How to Read a Research Paper,
So that you will be able to use it later

(This document is intended mostly for graduate students who are reading articles for classes or just for their own interest, and might want to use them later when they write a thesis or dissertation. The problem, I have always found, is that we *know* we read something relevant to a topic on which we are now working, but we just can't remember what the article was or who wrote it or precisely why it made the claims it made. The following method is supposed to be followed from the time you enter grad school [or even before, if you know you are going to be doing research and will need to know the background literature] until you finish your dissertation. By that time you will be doing it as a matter of course, and will always be able to access the right background literature.)

The ability to answer the following questions after you are have read a research article….either a journal article or a conference paper….is an important aspect of constructing your own literature review in your thesis or other academic work. This is one of the most crucial skills you will want to have to be able to write academic items (or other academic tasks, such as presentations).

When you read an article you should somehow keep track of (a) what the title, author, place of publication, etc., is (duh…of course!), and (b) the answers to these questions, conveniently located in the same place as the (a) information. Some people prefer paper, others like electronic storage. But it is important to use some sort of external storage mechanism. No matter how interesting or crucial it seems to you while you read it, and no matter how much you are convinced that you couldn't forget it, you will. There are just too many other things going on in your personal life, your academic life, and too many other articles that you will be reading and trying to remember.

1. What is the main topic of the article?

2. What was/were the main issue(s) the author said they want to discuss?

3. Why did the author claim it was important?

4. How does their work build on other's work, in the author's opinion?

5. What simplifying assumptions does the author claim to be making?

6. What did the author do?

7. How did the author claim they were going to evaluate their work and compare it to others?

8. What did the author say were the limitations of their research?

9. What did the author say were the important directions for future research?

The preceding questions are designed to get you to understand what the author *said* s/he was doing. Additionally, there is a matter of evaluating the work. Each of the above questions could be re-asked about whether the article really did what the author said it did. Many very good research articles start by saying (e.g.) that, although so-and-so introduced a really important topic, his technique didn't really answer the basic questions. Or, that although the author claimed that the work should be evaluated in such-and-such manner, actually it would be better to evaluate it in some other way. And of course, even when you totally agree with everything said in the article, you can still get good research ideas from following up their "directions for future research".

Your external storage mechanism should have answers to the original nine questions. Additionally, the sort of "follow-up questions" mentioned in the last paragraph could be considered while you are writing up these original answers and some such comments added into the storage mechanism. In this task you should not take too much time detailing everything, but rather just make a few comments and give some of your reasons for thinking what you do. For example, if you think the author missed an important earlier work, you might mention it. If you think their evaluation method was inadequate, you should say so and mention a little about why. If you think some "direction for future research" is really interesting, you should say so. You will also want to ask: "What troubles/excites me about this work?" and not worry about whether the things that excite you have or haven't yet been done. Just recognize what they are.

Once you have a number of these sort of entries all on some topic, you will be ready to start constructing a research proposal by considering what things…both good and bad…have been done on the topic and what still needs to be done.