

Establishing conventions for citing educational materials

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Lightning Talk
SIGCSE 2017

For more info see <http://cloudandcampus.blogspot.com/2017/02/establishing-conventions-for-citing.html>
or goo.gl/HqP1Zi

Context

- Course designs (manifest as syllabi), exercises, assignments, and project specifications are all creative acts of design.
- Course designs are often hidden behind LMSs. There is not a culture of publicly-accessible course materials.
- In any case, there are no conventions for citing such works.
- This lack of convention is even true in established educational repositories, which have no recommended citation format.
- Exceptions are rare (e.g., Netlogo Agent Based Modeling Library)
- But, we want to track and assess the influence of an educational artifact.

Reasons for Citation (Conventions)

- Degree of adoption of original education material by others could be part of a **teaching faculty member's professional evaluation**.
- Degree of adoption, as measured by citation counts, is relevant to flagging and **vetting educational material** for reuse by instructors.
- Being able to track the influence of materials would be valuable to funding agencies and PIs for assessing **education, outreach, and broader impact plans of research grants**.
- Establishing citation conventions by instructors may **raise students' consciousness of the importance of citing** any and all creative works.
- Publishing a paper that reports of a particular piece of educational material, thereby **enabling “conventional citation”**, may be difficult.

Objects of Potential Citation

- A Course
- A Syllabus
- A Lecture
- An Assignment
- An Exam
- A Key

- Strategy 1: adapt flexible citation schemes to education-specific content**
- Citing Sources: MLA Multimedia Sources
<http://www.cod.edu/library/research/cite/mla/multimedia.htm>
 - How to Cite Anything in APA Format
<http://www.easybib.com/guides/citation-guides/apa-format/>
- Strategy 2: translate educational material to “conventional” forms and cite with citation formats, suitable for**
- Tech reports, with page numbers and section headers if desired

Translate to Google Scholar Crawlable PDF

Fisher, D. H. (2017). *Introduction to Database Management Systems, Spring 2017*, Vanderbilt University

The screenshot shows a web browser window with the title 'Introduction to Database Management Systems'. The URL is https://my.vanderbilt.edu/cs265/. The main content area features a photograph of a path lined with trees. Below the photo is a navigation menu with links: Motivation, Topics, Organization, Schedule, Grading, Project, and Codes. A large blue arrow points from this screen to the right.

Motivation

Its amazing how much data is now being collected, stored, analyzed and acted on (e.g., <http://www.data.gov>; <http://data.worldbank.org/>). In addition to the wealth of world-wide data being collected, data is being recorded and stored about individuals, including you. This includes patient and consumer data, each leading to significant concerns with data security and personal privacy. In some cases, at least, you can record, access, and analyze your own personal data (e.g., music listening, nutritional content of meals, exercise activities, physical travels,...).

Introduction to Database Management Systems
Spring 2017

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Abstract: Its amazing how much data is now being collected, stored, analyzed and acted on (e.g., <http://www.data.gov>; <http://data.worldbank.org/>). In addition to the wealth of world-wide data being collected, data is being recorded and stored about individuals, including you. This includes patient and consumer data, each leading to significant concerns with data security and personal privacy. In some cases, at least, you can record, access, and analyze your own personal data (e.g., music listening, nutritional content of meals, exercise activities, physical travels,...).

In CS x265, you will learn to design databases for storing, accessing and analyzing large amounts data — to include conceptual and logical design. A small portion of the course will also study the implementation of database management systems (DBMSs), on which databases reside; a DBMS is complex system software that interfaces with hardware to physically store databases, as well as translating and coordinating user communications (e.g., user queries and updates) to databases (see [Topic Overview](#)).

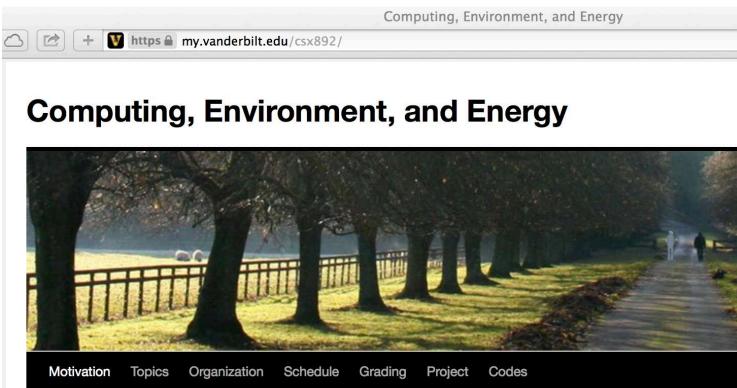
We live in fascinating and challenging times, with revolutionary changes occurring. As computer scientists, you can be a central witnesses to and actors in these times. I hope you ask how you can best use the world's resources that are now at our disposal, largely because of the technology that you are now studying, and how you can contribute to these resources.

Advantage is that citations are easily tracked

Appropriate for Google Scholar?

Aspire to Course Descriptions that are Appropriate

“The content hosted on your website must consist primarily of scholarly articles - journal papers, conference papers, technical reports, or their drafts, dissertations, pre-prints, post-prints, or abstracts. Content such as news or magazine articles, book reviews, and editorials is not appropriate for Google Scholar.” <https://scholar.google.com/intl/en/scholar/inclusion.html#content>



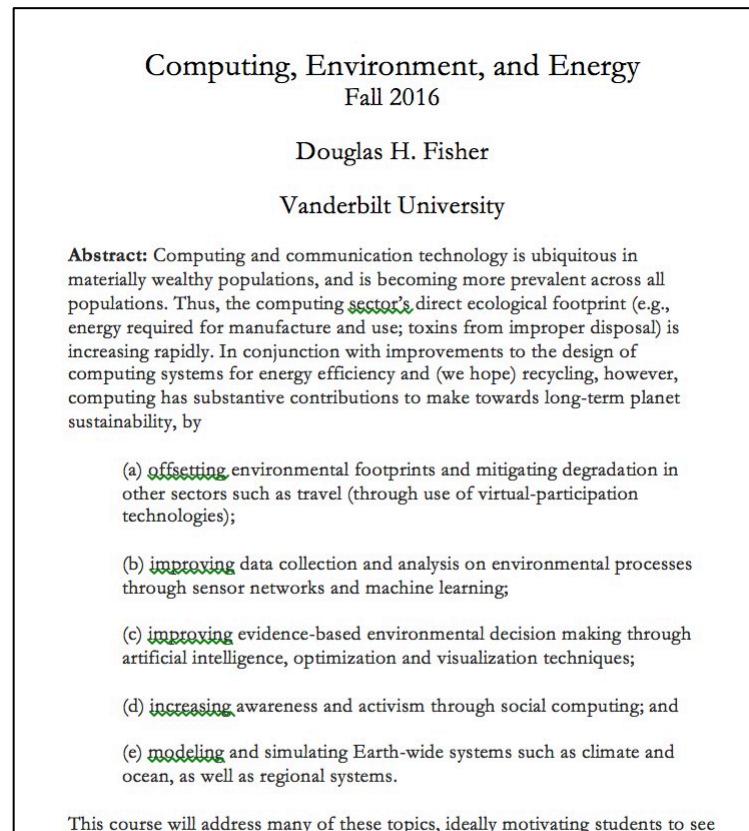
The screenshot shows a web browser window with the URL <https://my.vanderbilt.edu/csx892/>. The page title is "Computing, Environment, and Energy". Below the title is a photograph of a paved path lined with trees, with a person walking away from the camera. At the bottom of the page is a navigation menu with links: Motivation, Topics, Organization, Schedule, Grading, Project, and Codes.



Motivation

Computing and communication technology is ubiquitous in materially wealthy populations, and is becoming more prevalent across all populations. Thus, the computing sector's direct ecological footprint (e.g., energy required for manufacture and use; toxins from improper disposal) is increasing rapidly. In conjunction with improvements to the design of computing systems for energy efficiency and (we hope) recycling, however, computing has substantive contributions to make towards long-term planet sustainability, by

- (a) offsetting environmental footprints and mitigating degradation in other sectors such as travel (through use of virtual-participation technologies);



Computing, Environment, and Energy
Fall 2016

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- (a) offsetting environmental footprints and mitigating degradation in other sectors such as travel (through use of virtual-participation technologies);
- (b) improving data collection and analysis on environmental processes through sensor networks and machine learning;
- (c) improving evidence-based environmental decision making through artificial intelligence, optimization and visualization techniques;
- (d) increasing awareness and activism through social computing; and
- (e) modeling and simulating Earth-wide systems such as climate and ocean, as well as regional systems.

This course will address many of these topics, ideally motivating students to see

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Not a talk on vetting, but

- Context: most research sources are never cited by others.
- Vetting of educational material can be crowdsourced (e.g. number of adoptions or inspirations or ..., perhaps as evidenced Google Scholar Citations).
- I prefer the crowdsourced vetting for educational materials.
- Peer reviewed options exist through many resource repositories, such as those mentioned previously and others (e.g., <http://www.coursesource.org/>)
- Repositories alone do not address the citation convention issue.
- Want to join the conversation, perhaps in preparation for SIGCSE 2018?
- See <http://cloudandcampus.blogspot.com/2017/02/establishing-conventions-for-citing.html> or goo.gl/HqP1Zi to find link to Google discussion document.

Links

Citation Convention Discussion

<http://cloudandcampus.blogspot.com/2017/02/establishing-conventions-for-citing.html> or goo.gl/HqP1Zi

Google Scholar: <https://scholar.google.com/intl/en/scholar/inclusion.html#overview>

Citing Sources: MLA Multimedia Sources

<http://www.cod.edu/library/research/cite/mla/multimedia.htm>

How to Cite Anything in APA Format

<http://www.easybib.com/guides/citation-guides/apa-format/>

IEEE Real World Engineering Projects

http://www.realworldengineering.org/library_search.html

Merlot II Multimedia Educational Resource for Learning and Online Teaching

<https://www.merlot.org/merlot/index.htm>

Course Source <http://www.coursesource.org>