nanoWorkshop on the Ethics of Scientific Data

CMMAP Winter Meeting, 2012

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Table of Contents

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- Consider them in light of your personal research and to jointly consider what a CMMAP policy could or should be regarding scientific data.
- Many issues lurk here that we cannot cover in depth: scientific method, privacy, academic freedom, intellectual property, liability, Freedom of Information, criminality, hacking, harassment, ...

Table of Contents

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- **Moral psychology**, about how moral capacity or moral agency develops and what its nature is;
- **Descriptive ethics**, about what moral values people actually abide by (what's really going on).

Table of Contents

Let's Begin at (almost) the End

theguardian

News | US | World | Sports | Comment | Culture | Business | Envirc

Environment › Hacked climate science emails

'Climategate' review clears scientists of dishonesty over data

'Rigour and honesty' of scientists not in doubt but Sir Muir Russell says UEA's Climatic Research Unit was not sufficiently open

- Follow the latest developments on our Climategate live blog
- Read the full text of the review here

David Adam, environment correspondent
guardian.co.uk, Wednesday 7 July 2010 08.02 EDT
Article history

Sir Muir Russell, second left, talks to the media about his report into the leaked University of East Anglia climate change emails today. Photograph: Sang Tan/AP

The climate scientists at the centre of a media storm were today cleared of accusations that they fudged their results and silenced critics to bolster the case for man-made global warming.

Sir Muir Russell, the senior civil servant who led a six-month inquiry into the affair, said the "rigour and honesty" of the scientists at the world-leading Climatic Research Unit (CRU) at the University of East Anglia (UEA) are not in doubt. They did not subvert the peer review process to censor criticism as alleged, the panel found, while key data needed to reproduce their findings was freely available to any "competent" researcher.

The panel did criticise the scientists for not being open enough about their work, and said they were "unhelpful and defensive" when responding to legitimate requests made under freedom of information (FOI) laws.

The row was sparked when 13 years of emails from CRU scientists were hacked and released online last year. Climate change sceptics claimed they showed scientists manipulating and suppressing data to back up a theory of man-made climate change. Critics also alleged that the scientists abused their positions to cover up flaws and distort the peer review process that determines which studies are published in journals, and so enter the scientific record. Some alleged that the emails cast doubt on the findings of the Intergovernmental Panel on Climate Change (IPCC).

Announcing the findings, Russell said: "Ultimately this has to be about what they did, not what they said."

He added: "The honesty and rigour of CRU as scientists are not in doubt ... We have not found any evidence of behaviour that might undermine the conclusions of the IPCC assessments."

The review is the third and final inquiry into the email affair, dubbed "climategate", and effectively clears Professor Phil Jones, head of the CRU, and his colleagues of the most serious charges. Questions remain over the way in which they responded to requests for information from people outside the conventional scientific arena, some of whom were long-standing critics of Jones.

"We do find that there has been a consistent pattern of failing to display the proper degree of openness, both on the part of CRU scientists and on the part of the UEA," the report, commissioned by UEA, said.

It also criticised the CRU scientists for failing to include proper labels on a 1999 graph prepared for the World Meteorological Organisation, which was the subject of an infamous email about Jones using a "trick" to "hide the decline". The panel said the result was misleading, though they accepted this was not deliberate as the necessary caveats had been included in the report text.

Separately, it was announced today that Phil Jones has accepted the new post of director of research at CRU. The vice chancellor of UEA, Professor Edward Acton, said this was "not a demotion but a shift in emphasis of role" for Phil Jones. "CRU will be more closely integrated in the bigger school of environmental sciences and a key difference is to place some of the administrative burden that Phil had before this incident on the head of the school," said Prof Acton. Jones will be more free to direct and conduct his own research.

Future FOI requests for the CRU will be directed though the head of the school, Professor Jacquie Burgess, and the ultimate responsibility for such requests will lie with the vice-chancellor, as highlighted in the Russell report.

- Additional reporting by Christine Ottery

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Sir Muir Russell, second left, talks to the media about his report into the leaked University of East Anglia climate change emails today. Photograph: Sang Tan/AP

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Galileo Inquisition

So the problem seems to be...propriety

...they were not proper enough!

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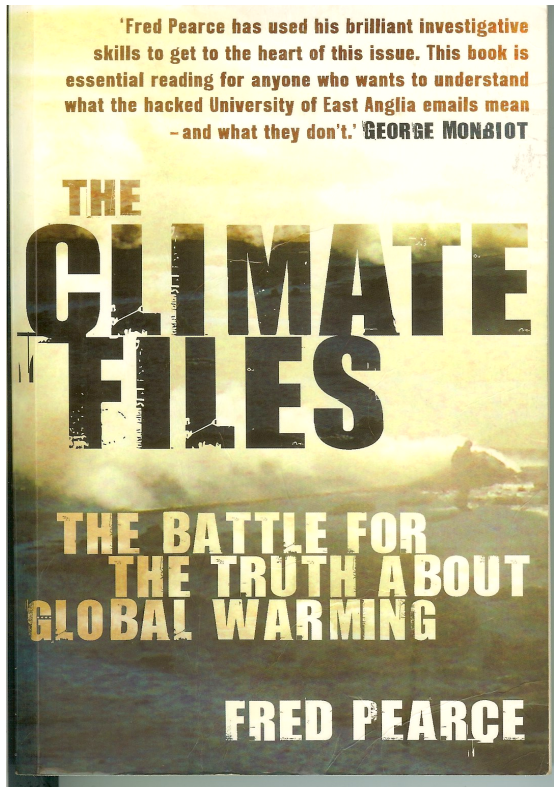
- *That certainly clears it up. Jolly good!*

Source Material

This book examines the chronology of Climategate and presents a non-advocacy perspective on the events leading up to the release of private emails of climate scientists as well as the individuals who challenged them [5].



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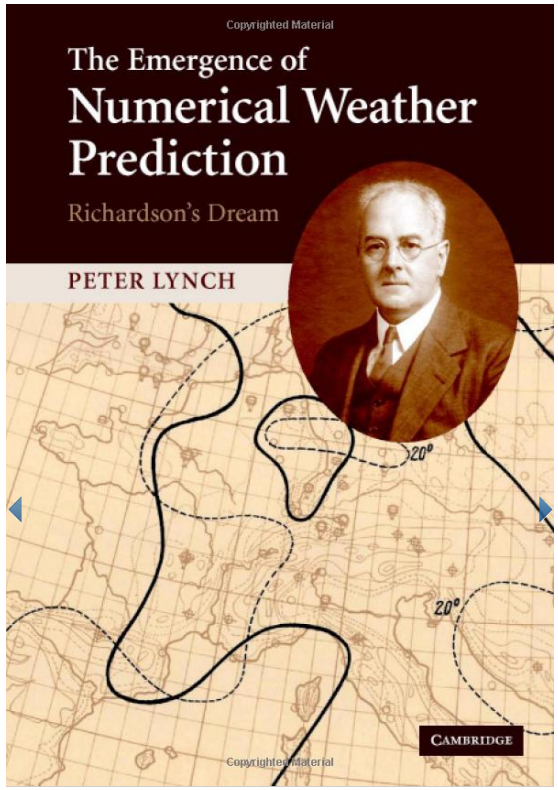
This book reviews the history of numerical weather analysis with a particularly interesting discussion of the development of data sharing and the emergence of cyberinfrastructure [4].



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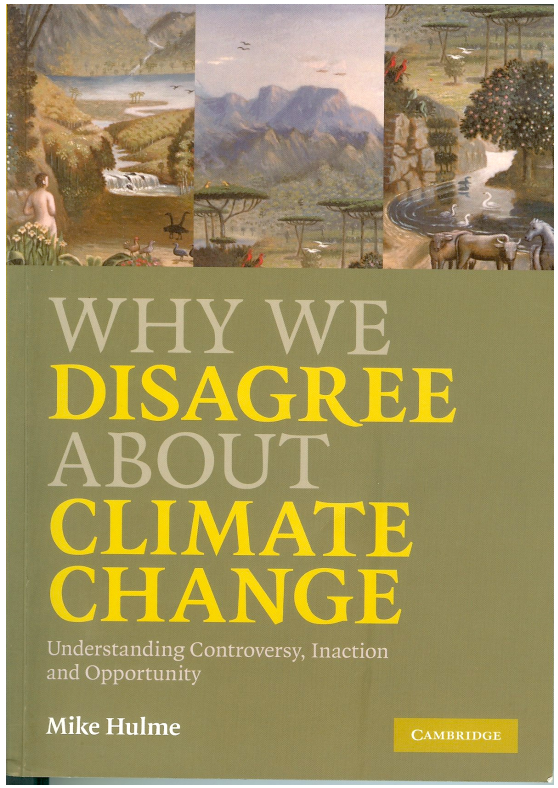
This book reviews the cultural history of climate change and how it relates to disciplinary science [2].



Now let's go back, back, back to The Awakening: Local and Regional Changes in Climate

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- 1760 Hugh Williamson presented to American Philosophical Society that climate had changed in the last 40 years [2][1]
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The Late Anthropocene: WTF is Going On?

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McIntyre email to Jones Encouraging Retraction

To: "Phil Jones" <p.jones@uea.ac.uk>
Subject: Jones et al 1990
Date: Tue, 19 Jun 2007 13:44:58 -0400

Dear Phil,
Jones et al 1990 cited a 260-station temperature set jointly collected by the US Deparment of Energy and the PRC Academy of Sciences, stating in respect to the Chinese stations:

The stations were selected on the basis of station history: we chose those with few, if any, changes in instrumentation, location or observation times.

This data set was later published as NDP-039 <http://cdiac.ornl.gov/epubs/ndp/ndp039/ndp039.html>http://cdiac.ornl.gov/epubs/ndp/ndp039/ndp039.html, coauthored by Zeng Zhaomei, providing station histories only for their 65-station network, stating that station histories for their 205-station network (which includes many of the sites in Jones et al 990) were not available:

(s. 5) Unfortunately, station histories are not currently available for any of the stations in the 205-station network; therefore, details regarding instrumentation, collection methods, changes in station location or observing times, and official data sources are not known.

(s. 7) Few station records included in the PRC data sets can be considered truly homogeneous. Even the best stations were subject to minor relocations or changes in observing times, and many have undoubtedly experienced large increases in urbanization. Fortunately, for 59 of the stations in the 65-station network, station histories (see Table 1) are available to assist in proper interpretation of trends or jumps in the data; however, station histories for the 205-station network are not available. In addition, examination of the data from the 65-station data set has uncovered evidence of several undocumented station moves (Sects. 6 and 10). Users should therefore exercise caution when using the data.

Accordingly, it appears that the quality control claim made in Jones et al 1990 was incorrect. I presume that you did not verify whether this claim was correct at the time and have been unaware of the incorrectness of this representation. Since the study continues to be relied on, most recently in AR4, I would encourage you to promptly issue an appropriate correction.

Regards, Steve McIntyre

Jones

McIntyre

Mann

What Have YOU Got in Your Pocket?

- 2009/11 A **HUGE** file of University of East Anglia emails and related documents are 'published' on the Internet
- 2009 '...As climate contrarian Ross McKitrick put it ... "The IPCC review process is nothing at all like what the public has been told. Conflicts of interest are endemic, critical evidence is systematically ignored and there are no effective checks and balances against bias or distortion.'
- 2010 Researchers exonerated, PJ removed from Director position at UEA Climate Research Unit This is where we started from
- 2011 (Nov) A court decision in Prince William County, Virginia rescinds an order to turn over academic e-mails (MM) in response to a FOI request

Freedom of Information (FOI)

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Archive > Volume 479 > Issue 7372 > Editorials > Article

NATURE | EDITORIAL

previous article next article

Academic freedom

Nature **479**, 149 (10 November 2011) | doi:10.1038/479149a
Published online 09 November 2011

A court decision in the United States rescinding an order to turn over academic e-mails in response to a freedom-of-information request is welcome.

Subject terms: Law · Institutions · Research community

Scottish law exempts academic work from the freedom-of-information laws, but the rest of the United Kingdom does not. Ireland also exempts, and although the United States is commonly thought to, it turns out that, as so often in that country, it is left to the courts to decide. So, just what should researchers make of freedom-of-information laws?

American climatologist Michael Mann, now at Pennsylvania State University in University Park, probably knows the score better than most. And in the latest twist in a long-running saga over who should be able to read Mann's e-mails, a Prince William County Circuit Court judge in Manassas, Virginia, last week tore up an agreement that would have given the e-mails, with conditions, to attorneys for the American Tradition Institute (ATI), a conservative think tank. Judge Gaylord Finch also granted Mann's request to join the University of Virginia (his former employer and holder of the e-mails) in a lawsuit to block their release.

As both sides argue about whether the messages should ultimately be made public, the two legal decisions come as welcome news to those (including this journal) who believe that access to personal correspondence is a freedom too far. But the case highlights, yet again, how woefully unprepared the academic community is to meet this kind of challenge. This must change.

"Access to personal correspondence is a freedom too far."

Certainly, the University of Virginia caved in too easily when it signed the agreement that granted the ATI access to the e-mails last spring. Given the tone of public statements that have come out of the ATI, the university should never have agreed to hand over confidential material of any sort.

But the university and its attorneys deserve credit for rectifying the situation. And despite appearances, to fight such requests is not against the letter, or indeed the spirit, of perfectly proper regulations designed to improve the accountability of public bodies. In fact, Virginia's freedom-of-information law provides the university with a solid basis to deny access to this kind of blanket request for e-mail records: academic work is exempt. This is as it should be, and the university should fight to protect that exemption now and in the future.

Yes, the public has a right to know, and yes, greater scrutiny of public spending is a good thing. But research practice is typically protected for good reasons too. To protect academic freedom is a foundation for intellectual property and copyright laws, while in court, both Mann and the university warned of the chilling effect of such demands on communication between scientists. Certainly, many researchers are more wary of e-mail today, and given Mann's experiences, who can blame them?

His case is high profile, but scientists and academics watching it (as well as the related attempts by Virginia's attorney-general Ken Cuccinelli to force the release of the same e-mails) should be cautious about drawing broad conclusions from how it may pan out. Even within the United States, the eventual ruling won't serve as much of a precedent outside Virginia. Federal agencies in the United States are subject to the federal statute, but state universities and research institutions must all play by the laws enacted in their own states.

Across those states it seems that this kind of academic exemption is common, but not universal, and its application would vary according to precedents set locally. In other words, it will be up to individual universities to work out how to address these kinds of cases as they emerge in future.

Mann's decision to join the lawsuit was spurred by the initial decision of the university to grant ATI access to his e-mails, a move with which he disagreed. He suggests that universities may be limited in what they can do to fend off these attacks, or that their interests may not always align precisely with those of individual researchers.

Mann is also getting help from a new fund especially designed to aid climate scientists hit by legal challenges, and organizations including the American Geophysical Union, the American Association of University Professors and the Union of Concerned Scientists have weighed in as well. All of this is good and useful, but it is no substitute for a solid institutional defence. Individual universities and research institutions everywhere should review their own policies and make sure they know the applicable laws as well as do those who would use them for mischief, or worse.

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Subject terms: Law · Institutions · Research community

Scottish law exempts academic work from the freedom-of-information laws, but the rest of the United Kingdom does not. Ireland also exempts, and although the United States is commonly thought to, it turns out that, as so often in that country, it is left to the courts to decide. So, just what should researchers make of freedom-of-information laws?

American climatologist Michael Mann, now at Pennsylvania State University in University Park, probably knows the score better than most. And in the latest twist in a long-running saga over who should be able to read Mann's e-mails, a Prince William County Circuit Court judge in Manassas, Virginia, last week tore up an agreement that would have given the e-mails, with conditions, to attorneys for the American Tradition Institute (ATI), a conservative think tank. Judge Gaylord Finch also granted Mann's request to join the University of Virginia (his former employer and holder of the e-mails) in a lawsuit to block their release.

Freedom of Information (FOI)

But the university and its attorneys deserve credit for rectifying the situation. And despite appearances, to fight such requests is not against the letter, or indeed the spirit, of perfectly proper regulations designed to improve the accountability of public bodies. In fact, Virginia's freedom-of-information law provides the university with a solid basis to deny access to this kind of blanket request for e-mail records: academic work is exempt. This is as it should be, and the university should fight to protect that exemption now and in the future.

Yes, the public has a right to know, and yes, greater scrutiny of public spending is a good thing. But research practice is typically protected for good reasons too. To protect academic freedom is a foundation for intellectual property and copyright laws, while in court, both Mann and the university warned of the chilling effect of such demands on communication between scientists. Certainly, many researchers are more wary of e-mail today, and given Mann's experiences, who can blame them?

His case is high profile, but scientists and academics watching it (as well as the related attempts by Virginia's attorney-general Ken Cuccinelli to force the release of the same e-mails) should be cautious about drawing broad conclusions from how it may pan out. Even within the United States, the eventual ruling won't serve as much of a precedent outside Virginia. Federal agencies in the United States are subject to the federal statute, but state universities and research institutions must all play by the laws enacted in their own states.

Freedom of Information (FOI)

Across those states it seems that this kind of academic exemption is common, but not universal, and its application would vary according to precedents set locally. In other words, it will be up to individual universities to work out how to address these kinds of cases as they emerge in future.

Mann's decision to join the lawsuit was spurred by the initial decision of the university to grant ATI access to his e-mails, a move with which he disagreed. He suggests that universities may be limited in what they can do to fend off these attacks, or that their interests may not always align precisely with those of individual researchers.

Mann is also getting help from a new fund especially designed to aid climate scientists hit by legal challenges, and organizations including the American Geophysical Union, the American Association of University Professors and the Union of Concerned Scientists have weighed in as well. All of this is good and useful, but it is no substitute for a solid institutional defence. Individual universities and research institutions everywhere should review their own policies and make sure they know the applicable laws as well as do those who would use them for mischief, or worse.

Table of Contents

Sobering Points

- Papers were published but not data or methods in sufficient detail to allow verification (as distinct from duplication)
- Cultural resistance to 'outsiders' seeking access to research materials and methods arising from public funding
- Politicized environment provided standing for criticisms (some valid) that were used to undermine public confidence in climate science
- Media provided a megaphone
- Exoneration achieved after political investigation but damage was done both at the personal and cultural levels
- Much smaller megaphone

Table of Contents

Italian Earthquake (Climate Model?) Manslaughter Trial

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Error and Trial: Italian Scientists Face Prison as Earthquake Manslaughter Hearing Resumes This Weekend

Six renowned geophysicists are on the hot seat, but is it for failing to predict an earthquake or failing to clearly communicate their findings?

By Larry Greenemeier | September 30, 2011 | 33

Share Email Print

Did scientists and public officials encourage residents of L'Aquila to let their guard down prior to a tragic April 2009 earthquake that killed 309 people in that central Italian city? That is what an Italian court will consider Saturday as it resumes an unprecedented manslaughter trial of six Italian geophysicists and one former government official.

The defendants were part of Italy's National Commission for Forecasting and Predicting Great Risks that held a special meeting in L'Aquila the week before the earthquake to address concerns over recent seismic activity but, according to prosecutors, provided "incomplete, imprecise and contradictory information." As a result of this information, communicated largely via a press interviews before and after the meeting, many L'Aquila residents felt no need to abandon their homes, prosecutors allege. The magnitude 6.3 earthquake ended up leveling about 20,000 buildings in and around L'Aquila.

AT FAULT: A government building severely damaged by the April 2009 magnitude 6.3 earthquake in L'Aquila, Italy. *Image: Courtesy of TheWiz83, via Wikimedia Commons*

Supplemental Material

Sidebar
An Essential Guide to the U.S. East Coast

'According to an open letter to the president of Italy, Giorgio Napolitano, signed by more than 5,000 members of the scientific community, the seven Italians essentially face criminal charges for failing to predict the earthquake even though pinpointing the time, location and strength of a future earthquake in the short term remains, by scientific consensus, technically impossible.'

Published online 14 September 2011 | Natu
doi:10.1038/477264a

News Feature

Scientists on trial: At f

In 2009, an earthquake devastated t and killed more than 300 people. Nou manslaughter.

Stephen S. Hall

Whereas answers to tough scientific questions such as when and where a major temblor will strike are elusive today, it is not for lack of trying. Jordan chaired the International Commission on Earthquake Forecasting for Civil Protection formed by the Italian government in the aftermath of L'Aquila to assess the scientific knowledge of earthquake predictability and provide guidelines for effectively gathering, updating and disseminating information to the public. The commission, which submitted its findings in May, recommended several measures, including real-time, interagency sharing of seismic data and the development of new earthquake forecasting methods.

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Whew...They're not really insane. They just want the data.

- Such protestations are "a little off base in that they don't really get at the main issues of the trial," Jordan says.

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- "The public is in some ways becoming more demanding," Jordan says, adding that they want fast access to accurate scientific information gathered in as transparent a manner as possible.
- Regardless, the outcome of this case is likely to send tremors throughout the scientific community, particularly among disciplines such as seismology that seek to better understand and forecast natural disasters.

This just in...use a computer, go to jail.

Seriously.

Export Controls on Cyberinfrastructure Now: Model Output (i.e., Data) Next?

Memo of Understanding

Regarding Restriction of Foreign National Access to Kraken

Between

University of Tennessee, National Institute for Computational Science (NICS)

And

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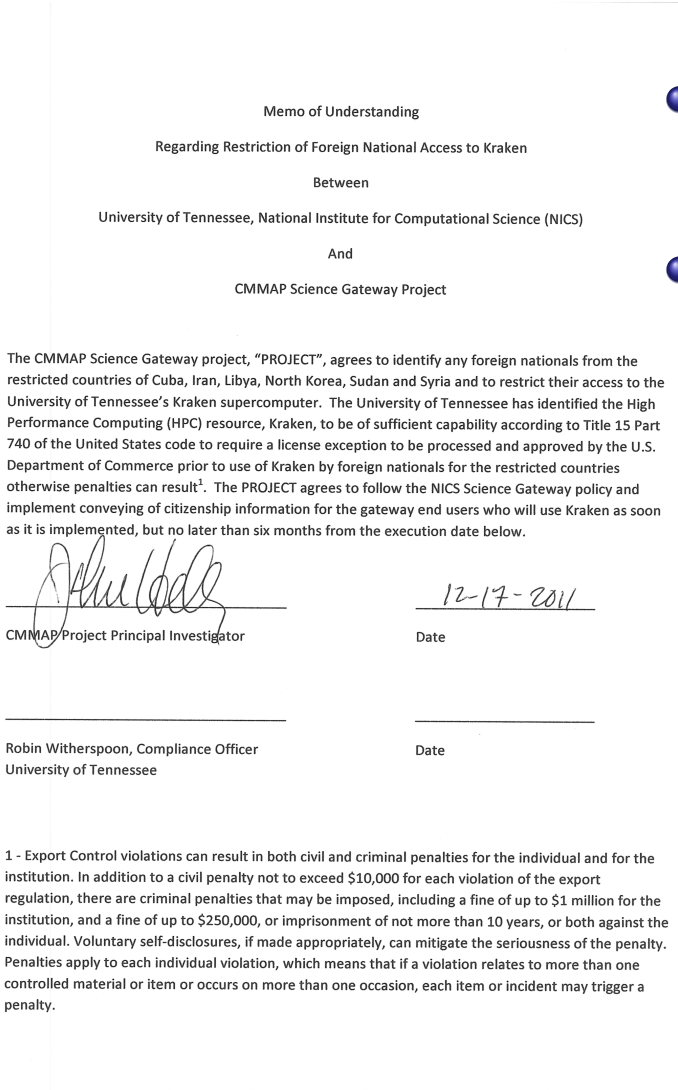

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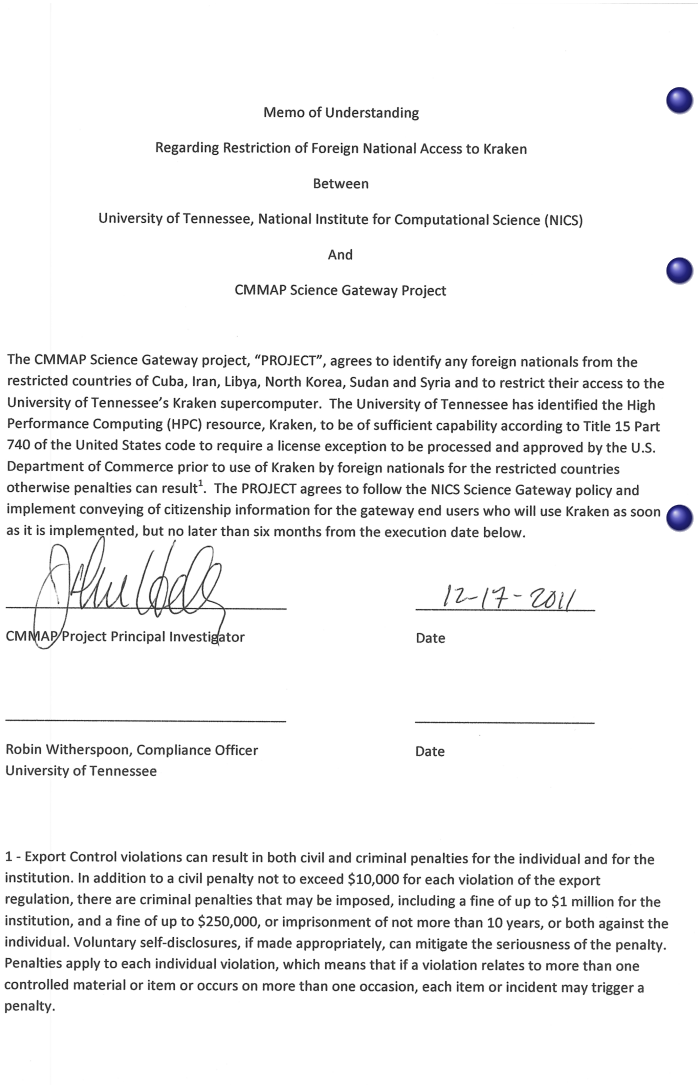

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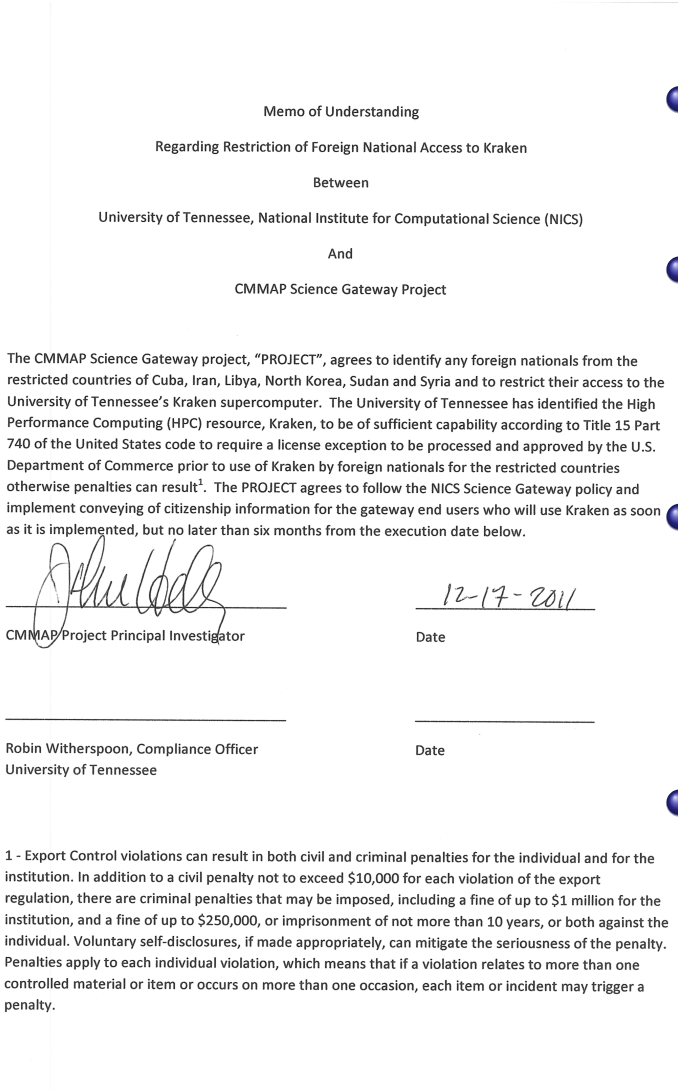

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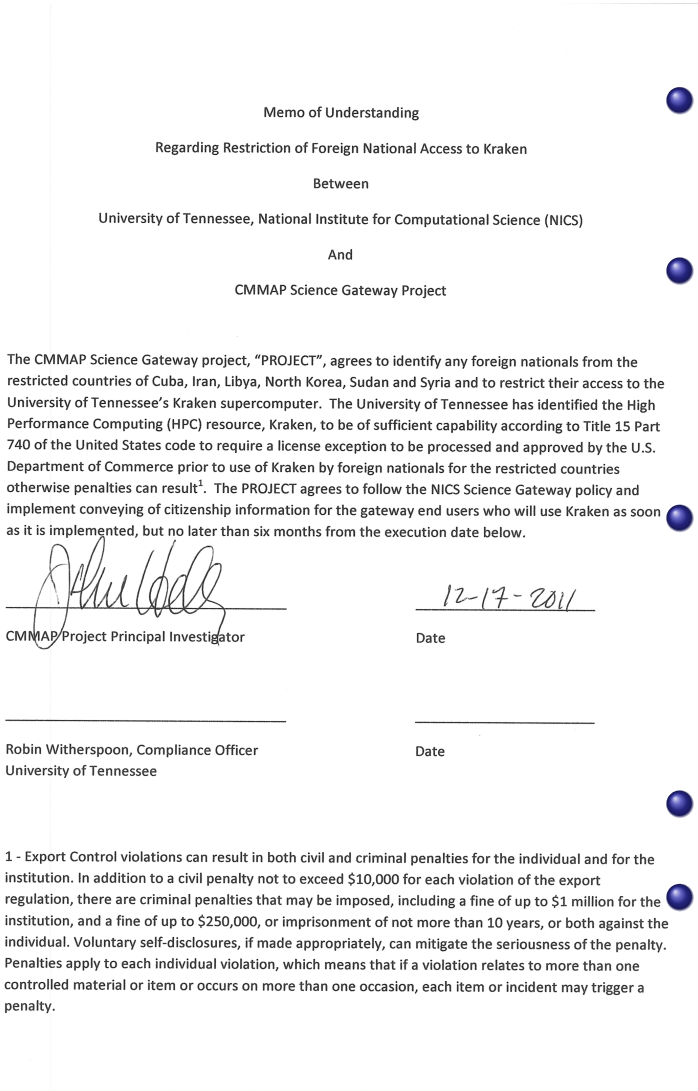

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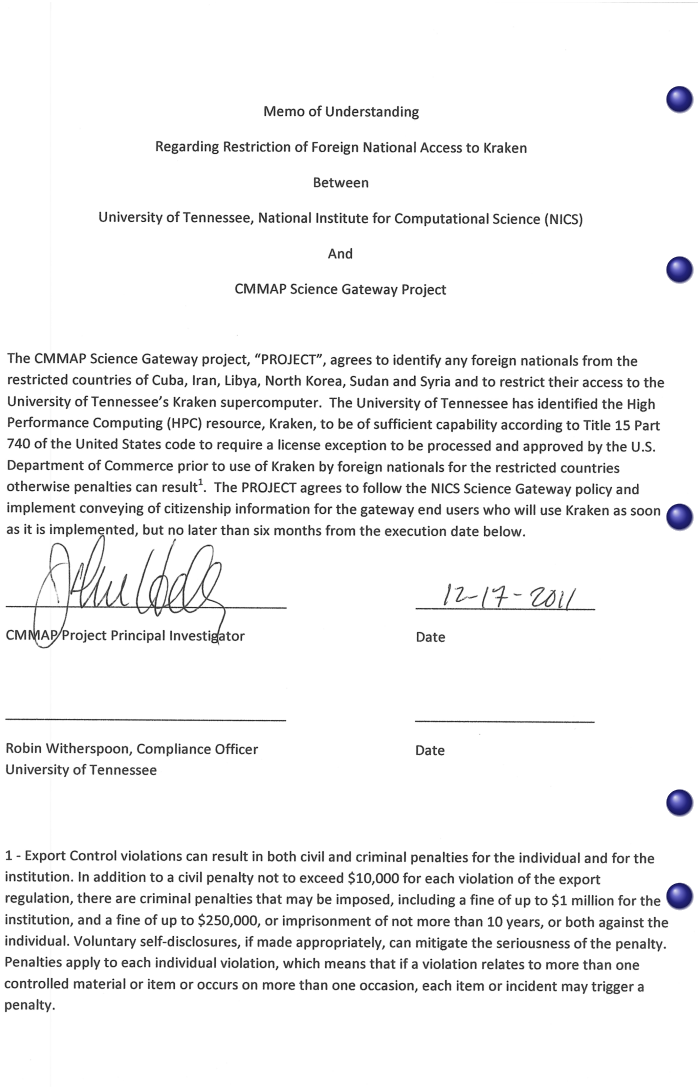

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What DO you do? (Descriptive Ethics)

1. Consider your last two papers. Do they have enough information to provide for independent verification of your results (including access to data)? Count and report
2. In case they do not, what would your response be to a request from a 'Steve McIntyre' for a copy of the data for your last paper? Describe and report
3. What is your home institution's policy and procedure for responding to FOI requests? Count how many know and report
4. What is your state's policy and procedure for responding to FOI requests? Count how many know and report
5. How do they compare to federal requirements (just in case you are getting federal funding)? Count how many know and report

What Should CMMAP Do? (Normative Ethics)

1. What should the CMMAP data release policy be?
2. What should the CMMAP software release policy be?
3. How do these project policies relate to individual and institutional policies?
4. Who has the authority to make the policies (PI? Executive Committee? Democratic vote?)?
5. Who is liable?
6. Who wins (besides the lawyers)?

What we NEED to do? (Applied Ethics)

1. The Virginia court case was overturned in favor of academic freedom.
2. What does academic freedom mean in your setting?
3. The ability to do research without fear of liability (or death) has to be protected.
4. Don't put your head in the sand.

Just another lovely day in paradise...

Table of Contents

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