How to do a good technical search

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Lesson 1: Beware of INTERNET searches!!!

- The Internet is full of junk! (most of you already know that)
- Although it may be good to get a quick idea about a topic, it is risky to use it for serious technical analyses
- Reasons
  - Most materials, though looking technical, are not peer reviewed to ensure objectivity
  - It is hard to distinguish good from bad technical material
As a result

- In this class, Internet searches are only valid as references as secondary sources.
- Your papers must be based on peer reviewed documents.
How to find peer reviewed documents?

- You need to use a (research) search engine. For a full listing of resources, see:
  - http://library.rpi.edu/setup.do

- Under Search (lower left) corner:
  - Research Databases (to access specialized databases)
  - Other Library Catalogs (to access other catalogs)
  - Ingenta Document Delivery (to get printed materials)
  - WorldCat (to find papers)
  - Electronic Journals (to find electronic copies of journals)
  - Connect NY (to order/get materials from other libraries)
  - Library Catalog (to access RPI catalog)
In transportation, you could also use TRIS

http://trisonline.bts.gov/search.cfm
Search tactics

- You need to use keywords to efficiently find papers
- In some cases, there are so many papers that you may not know where to start
  - Find a textbook and see what references they have. This will give you a start.
  - Try to identify the seminal papers that everybody quotes
- You need to quote the seminal papers
A note on plagiarism

- You cannot simply copy and paste materials from other sources and use it as your own
- This is not “borrowing ideas” this is plagiarism

PLAGIARISM WILL NOT BE TOLERATED
If you feel that you need to copy verbatim because that sentence is crucial, this is the way to do it:

“…. Its essence has been captured by Samuelson (1977, pp. 118-119): "...the relevant transportation choice which a shipper makes is not simply a choice between modes, but a joint choice of mode and shipment size. In most cases, the shipment size is practically mode determining.... Hence, it follows that in freight demand modeling, shipment size and mode choice should always be modeled jointly.“....”

If you want to improve the somebody else’s analyses (even if that is yourself):

“The notation used in the paper follows the tradition of Noortman and van Es (1978), Hautzinger (1984) and Holguín-Veras and Thorson (2003a). “

“Assuming that: (1) the term within brackets is equal to a constant $g^*$; (2) the zero order empty trips are a function of the opposing commodity flow, as in the Noortman and van Es' model, and a probability, $p$, that represents the probability of a zero order trip chain; (3) empty trips between i and j depend upon the total number of vehicles arriving at the origin zone i; and (4) the likelihood of selecting j as the next destination depends upon the distance traveled; equations (12) thru (14) may be found (after Holguín-Veras and Thorson, 2003a).”