INSIDE THIS ISSUE

- Transparency in authorship: Snippets from an accomplished publishing career  Prof Njeri Wamae
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CALL FOR ARTICLES
Next Theme: Bioethics and Religion.

Medical Bioethics provides guidelines for medical practice and research. Religion also plays critical role, especially with issues such as abortion, cloning and stem cells research, euthanasia and Reproductive technologies. According to Christianity for example, life is holy and sacred, it is a gift from God and it must be preserved at all cost. However, religions differ on how they perceive medical ethics. The principles of believers differ so do their decisions on medical matters. Ultimately, People make decisions based on either their moral conscience or according their religious principles on what is good, right or just.

The editor in chief is thus requesting contribution of articles on **Bioethics and Religion**.

Please consider writing on topics below or any other topic on **Bioethics and Religion**

- Religious aspects of abortion, cloning, stem cells, euthanasia and human embryos
- Faith and medical intervention
- Critical life issues and religion
- Bioethics and life
- Contemporary biomedical issues and religion.

Format 1-4 pages single space

Send Articles to bioethics@kemri.com cc DDRT@kemri.org

Deadline 20th May 2014

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Dear Readers,

Welcome to this issue of the KEMRI Bioethics Review focusing on Publication Ethics. This issue features articles on transparency in authorship, plagiarism and copyright in research publishing. The success of a scientific research study is closely linked to its end product which is the publication. The academic mantra of “publish or perish” as well as the appearance of unmerited numerous authorship, are the direct results of the desire to enjoy the benefits of recognition by publication.

Prof Wamae’s article on transparency in authorship provides an excellent perspective of the mundane issues affecting career scientist especially within the Kenyan context. Certainly, there has been a rise in multiple authorship in the scientific arena from the mid 1950s primarily due to attractiveness and effectiveness of collaborative research, however some studies have analyzed trends in increase in number of authors in some journals and concluded that the rise cannot be explained by collaboration alone.

Guest authorship is rampant, junior scientist have a tendency to slot in names of renowned senior scientist either to impress them or increases chances of getting published. Some scientist also return favours and increase chances of collaboration by granting authorship to fellow scientist or laboratory staff. Sometimes even lack of knowledge, or blatant unethical scientific conduct results in large portions of work quoted without appropriate referencing. Some cases of fabrication of data or results have also hit the popular media. Read story at nature.com

Despite the widespread culture within research that bestows value on not only the number of publication, but also the impact of research publication, researchers must maintain highest degree of honesty, integrity, and social responsibility and adhere to internationally accepted guidelines and avoid any compromise on the principles that makes research valid.

Enjoy reading!

Dr Elizabeth Bukusi
DDRT
Editor in Chief.
Welcome to this issue on publication ethics. The medical science field has witnessed tremendous growth, and scientists are now investigating highly complex medical problems whose findings are communicated through scientific publications. Accordingly, there has been an exponential increase in such publications over the last couple of years. Since inception, KEMRI has established stable and vibrant collaborative medical research with renowned institutions from different parts of the world through which large multi-site studies have been conducted. This collaborative research often involves groups and individual investigators implementing similar or different key aspects of a particular project, which may yield multiple-authored publications.

There is importance and significance attached to authorship order mainly arising from the current research merit system where designation of the first or senior author of a paper in scientific and scholarly publications is coveted. Disputes centering on publication issues, specifically authorship, are therefore not uncommon. Such disputes involve who should get authorship, who merits senior authorship, what should the order of authorship be, among other issues.

“In order to ensure that disputes on authorship do not occur, all research scientists, whether engaged in individual or collaborative studies should observe simple publication ethics by discussing authorship issues before initiation of any collaborative project.”

In order to ensure that disputes on authorship do not occur, all research scientists, whether engaged in individual or collaborative studies should observe simple publication ethics by discussing authorship issues before initiation of any collaborative project. In particular, KEMRI scientists must acquaint themselves with KEMRI guidelines on authorship and other internationally accepted guidelines on appropriation of authorship such as the International Committee of Medical Journal Editors (Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication).

All KEMRI scientists conducting research that has been duly approved through the KEMRI protocol approval system are reminded that they must process their publications through the KEMRI publications committee in order to provide further safeguards against any possible authorship disputes, besides also ensuring that the publications are of sound scientific merit.

While we urge all scientists to publish their work as evidence of their scientific output for we know that “Work that is not published, is not done”, we must, while doing so, ensure that publication ethics are adhered to the latter.

Prof Solomon Mpoke, PhD, MBS
Director KEMRI
Transparency in Authorship: Snippets of an accomplished publishing career.

Prof Njeri Wamae, MSPH, PhD, IoD(K)
Chief Research Officer
KEMRI

Scholarly publishing is principally about personal reputation, research findings dissemination, research impact and advancement of knowledge; certainly not in order of importance. It can also result in making money, indirectly and make one famous and “rich”! In looking at what constitutes transparency and appropriate assignment of authorship, examples of personal publishing experiences may not only be informative but can also stimulate discussions that will benefit those in their early, mid and advanced stages of their publishing careers and give them a chance to reflect on their publishing pitfalls through omissions and or commissions.

Key words to stimulate the anticipated thoughts/discussions from this communication:

Omission, dragged, detached disciplines, option, supervisory role, valid author, invited editorial, malice.

1980’s: I had just joined the Institute of Primate Research (IPR), Ololua, Karen on secondment from the Kenya Medical Research Institute (KEMRI). Armed with a Master’s degree (MSPH) from Tulane University and experience in laboratory transmission studies in non-human primates at Delta Primate Research, my mandate by the World Health Organisation (WHO) was to explore the possibility of establishing the human filarial worm, *Wuchereria bancrofti*, the causative agent of a major Neglected Tropical Disease (NTD) in a non-human primate. At that time, such studies were very exciting because the thinking was that if the human filarial worm could be established in a non human primate. A number of studies including immunoparasitology and drug trials would be conducted and shed light on how best to combat *W. bancrofti*. Researchers from South-East Asia had just studied a close relative of *W. bancrofti*, *Wuchereria kalimantani* in leaf monkeys and it was felt that our studies at IPR using the human filarial worm in vervet monkeys, would certainly offer research findings that could be extrapolated to the human being. Our (IPR/KEMRI) work on one hand included field work for identification and recruitment of *W. bancrofti* positive persons who would provide blood samples for feeding laboratory-reared *Anopheles gambiae* mosquitoes. The other part involved capturing wild monkeys that would go through the quarantine phase at IPR before being assigned to the *W. bancrofti* studies. Once assigned to the transmission studies, the tedious process of transmission would begin. We would harvest the infective larval stage of *W. bancrofti* from the filarial blood fed mosquitoes in our insectaries using the Bearman’s extraction method and either sub-cutaneously inoculate or load the larvae in implantation chambers that we would implant in the monkeys. We would then follow up the study monkeys and screen for any appearance of *W. bancrofti* microfilaria (mf) in the blood samples, hopefully after maturity and mating of the adult filarial worms. By the end of this painstaking transmission study, we never recovered any single *W. bancrofti* mf and we concluded that the non human primates could not support the establishment of *W. bancrofti*.

Failure to establish the infection was a disappointment and given the direction by the WHO Global Programme for Elimination of Lymphatic Filariasis today, I believe successful transmission studies would still make a contribution. In spite of this disappointment, the spin off was that through blood and skin snip screening of all wild caught animals at quarantine for filarial infections prior to assignment to research projects at IPR from 1985-1988, we recovered from vervets and baboons two new filarial parasites (*Cercopithifilaria kenyensis* and *Cercopithifilaria narokensis*) that have been published in two separate papers in the *Annals Parasitol. Hum. Comp.*
(Bain, Wamae and Reid) in 1988 and 1985, respectively. Materials used for description of these new filarial worms included mf that we recovered from skin snips and adult worms that we harvested from necropsies of tens of mf positive monkeys at the termination of the research studies. It’s not surprising that Some people at KEMRI used to refer to me as “Njeri wa Nugu” (Njeri of Monkeys).

The subsequent publication emanating from the screening exercise, New natural filarial parasites of nonhuman primates in Kenya: a potential use as laboratory models for onchocerciasis: Acta Leiden, Wamae and Odongo (1990) was my first publishing pitfall. This publication reported infection of 67.10% in all animals going through quarantine from 1985 to 1988. The experience from this publication has revisited (“haunted”) me on several occasions starting from 1989 at a scientific conference in Amsterdam to March, 2014 at an Africa Programme for Onchocerciasis Control (APOC)’s Technical Consultative Committee meeting in Ougadougou, Burkina Faso. These haunting episodes blotted my exciting period of novelty during my early career.

At the Amsterdam meeting, I innocently presented work reported in the Wamae and Odongo paper and credited the authorship to Wamae and Odongo without realizing that my omission would offend the two other authors on our previous two publications in the Annals. One of the two other authors called me aside during the tea break and made it very clear that my omission was……a truly “bad action” and this definitely made the remainder of my Amsterdam stay a bad experience. Back in Kenya, one of the authors again brought this “bad action” up as one of a raft of reasons to determine termination of my secondment to IPR. At a recent meeting in March 2014 in Ouagadougou, a researcher from the United Kingdom was presenting their work on the status of onchocerciasis vaccine development and used a photograph of my “Amsterdam meeting-omitted co-author” to acknowledge the input and the encouragement the author had given his UK team on targeting the rodent filarial worm Litomosoides sigmodontis for the vaccine development.

1990s: With the failure to establish W. bancrofti in non human primates but having authored three publications from the KEMRI/IPR work, I returned to KEMRI and continued with immunoparasitology and chemotherapy of W. bancrofti work that led to several publications. Our immunology publications have been some of my most rewarding experiences of my publishing career. Looking at the authorship then and now does not present any “omission feeling”. The 90’s also saw the publication of 3 “seeing and seizing the opportunity paper” on hydrocelectomy (Mwobobia, Muniu, Kombe and Wamae); haematuria (Wamae and Lammie) and schistosoma haematobium eggs in venous blood (Wamae and Fujimaki).

2000s: In this period, as most mature scientists, I saw myself being dragged into more administrative duties but continued with operational research that resulted in several publications on W. bancrofti, soil-transmitted helminthes, protozoology, child health, health systems, taxonomy and reviews. Spinning from my administrative position, you will also find publications in “detached disciplines” purely because the PI recognized my mentorship role, administrative oversight contribution and “took the option” to include me in the authorship.

2010 and Beyond: This period has student publications with my authorship arising from my supervisory role. The period continues also with operational research publications and invited editorials.
We summarize now by turning to the key word **omission**. For purposes of this communication, I use omission in reference to the authorship to express various situations. Omission or leaving out a **valid author** can arise from ignorance due to sheer innocence or poor mentorship; or downright **malice**. In leaving out the two authors in the *Acta* publication above initially arose from ignorance and trivializing the presentation in Amsterdam but degenerated later to defiance and so what attitude at the time of the publication. Well, I was naïve. Can I be accused of this omission and should I be remorseful? I do not have the right answers but I am not at peace with the “omission feeling” that I get every time I remember those admonishing words in Amsterdam, 25 years ago. Just what criteria should be followed for one to be a valid author? Is there a remedy for the ever-present omission feeling?

Being **dragged** into administrative duties for me is being denied the opportunity to be what I trained to be, a biomedical researcher. It is also like throwing a non swimmer at the pool’s deep end and screaming at her “float now”!? No doubt there are numerous opportunities to publish on administration and management but I believe one should be in a position to decline administrative duties and remain a career researcher thus avoiding the scenario of gaining authorship in **detached disciplines**. I guess one can justify the “publishing administrator syndrome” with various excuses from innocence, poor mentorship (“every other administrator has done it”), self-serving attitude (gluttony) to cheating. Sometimes, a PI will take the “**option**” to include their supervisor in the authorship in exchange of favours (“bribing”) or fear of causing displeasure (intimidation).

Next time you find that your authorship is being included in a publication, ask yourself first and foremost if you would be in a position to answer questions or independently and authoritatively discuss matters arising from that paper if called upon to. If not, decline to be an author and never wield powers from your position to expect or demand authorship. Of course there are times when a junior researcher will include their senior colleague in a publication without seeking approval. For any author to do such, I believe it is unethical. Looking back, I believe that I should not have been an author in some publications in the 2000s. However, I also know that there are publications in 2010s and beyond to which I have provided substantial contribution as a researcher or a supervisor but my authorship has been omitted for various reasons, none of which is justifiable to me as I would be a valid author. Is there any tribunal to take such complaints to? Can disciplinary actions be taken in such situations?

On publishing through student’s **supervisory roles**, an author should not expect to gain much publishing significance and must remember their publishing history as researchers and authorities in their field of research is what really counts. It is what is likely to give them recognition to privileged invitations such as editorials or reviewer of articles in high impact journals. I review for American Journal of Tropical Medicine & Hygiene and PloS Neglected Tropical Diseases, among others. As an author, avoid pitfalls and guard your reputation. Seeing and seizing publishing opportunities is also important as it upholds the responsibility of research findings dissemination.

**Take home message:** Just like you should never omit any valid author, no author should omit you where authorship validity can be established. However, for transparency, authorship must be discussed and agreed on. To the young publishers, I say consult and avoid defiance. Defiance can only hurt your career. This being the Lenten season then, reflections from this article should remind us all to strive to **reconcile all that we do with the universe** and keep us from the gluttony of becoming too attached to the vast imaginative blueprints where we have foreseen our future with our master strokes and brilliant successes such that, it no longer matters to us how we relate to others even if it means exploiting them. There is certainly a lot of exploitation and manipulation in authorship!
According to the Oxford dictionary, plagiarism is “The practice of taking someone else’s work or ideas and passing them off as one’s own”. There are other elaborative definitions crafted by different institutions of learning. The US Office of Science and Technology Policy of 1999 defines plagiarism as “the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit, including those obtained through confidential review of others’ research proposals and manuscripts.” (1)

Plagiarism is increasingly raising fears and concerns in the academic arena both locally and internationally. A 2007 study in Florida by Forrester found out that 56% of medical students had copied text. Although the students and faculty provided the references, they additionally did not use quotation marks. Approximately half of the students were aware of the need to use quotation when the material is used in verbatim or citing correctly even after paraphrasing (4). Another survey by Bushra in Pakistan led to the conclusion that the widespread cases of plagiarism may be due to lack of proper education on the bounds, parameters and types of plagiarism (5). This misconduct is further complicated and fueled by freely available sources on the World Wide Web. There is ignorance about the importance of quotation marks when using text in verbatim even among faculty members of universities and this adds merit to the view that some forms of plagiarism are unintended or committed subconsciously (5).

Acknowledging the effort of other scientists leads the reader to the source for more information, appreciates those differing with the results and provides support to the finding of the paper. Citations are a form of reward in academic field of science. They are linked to funding decisions and career progression of researchers. More generally, the mislocation of credit undermines the incentive system for publication (6).

What constitutes plagiarism?

In his guide to ethical writing, Roig says plagiarism takes many forms, from passing off another’s paper as the author’s own paper, to copying or paraphrasing substantial parts of another’s paper, without attribution to claiming results from research conducted by others” (7)

1. Plagiarism of text

• Copying a portion of text from another source without giving credit to its author and without enclosing the borrowed text in quotation marks. (7)

Whenever an author uses text exactly as is from the source (verbatim), rules demand the writer uses quotation marks and cites the source. The writer is further required to provide a reference to the citation and the page number of the exact quoted text.

2. Inappropriate paraphrasing

• Taking portions of text from one or more sources, crediting the author/s, but only changing one or two words or simply rearranging the order, voice (i.e., active vs. passive) and/or tense of the sentences. (7)

Sometimes, for various reasons, one may prefer to modify in detail in his/her own way, using different words, sentence structure parts of another author’s written work. This calls for paraphrasing. Paraphrasing must be distinguished from summarizing...
which is creating a shorter textual product, paraphrasing results in nearly same contextual length as the original text but with different words and normally different sentence structure. It doesn’t really matter whether a writer is paraphrasing or summarizing, appropriate credit must always be provided. In humanities for example, one may paraphrase another author’s text correctly and provide appropriate citation but if the sentence structure is found to mirror the original text, then that writing constitutes plagiarism.

3. Self Plagiarism

Some researchers prefer to use terms such as duplicate publication, repetitive publication, or redundancy. In the sciences, however, self-plagiarism encompasses several practices typically involving the inappropriate reuse of one’s previously published work. (2) Duplication refers to publication of what is essentially the same paper in more than one journal, but without any indication that the paper has been published elsewhere. Salami-slicing is the fragmentation of parts of a large study that would otherwise have been reported a single paper to smaller published studies. Text recycling is when an author has two or more papers describing legitimately different observations that contain almost identical methodology, literature reviews, discussions, and other very similar or even identical textual material.

Scientists must always give due recognition to the content of other scientists’ ideas by correct citation and attribution. The effects of misconducts such as plagiarism can be devastating to individual careers and can damage reputation of institutions and research fields. Such acts can also attract external attention from the media, policy makers and general public resulting in harmful consequences that eventually hinder science.

PREVENTING PLAGIARISM

Honesty is a vital virtue in the scientific field worldwide. (8) The general public and scientists expect honesty and fairness from the scientist because those qualities give meaning and sense to science and its essence. (9) Biomedical research is very critical thanks to its prospective direct impact on humanity and health. The importance attached to science justifies the demand for integrity and full compliance with principles of responsible conduct in research (10). There is public faith in the integrity of research. Maintaining this faith requires that appropriate actions must be taken to preserve scientific integrity (11). This article discusses ways and tools of tackling plagiarism as a form of scientific misconduct.

Plagiarism is a global challenge. Most western nations’ universities have been forced to develop guidelines and clear definition what constitutes plagiarism and thorough academic codes have been laid to mitigate the practice with severe penalties on those found guilty. (12) Many academic institutions in developing countries still require official policies on how to deal with plagiarism as a form of scientific misconduct.

Research institutions are responsible for creating an environment that fosters responsible conduct. “This involves the creation and maintenance of norms that encourage ethical conduct as part of everyday research and broader scientific activity, including serving as expert peer reviewers of study proposals and journal articles, administering research programs, and helping to identify new research priorities”. (15)

To minimize the prevalence of misconduct, research institutions must promote free discussion of misconduct and organize regular and continuous staff training on responsible conduct of research. Institutions can even go further and reward diligent and honest staff who set good example by evidently following and abiding by the principles of integrity in research (14). Mentorship plays a critical role in preventing cases of plagiarism and other forms of misconduct in research. Experienced scientists must mentor graduate students, fellows, and junior scientists on matters relating to proper scientific norms and professional responsibilities and taking steps to prevent or address any potential damage to scientific integrity(16). This can be done through short lectures by senior scientists to students on plagiarism (or any relevant topic). This creates knowledge on the various facets of plagiarism and its negative impact on science is one of the best ways to curb plagiarism (17). Other ways include; Journal clubs and students workshop where mer-
its/merits of research papers are discussed and how to write scientific manuscripts.

Just like in medical practice where success in treatment of a disease is dependent on accurate and efficient diagnosis, Plagiarism must be detected in order to control it. There are several tools to aid publication stakeholders which are capable of thorough monitoring and detection(18). Previously, cases of misconduct in scientific publishing domain submissions were rare, but the emergence of tools have intercepted many plagiarized publications and triggered so many investigations and a record number of retractions (20). Bazdaric, in his study, demonstrated the effectiveness of two software; CrossCheck and eBLAST. The researchers established that the software worked well in plagiarism detection. They detected almost all the plagiarized papers in their study. The two computer programs have the ability to run a text comparison by searching abstracts in Medline, Pub Med Central, Clinical Trials, Wikipedia, and other databases outside the field of medicine(21).

Apart from cross CressCross and eBLAST, other software for detection exist online, both free and commercial(22).

KEMRI will need to adopt use of software detection services to intercept and deter any attempts at plagiarism. The protocols submitted to SSC and ERC and manuscripts submitted to publications committee are all in hardcopy format. The documents will need to be scanned and converted prior to review. Mrs. Kithinji, a member of the ERC noted that cases of detected plagiarism in proposal submitted are rare at the institute. She clarified that it is not because they don’t exist but because “We do not have electronic versions of the protocols we review, neither do we have a soft copy database of submitted protocols to compare to”. However, she said that any cases of detected plagiarism are referred to the Director KEMRI who constitutes a board of scientific integrity for further action action.

“We have an office of scientific integrity, which creates an ad hoc committee to hear plagiarism cases, and this has been done a handful of times in the last ten years”. In conclusion, in order to achieve success in formulating effective measures for preventing scientific misconduct, the causes must first be demystified to efficiently deal with the problems when they occur. Some theoretical causative factors and possible remedies are highlighted in this article. Of particular importance are:

- Educating young researchers based on the existence of standards of research conduct.
- Fostering transparent debates about misconduct at the institute level.
- Promoting a culture of mentorship to encourage ethical behavior within the fields of health research.
- The key to scientific integrity is the development of ethical, critical and reflective scientists, able and willing to take responsibility for their actions as researchers.

REFERENCE

Plagiarism

By Jennifer Orwa, PhD, OGW, FPSK
Chief Research Officer, CTMDR, KEMRI
Ag Director CTMDR

Background
Scientific investigations are conducted to gain new and useful knowledge. Research is not complete until the results are reported to contribute to knowledge within a field or provide information that is useful to the public. The primary vehicle for disseminating the results of research is publication. Integrity in publication depends on objectivity and avoiding misrepresentation. Authorship implies both credit and responsibility and one must always credit the work of others, be sure to cite sources, include all cited sources in the reference list and vice versa and obtain permission to include figures, graphs, or any other design used while reporting.

Publication also serves as a record by which researchers are judged. The pressure created by the need to publish, and often, to publish first and in the best journals, leads to many potentially ethical decisions. Some of the ethical issues inherent in authorship and publication decisions include:

1. What should be published?
   • Are the results complete enough?
   • Are the findings significant enough?
   • How much of the research should be published?

2. Who should be named as an author and who should be acknowledged?
   • Have all authors’ contributions been intellectually significant?
   • Is every person named as an author who deserves to be?

3. Has credit been adequately attributed to those whose former works or ideas contributed to the research and/or publication?

4. How should research results or scholarship be explained to minimize misleading statements and/or bias?
   • What to do with missing outlying data points?
   • Do graphics accurately represent the data?
   • Have statistics been used in an appropriate and transparent manner?
   • Have guidelines created by the relevant professional organizations been followed?

5. Have any real or perceived conflicts of interest, that could impact the impartiality of the research, been disclosed?

Plagiarism definitions
The most common form of authorial misconduct is plagiarism, for which there is no single accepted definition. According to the Concise Oxford Dictionary, Plagiarism is defined as ‘taking and using the thoughts, writings, and inventions of another person as one’s own’. According to New Oxford American Dictionary, ‘Plagiarism is the practice of taking someone else’s work or ideas and passing them off as one’s own’ while according to Merriam-Webster Dictionary ‘Plagiarism means to steal and pass off (the ideas or words of another) as one’s own. To use (another’s production) without crediting the source’. The Institute of Electrical and Electronics Engineers (IEEE) defines plagiarism as ‘the use of someone else’s prior ideas, processes, results, or words without explicitly acknowledging the original author and source’.

Forms in which Plagiarism manifests itself
Plagiarism arises in a range of forms that vary widely in ease of identification. The form of plagiarism that is most straightforward to identify involves verbatim or near-verbatim copying, or very close paraphrasing, of text or results from another’s work. Within academia, plagiarism by students, professors, or researchers is considered as academic dishonesty or academic fraud and offenders are subject to academic censure.

Material can be plagiarized even if it is publicly available (e.g., posted on the Web). In scientific publications, plagiarism normally requires a knowing misrepresentation, explicit or implicit, of someone else’s work as one’s own. A related form of authorial misconduct is duplicate publication. It is unacceptable for an author to include significant verbatim or near-verbatim portions of his/her own work, or to depict his/her previously published results as new, without acknowledging the source. This is self-plagiarism and it is perceived as an attempt to deceive editors, reviewers, and readers. Self-plagiarism is an issue for publishers because it affects copyrights and the quality of their publications.

Ethically speaking, self-plagiarism is often encountered within the process of “evolutionary publishing.” This is an accepted (although
sometimes contested) practice of publication where the initial results are submitted to a workshop, then extended to a full conference paper that may become a journal article or a book chapter. This approach of building on previous publications is a source of possible unethical cases of self-plagiarism. In this process, the role of the scientific advisor/mentor is critical. Showing students what is acceptable is important, and examples of plagiarism could help in explaining the limits.

**Detection of Plagiarism**

The peer-review process is the most important tool for identifying plagiarism. Unfortunately, there is no definite checklist that can be used for recognizing plagiarism, but good indicators include:

- Lack of references and citations, or the over-representation of the author’s own publications in the reference list
- Outdated references, suggesting that no recent research/literature review was done
- Figures that do not match with other figures in style, or are of very low quality
- Unusual, bold statements about the generic status of the field and its future
- Sudden changes in the writing style between consecutive paragraphs

Sometimes it is quite obvious. If parts of a text are directly copied into a manuscript, the writing style (or even the font) may not match the style of the rest of the paper. This is probably the best indicator that something might be fishy.

In addition, Plagiarism-detection software, a set of specialized software tools can help in finding the original documents that contain the suspicious text. Googling on the web may also help and sometimes keen memory of scientists can be invaluable method of detecting plagiarism.

**Why is Plagiarism an Ethical Issue?**

Plagiarism is an ethical issue because you are taking someone’s work and passing it off as your own. It is not fair or right to say you did something when you just copied it from someone else.

The situation is very similar for figures. Authors tend to believe that any figure or illustration found on the Internet may be freely used in publications. In reality, most of those images and charts are copyrighted, despite that fact that they are widely used and reprinted without proper referencing.

**Taking Action**

Although plagiarism can be difficult to spot, Elsevier has taken a number of steps to try to limit the number of cases they detect. They begin by helping authors to understand their ethical responsibilities, and provide tools for both editors and peer reviewers to help identify cases. The use of text matching software in scholarly publishing, CrossCheck powered by iThenticate (www.crossref.org/crosscheck), is very effective. With CrossCheck, any paper can be checked against a database of published scholarly content from some of the top scientific publishers, as well as against a repository of other web content. Elsevier is currently integrating CrossCheck into their editorial workflows with a view, not only to detecting plagiarism, but also to deterring it.

**Consequences of Plagiarism**

The consequences of plagiarism can be personal, professional, ethical & legal, and include:

- **Destroyed Academic Reputation**
  Once scarred with plagiarism allegations, an academic’s career can be ruined. Publishing is an integral part of a prestigious academic career. To lose the ability to publish most likely means the end of an academic position and a destroyed reputation.

- **Destroyed Student Reputation**
  Plagiarism allegations can cause a student to be suspended or expelled. Their academic record can reflect the ethics offence, possibly causing the student to be barred from entering college from high school or another college.

- **Destroyed Professional Reputation**
  Depending on the offence and the plagiarist’s public stature, a professional’s name may become ruined, making any kind of meaningful career impossible.

- **Legal Repercussions**
  The legal repercussions of plagiarism can be quite serious. Copyright laws are absolute. One cannot use another person’s material without citation and reference. An author has the right to sue a plagiarist. Writers are well-aware of copyright laws and ways to avoid plagiarism. As a professional writer, to plagiarize is a serious ethical and perhaps legal issue.

- **Plagiarized Research**
  Plagiarized research is a particularly wicked form of plagiarism. If the research is medical in nature, the consequences of plagiarism could mean the loss of peoples’ lives. This kind of plagiarism is particularly monstrous.

**Conclusion**

The consequences of plagiarism are far-reaching and no one is immune. Neither ignorance nor stature excuses a person from the ethical and legal ramifications of committing plagiarism. Before attempting any project writing, one should learn about plagiarism.

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New Secretariat Staff at ERC

Benedict Kiilu Muoki
Benedict obtained his Bachelor of Economics and Statistics degree from University of Nairobi in 2012. He joined the ERC in January 2014. His roles at the office include: processing and approving shipment of samples from scientific projects to other countries for further analysis, drafting office meeting minutes, letter templates and reviewing drafted letters for dispatch and receiving and reviewing resubmitted scientific protocols.

Daisy Kadenyi Mudegu
Daisy completed her studies from Daystar University in 2012 with a BA in Communications. She joined ERC in January 2014. At ERC daisy’s roles are receiving research protocols, drafting letters, writing minutes and filling.

Enock Kipchirchir
Enock Graduated from Moi University in 2012 with a Bsc. in Information Science. He joined the ERC in February 2013. His duties include: responding to PIs’ queries through e-mails and telephone, working with the ICT department to develop and designing protocol tracking system. Additionally he also prepares the monthly ERC meeting’s agenda in consultation with the ERC secretary.

Mariam Macharia
Mariam holds a Bachelor of Arts (Sociology, Political science and public administration) from University of Nairobi. She completed her studies in 2012 and joined KEMRI in July 2013. At the ERC, Mariam coordinates the dispatch of letters between the ERC, the Secretary and the centers. She also writes, reviews and double checks draft letters to the PIs; responds to queries by PIs in person or via email and receives and processes application for incoming shipment of biological samples.

Maryanne Metto
Maryanne joined KEMRI ERC in July 2013. She graduated from KEMU in 2013 with a Bachelor in Business Information Technology degree. She is tasked with updating the Severe Adverse Events database, packaging of protocols before dispatch to reviewers, archiving of protocols, receiving proposals and answering PIs queries.

Victoria Soi
Victoria obtained her Bsc in Information Technology from JKUAT in 2010. She joined the KEMRI ERC in February 2013. Her main responsibilities at the ERC are compiling monthly committee minutes, receiving protocols and annual reports submitted and ensuring all the required documentations have been included, and responding to PIs queries.

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Bibliography
Authorship and Contributorship

Extracted from: ICMJE Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication (Updated April 2010)

**Byline Authors**

An “author” is generally considered to be **someone who has made substantive intellectual contributions to a published study, and biomedical authorship continues to have important academic, social, and financial implications** (1). An author must take responsibility for at least one component of the work, should be able to identify who is responsible for each other component, and should ideally be confident in their co-authors’ ability and integrity.

In the past, readers were rarely provided with information about contributions to studies from persons listed as authors and in Acknowledgments (2). Some journals now request and publish information about the contributions of each person named as having participated in a submitted study, at least for original research.

Editors are strongly encouraged to develop and implement a contributorship policy, as well as a policy on identifying who is responsible for the integrity of the work as a whole. While contributorship and guarantorship policies obviously remove much of the ambiguity surrounding contributions, they leave unresolved the question of the quantity and quality of contribution that qualify for authorship.

The International Committee of Medical Journal Editors (ICMJE) has recommended the following criteria for authorship; these criteria are still appropriate for journals that distinguish authors from other contributors.

- Authorship credit should be based on
  1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; and 3) final approval of the version to be published.

Authors should meet conditions 1, 2, and 3.

- When a large, multicenter group has conducted the work, the group should identify the individuals who accept direct responsibility for the manuscript (3). These individuals should fully meet the criteria for authorship/contributorship defined above, and editors will ask these individuals to complete journal-specific author and conflict-of-interest disclosure forms. When submitting a manuscript authored by a group, the corresponding author should clearly indicate the preferred citation and identify all individual authors as well as the group name. Journals generally list other members of the group in the Acknowledgments. Acquisition of funding, collection of data, or general supervision of the research group alone does not constitute authorship.

- All persons designated as authors should qualify for authorship, and all those who qualify should be listed.

- Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content. Some journals now also request that one or more authors, referred to as “guarantors,” be identified as the persons who take responsibility for the integrity of the work as a whole, from inception to published article, and publish that information. Increasingly, authorship of multicenter trials is attributed to a group. All members of the group who are named as authors should fully meet the above criteria for authorship/contributorship. The group should jointly make decisions about contributors/authors before submitting the manuscript for publication. The corresponding author/guarantor should be prepared to explain the presence and order of these individuals. It is not the role of editors to make authorship/contributorship decisions or to arbitrate conflicts related to authorship.

**Contributors Listed in Acknowledgments**

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Complete ICMJE guidelines accessible at [www.icmje.org](http://www.icmje.org)
Research and copyright: the Kenyan reality

By Mariga Wangombe
Communication Student, Moi University

Copyright is a legal right that authors, publishers and other producers of information-related materials have to protect their work from unauthorized reproduction (Lesman, 1995). It is argued that it originated from the industrial revolution in Europe. Pre-1800, publishing was a preserve of the higher echelons of society; those well-heeled individuals able to pay “copiers” to manually make copies of manuscripts which was both tedious and expensive. With the revolution, came production en masse which threatened publishers who sought protection from their government as they feared for their monopolies over the intellectual, economic and moral rights they held over their publications. This lead to creation of laws to protect intellectual property rights including but not limited to copyright. The Berne Convention (1886) and The Universal Copyright Convention (1952) are two of the earliest treaties signed into existence to adopt uniform standards in enacting copyright legislation and protect the copyrighted works of authors across borders in all member countries.

In Kenya the main laws that impact on access to information are the Constitution, the Official Secrets Act, Cap 187; and the Copyright Act, 2001 (revised 2009.) The most relevant one to writers and researchers is the Copyright Act 2001 (revised 2009)

Copyright in a literary, musical or artistic work or audio-visual work shall be the exclusive right to control the doing in Kenya of any of the following acts, namely the reproduction in any material form of the original work or its translation or adaptation, the distribution to the public of the work by way of sale, rental, lease, hire, loan, importation or similar arrangement, and the communication to the public and the broadcasting of the whole work or a substantial part thereof, either in its original form or in any form recognisably derived from the original.

The new law took into account the various changes that have occurred in the industry in the past fifty years which hadn’t been represented in previous legislation. Copyright serves two major purposes and a delicate balance is required to fulfil both; the widest possible reach of the writers work and the ability for other academics to build up on already published work versus the need to protect the economic and intellectual rights of the author.

In recognition of the balance needed, exemptions are made albeit with their own restrictions to the copyright laws. The law allows for use of copyrighted work by way of fair dealing;

For the purposes of scientific research, private use, criticism or review, or the reporting of current events subject to acknowledgement of the source;

In schools and registered educational institutional facilities, an allowance is given for “two short passages” and this is subject to acknowledgement of the author and the work. Fair dealing is however left fairly vague. There is nothing mentioned on the amount of work that can be used which might lead to narrow interpretation of the relevant clause by writers and publishers or broad interpretation of the clause by the users of the work (depending on which side your bread is buttered.)

The exception for research and private study under the 1988 Copyright Act in England has recently been narrowed and this could be used in part or whole to seal the loopholes in our Kenyan Copyright legislation:

(i) Under its wording, ‘research’ is to be treated as distinct from ‘private study’. ‘Research’ for these purposes should not only encompass the initial stages of an academic project when material is being collected but also subsequent stages which involve the analysis and publication of the results.

(ii) ‘Research’ in this context should be regarded as ‘non-commercial’ in any circumstances where the taking of copyright material is fair and the presentation of the results will be without charge to the recipients or will be at a charge which can only be expected to cover the reasonable costs of production and distribution, including the reasonable profits of a commercial publisher.

(iii) Research which is financed by a research council or charitable foundation is presumptively non-commercial.

(iv) Charges which are not covered by the exemptions, because the research to which they relate is commercial, should be reasonable and competition authorities and the copyright tribunal should be able to restrain abuse.

There exists an absence of case law in matters relating to this...
and it may make equitable rulings difficult in that respect. In the spirit of enlightenment, many authors and publishers are sensitive on their rights and are eager to pursue maximum benefits from their rights even though the legal backing might be weak. Threats of litigation have become a norm in matters where infringement is suspected but very few authors, research oriented included, are familiar with the actual law and rely on hearsay or on advice from other ignorant fellows in their profession. Few actually ever go to court, though because of the relative cost of the benefits against the cost of litigation and the opportunity cost.

At an annual meeting for the Poets and Writers Online (POWO) in August 2012, a panel of guests stressed on the use of the courts as an action of last resort. They suggested out of court settlements through direct deliberation with the infringers or plagiarizers. The Kenya Copyright Board (KECOBO) has state counsels (in simplified terms: paid by your taxes) who can act as arbitrators and facilitate meetings at KECOBO’s offices between parties with the aim of finding suitable resolutions to disputes that may arise.

Researchers all over, including Kenyan push for the right to use other people’s copyrighted worked without overpaying for it yet at the same time fight for the protection of copyright since they are also authors. There have been few reported cases of research copyright infringement in Kenya but this is not because they do not exist. This is because most research institutes in Kenya receive submissions in hardcopy format which make it virtually impossible to use plagiarism software which is effective in determining whether work is original or has been copied using a complex set of algorithms. Plagiarism and copyright infringement are however not the same thing. Plagiarism is a violation of academic norms but not illegal; copyright violation is illegal. Plagiarism applies when ideas are copied, whereas copyright violation occurs only when a specific fixed expression (e.g. sequence of words) is copied. A copyright infringer copies one’s work for commercial benefit while a plagiarizer copies one’s work to assume the identity as the author for purposes of attribution and recognition.

Thus all cases of copyright infringement are plagiarism but not all cases of plagiarism are copyright infringement.

The Science, Technology and Innovation Act 2012 was signed into law and it repeals the Science and Technology Act, Cap 250 of the Laws of Kenya with the establishment of the National Council for Science and Technology (NCST) now National Commission of Science, Technology and Innovation (NACOSTI). It was created to regulate matters of research among other matters in the country. Sec 4(k) gives the authority the mandate to carry out independently or in co-operation with any appropriate person, body of persons, agency or institution such surveys and investigations as the Council may consider necessary for its tasks.

What this means is that it’s a toothless bulldog. Terms in the act such as liase with and advise on, give it no direct or inherent power to make decisions in any capacity and are limited to giving recommendations. In the case of research misconduct, they can carry out an investigation but are not empowered to do anything about it but can co-operate with a body considered necessary for its tasks.

Section 3 of the Copyright Act 2001(revised 2009) however, establishes The Kenya Copyright Board which among other functions, administers all matters of copyright and related rights in Kenya as provided for under this Act and to deal with ancillary matters connected with its functions under this Act. The board possesses the ability to issue Copyrights, terminate Copyrights e.t.c. The Act criminalises copyright infringement and thus dealing with this matter, KECOBO can work with the police for the arrest and prosecution of the infringers.

In essence, nothing that we write is original. Everything that we write has been written by someone else in a different form, language or context and thus we are all in our own way “copyright-infringers.” Our world view and view on specific matters is influenced by experiences and more often than not literature that we have already read and unless we use a direct quote or excerpt, we are unlikely to quote the source which questions our right to vehemently call for the strict enforcement of copyright laws.

Further Reading
5. The Science, Technology and Innovation Act 2012

Photo: freedigitalphotos.net
The chairperson of the Board of Management, Prof Ruth Nduati, officially opened the new KEMRI Independent Scientific and Ethics Unit (Kisetu) offices on 9th April 2014. Present at the inauguration ceremony were: The Director KEMRI, Prof Solomon Mpoke, Members of the Board of Management, Assistant Directors, Acting HOD Cooperate Affairs and other KEMRI staff. The opening of the new unit offices marks a milestone achievement by the ADILI taskforce mandated by the institute in 2010 to spearhead the restructuring of the research regulatory process in KEMRI. This is a step towards the merging of the central scientific and ethical review of research proposals. This will improve turnaround time and efficiency of research regulatory process at KEMRI. During the ceremony, Prof Nduati noted that quality scientific and ethical reviews are vital in the attainment of successful research projects. “ERC Secretariat has increased in recent years from 4 to 15 staff members. The membership of the ERC Committee has also increased from 10 to 17. This has enabled the unit to cope with the heavy workload that it receives; an average of 100 documents every month” She added. When fully functional, the new unit is expected to improve turnaround time from 5.8 months to 8 weeks. The unit will also provide training and build capacity in scientific and ethics review, provide oversight and set standards for research regulation (including, monitoring, quality assurance and final reports of approved protocols) and act as a resource centre for ethics providing normative guidance and support.

NEWS FLASH!
The Cabinet Secretary Education, Science and Technology appointed Prof Elizabeth Njeri Wamae as chairperson of the National Commission for Science and Technology for a period of 3 years. Her appointed was gazetted on 3rd April. Congratulations to her on this achievement.
Quiz Challenge.

The answers to the questions can be found in the 2013-2017 KEMRI strategic plan.

Questions
1. List two challenges of the second strategic plan (2008-2012)
2. What is the proposed mission of KEMRI in the 2013-2017 strategic plan
3. What are the core values of KEMRI from the word PICTURE envisaged in the new strategic plan

Send your answers to DDRT@kemri.org

The first two correct respondents will be awarded a prize.

Acknowledgement

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