CHINA’S EFFORTS FOR PROMOTING RESEARCH INTEGRITY

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The initial incidents of research misconduct in China in the 1980’s were in the forms of plagiarism and taking advantage of some ill-informed journalists and writers to publicize questionable innovations or breakthroughs. The behaviors were challenged by many responsible scientists in China. The Chinese government began to pay more attention to research misconduct issues in the early 1990’s, when the cases of David Baltimore, an American Nobel Laureate, and Vladi J. Gupta, an Indian geologist, alerted the State Commission of Science and Technology (the predecessor of Ministry of Science and Technology) that such cases could also happen in China. In the mid to late 1990’s, relevant government departments and scientific organizations developed a national code of conduct for scientific workers. Since 2006, the Chinese government has stepped up its efforts for promoting research integrity after the scandals of South Korean scientist Hwang Woo-Suk and Chinese scientist, Chen Jin, whose state-funded research on a series of computer chips was fraudulent. The Ministry of Science and Technology (MOST) issued a decree for handling research misconduct in state-funded scientific and technological programs that year.

In 2007, MOST established the Office of Research Integrity (ORI), and appointed an advisory committee on research integrity consisting of 15 recognized experts from China and abroad. An inter-departmental body, the Joint Committee for Promoting Research Integrity (JCPRI), with six government departments and scientific organizations was established. Under the JCPRI, the member agencies convene regularly and coordinate efforts to develop strategies and guidelines, conduct surveys, organize forums or workshops, and engage in international cooperation, etc. There are currently ten JCPRI member agencies, and more might join in the future. In August 2009, the JCPRI member agencies jointly issued a policy paper, Opinions on Strengthening Research Integrity of Our Country.

Since 2007, considerable progress has been made in promoting research integrity in China. MOST and the Ministry of Education (MOE) supported the development of guidelines on academic norms and research integrity. MOE requires universities and colleges to establish or designate special bodies for handling research misconduct. Many academicians and senior researchers gave lectures on scientific ethics and research integrity on college campuses. Responsible conduct of research education and research ethics have been incorporated into curriculums by some universities. Some English books on research integrity and case studies of research misconduct have been translated into Chinese. Forums and workshops on scientific ethics, scientists’ social responsibilities, research integrity, “academic ecology,” and the roles of academic journals in promoting research integrity were organized by the China Association for Science and Technology (CAST), Chinese Academy of Sciences (CAS), MOST, and MOE respectively. The application of anti-plagiarism software in universities, research institutions and journal editorial offices has also helped to raise the awareness of Chinese researchers and postgraduates. A dedicated website, developed by the MOST-ORI, is now a practical platform for research integrity-related information exchange and integration.

International exchange and cooperation related to research integrity have been a priority since the 1990’s, when CAST and CAS delegations made several foreign visits. In 2007, a MOST representative attended the OECD Global Science Forum held in Tokyo, Japan, and participated in a China-Japan-Korea Trilateral Meeting on Scientific Integrity. In 2008, a MOST delegation visited many agencies, scholarly societies and universities in South Korea and the U.S. The delegates from MOST, CAS and CAST participated in the 2nd World Conference on Research Integrity held in Singapore in July 2010. The experiences, documents, and various assistance from foreign countries and international organizations have facilitated the development of the Chinese system of research integrity.

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Professional Ethics Report
Despite the progress made through issuing policy papers, developing norms and regulations, setting up relevant agencies, handling research misconduct and organizing various activities, many challenges remain. Dr. Nicholas H. Steneck, a consultant to ORI in the U.S. Department of Health and Human Services, highlighted two major challenges that China faced, i.e. the legacy of the past and the burden of size and complexity of the Chinese research community. The challenges have been reflected in the continuous exposure of past or recent cases of research misconduct, and institutional and managerial defects, which may have certain influence on the occurrence of research misconduct. Now, consensus has been reached among all the stakeholders in China that something must be done and can be done to promote research integrity. Nevertheless, many difficulties are expected in the implementation process. For example, when an institute carries out a misconduct investigation, it may find that necessary authorization has not been given within the current legal framework, or an action taken against the respondent is beyond the measures incorporated into existing laws. In recent years, some news reports and articles on research misconduct by Chinese researchers have appeared in the headlines of both Chinese and foreign media, as well as in international scholarly journals. Although some Chinese researchers are not happy about the amplification and inappropriate association of some discrete cases in China, the international attention and discussion can contribute to further exploration of the existing problems and tactics for addressing them.

Behind the scenes, much has been done by government departments, universities and research institutions, and scientific societies. For example, MOST and the funding agencies affiliated with it receive and handle research misconduct allegations routinely. The relevant program, fund or award administrations may require the employing institutions of the respondents to conduct investigations, or investigate major cases or cases associated with the head of an institution directly. Since the implementation of the MOST Decree mentioned above, many actions have been taken against violating institutions and individuals. Since there is neither a legal requirement for making the investigation findings and actions public, nor legal assurance for the release of such information by various administrations, the public might be concerned about whether the alleged research misconduct is seriously investigated. MOST and other JCPRI members have been attempting to improve the investigation mechanism, such as revising the current regulations, clarifying the definition of research misconduct, formulating a model policy and procedure for universities and research institutions, publicizing the findings of serious cases, and establishing a research integrity credit management information system to punish violators and deter others.

Besides the handling of research misconduct, MOST and other departments and organizations have conducted or commissioned survey and research projects, including preliminary surveys on the status of research integrity in China, research into the appropriateness of taking actions against serious violators according to criminal law, and the solution to the problems associated with peer review and publication processes. There are still disputes over some issues, such as how to evaluate the status of research integrity objectively, whether research misconduct such as “plagiarism” can be well defined and measured according to clear-cut standards, the reliability and usefulness of anti-plagiarism software, etc. which echo similar discussions at the 2nd World Conference on Research Integrity.

In November 2010, two forums related to research integrity, research misconduct prevention and academic criticism were held in Beijing. Quite interestingly, the first one was a non-governmental forum held at Beijing Normal University, and the participating scholars discussed cases of research misconduct, insufficient academic criticism in the social sciences, and the difficulties in addressing these problems. The keynote of the forum was described by a journalist as “worry” or “distress.” The second forum was held by the National Natural Science Foundation of China (NSFC), with participants from government departments, funding agencies, universities, research institutions, scholarly societies, journals, and researchers in the research integrity field. The keynote at this forum was more optimistic, and problems, causes, tactics and action plans were all discussed. The contrast suggests that the efforts of various groups should be coordinated more effectively, which is a guiding principle and a desirable status in promoting research integrity outlined in the Opinions on Strengthening Research Integrity of Our Country.

In general, the relevant government
departments and national bodies in the science and technology domain represented by the JCPRI take the lead in promoting research integrity, and assume their leadership roles by developing guidelines and policy papers, encouraging research institutions and scholarly societies to develop codes of conduct and academic norms, carrying out or overseeing the investigation of research misconduct allegations, etc. Over time, the coordination of the various activities has been improving, with a JCPRI platform in place, and with the contribution of ideas and resources from various agencies and many individuals. However, there are still major tasks for all parties, such as the reform of the appraisal and performance evaluation system, and the creation of an environment and atmosphere that encourages research integrity. In Chinese, “promoting research integrity” implies “building up research integrity,” indicating it is an ongoing process. With the common objectives and consensus on priorities and work plans, more and quicker achievements in promoting research integrity in China can be expected.

**In the News**

**INTERIOR DEPARTMENT MAKES SCIENTIFIC INTEGRITY A PRIORITY**

On September 29, 2010, Secretary of the Interior Ken Salazar issued a secretarial order establishing a policy for protecting scientific integrity within the U.S. Department of the Interior (DOI).

“The American people must have confidence that the Department of the Interior is basing its decisions on the best available science and that the scientific process is free of misconduct or improper influence,” Salazar said. “This policy clearly defines the roles and responsibilities of all department employees, including career staff and political appointees, in upholding principles of scientific integrity and conduct.”

The new policy, which supersedes previously proposed Scientific Integrity Policy published by DOI in the Federal Register on August 31, 2010, has received praise from numerous environmental and scientific advocacy groups. The DOI is the first federal department to issue such a policy, a noteworthy statement in light of the criticism the department has taken in recent years for its alleged abuse of science, especially Bush-era Administration manipulation of research on endangered species. Eventually, all departments will be expected to institute similar policies in compliance with President Obama’s Executive Order issued in March of last year on the issue of scientific integrity.

The secretarial order, which took effect immediately, but has yet to be codified in the Department Manual, applies to all departmental employees, both political appointees and career staff, as well as all contractors, cooperators, partners, volunteers, and permittees who assist with scientific activities.

The policy incorporates the following principles:

- The Interior Department values science and science plays a vital role in helping us meet the department’s mission. As such, when scientific or technological information is considered in decision making, the information will be as robust, of the highest quality, and the result of rigorous scientific processes as can be achieved within the available decision time-frame.
- Interior Bureaus and Offices will document and make available to the public the scientific or technological findings or conclusions considered or relied on in decision making, except for information that is properly restricted from disclosure under procedures established in accordance with statute, regulation, Executive Order, or Presidential Memorandum.
- The selection and retention of candidates for science and technology positions and positions that are decision making in nature where those decisions rely on scientific information to inform the process, shall be based on the candidate’s knowledge, credentials, experience, and integrity.
- Clear and unambiguous codes of conduct for scientific activities and use of science in decision making will establish expectations of employees with regard to scientific integrity. Misconduct will not be tolerated. Allegations of misconduct will be investigated and disciplinary action will be taken as appropriate.
- Interior will identify, address, track, and resolve instances in which the scientific process or the integrity of scientific and technological information may be compromised.
- Interior will establish procedures and as appropriate, clarify whistleblower protections to ensure the integrity of scientific and technological information and processes on which the agency relies in its decision making or otherwise uses or prepares.
- Interior scientists have rights as citizens and responsibilities as government employees. These rights and responsibilities with regard to communication with the public will be clearly delineated.
- Interior encourages the enhancement of scientific integrity through engagement with the communities of practice represented by professional societies. Interior scientists, scholars and other professionals are encouraged to engage in scientific, scholarly and other activities with these professional networks. These Interior employees will recuse themselves when appropriate and avoid conflicts of interest and the appearance of conflicts of interest.

(News continued on page 4)
A copy of the secretarial order can be found at:

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ADDITIONAL GUIDANCE ON SCIENTIFIC INTEGRITY FOR EXECUTIVE BRANCH

As reflected in his 2009 Memorandum for the Heads of Executive Departments and Agencies [1], President Obama has stressed the importance of promoting and ensuring scientific integrity within the Executive Branch. On December 17, 2010, John P. Holdren, Director of the Office of Science and Technology Policy, issued a long-awaited response to the President’s Memorandum [2]. In a statement released on The White House Blog, Holdren writes, “I am confident that today’s Memorandum will help ensure that science and technology continue to be brought to bear by this Administration with the greatest effectiveness and integrity in the service of all of the national goals the President has so clearly articulated [3].”

Holdren’s statement offers additional guidance to department heads and agencies, addressing four key policy areas. The first of these is the foundations of scientific integrity. Holdren urges executive departments to create policies that not only promote a culture of scientific integrity, but also those that underscore the credibility of government research through increased availability of scientific information, transparency of research, and improved communication with the public regarding ongoing research. The next area expands on policies related to public communication. Policies must guarantee that both experts and federal scientists will be available (when possible) to communicate about their research and to respond to questions from the media. The third section of the memo is dedicated to the use of federal advisory committees (FACs). The recruitment for and selection of members for FACs should be transparent and be based on “expertise, knowledge, and contribution to relevant subject area” [2]. Furthermore, professional biographical information on all sitting members of FACs, as well as any Conflict of Interest waivers must be made publicly available. The final policy suggestions cover the professional development of government scientists and engineers. These policies should support publication of research in journals and the presentation of research at scientific meetings. They should also allow government scientists to participate in professional societies, to sit on editorial boards of journals, and to receive honors and awards for their research.

The guidance may be adapted to the specific needs of the government departments. They serve to reinforce the value of scientific information to the public policy process. Federal agencies have 120 days to respond with their strategies for implementing the recommendations.


*RC *

DNA AT THE STATE FAIR: MINNESOTA’S GOPHER KIDS STUDY

Researchers from the University of Minnesota hope to tap into the vast database of information contained within human DNA to learn precisely what genes contribute to child growth and development. Their research tactics have, however, raised some eyebrows.

This past August the Minnesota State Fair offered a new attraction to its 1,766,211 visitors [1]. Children and their parents were able to participate in more than the annual fiddle contest or Milk Run; they were given the opportunity to contribute their DNA to science.

The commencement of the 2010 fair marked the first phase of what has been coined the ‘Gopher Kids Study’. It is the brainchild of investigators from the University of Minnesota’s Department of Pediatrics, as well as the schools of Public Health, Nursing, and Pharmacology. The purpose of the study is to identify the specific genes that are associated with normal child growth and development. Researchers hypothesize that isolating “healthy” genes will allow them to target variations in the same genes that contribute to problems such as child obesity. The study will also provide researchers with the opportunity to monitor the health of children in Minnesota [2].

The Gopher Kids Study targets children between the ages of 1 and 11, as well as at least one biological parent. During their turn at the collection booth, parents were asked to complete a short survey while children were measured for height, waist circumference, weight, and blood pressure. DNA was collected with a ‘spit kit.’ Participants also had the option of donating fingernail clippings and a small amount of blood to be obtained through a finger-prick. This initial phase sought to discern whether the Minnesota State Fair was a good recruitment venue for children and their parents; researchers surpassed their goal of 500 families within the first few days.

Parents and children did not give up their DNA for free. Participants were offered 10 free ride tickets and a souvenir backpack. In addition, they will receive free passes to the 2011 and 2012 Minnesota State Fairs, where researchers hope they will return to the collection booth.

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(News continued from page 3)
The use of children in scientific research is critical to advancing science. Equally critical, however, is deciding on the protections that must be in place for those not able to give consent [3]. Although groups such as the Committee on Bioethics for the American Academy of Pediatrics have published recommendations about the ethics of genetic screening in pediatric populations, specific guidelines for the use of children’s DNA for scientific purposes are not as clear [4]. With respect to the Gopher Kids Study, concern has been expressed about the thoroughness of the consent form that parents are required to sign, as well as about the use of the state fair as a site to conduct research. The consent form, which is posted on the University’s web site, states that samples will be kept indefinitely, but surprisingly makes no explicit mention of the fate of subject’s DNA. It stresses that no individual results will be distributed; subjects will not be informed of any incidental findings [5]. Such findings might include discoveries about paternity. The form indicates that upon request, a person’s DNA will be destroyed, no-questions-asked. Other considerations include whether or not the state fair is an appropriate setting for a scientific study that requires informed consent. Can researchers reasonably expect parents to comprehend what they are consenting to in such an unconventional environment? Furthermore, one might ask whether it is ethical to offer children (1-11) free tickets and souvenirs to participate in a scientific study when they lack the legal capacity to consent.


ENSURING INTEGRITY IN THE CANADIAN RESEARCH SYSTEM

In response to several high-profile cases of research misconduct, Canada’s three major sources of federal research funding, commonly known to as the Tri-Council, recognized a need for clear national guidelines for research integrity. The Tri-Council, as well as the Canadian Minister of Industry, requested the Council of Canadian Academies (CCA) to delineate “key research integrity principles, procedural mechanisms and practices, appropriate in the Canadian context that could be applied across research disciplines at institutions receiving funds from federal granting councils.” In response, the CCA formed the Expert Panel on Research Integrity, an independent, multidisciplinary panel, to conduct an evidence-based assessment of the integrity of Canada’s research system. The findings and recommendations of the Panel were released on October 21, 2010, in a report titled Honesty, Accountability and Trust: Fostering Research Integrity in Canada. They are meant to apply to “researchers across all disciplines.”

The report defines research integrity as “the coherent and consistent application of values and principles essential to encouraging and achieving excellence in the search for, and dissemination of, knowledge. These values include honesty, fairness, trust, accountability, and openness.” The report identifies four key elements to promoting research integrity:

- Canada must address the gaps in the existing research system that are undermining the system’s transparency and accountability.
- Canada needs a common, system-wide approach to research integrity that involves all actors.
- There is a need to foster a positive, values-based environment for research integrity in Canada.

The report emphasizes that for research integrity to be effective, it must be comprehensive. In today’s research environment, this will require a framework in which “all actors within the research enterprise are both aware of, and committed to, a shared set of values, principles, and actions,” regardless of their academic discipline or role in the research process.

This can only be achieved in a positive, values-based environment, so the report proposes five core values mentioned above that are applicable to all fields of research. These values will be supported by 11 fundamental principles or guidelines for the responsible conduct of research:

1. Conduct research in an honest search for knowledge
2. Foster an environment of research integrity, accountability, and public trust
3. Know your level of competence and your limitations; act accordingly
4. Avoid conflicts of interest, or if they cannot be avoided, address them in an ethical manner
5. Use research funds responsibly
6. Review the work of others with integrity
7. Report on research in a responsible and timely fashion
8. Treat data with scholarly rigor
9. Treat everyone involved with research fairly and with respect
10. Acknowledge all contributors and contributions in research
11. Engage in the responsible training of researchers

The report proposes the creation of a new body, the Canadian Council for Research Integrity (CCRI), to coordinate the promotion of research integrity and the prevention of misconduct. The CCRI would also be responsible for “the provision of
confidential advice, information gathering, the dissemination and reporting of information, and the development and promotion of best practice standards with respect to education, training, and effective self-assessment policies and practices.” The CSCRI would not be responsible for sanctioning research misconduct; this authority would remain with the Tri-Council, which already has the ability to withdraw or withhold funding. Finally, the report recommends that researchers found to have committed misconduct should be identified publicly.

A copy of the report can be found at:

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**In the Societies**

**STATEMENT OF THE ESHG ON DIRECT-TO-CONSUMER GENETIC TESTING FOR HEALTH RELATED PURPOSES**

On August 25, 2010, the European Society of Human Genetics (ESHG) issued a set of formal policy guidelines for handling direct-to-consumer advertising and provision of genetic testing. According to ESHG, private companies are increasingly offering DTC genetic testing services, for both serious genetic diseases and more trivial traits, and the technology’s potential for negative side effects or outright abuse is concerning.

The ESHG guidelines support the responsible use of DTC genetic tests for predictive health information. They attempt to balance the consumer’s right to know with the psychosocial consequences that often accompany such knowledge, and they establish standards of accuracy and privacy that will make test results clinically useful.

The ESHG recommended guidelines can be broken down into two main areas of focus:

1) The individual’s right to accurate, transparent genetic information that is clinically relevant
2) The importance of ethical conduct in genetic testing and handling of test results

Individuals are entitled to their own health information, including genetic information, and one can see how DTC genetic testing offers individuals a tangible good. However, this good can only be realized if two key conditions are met. First, the information provided by genetic tests must be accurate. Toward this end, the ESHG proposes certification of laboratories offering genetic testing, as well as accreditation of the tests being offered. Tests and techniques would be required to be both clinically relevant and well established, and all persons involved in offering testing services would be expected to possess the appropriate qualifications and training.

Second, information about genetic testing must not be misleading. DTC advertising of genetic testing is a situation ripe for marketing abuse, so the ESHG proposes DTC advertising be subject to the same rules and regulations that apply when advertising drugs or medical devices. It also advocates for the involvement of independent medical professionals to assess the appropriateness of proposed testing and provide consumers of genetic testing services with an unbiased source of information.

The ESHG offers four recommendations to reinforce the importance of ethical conduct in genetic testing. First, individuals ought to have access to pre-test and post-test genetic counseling services. Second, informed consent is critical, and the consent procedure cannot be reduced to a signature on a consent form. Third, DTC genetic testing should not be offered to minors or other legally incapacitated individuals. Fourth, genetic tests should always take into account a respect for the customer’s privacy, and genetic test results should never be used for DTC marketing of health goods or services.

To implement the guidelines offered above, the ESHG recommends national legislative action similar to that which already exists in some European countries, and suggests the need for European-level regulatory mechanisms to guarantee the responsible implementation of genetic testing services. The statement concludes with the reminder that the benefits of genetic testing will only be realized with the help of proper professional standards.

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**GUIDELINES: RESPONSIBLE CONDUCT REGARDING SCIENTIFIC COMMUNICATION**

On July 20, 2010, the Council of the Society for Neuroscience approved a revised set of ethics guidelines titled Responsible Conduct Regarding Scientific Communication. In doing so, the Council affirmed the essential role scientific societies play in promoting adherence to proper ethical standards, noting that “the success of the entire scientific endeavor is jeopardized by misconduct, in the form of plagiarism, fabrication, or falsification of data.” These specific guidelines seek to preserve research integrity in scientific communications, defined as “all communications of a scientific nature, including research manuscripts, abstracts, posters, oral presentations, or public electronic communications.”

Communication of research findings is at the core of the scientific enterprise, and thus preserving the trustworthiness of such communication is of paramount importance. Although the Guidelines focus on procedures related to the peer-review process, the principles “are relevant to all writing, reviewing, and editing performed within neuroscience and related areas of investigation.”

The Guidelines are divided into four parts, each of which is addressed to a specific audience or focus within the research community. The first section pertains to the authors of research manuscripts, and seeks to promote four overarching principles: originality, accuracy, meaningful authorship, and
full disclosure. Originality means both that the data must be original and that all published material may not be plagiarized. Often overlooked forms of plagiarism include self-plagiarism and duplicate publication. Accuracy requires that the data are not fabricated or falsified in any way, the research is presented in a transparent manner, and all research is subject to peer-review. The principle of meaningful authorship demands authorship “be based on a substantial intellectual contribution” and does not allow for honorary authorship. Full disclosure entails the disclosure of sources of funding or any potential conflicts of interest, as well as a detailed account of the methods and materials employed so that other researchers have everything they need to evaluate fully and replicate the findings.

The second section speaks to the reviewers of manuscripts, stressing the critical role a rigorous peer-review process plays in preserving the integrity of scientific communication. “Scientific review is in the interest of the scientific community” because it grants readers a measure of confidence in the quality of the article they are reading, and it ensures that other researchers do not waste their time reading articles with poorly designed or conducted research. The Guidelines encourage all scientists to be active participants in the peer-review process whenever possible, and to be both prompt and thorough when reviewing a manuscript. Reviewers should be highly qualified, anonymous, unbiased, and critical yet tactful. Finally, reviewers must keep the material under review confidential and not seek to profit financially or professionally from the findings disclosed by the unpublished research.

The third section is addressed to the editors of scientific journals. Editors are “charged with ensuring the high quality of all manuscripts accepted for publication, and with maintaining the objectivity and confidentiality of the process used to make that determination.” This requires editors to create a review process that works to avoid bias and makes sure that similar manuscripts are treated similarly.

Whenever possible, an author’s request that an individual be excluded from the review of a particular manuscript should be respected. Furthermore, editors are in charge of ensuring that unpublished manuscripts are treated confidentially by everyone involved in the review process. The editor has the sole responsibility for every acceptance or rejection of a manuscript.

The final section defines ethical practice regarding the presentation of findings outside the scientific literature. Communication with the public is an integral part of a scientist’s duty and is highly encouraged, but such communication must be done responsibly. Responsibility entails a careful respect for the lay audience’s level of understanding so that results are not misinterpreted due to disparities in technical knowledge. Responsible communication also means that scientific findings “should be published or accepted for publication in a peer-reviewed journal before being announced to the public.” Communicating research findings to the public is important, but it “is not a substitute for publication within the scientific literature.”

To view the SfN guidelines in their entirety, go to: http://www.sfn.org/index.aspx?pagename=ResponsibleConduct

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ASA SUPPORTS ENDANGERED SOCIOLISTS

On September 21, 2010, the Council of the American Sociological Association adopted a resolution affirming the association’s support for sociologists whose research and writings put them in danger. In many parts of the world, sociologists can be faced with imprisonment, persecution, or torture for publishing their ideas. The ASA works with numerous likeminded institutions to combat such abuses through targeted letter writing, increased awareness of abuse, and assisting in asylum efforts.

The ASA resolution is intended to show support for academic freedom, freedom of speech, and personal safety of sociologists in dangerous situations, as well as encourage the reporting of any abuses to the ASA.

A copy of the ASA resolution can be found at: http://www.asanet.org/images/Council_Statements/docs/pdf/Council_Statement_on_Endangered_Sociologists.pdf

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Resources

UNIVERSITY OF ILLINOIS TO DEVELOP NATIONAL CENTER FOR ETHICS IN SCIENCE, MATHEMATICS, AND ENGINEERING

Through a five-year, $5 million grant from the National Science Foundation, the University of Illinois at Urbana-Champaign is developing a national center and online portal for professional and research ethics in science, mathematics and engineering. The Center seeks to create an online environment that supports the life-long development of ethical practices.

The National Center for Professional and Research Ethics will develop, gather, preserve and provide comprehensive resources for instructors, students, researchers, administrators, scholars and others with questions or interests in these areas. The center, part of Illinois’ Coordinated Science Laboratory (CSL), will draw on the University’s strength in engineering, digital library technologies, mathematics, medicine, business and law, among other fields. The project is led by C.K. Gunsalus, professor of business and a research professor at CSL.

A multidisciplinary team will synthesize existing information, generate innovative curricula and create interactive collaboration tools that will help scientists and engineers

(Resources continued on page 8)
incorporate ethical issues and reasoning into their pedagogy, research and practice. The project will explore the merging of several important digital library technologies, which could serve as a model for all other online resource centers. The grant funds several other partner institutions and organizations. In addition, experts from across the country will advise the center, including those in the AAAS Program on Scientific Freedom, Responsibility and Law. Interested others are invited to submit materials and to collaborate with the Center via email at ethicsctr@illinois.edu and posts on the site once it goes live. The portal infrastructure will be built around the HUBZero e-learning and collaboration platform. The work will feature the development of HUBZero extensions that allow the integration of custom federated search applications, extended content harvesting and database technologies, and true preservation and archiving repository technologies. The center will also leverage existing NSF investments in ethics education. At the grant’s conclusion, the University Library will incorporate the Center’s resources into its permanent collection.

Announcements

Call for Essays and Creative Projects – DePauw University’s 4th Annual Undergraduate Ethics Symposium will be held April 7-9, 2011. The symposium seeks submissions on issues such as environmental ethics, media ethics, diversity, and personal morality. Format for entries may vary. The symposium welcomes essays, screenplays, films and short documentaries, and photography. All entries must be submitted electronically to Linda Clute: prindleinstitute@depauw.edu by February 1, 2011. For more information, visit: http://prindleinstitute.depauw.edu Or call: 765.658.4075.

Call for Papers – The 12th meeting of ETHICOMP, “The Social Impact of Social Computing,” invites paper submissions with a social or ethical perspective on issues related to social communication. Topics may include online communities, interactive entertainment, wireless and web technology, software engineering information and computer ethics, communication and human-computer interaction theories, and a variety of others. Abstracts should be 800-1000 words and written in English. The deadline for submission is February 7, 2011. All abstracts should be submitted to ecssr@dmu.ac.uk. The 2011 meeting will take place at Sheffield Hallam University, Sheffield, UK September 14-16, 2011. For more information, see http://www.cesr.e.se.dmu.ac.uk/conferenc es/ethicomp/ethicomp2011/.

Conference – The Tilburg Institute for Law, Technology and Society (TILT) will hold its bi-annual meeting April 11-12, 2011 at Tilburg University in the Netherlands. The conference, “TILTing Perspectives 2011: Technologies on the stand: Legal and ethical questions in neuroscience and robotics” will focus on the implications of the intersection of neuroscience and robotics and its scientific and legal impacts. The deadline for registration is April 5, 2011. To read more about the conference, see: http://www.tilburguniversity.nl/faculties/l aw/research/tilt/events/tilting2011/.

Conference – The Sixth Annual International Conference on Ethical Issues in Biomedical Engineering will be held at the Polytechnic Institute of New York University on April 1-3, 2011. The conference will examine ethical issues related to the development of implants, devices, and treatments intended to improve patient quality of life. For more information, visit: http://www.nyas.org/Events/Detail.a spx?cid=6a41b53f-9b09-41e0-b787- 42cbe242d14c.

Workshop - Indiana University’s Poynter Center for the Study of Ethics and American Institutions will host the Eighteenth Annual Teaching Research Ethics Workshop May 17-20, 2011. The workshop will be held on the Indiana University Bloomington campus and will address issues of responsible conduct of research, including conflict of interest, human subjects research, ethics, and data management. For more information, contact Glenda Murray: glmurray@indiana.edu or (812) 855-0262. To register, go to: http://poynter.indiana.edu/te.

Workshop - Workshop on Responsible Research Practices in a Changing Research Environment at the AAAS Annual Meeting, February 17, 2011 in Washington, DC. The workshop will highlight emerging issues related to a changing research environment. Examples of issues covered at the workshop include:

- What are the ethical challenges and range of responses associated with research collaborations across national borders?
- What are the ethical challenges and standards for doing community-based research? What preparation should researchers have to engage effectively with the media or with a community research partner?
- What do increasing public demands for more socially accountable research imply for the social responsibilities of scientists?
- What ethical pitfalls should scientists consider when deciding whether, and if so, how, to engage in policy advocacy? What are the professional and societal risks associated with advocacy? What are the appropriate boundaries of "responsible advocacy"?

The agenda is posted at: http://www.aaas.org/spp/sfrl/workshop-on-responsible-research-practices-2011.shtml

To register for the workshop, for which there is a $25.00 fee, go to http://registration2.experient- inc.com/showAAA11/Default.aspx. Follow the steps for "General Attendee." Registrants have the option of selecting only the workshop or choosing also to attend the AAAS Annual Meeting.