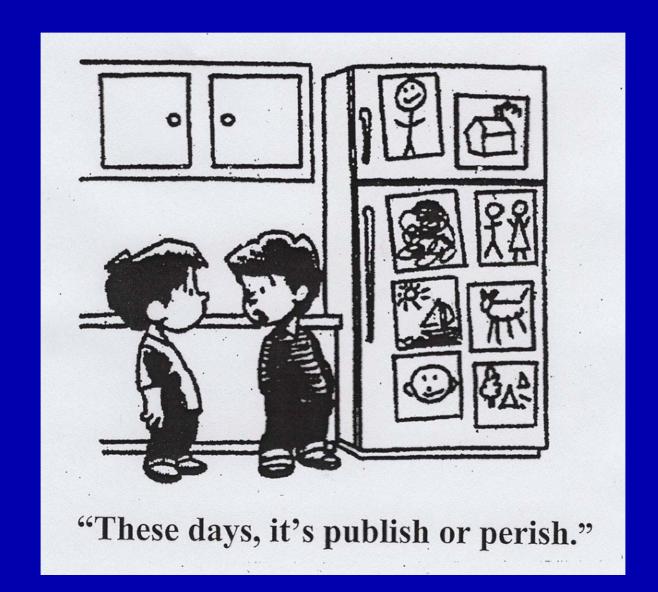
# Authorship, Publication, and Plagiarism

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Director, Scientific Freedom, Responsibility and Law Program
American Association for the Advancement of Science
Washington, DC

RCR Programs
UC Davis
March 12, 2008









#### **PLAGIARISM**

"The appropriation of another person's ideas, processes, results, or words without giving appropriate credit."

Doesn't matter whether intentional or not. Unintentional plagiarism is still plagiarism.



## THE CHRONICLE

of Higher Education.

December 17, 2004 • \$3.75 Volume LI, Number 17

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SPECIAL REPORT Unoriginal Sin Plagiarism by professors is widely condemned, but it often goes undetected and unpunished. A Chronicle investigation unmasks scholarly thieves: A8 the and particularly with beinguining the above be mostly the physical and cultural or above the latest conference of interface climates of the of a locate as as climate and soil, the presence of eater supplies and mineral resources, its terms tures, and the like. These natural landscape are e is of great imporprovide the setting within which human section of o meaning at one They help shape—but do not dictate—how people te problem is ex-The resource base, for example, is physically destudy of world though how resources are perceived and utilized i People modify the environmental condilarge-scale relacope monty me environmental conditions of a city place simply by occupying by the exteence of the U.S. Environmental Protection (2001c) (and its Counterparts classification is a reminder that humans are the active and of crop patterns checkere) is a reminder that humans are the active and frequently harmful agents in the continuing spatial inter-fection of the cultural and physical words (Figure 1.0). Virtually every human activity leaves its imports of an area's soils, water, vegetation, animal life, and other re-The impact of fluorants has been so universal and so long or e them charre concerned INTRODUCTIONS FORM BACKGROWNS BARGE George O. Carney, a professor at Oklahoma State U., has copied the work of many authors over the years. In a 2003 essay (right), he took hundreds of words from an introductory textbook (left) by Jerome D. Fellmann, a retired U. of Chicago professor.



The Chronicle of Higher Education

# History – Journal Editors Grapple With the Perils of Plagiarism

Richard Byrne January 18, 2008



# Turkish physicists face accusations of plagiarism

Geoff Brumfiel September 6, 2007 Nature



#### Chemical & Engineering News

February 18, 2008

William G. Schulz

#### A Massive Case Of Fraud

Journal editors are left reeling as publishers move to rid their archive

A CHEMIST IN INDIA has been found guilty of **plagiarizing** and/or falsifying more than 70 research papers published in a wide variety of Western scientific journals between 2004 and 2007.



#### dongA.com

**January 25, 2007** 

KU's President Plagiarized: Report Resigned after 56 days as President.



S.Korean education minister resigns amid scandal of thesis plagiarism



# The New York Times

March 1, 2008 SHERYL GAY STOLBERG

Bush Aide Resigns After Admitting Plagiarism



Richard A. Posner *The Little Book of Plagiarism*(Pantheon, 2007)

Plagiarism is an "embarrassingly second-rate" offense, "its practitioners...pathetic."



The Columbus Dispatch August 12, 2006

OU professor sues after school links him to plagiarism

An Ohio University professor has sued the school for defamation, saying that officials falsely accused him of helping students in the mechanical engineering department plagiarize their master's theses.





Andrea Gawrylewski June 8, 2007

#### Journal editor retracts comments

The editor of *Fertility and Sterility* apologizes for damaging remarks to *The Scientist* about a controversial paper.

Retracting his statements that accused Korean authors "of plagiarizing another scientist's work and lying to the journal about it."



#### Famous Plagiarists.com



# War On Plagiarism.org

#### Science and Medicine 2



New Journal Release--Plagiary--Call for Papers

#### Plagiarism in the Professional, Published Discourse of Science and Medicine

Gasp! Not in science and medicine too . . .

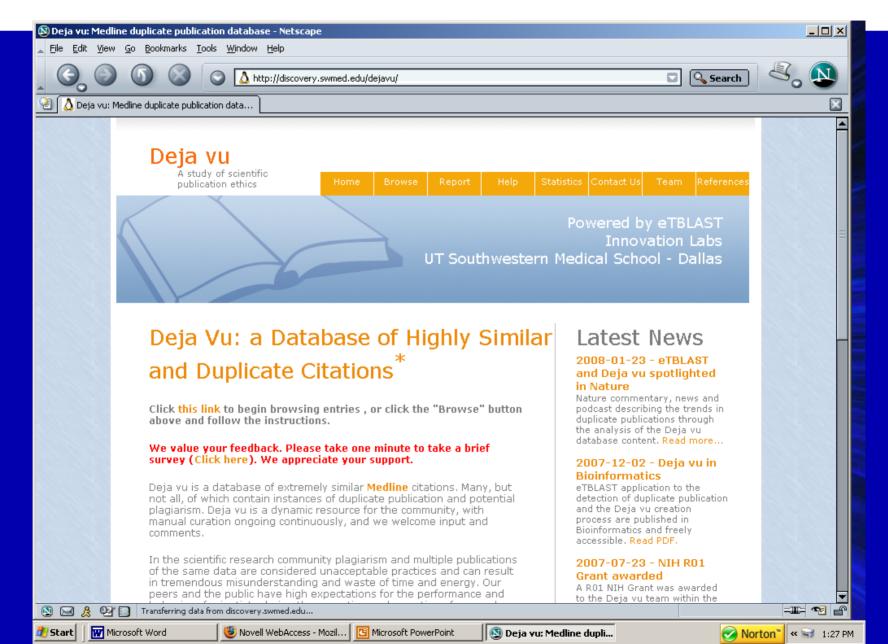
Unfortunately, yes. Scientists and medical researchers are not immune to the virulent strains of plagiarism and other forms of falsifications and fabrications afflicting the discourse embodied in the cross-disciplinary professional literature.

Some of the most blatent offenses against the conventions for honest discoursal interchange have been perpetrated by members of the scientific and medical discourse communities. The number of professional studies and research resports tainted by plagiarism, forgery, and falsified data will probably never be known. As Dave Mcmullin observes in reference to the research fraud of Jan Hendrik Schön,

"[R]esearch suggests that scientific fraud is widespread. In a comprehensive study involving 4,000 researchers from 100 faculties, a University of Minnesota research team found that one in three scientists sometimes plagiarize, and that 22 percent of all researchers admit to sometimes handling data carelessly. . . . Fraud seems most likely to pop up in the research of unmonitored scientists who are working alone on irreproducible research."

It comes as great blow to the integrity of scientific inquiry to discover the vast number of questionable papers which individual researchers have slipped by unwitting peer reviewers who serve as the gatekeepers to professional discourse published in the journals, books, and online databases of the scientific and medical communities.









The Innovation Laboratory
UT Southwestern Medical Center
http://invention.swmed.edu/etblast/index.shtml





iParadigms, LLC "[D]edicated professionals...working together to stop the spread of internet plagiarism and promote new technologies in education." http://turnitin.com

Turnitin allows educators to check students' work for improper citation or potential plagiarism by comparing it against continuously updated databases using the industry's most advanced search technology.



#### FreestylerIII

http://cise.lsbu.ac.uk/orcheck/freestyler.html

Freestyler is a graphical stylistic metrics tool. It presents rolling average graphs of various metrics (reading age, sentence length, voice, punctuation, etc.)...designed to assist in providing an evidential indication that a document supposedly written by a single individual may have been written by two or more.



FAIRNESS AND INTEGRITY IN THE CLASSROOM

CITS
Center for
Information Technology
and Society, UCSB

# PAIRWISE Paper Authorship Integrity Research



Our approach is to **provide a non-commercial, open-source** alternative for instructors not wanting to involve for-profit third-parties in the process of evaluating student work.

http://www.pairwise.cits.ucsb.edu/system.htm



#### A System for Detecting Software Plagiarism

Moss (for a Measure Of Software Similarity) is an automatic system for determining the similarity of C, C++, Java, Pascal, Ada, ML, Lisp, or Scheme programs. To date, the main application of Moss has been in detecting plagiarism in programming classes.

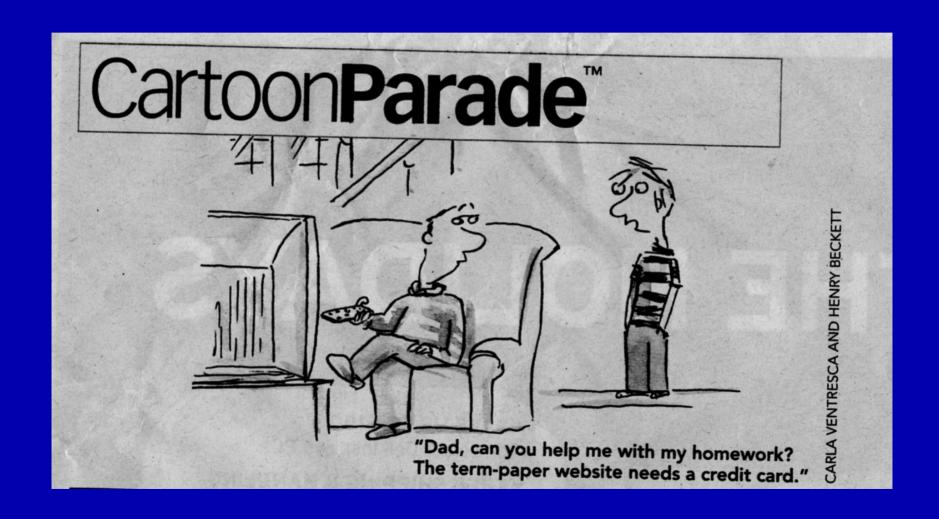
http://theory.stanford.edu/~aiken/moss/



#### Why Plagiarism?

- Pressure to produce
- Ignorance
- Lazy
- Internet technology ("cut & paste")
- Term paper web sites
- Poor writing skills







#### **Nature**

October 2007

Letter to the Editor

Plagiarism? No, we're just borrowing better English

"For those of us whose mother tongue is not English, using beautiful sentences from other studies on the same subject in our introductions is not unusual."



#### Plagiarism is ethically wrong

- Lying
- Stealing
- Unfair to others who play by the rules



#### Why plagiarism injures science (and scientists)

- Science, and scholarship generally, based on critical thinking. Plagiarism undercuts standards of work expected of researchers/scholars.
- Wastes time, energy, and resources of others one reads something believed to be original.
- Padded CV's. Competitive advantage for those who plagiarize over those who do not.
- Plagiarism = erosion of trust in individuals and institutions of science
- Plagiarism as a predictor of future academic/personal dishonesty (?)



Ethics & Behavior 2007, Vol. 17, pp. 323-336

# Is Plagiarism a Forerunner of Other Deviance? Imagined Futures of Academically Dishonest Students

**Authors:** Gwena Lovett-Hooper; Meera Komarraju; Rebecca Weston; Stephen J. Dollinger

"Students who report that they have engaged in academic dishonesty are also more likely to report that they can imagine themselves engaging in illegal, risky, and rule-violating behaviors...."



**Self-Plagiarism:** authors reuse their own previously published work or data in a "new" written product without informing readers that much, if not all, of the new work had appeared earlier.

**Redundant submission:** when all or some of the same data are submitted to two or more journals without informing any of the editors of the other submission(s).

**Duplicate publication:** publication of a paper that is essentially identical to one already published, and not alerting the new journal's editors or readers to the identical publication. The second publication may differ only in minor ways from the original (e.g., order of listed authors, change in title).

**Salami publishing:** presentation of a large data set, which should have been published in a single article, into smaller published papers.

**Data Augmentation publishing:** publishing in a new paper subsequently collected data along with previously published data that strengthens the original finding without pointing out the mixing of data.



#### Concerns about various forms of self-plagiarism

- Undermines trust between author and reader, who assumes, unless otherwise informed, that published material is original
- Wastes resources of the editorial and peer review system
- If published, takes up space of more deserving paper
- False impression about the data and "findings"
- Pads CVs



#### When might some form of self-plagiarism be justified?

- To reach a completely different readership or a larger audience
- Translation of an article into another language to make it more accessible
- Articles in conference proceedings that are revised/expanded for submission to a journal.

In all the above instances, disclosure of an identical or previous publication should be noted in the other published accounts of one's research



#### **CASE DISCUSSION 1\***

Researchers from an Asian country, where English is not the primary language, submit a previously published paper in their home language to the journal, *Science*, in English. One of the reviewers, an Asian-American, recalls having seen the article by the same authors in a foreign-language journal. She immediately informs the Editor-in-Chief of *Science*, who raises the issue with the authors.

#### Questions

- Is this an example of a duplicate publication/self-plagiarism?
- The authors argue that in science, non English-speaking researchers, many of whom have the resources to acquire English-written journals or the advantage that English-speaking scientists have in publishing in such journals. They believe that "redundant publication" in this context is unfair to many scientists by restricting their ability to publish and is counterproductive to maximizing the dissemination of knowledge in a global community. As the Editor, how would you respond?

<sup>\*</sup>This case is based on "Quifang Wen and Yihong Gao, "Dual Publication and Acadmemic Inequality," *International Journal of Applied Linguistics*, 17 (2), 2007, pp. 221-225.



#### **Authorship and Publication**

- Publication is chief currency of science –
   professional advancement, funding and recognition.
- Pressure on scientists to publish



### **Additional Value of Authorship**

 Attributing proper credit for work done is the fair thing to do

 Science will function more effectively if scientists believe they receive credit they deserve

Hold researchers accountable



# 315 Physicists Report Failure In Search for Supersymmetry

The negative result illustrates the risks of Big Science, and its often sparse pickings.

By MALCOLM W. BROWNE

The paper reporting results of the latest big experiment appeared Dec. 14 in the prestigious journal Physical Review Letters. The names of the 315 scientists whose work contributed to the paper, arranged in alphabetical order, occupied an entire page — more than one-fifth the overall length of the report. Following this top-heavy opening, the paper concluded in essence that the scientists had failed to find what they were looking for.

New York Times, 5 January 1993



#### Journal of Medical Ethics

#### December 2000

Publication ethics and the research assessment exercise: reflections on the troubled question of authorship

**Aziz Sheikh**, Imperial College of Science, Technology and Medicine, London

Problems to do with publication misconduct, and in particular, issues of justice in attributing authorship, are endemic within the research community.





Me First!
The system of scientific authorship is in crisis.
Glenn McGee
September 2007

Authorship disputes are a fairly regular occurrence in science, a natural offshoot of the oppressive demand of a "publish or perish" system. So much can be at stake.



Keys to resolving authorship disputes, or avoiding them entirely

- Transparency (e.g., clear guidelines/policies labs, departments, journals, funders)
- A priori discussion and agreement to a plan Who is ultimately responsible and for what? Who deserves authorship?

Goal: All persons identified as authors should qualify for authorship, and all those who qualify should be included.



#### Issues Related to Authorship

- Who?
- What Order?
- Responsibilities?



# The Graduate Student Bill of RIGHTS AND RESPONSIBILITIES

This document is a product of the Graduate Student Association of the University of California, Davis. The document was endorsed in principle by the Graduate Council and the Graduate Division of the UC Davis campus on November 7, 1990.

Graduate students have a right to co-authorship in publications involving significant contributions of ideas or research work from the student. The student should receive "first authorship" for publications which are comprised primarily of the creative research and writing of the student. Faculty and graduate students should agree as early as possible, upon authorship positions commensurate with levels of contributions to the work.



## **Reigning Authorship Model**

 Substantial contributions to conception and design of research, or acquisition of data, or analysis and interpretation of data

Drafting article or revising it for intellectual content

Final approval of version to be published

Take responsibility for content





The Journal of the American Medical Association — To Promote the Science and Art of Medicine and the Betterment of the Public Health

Vol. 271 No. 6, February 9, 1994

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ARTICLE

### The contributions of authors to multiauthored biomedical research papers

D. W. Shapiro, N. S. Wenger and M. F. Shapiro Division of General Internal Medicine, Veterans Affairs Medical Center, Los Angeles, Calif.

OBJECTIVE--To determine the contributions of each author to multiauthored biomedical research papers. DESIGN--Mailed, self-administered survey. PARTICIPANTS--A total of 184 first authors from a consecutive sample of 200 papers with four or more authors published in 10 leading biomedical journals. MAIN OUTCOME MEASURES--First authors' ratings of which authors had made substantial contributions to the following: initial conception of the study, design of the study, provision of needed resources, collection of data, analysis and interpretation of data, and writing the first draft of the paper or revising drafts for important intellectual content.

RESULTS--The contributions of nonfirst authors varied greatly within and among papers. Even second and last authors--though they generally contributed more than other nonfirst authors--were markedly inconsistent in the extent and pattern of their contributions. Time spent on the research differed among authors by orders of magnitude. An appreciable number of authors made few or no substantial contributions to the research.

CONCLUSIONS--The nature and extent of contributions of nonfirst authors to biomedical research reported in multiauthored papers cannot reliably be discerned (or discounted) by authorship or order of authors. The two core purposes of scientific authorship --to confer credit and denote responsibility for research--are not adequately being met by these authorship practices.





The Journal of the American Medical Association — To Promote the Science and Art of Medicine and the Betterment of the Public Health

Vol. 278 No. 7, August 20, 1997

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**ARTICLE** 

# When authorship fails. A proposal to make contributors accountable

D. Rennie, V. Yank and L. Emanuel Institute for Health Policy Studies, University of California, San Francisco 94109, USA.



#### Why order matters

- Assumptions of readers, and by extension, allocation of rewards in science
- Reference style first author, et al.



#### Practices regarding order of authorship

- Nature and/or extent of contribution
- Alphabetical
- Rotate among investigators
- Lab chief
- Senior scientists



#### **Author Responsibilities**

- Acknowledge contributions of non-authors
- Vouch for scientific integrity of paper
- Cooperate in the investigation of research misconduct allegations
- Retractions, if warranted



#### CASE DISCUSSION 2

Scientist A is involved in early collaborations with researchers at another institution. Scientists A decides to move in a different direction. Researchers at the other institution continue to build on the initial work done in collaboration with Scientist A, and a few years later they publish a paper without crediting Scientist A

#### **Questions:**

- Should Scientist A have been offered coauthorship?
- Should Scientist A's contribution been acknowledged in a footnote or in some other fashion?
- Does Scientist A have a legitimate complaint that the other researchers committed plagiarism?