Academic Integrity and Ethics

Outline

AE.1 Plagiarism and how to avoid it
AE.2 Sources of information and venues for publishing
AE.3 Citations and quoting
AE.4 Copyright and fair use
Academic Integrity and Ethics
Prof. James P.G. Sterbenz

• Current positions
  – The University of Kansas
    • Professor, Electrical Engineering and Computer Science
    • Director, Network Systems Lab, ITTC Information and Telecommunication Technology Center
    • Director, ResiliNets Research Group
      wiki.ittc.ku.edu/resilinets
  – Lancaster University
    • Visiting Professor, School of Computing and Communications
      www.lancaster.ac.uk/scc/
  – The Chinese Academy of Sciences, Beijing
    • Adjunct Professor
Academic Integrity and Ethics
Prof. James P.G. Sterbenz

• Past positions
  – The Hong Kong Polytechnic University
    • Adjunct Professor, Department of Computing
  – ETH Zürich
    • Visiting Guest Professor, Communication Systems Group, EE
  – The University of Massachusetts
    • Visiting Research Scientist, Department of Computer Science
  – Northeastern University
    • Lecturer (part-time), Telecommunication Networks Program
  – BBN Technologies, Senior Scientist and group manager
  – GTE Laboratories, Principal Member of Technical Staff
  – IBM HPCC, Advisory Engineer/Scientist
Academic Integrity and Ethics
Prof. James P.G. Sterbenz

• Education
  – Washington University in St. Louis
    • D.Sc. in Computer Science, 1991
    • MSCS, 1986
    • BSCS, BSEE, AB (Economics), 1980
Academic Integrity and Ethics
Prof. James P.G. Sterbenz

• Research interests
  – resilient, survivable and disruption-tolerant networking
  – complex network architecture and modelling
  – Future Internet architecture and programmable networks
  – mobile wireless networking, MANETs, IoT, smart cities
  – high-speed networking and system architecture
Academic Integrity and Ethics

Introduction

- Overview of academic ethics and related issues
  - presented in first lecture of my EECS N8X nets courses
  - presented periodically EECS 802 grad student seminars

- Online at:
  - https://www.ittc.ku.edu/~jpgs/courses/lecture-academic-integrity-display.pdf

- Additional information:
  - www.ittc.ku.edu/~jpgs/courses/source-cite.html
  - .../~jpgs/courses/academic-integrity.html
Academic Integrity and Ethics

Reading the Riot Act*

• Apologies to those that already know this
  – ... especially who’ve heard it from me before

• Opportunity to learn for those who:
  – are inexperienced in writing
  – come from an environment or culture of tolerance

• Warning of the consequences
  – ignorance will not be an excuse
  – ask if you have any question about this

* en.wikipedia.org/wiki/Riot#England_and_Wales
Academic Integrity and Ethics
KU Engineering School

- Honor Code Committee
  - formed in 2017
- Working on code for KU Engineering School
  - undergraduate and graduate students are involved
- Goals
  - guidance on ethical behaviour
  - better awareness of KU sanctions and procedures
Academic Integrity and Ethics

AE.1 Plagiarism and how to avoid it
AE.2 Sources of information and venues for publishing
AE.3 Citations and quoting
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Plagiarism
Definition and Overview

- Plagiarism
  “The action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own”
  retrieved through KU Libraries subscription

- Plagiarism is the *ultimate academic crime*
  - do not underestimate the shame of this act
  - it ends graduate careers and destroys academics

- Plagiarism is...
  - cheating, lying, stealing, dishonor
  - at least as sleazy as stealing money from family and friends
Plagiarism
Types

• Ideas
  – using or presenting the ideas of other without full credit

• Words
  – incorporating or paraphrasing the words of others
  – without proper quotation style and citation

• Figures and images
  – using figures, drawings, plots, and images without citation

• Algorithms, programs, and non-trivial formulæ
  – without full credit and citation
Plagiarism
No Excuses

• Unintentional plagiarism is *not* an excuse
  – will not reduce sanctions

• Lame excuses we’ve heard and won’t buy
  – “I was going to edit into my own words but missed it”
  – “their English is better than mine so I thought it’s OK”
  – “I really did write it; there are only so many ways to say it”
    • every full sentence is Google-unique

• Unawareness of a co-author is not an excuse
  – all authors are responsible for a work’s content
  – all authors must read works with their name on it
  – if you do not trust a co-author, do not work with them
Plagiarism Detection

- Plagiarism is *remarkably easy to detect*
  - inconsistent writing styles and language use
  - technical depth beyond the supposed author
  - inconsistent terminology
  - similarity to solution manual
- If you plagiarise, *you will ultimately be caught*
  - at best you will completely lose the trust of your colleagues
  - at worst your graduate career will immediately end
- Tools: Web makes both plagiarism & detection easier
  - search on suspicious phrases
  - automated tools match and highlight with fuzzy searches
Plagiarism
Sanctions

- Plagiarism in courses
  - each course instructor sets policy
  - in-course sanctions and departmental reporting
  - mandatory reporting of all incidents to Engineering School
    - minor incidents tracked across courses
    - multiple incidents result in more severe sanctions
  - KU Engineering Honor Code
    - under development

- Plagiarism in external paper submissions
  - sanctions by society, including blacklist and publication ban
  - shunning by academic community
Plagiarism
Sanctions for Prof. Sterbenz Courses

• Minor cases (e.g. cited but not properly quoted)
  – strike 1 of 2
  – letter in the departmental file
  – reported to Engineering School for file

• Major cases (or second minor strike)
  – 0 on assignment (at least)
  – F in course (if severe and intentional)
  – initiation of formal procedures with possible dismissal

• Remarkably students still try every semester
  – you have been warned
Plagiarism
KU Policies

• KU Code of Student Rights and Responsibilities
  policy.ku.edu/code-student-rights-and-responsibilities-student-code
  – applies to non-academic misconduct

• KU University Senate Rules and Regulations (USRR)
  policy.ku.edu/governance/USRR#art2sect6
  – applies to academic misconduct

• KU Engineering School Rules and Regulations
  policy.ku.edu/engineering/rules-regulations-policy
  – formal procedures for academic misconduct in Section 6
  policy.ku.edu/sites/policy.ku.edu/files/SoE_RulesRegs_Sept_2017.pdf
Plagiarism
Common Types in Academia

• Sharing or uploading course materials
• Copying on exams
• Homework problems and laboratory reports
• Programming assignments
• Term papers and project reports
Plagiarism
Sharing or Selling Course Materials

- Sharing course materials without explicit permission
  - lecture notes (mine are already freely online)
  - homework or laboratory solutions (even if done by you)
  - exams (blank or solved by you)

... with others for free or profit
- including sites: Course Hero, Chegg, NoteUtopia, Notehall, ...

- Most instructors and KU policy prohibit
  [http://policy.ku.edu/provost/commercial-note-taking](http://policy.ku.edu/provost/commercial-note-taking)
  - I prohibit (my lecture notes are freely online, however)
  - I will take *legal action against those that violate*
Plagiarism
Exams

- Most exam cheating is a form of plagiarism
- Representing as your own work
  - answers from a key
  - answers from a previous exam
  - answers by copying from a neighbor
  - answers from smuggled reference on a closed exam
Plagiarism

Homework Assignments

- Unless explicitly permitted for particular assignment
  - you *must* solve homework assignments individually
  - you may discuss problems and solution strategies
  - you *must not solve* homework problems *with others*

- You *must never*
  - use (illegal) copies of the solution manual
  - use solutions posted or answered on the Web
  - reuse or purchase code from others
Plagiarism
Homework Assignments

- May be asked to *explain how* you reached answer
  - will be obvious if you have cheated
  - show your work; answers alone will receive no credit
  - show all units, e.g. $10 \text{ [Mb/s]} \cdot 5 \text{ [μs]} = 50 \text{ [b]}$

[www.ittc.ku.edu/~jpgs/courses/homework.html](http://www.ittc.ku.edu/~jpgs/courses/homework.html)
Plagiarism
Homework Assignment Guidance

• Never use so-called help sites
  – e.g. Course Hero, Chegg, NoteUtopia, Notehall
  – they are cheating sites thinly disguised as legitimate
  – “help” will almost certainly involve illegal solution manuals

• Never ask or search for homework help online
  – Yahoo answers, Quora, Stack
  – almost certainly get answers from the solution manual
  – search only for general concepts, e.g. TCP congestion
    ... rather than narrowly topics from homework questions
Plagiarism
Homework Assignment Guidance

• Discuss homework problems with friends
  – but don’t *write anything down* during discussions
  – doing homework problems in study groups is very risky

• Questions about homework should be directed to
  – class GTA or grader (first if there is one)
  – instructor (if unsatisfied with response or no GTA/grader)
Plagiarism
Programming Assignments

• All code *must be completely authored by you*
  – unless otherwise specified by instructor
• You *must not use code from others*
  – including code fragments and scaffolding
    • unless provided or explicitly permitted by instructor
  – other students in class unless authorised for group project
  – other students from previous course offerings
  – online sources such as Stack Exchange
  – paid contractors such as Rent a Coder
  – automated tools check submissions for obscured matches
Plagiarism
Programming Assignments

- You **must not share your code with others**
  - other students in class unless authorised for group project
  - post on any public repository such as GitHub while at KU
  - intentionally enabling plagiarising as serious as receiving
Plagiarism
Term Papers and Project Reports

• Writing assignments often incorporate plagiarism
  – inexperienced writers
  – students from a background of tolerance

• All writing *must be completely solely authored by you*
  – unless otherwise specified by instructor
  – e.g. in group projects; contribution of each co-author stated
  – all text from other sources must be quoted and cited
    • guidance later in this presentation

• Never use online paper mills
  – purchasing papers from others is a serious offence
  – will result in dismissal from KU
Plagiarism

Term Paper and Project Report Guidance

• Proofreading help
  – comments on content from others OK
  – editorial markup for grammar and style OK
  – *never allow others to rewrite or directly edit your text*

• You may be asked to explain details of your paper
  – *if you don’t write it, you are very unlikely to fully understand*

• References
  – must have possession or immediate access to cited material
  – must *never cite material not actually used*
    • including material cited by your references
    • while not plagiarism, this is a serious breach of ethics
Plagiarism
Avoidance Tips for Inexperienced Writers

• Never, ever, copy-paste into your paper
  – even if you intend to edit later
  – it is almost certain that many plagiarism artifacts will remain

• Do not read in one window and write in another
  – read and take bullet-style notes in your own words
  – use your notes to write prose in your own words

• Always credit and cite your sources
  – err on the side of caution
  – with experience citation of common knowledge unnecessary

• Unintentional plagiarism in not an excuse
  – nor will prevent academic sanctions
Plagiarism
Cautionary Tale

- **IEEE Communications**
  - [Park, Baek, and Hong] run in May 2001 issue
  - plagiarised several related works
    - [Khan, Li, and Manning] and Khan’s thesis
  - without citing or proper quote style
    - verbatim text and paraphrases
    - figures and formulæ clearly copied
Plagiarism
Cautionary Tale

- IEEE Communications
  - printed editorial retraction
  - side-by-side comparison of both papers
  - apology by two of the authors
    - claiming no knowledge of plagiarism

- The plagiarising author’s career is ruined
  - and those of his oblivious coauthors severely damaged
  - made popular press in the UK and Korea
  - considered a national embarrassment by Koreans
Plagiarism
Cautionary Tale$_{2a}$

• Recent high-profile plagiarism case at KU
  – Mahesh Visvanathan 2009 plagiarism on 2006–08 papers
    • co-authors apparently did not directly participate in plagiarism
  – supervisor Gerald Lushington became aware of plagiarism
    • but failed to take action to prevent publication
    • required in role as supervisor as well as co-author

• Makes international academic press
  – *Nature News*
    www.nature.com/news/us-authorities-crack-down-on-plagiarism-1.9776
  – Chronicle of Higher Education
    www.chronicle.com/blogs/ticker/2-scientists-are-penalized-for-research-misconduct/39472
Plagiarism
Cautionary Tale2b

- IEEE administrative retraction
  - “Notice of Violation of IEEE Publication Principles...
    This paper contains significant portions of original text from the paper cited below. The original text was copied without attribution (including appropriate references to the original author(s) and/or paper title) and without permission. ... Due to the nature of this violation, reasonable effort should be made to remove all past references to this paper, and future references should be made to the following article:”
    http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=5260432
  - probable 5-year publication ban
Plagiarism: Cautionary Tale

- **KU censure**
  - of both Visvanathan and Lushington
    - [http://www2.ku.edu/~kunews/cgi-bin/public-censure1](http://www2.ku.edu/~kunews/cgi-bin/public-censure1)
    - [http://www2.ku.edu/~kunews/cgi-bin/public-censure](http://www2.ku.edu/~kunews/cgi-bin/public-censure)

- **US HHS Office of Research Integrity**
  - 2-year probation

- **Career implications**
  - both Visvanathan and Lushington left KU
  - Visvanathan unlikely to ever get another academic position
    - Lushington now adjunct at Kansas State University
Plagiarism
Cautionary Tale

- Sterbenz finds a suspicious citation in Google Scholar
  - ITC 2011 paper has been stolen
  - OCRed, reformatted, and published in bogus IJCSNS journal
- Sterbenz emails ‘author’ employer and IJCSNS
  - receives apology from ‘author’ and employer
  - ‘author’ claims friend advised him to have pub for grad apps
  - ‘author’ finally gets IJCSNS paper retracted
  - Sterbenz has full cite and pointer to original paper on Wiki
  - panicking ‘author’ now trying to get info expunged from Web
    - but the Web remembers forever
    - including TCCC email archive on incident
Plagiarism
Cautionary Tale$_{3b}$

- Entry on the ResiliNets wiki publications page

This paper is a direct copy of our [ITC 2011 paper](#) with only a title change, many OCR transcription errors, and badly scanned figures. The ‘author’ has been challenged, and has agreed to withdraw the paper from IJCSNS, which does not appear to be a legitimate journal. The paper was briefly offline, was then been put back up by IJCSNS despite repeated requests to take it down. While the paper is still listed in the issue index, the link to its content finally seems to be dead. I do not wish to directly link to this paper and journal as that would raise its pagerank. This entry is here so that other authors don't unwittingly cite this bogus paper, but rather the [original](#).

- * I removed full name after the bogus paper was retracted and removed online
Plagiarism
Cautionary Tale

- The plagiarising ‘author’ has:
  - been fired from his job
  - has apparently given up on graduate school aspirations
  - has severely damaged his future job prospects
    - is having difficulty getting a job
  - hopefully learned an important lesson
    - and *more importantly* spread to his friends
Plagiarism
Cautionary Tale

• Dual submission papers to:
  – IFIP Networking 2018 (I’m TPC co-chair) in English
  – already published in Brasilian conference in Portuguese

• This is translation plagiarism
  – authors should have asked permission before submitting
  – should have cited Portuguese version and noted translation

• General chair’s Brasilian students catch this
  – papers have been retracted from IFIP Networking
  – IFIP, IEEE, SBC notified

• Authors narrowly avoided more serious sanctions
  – caught before submission to IEEE Explore formal publication
Plagiarism
Self-Plagiarism

• Copying your *own* work
  – without proper acknowledgement or permission
  – term “self-plagiarism” is disliked by some academics

• Dual submission of coursework
  – same work to multiple classes (even if different institution)
  – same work to repeat of class without instructor permission

• Dual submission of papers
  – or substantial portions
  – unethical and against policy of legitimate societies / journals
  – unless specifically permitted and disclosed
    • e.g. conference to expanded journal paper (30% Δ common)
Plagiarism
Self-Plagiarism

- Fuzzy line and slippery slope
  - generally OK to reuse introductory material if cited
  - auto-plagiarism detectors in paper submission systems
    - provide disincentive for reusing even introductory material
Plagiarism
Retraction Watch

- Retraction Watch is way to follow consequences
  - retractionwatch.com
    - also Facebook and Twitter feeds
  - 500–600 retractions/year tracked
  - good way to raise awareness of ethical issues
- Anyone can report a paper for consideration
- Covers a number of related areas
  - papers retracted for plagiarism or bad science
  - junk journals delisted from databases
Academic Ethics

AE.1 Plagiarism and how to avoid it
AE.2 Sources of information and venues for publishing
AE.3 Citations and quoting
AE.4 Copyright and fair use
Sources of Information

The Library

- The Library
  - big building with books and paper journals: *use it!*

- Physically browsing is a wonderful way to brainstorm
  - Spahr Engineering Lib. TK most relevant for EECS
  - Anschutz (science) Lib. QA and QC most relevant EECS
  - Edwards Library very small *now closed*
    - unfortunate decision: Edward students must go to Lawrence

- Many books are not available as e-books
  - those that are may have many restrictions
    - restrictions on simultaneous use
    - restrictions on printing
Sources of Information
Library Online Resources

- Online resources at www.ku.edu/libraries
  - selected journals
  - access to archived books and journals
  - interlibrary loan

- You **must** learn how to access digital papers via KU
  - practice this *before* you get in a bind
  - off campus users log into the library first
    - this usage help justify the cost of digital library subscriptions
  - Papers sets a proxy www.papersapp.com
Sources of Information
The Web

• The Web
  – source for journal and conference papers
    • ACM, IEEE, and other subscriptions through library
  – individual and project Web pages
  – source for information on research projects
  – non-refereed reports and white papers
    • can be very useful, but use with care
    • industry white papers may have significant bias and errors

• Compare to street corner posting: use with care
  – use Web citations very judiciously
  – reports with many URL refs will not get an acceptable grade
Sources of Information

Wikipedia

- Wikipedia is incredibly useful
  - as launching point to other work (I use it all the time)
- Wikipedia is not a primary source of information
  - by policy WP:NOR; articles should cite quality primary sources
    - these are the sources you should follow and cite
    - but pages often don’t cite correctly or are missing citations
- Wikipedia sometimes is factually incorrect
  - e.g. colour pages for rose and spring; many technical details
- Rarely appropriate to cite Wikipedia pages
  - occasionally articles are good survey
  - discuss with me if you think this is appropriate and needed
Publication Sources and Venues

Academic Societies

- Academic societies
  
  *student membership cheap and strongly encouraged*

  - publications sponsored by these generally reputable

- Need to be aware of stature

  - First-tier societies (e.g. ACM, IEEE)
    
    *most events at least reasonable quality*
    
    *but some locally sponsored events very weak*

  - Second tier societies and their publications
    
    *beware of very mixed reputation*
    
    *dependent on TPC chairs and members*

  - Bogus societies and their publications
Publication Sources and Venues

First-Tier Societies

- First-tier broad societies for EECS
  - ACM: Association for Computing Machinery
    - divided into SIGs (e.g. SIGCOMM, SIGMOBILE, SIGMETRICS)
    - papers in ACM digital library
  - IEEE: Institute of Electrical and Electronics Engineers
    - divided into Societies (e.g. ComSoc, CompSoc, CAS)
      - each divided into Technical Committees (e.g. TCCC)
    - papers in IEEE Xplore
  - IET: Institution of Engineering and Technology (UK)
    - formerly the IEE (Institution of Electrical Engineers)
    - papers in IEEE Xplore
Publication Sources and Venues

First-Tier Societies

- First-tier broad societies for EECS
  - IFIP: Int’l Federation of Information Processing Societies
    - divided into Tech. Committees and Working Groups (e.g. 6.2)
    - does not have individual membership (does have reps)
    - IFIP digital library replacing Springer LNCS, IEEE, gACM

- First-tier specialised societies for EECS (selection)
  - SPIE: Int’l Society of Optics and Photonics
  - OSA: Optical Society of America
  - SIAM: Society for Industrial and Applied Mathematics
  - AAAI: American Association for Artificial Intelligence
  - ASEE: American Society for Engineering Education
Publication Sources and Venues

Societies to Avoid

- Second-tier societies to be generally avoided
  - publishing may damage employment and tenure prospects
  - be wary of names beginning with *International* or *World*
    - e.g. IARA, IASTAD, ICST
  - occasionally sponsor reputable events
    - check program chairs and TPC
      - presence on university Web pages
      - professional Web page presence
      - profile in Google Scholar
    - but first-tier societies limiting co-sponsorship

*Ask senior faculty member before publishing*
Publication Sources and Venues

Societies to Avoid

• Bogus “societies” to completely avoid
  – may be for-profit
  – frequently self-promotional
  – may use university names or facilities to sound legitimate
    • e.g. Oxford Round Table, IIIS/WMSCI
      see https://pdos.csail.mit.edu/archive/scigen/
  – any on predatory publishing list (information later)

Ask senior faculty member if unsure
Publication Sources and Venues

Organisations to Avoid

- Commercial events to generally avoid
  - for-profit conference mills
  - host many low-quality events for registration fees

*Ask senior faculty member if unsure*
Publication Sources and Venues

Journal Publications

- Academic societies
  - first-tier societies: ACM, IEEE, ...
    - generally first choice as publication venue
    - generally reputable sources of literature
  - second-tier and bogus societies to avoid

- For-profit publishers
  - legitimate sources of literature
  - bogus pay-to-publish publishers

- Open-access publishers
  - few legitimate so far
  - many predatory and bogus
Publication Sources and Venues
For-Profit Academic Publishers

• Legitimate for-profit academic publishers
  – Springer, Elsevier, Wiley (big 3) and others

• Growing revolt against for-profit publishers
  – incredibly profitable
  – exploit academics for free content and labour
    • writing, reviewing, editing
  – for research done (in part) at taxpayer expense
  – and charge our libraries to use our own content
  – there is currently a growing boycott
    • some journals still important to EECS (e.g. Elsevier *ComNet*)
Publication Sources and Venues

Cost to You via KU Libraries

- KU Libraries approximate subscription cost for 2018
  - Elsevier: $2,000,000
    - partial?
  - Springer-Nature: $ 200,000
    - no longer includes LNCS; use Sci-Hub
  - Wiley: $ 500,000
  - IEEE/IET: $ 150,000
    - IEEE is non-profit but acts like for-profit
    - KU Engineering School pays 10% of this
  - ACM: $ 5,000
  - IFIP: $ 0
Publication Sources and Venues
For-Profit Business Model

- Get content and services for free
  - from academic community
  - papers, reviewing, editorial services
- For research
  - frequently paid in part by taxpayers
- Charge authors to access our own papers
  - KU libraries spends ~ three million / year
- Because of this
  - your tuition is higher
  - faculty and GRA salaries lower
Publication Sources and Venues

For-Profit Business Model

- Increasing price while reducing their own cost
  - authors submit typeset source using publisher template
    - publishers used to typeset from typewritten copy
  - copyediting frequently outsourced to third world

- Clunky hard-to-use online publication management
  - Elsevier EES was notoriously bad
    - many editors used their own spreadsheet
    - migrating to new EVISE system; hopefully better
Publication Sources and Venues

For-Profit Business Model

- Appallingly bad Web design
  - example snip from Elsevier instructor textbook page

*Updated Site Use Recommendations:
- Use Internet Explorer 9.0 or higher as FireFox and Chrome are no longer supported browsers.
- Your web browser must be configured to use either Foxit or Adobe Acrobat/Reader as the PDF handler to open E-Exam copy.
- Use PC vs. Mac for E-Exam copy. If using Mac, please contact your sales rep to receive E-Exam copy.
- Click here for more information about accessing FileOpen protected PDF’s in a web browser.

how many problems do you see with this?
Publication Sources and Venues

For-Profit Business Model

- Appallingly bad Web design
  - example snip from Elsevier textbook page

*Updated Site Use Recommendations:*
- Use Internet Explorer 9.0 or higher as FireFox and Chrome are no longer supported browsers.
- Your web browser must be configured to use either Foxit or Adobe Acrobat/Reader as the PDF handler to open
  E-Exam copy.
- Use PC vs. Mac for E-Exam copy. If using Mac, please contact your sales rep to receive E-Exam copy.
- Click here for more information about accessing FileOpen protected PDF’s in a web browser.

- requiring MSIE, replaced by MS Edge
  - doesn’t run on MacOS nor Linux
- requiring one of two specific PDF readers
- not clear whether MacOS can be used or not
- improper use of apostrophe in PDF’s (should be PDFs)
Publication Sources and Venues

For-Profit Revolt

- Many researchers are beginning to revolt (including me)
  - refusing to submit papers to for-profit journals
  - refusing review and editorial services

- The Cost of Knowledge thcostofknowledge.com
  - 17229 signatories [Oct 2018]
  - my entry:
    It is obscene that Elsevier, Springer, Wiley, and others make huge profits from writing, reviewing, and editing provided for free and funded in part by taxpayers, and then bankrupting our academic libraries so we can access our own work. Their time is over; may they quickly go out of business.
Publication Sources and Venues

For-Profit Revolt: My Response

- My reply to requests to review for for-profit journals

I regret that with limited time and financial resources I am no longer able to provide reviews nor editorial services to for-profit non-gold-open-access journals without compensation. I am willing to provide expert services at the discounted rate of $100/hr, and will also review for free if I receive in-kind full personal access to all of <publisher database> for 1 year.

I didn’t take this decision lightly, but I feel I have no choice, and must take a public stand to do the right thing for myself and the community. The only exception to this policy is to provide review services to special issues of journals for conferences in which I participate, or to edit LNCS volumes that have pre-existing arrangements; however I will do all in my power to switch these events to publish with non-profit societies, such as ACM or IEEE, or true OA journals.

I am also recommending that my colleagues take this action.
Publication Sources and Venues

Open Access

• Open access: publications freely legally available
  – increasingly required by governments that fund work
  – US NIH requires open access after 12 months
  – Whitehouse plan for all sponsored research open on hold

• KU is a leader in the open access movement
  www.lib.ku.edu/openaccess
  kuscholarworks.ku.edu
Publication Sources and Venues

Professional Societies

- Societies may not be much better than for-profits
- ACS (American Chemical Society) sued Sci-Hub
- IEEE charges absurdly high prices for standards
  - even though KU pays standards increment to IEEE Explore
  - not all standards drafts covered
    - even though a supposedly open process
    - with work donated by members who pay hundreds of $/yr dues
  - example: I will have to pay $300 personally for 802.11ax
    - even though I pay ~$500/yr in IEEE membership dues
    - which I’m considering ending
- ACM significantly more affordable than IEEE
Publication Sources and Venues
Open-Access Academic Publishers

• Emerging legitimate open access journals
  – physicists and mathematicians leading
    • with history of preprints on arXiv.org
  – hopefully more in future, but none prominent yet in EECS
    • PLOS One
    • IFIP Networking Transactions
  – check with your advisor
    • if hasn’t heard of the editorial board, it is likely bogus
Publication Sources and Venues

Predatory Publishers

- Beware of most obscure and open-access journals
  - many second-tier and bogus societies publish journals
  - many open-access journals are pay-to-publish scams
    - e.g. IJCSNS
  - notorious example include IIIS/WMSCI, WSEAS, ORT
    - Oxford Round Table not affiliated with Oxford
    - WSEAS not affiliated with Cambridge
  - publishing in these
    - will damage your reputation
    - could prevent you from getting an academic job or tenure
Publication Sources and Venues

Predatory Publishers

- Beall’s list
  - formerly listed predatory publishers
  - Jeffrey Beall was bullied out of doing this

- List of Predatory Publishers
  - predatoryjournals.com/publishers
  - maintained by anonymous group
Publication Sources and Venues

Indexing Databases

- DBLP (UTrier 1993) dblp.org
- CiteSeerX (PSU 2008) citeseerx.ist.psu.edu
  - based on CiteSeer (1998 NEC Labs, PSU 2004)
- Arnetminer (2006 TsinghuaU) aminer.org
  - computes publication metrics
  - visualisation of author relationships
Publication Sources and Venues

Indexing Databases

- **Google Scholar (2004 for-profit)** [scholar.google.com](http://scholar.google.com)
  - probably most comprehensive
  - authors can create profiles with *h*-index and *i*-10 metrics
    - requires Google login
  - note that Google has long history of terminating services
    - considered not strategic or attempt to increase Google+ share
    - health, reader, latitude, iGoogle, Orkut, Wave, Buzz, ...

- **MS Academic (2016 profit)** [academic.microsoft.com](http://academic.microsoft.com)
  - based on Microsoft Academic Search (2006–2012)
    - all account data lost in gap
  - requires access to personal contacts to log in
    - significant privacy threat
Publication Sources and Venues

Indexing Databases

- Link to definitive copy
- May also link to other copies (e.g. Google Scholar)
  - some legal: author pages
  - some not: university class readings pages
- May cache copies locally (DBLP and CiteSeer)
- **Beware of non-definitive copies**
  - may be preprints with bugs, missing references
  - frequently have missing or different page numbers
Publication Sources and Venues

Institutional Repositories

- Databases university or research lab publications
  - generally limited to authors from institution
  - usually follow copyright restrictions of publishers
    - may impose time-delay embargo before permitting to host

- KU ScholarWorks
  - voluntary repository for KU faculty, students, and staff
  - contains all theses and dissertations
    kuscholarworks.ku.edu
Publication Sources and Venues

Academic Social Nets

• Academic for-profit social networks
  – attempting to be Facebook or LinkedIn for academics
  – provide professional space without university Web presence
  – exploitive: profiting from author content
  – papers hosted generally ignore copyright restrictions
  – notorious for spam (Academia for premium subscriptions)
  – not nearly complete in author nor publications

• ResearchGate: researchgate.net

• Academia: academia.edu (not legitimate .edu)

I have professional profiles but do not upload papers
Publication Sources and Venues

Academic Social Nets

- Academic *nonprofit* social networks
  - response to for-profit Academia and ResearchGate

- ScholarlyHub: [www.scholarlyhub.org](http://www.scholarlyhub.org)
  - under development and raising capital
  - charge nominal fee for author profile and content hosting
  - free for all to access content

*I am hopeful this will succeed*
Publication Sources and Venues

Sci-Hub

- Sci-Hub is a response to greedy for-profit publishers
  - publications available to those who can’t otherwise afford
  - domain changes with take-downs; Wikipedia tracks
    www.sci-hub.tw
    scihub22266oqcxt.onion (e.g. TorBrowser)

- History
  - established by Kazakh grad student Alexandra Elbakyan
    - now in hiding from extradition due to Elsevier action
    - blog at engineering.wordpress.com
  - Alexandra listed in “Nature’s 10” people who mattered 2016
  - access to ~85% of paywalled journal articles [HRL+2018]
Publication Sources and Venues

Sci-Hub Ethics

- Ethics vs. legality
  - many of us consider Sci-Hub *ethical*
    - in response to unethical profiteering by Big Publishing
    - and believe that Alexandra Elbakyan is leading a noble cause
  - Sci-Hub’s *acquisition and hosting* clearly copyright violation
    - in many jurisdictions
  - legality of *downloading* papers from Sci-Hub less clear*
    - legal access to these papers through KU Inter-Library Loan
    - decision: wait for a legal cruddy scan or instantly download?

* IANAL: I am not a lawyer
Publication Sources and Venues

Recommendations for Authors

• Before publishing your first paper
  – get an ORCID ID orcid.org/register
    • unique author identifier
    • include all aliases, alternates, names in non-Latin characters
    • e.g.
      https://orcid.org/0000-0003-0560-3073
      James P.G. Sterbenz
      James Sterbenz, Джеймс Ф.Г. Штербэнз, 司徒傑莫, 송재윤
  – think carefully what name you wish to use in perpetuity
    • inconsistency in name or initials will fragment database records
      – ORCID ID helps, but does not completely solve this problem
    • do not feel compelled to use Anglicised name
      – particularly for native Chinese
Publication Sources and Venues
Recommendations for Authors

• After publishing your first paper
  – create a Web presence
    • e.g. professional Web page at KU ITTC
    • e.g. https://www.ittc.ku.edu/~jpgs/
  – create a Google Scholar profile
    • e.g. https://scholar.google.com/citations?user=Xuh3zZ8AAAAJ
  – consider creating ResearchGate and Academia profiles
    • e.g. https://www.researchgate.net/profile/James_Sterbenz
    • e.g. https://kansas.academia.edu/JSterbenz
Academic Ethics
Citations and Quoting

AE.1 Plagiarism and how to avoid it
AE.2 Sources of information and venues for publishing
AE.3 Citations and quoting
AE.4 Copyright and fair use
Citation
Derived Work

- You *must* cite (explicitly credit) derived work
  - ideas and concepts of others
  - text whether quoted or paraphrased
    - including definitions and principles
  - theorems and algorithms
  - figures and images
    - even if redrawn
- Cite regardless of venue quality or author reputation
  - due diligence for original source if questionable venue
  - bogus venues are less likely to contain original work
- Almost *nothing* you do will not contain derived work
Citation

Related Work

• Cite related and background work
  – everything you do will have related work
  – even if inventing a field and about to win Nobel or Turing

• Selection of citations
  – first: original work (don’t take the word of other authors)
    • e.g. [L1834] for $n$-version programming and TMR
  – best: seminal subsequent work
  – latest: recent relevant work

• Amount depends on page limits
  – e.g. fewer works for 6-page conference paper
  – e.g. 400+ references for [ÇS2011] survey paper
Publication Sources and Venues
CRAAP Test

• Currency: timeliness of the info. [Blakeslee 2004]
  – when published? updated?

• Relevance: importance of information for your needs
  – relate to topic? intended audience? appropriate level?
  – looked at variety of sources? comfortable citing?

• Authority: the source of the information.
  – credentials & affiliations? qualified to write on topic?

• Accuracy: reliability, truthfulness, correctness
  – supported by evidence? refereed? verifiable?

• Purpose: reason the information exists
  – inform vs. sell? fact vs. propaganda? impartial & unbiased?
Citation

Complete Information

• Provide *complete* citation information
  – author(s)
    • if space constrained use leading initials
    • if space constrained with many authors use *et al.*
    • use correct foreign characters, e.g. Çetinkaya, Schöller
  – title
    • “paper title” in quote if in journal or conference
    • *work title* if book, tech report, or other single document
  – *proceedings* or *journal name*
    • conference acronym only if well known, e.g. *IEEE INFOCOM*
    • full name followed by acronym if not very well known
      e.g. *IEEE Design of Reliable Communication Networks (DRCN)*
Citation
Complete Information

• Provide complete citation information
  – editor if listed as such followed by , ed.
    • but not program chair(s)
  – publisher (unless part of the above name e.g. IEEE or ACM)
  – location city (and country if not obvious)
    • of conference location or publisher if not well known
  – vol. and iss. or no. if journal or other multivolume serial
  – report number and institution if technical report
  – date (month and year)
    • month or quarter and year of journal; year only of book
    • month and year of conference venue
Citation

Complete Information

• Provide *complete* citation information
  – page range
    • *always!*
  – URI if obscure source
    • always include for tech reports and white papers
• BibTeX listings on ACM or IEEE digital libraries
  – good source...
  – ...but frequently wrong; always double check
  – if using LaTeX/BibTeX you only need to get it right *once*
    • be sure to put mandatory capitals in braces
      e.g. {IEEE}, {T}he {U}niversity of {K}ansas
Citation Style

- **Style dictated by publication**
  - generally automatic if using LaTeX/BibTeX style files
  - requires significant work if using MS-Word (bad idea)

- **Cross-reference style**
  - numeric typical for papers, e.g. [37]
    - poor choice for presentations
    - difficult to manage manually
  - author initials, e.g. [JS2009], [JRCS2010], [JRC+2011]
    - no more than four letters or three with +
    - good compromise for presentations
  - author names, e.g. [Jabbar Sterbenz 2009]
    - not compact
Citation

Ethical use of References

• If you include a reference you *must* cite it inline
  – references not cited give appearance of intentional padding
    • this is unethical
  – LaTeX/BibTeX does this automatically
  – double check references use if using MS-Word

• If you include a reference you *must* have it
  – unethical to include references you have not actually used
  – if you know a references is important, *track it down*
  – keep a soft or hard copy of *all* papers you reference
    • you may be challenged to produce them
Citation Examples

- **Journal**
  James P.G. Sterbenz, David Hutchison, Egemen K. Çetinkaya, Abdul Jabbar, Justin P. Rohrer, and Paul Smith,
  *Computer Networks*, Elsevier, vol.54 iss.8, June 2010, pp. 1245–1265

- **Journal (compact)**
Citation Examples

- **Conference**
  Abdul Jabbar, Justin P. Rohrer, Andrew Oberthaler, Egemen K. Çetinkaya, Victor S. Frost, and James P.G. Sterbenz,
  “Performance Comparison of Weather Disruption-Tolerant Cross-Layer Routing Algorithms”,

- **Conference (compact)**
  A. Jabbar, J.P. Rohrer, A. Oberthaler, E.K. Çetinkaya, V.S. Frost, and J.P.G. Sterbenz,
  “Performance Comparison of Weather Disruption-Tolerant Cross-Layer Routing Algorithms”,
Citation Examples

- **Technical report**
  J. P.G. Sterbenz, Justin P. Rohrer, and Egemen K. Çetinkaya
  *Multilayer Network Resilience Analysis and Experimentation on GENI (Proposal)*,
  ITTC Technical Report ITTC-FY2011-TR-61349-01, The University of Kansas, July 2010,
  wiki.ittc.ku.edu/resilinets/reports/Path_Diversity_Experiments_TR_public.pdf

- **Project Web page**
  J. P.G. Sterbenz and David Hutchison,
  *ResiliNets: Resilient and Survivable Networks*, The University of Kansas and Lancaster University, wiki.ittc.ku.edu/resilinets, 2006
Quoting and Paraphrasing

Quoting

• You *must* quote when using words of others
  – *in addition* to citing the source
• Proper quote style in addition to citing
  – “quotation marks” for sentence or less
  – *blockquote* for multiple sentences
  – use [square brackets] for insertion
  – use ellipsis ... for deletion
Quoting and Paraphrasing

Overuse

• Quoting is \textit{rarely} needed
  – exception: quoting or paraphrasing definition or principle
    e.g. “Resilience is the ability to provide and maintain acceptable service in the face of various challenges to normal operation” [SHÇ+ 2010]

• Sequence of quotes \textit{doesn’t} show understanding
  – unacceptable for formal publications
  – not a shortcut to English writing skills
    • better to be in your \textit{own} imperfect English
  – coursework with excessive quotes will receive poor grade
    • even if properly cited (C or D)
Quoting and Paraphrasing

Quote Examples

• Quote
  “The EECS Department regards academic misconduct as a very serious matter” [EECS2005]

• Blockquote
  The EECS Department regards academic misconduct as a very serious matter. Students who violate conduct policies will be subject to severe penalties, up through and including dismissal from the School of Engineering. [EECS2005]

• Quote with additions and deletions
  “… [KU] EECS … regards academic misconduct as a very serious matter” [EECS2005]
Quoting and Paraphrasing

Paraphrasing

• Paraphrasing when using words similar to others
  – alternative to quotes for definitions of others

• You must cite as a paraphrase

• Example paraphrase
  The department takes academic misconduct seriously, subjecting severe penalties to student violations [paraphrased from EECS2005]
  – note that it is obvious that this was taken from [EECS2005]
Figures and Images
Citing

• The use of figures and images also requires citations

• Direct use of image or figure
  – requires copyright clearance for published work
    • even in theses and dissertations which are formally published
  – may be acceptable for non-published coursework
    • ask your instructor

• Figures should be redrawn in your own style
  – and cited as [adapted from <cite-tag>] if redrawn or [based on <cite-tag>] if not a direct redraw

• Copyrighted images and plots should be avoided
  – but if essential, copyright permission must be gained
Figures and Images

Citation Examples

[SHÇ+2010]

[based on KMI 1999]

[PNA+2011, used with permission]
Formulæ and Algorithms
Use and Citation

• Never paste in formulæ as images
  – sloppy style
  – requires permission as copyrighted image
  – use math mode in LaTeX (trivial)
  – use MathType in PowerPoint, Keynote, or MS-Word
    • modern versions permit relatively painless LaTeX entry

• Never paste in algorithms or pseudocode as images
  – requires permission as copyrighted image
  – re-typeset in the document style

• Cite sources of algorithms and nontrivial formulæ
Academic Ethics
Copyright and Fair Use

AE.1 Plagiarism and how to avoid it
AE.2 Sources of information and venues for publishing
AE.3 Citations and quoting
AE.4 Copyright and fair use
Copyright and Fair Use

Copyright Basics

• Copyright (disclaimer: IANAL)
  – legal protection to authors of original work
  – laws specific to individual nations
  – subject to international treaties

• US copyright law (17 USC)
  – at least one author is US national or domicile on publication
  – or first published in the US, UN, OAS, or treaty party with US

• Copyright owner is
  – author of work
  – employer if work for hire

[adapted from www.copyright.gov/circs/circ01.pdf]
Copyright and Fair Use

Copyrightable Works

• Protected works
  – literary works, including
    • technical papers
    • compilations such as conference proceedings and journal issues
    • computer programs
  – pictorial, graphic, and sculptural works
  – audiovisual works including motion pictures
  – musical and dramatic works
  – sound recordings
  – architectural works

[adapted from www.copyright.gov/circs/circ01.pdf]
Copyright and Fair Use

Copyrightable Works

• Works *not* protectable (disclaimer: IANAL)
  – works not fixed in tangible form
  – titles, names, short phrases, slogans, etc.
    • these may be trademarked or service marked
  – ideas, procedures, methods, etc.
    • these may be patented
  – information that is common knowledge and property
    • e.g. calendars, mathematical tables

[adapted from www.copyright.gov/circs/circ01.pdf]
Copyright and Fair Use

Asserting Copyright

• US works automatically copyrighted on publication
  – formerly required registration under 1976 Copyright Act
  – no longer needed since 1989
    • Berne Convention Implementation Act of 1988

• How to assert copyright
  – not needed, but a good idea to show that you claim it
  – use the form © 2012 James P.G. Sterbenz
  – you may also register it but do not need to
    • registering may give more weight to a court case
    • KU engineering school has been confused about this
Copyright and Fair Use

Fair Use Overview

• Fair use
  – limits use of copyrighted material without permission
  – proper citation is always required to avoid plagiarism
• 17 U.S.C. § 107 provides *guidelines* to determine
  – purpose and character of use
    • including whether commercial or nonprofit educational
  – nature of the copyrighted work
  – amount and substantiality of the portion used
    • in relation to copyrighted work as a whole
  – effect on potential market or value of copyrighted work
Copyright and Fair Use

Fair Use Limitations

- You may not (even if properly cited)
  - incorporate images (figures, diagrams, or photos)
    - without explicit permission from the copyright holder
  - put the works of others on your Web pages
    - e.g. papers for a class
    - linking to illegal content is a bad idea
      - use DOI
  - copy significant parts of another work
    - without purchasing or obtaining through legal bulk subscription
    - e.g. a few pages of a book are OK; an entire chapter is not
Additional Help
JPGS Resources

• Academic integrity and plagiarism
  http://www.ittc.ku.edu/~jpgs/courses/academic-integrity.html

• Literature sources and citation
  http://www.ittc.ku.edu/~jpgs/courses/source-cite.html

• This presentation
  http://www.ittc.ku.edu/~jpgs/courses/lecture-academic-integrity-display.pdf

• Style guidelines
  http://www.ittc.ku.edu/~jpgs/courses/lecture-style-display.html
Additional Help

KU Resources

- Writing classes
  - summer courses: EECS 700
  - Graduate Writing Program [web.ku.edu/~gwsp]
    - courses and seminars to help students learn to write
    - highly recommended for non-native English writers
    - e.g. GS 700: Thesis & Dissertation Writing *defunded by KU*

- Writing center
  - [www.writing.ku.edu/ku-graduate-students](http://www.writing.ku.edu/ku-graduate-students)
    - provide help and will edit papers and theses for style

- KU libraries
  - graduate write-ins
Additional Help
External Resources

• Professional copyeditors (who charge for services)
  – e.g. heathsledge.com
Academic Integrity

References

- Sarah Blakeslee, “The CRAAP Test”, *LOEX Quarterly*, vol.31, iss.3, article 4, https://commons.emich.edu/loexquarterly/vol31/iss3/4
### Revision History

#### Selected Revisions

- **09 Feb. 2012**  
  EECS 802 seminar
- **28 Aug. 2012**  
  KU CPE seminar
- **13 Feb. 2017**  
  EECS 802 seminar
- **01 Oct. 2018**  
  EECS 802 seminar
- **01 Feb. 2019**  
  EECS 784 and EECS 802