrontations with 'the government of the day'
    - avoid conflict with the department, research centre, faculty or university
    - avoid infringement of contemporaneous 'political correctness' (e.g. in relation to the environment, genderism, racial minorities, indigenous minorities, etc.)
- suppress information that may be at odds with:
    - the policies of 'the government of the day'
    - the interests of the department, research centre, faculty or university

    - the dictates of contemporaneous 'political correctness'

Submission

- select a conference because the supervisor suggested it, on the grounds that:
    - the supervisor wants to go to that conference
    - the supervisor knows the programme committee
    - the supervisor is on the programme committee
- select a conference (or journal) because:
    - the programme chair and committee (or the editor and editorial board) are known to be partial to the paper's topic, method or implications
    - the paper adopts or 'confirms' one or more papers previously presented at that conference or published in that journal
- submit the same paper, or marginally different papers, to:
    - two conferences at once
    - two journals at once
    - a conference and a journal at the same time
- submit the same paper, or marginally different papers, to two publishing venues, where the handling of either or both is known to be slow, the refereeing haphazard, and/or the acceptance rate low; especially if that's where the supervisor wanted it sent
- submit the same conference paper, somewhat further developed based on feedback from the first presentation, and acknowledging [or not] the prior presentation and feedback, to:
    - a further conference
    - a journal

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