**MSDS 6130 Capstone B Paper Review**

Read the following instructions for reviewing your assigned paper(s). For each paper you review, you will create a separate doc file that contains your review of the paper.

All papers have been uploaded to Box, and all students have been granted read/write (not delete) privileges to all papers.

Your group has been assigned a group number. Your group number may be determined by the name of the folder that contains your group’s paper on Box. Once you have found your group’s paper, you will review the paper of the group whose number is one higher than yours. For example, Group 01 will review the paper for Group 02. Group 02 will review the paper for Group 03. And so on. Group 13 will review the paper for Group 01.

Once you have determined the paper that you will review, download that paper.

**Create a new Word file that will contain your review**.

**Name the file**: *GroupXXYourLastName20171110Review.docx*

(where *XX* is replaced by the two digit – yes, include the leading 0 - group number assigned to the paper you are reviewing). This naming convention allows for me to easily sort and group the reviews by paper being reviewed. It also makes it easy to know who has submitted a review.

**Each person will perform their own review**. So, if a group of three people reviews a paper for Group YY, then Group YY will receive three independent reviews on their paper.

This will be a zero blind review. That is, you, the reviewer, will know the authors of the paper being reviewed, and the authors will know that you, the reviewer, reviewed their paper. While this is not ideal, I do expect all of you to be candid, respectful, and thorough in your reviews. You are all aware of the level of detail that I often get into in my reviews. I invite you all to get to that level of detail as well.

When you receive your review, remember that the review is simply feedback. It is not good. It is not bad. It is someone’s impression of your work. If all of your reviews are similar in their comments, praise, and criticism, this tells you something about your work. If the reviews are dissimilar, then that tells you something else about your work.

As you plan your review, please allocate at least two hours to the endeavor. A typical review for me starts with me reading the entire paper once. This gives me a good overview of all aspects of the paper. I typically write down my general comments to the authors and summarize the paper at this point. I then start in detail with the Abstract. Does it clearly state what the paper is about, motivate the problem, describe the solution, state a main result, and state a main conclusion? Are all of these consistent with what is presented in the paper? Are they different or do they emphasize minor points instead of the major points of the work? This process often requires me to flip back and forth through the paper to review and make sure of my comments. Once I’m done with the Abstract, I move on to the Introduction and perform a similar analysis. Once I’m beyond the Introduction, I ask myself if another section on some background topic is needed, or if sufficient information has been provided in the paper for me to understand the work without having to refer to outside sources. I’ll then look deeply at the work performed. Has it been described in sufficient detail for me to replicate the work? If not, what information is missing? I examine the methodology used to solve the problem. Does it make sense? Is it logical? Do the results appear to be consistent and follow from the work described? In examining the analysis of the results, I always ask myself if the analysis is supported by the presented information. If not, then is it a logical conclusion supported by the analysis and results? If neither of these is true, then it’s an opinion that should not be in the paper, and I note it as such. I continue through the Conclusions section. Are the conclusions actual conclusions or summary or simply analysis of the results? Most people write summaries and analysis of results in their conclusions. I expect all of you to have actual conclusions based upon your results and analysis thereof.

At a detailed level, with a well written paper, doing the above will take me about an hour. With a less than well written paper, it can take me as long as four hours (I spend that much time on friends and students only) with two hours being typical. Yes, this is why it usually takes me 2-4 hours per paper to review each of the drafts. I suspect that each of you will spend about two hours to follow through with your review on these, hopefully, well written papers.

In your review, be sure to include the following clearly labeled sections:

* **Summary**: Summarize the article in a short paragraph. This shows the editor (your dear professor) you have read and understood the research presented in the paper.
* **Main Impression**: Give your main impressions of the article, including whether it is novel and interesting, whether it has a sufficient impact and adds to the knowledge base.
* **To Be Commended**: Give your impressions of the positive points of the paper. What parts did you enjoy? What makes the work good? What is outstanding? Are the figures well designed and informative? Is the flow and story correct? Etc. Have at least 2 points.
* **To Be Improved**: Give your impressions of the points of the paper that could be improved. Is it well written? Does it need more figures and charts? Is the story skipping steps or hard to follow? Is the presentation well organized? Etc. Have at least 2 points.
* **Journal Related**: Point out any journal-specific points – does it adhere to the journal’s standards? Does it relate to data science broadly speaking?
* **Comments to the Editor**: If you suspect plagiarism, fraud or have other ethical concerns, raise your suspicions with the editor, providing as much detail as possible. You may also provide additional confidential comments to the editor in this section. Given the nature of this particular review process, you may email your comments to the editor directly to me with the subject line: COMMENTS TO THE EDITOR and leave these comments out of your review document.
* **Comments to the Authors**: Give specific comments and suggestions to the authors, including about layout and format, title, abstract, introduction, graphical abstracts and/or highlights, method, statistical errors, results, conclusions/discussion, language and references. Be sure there is a section on ethics. Identify specific errors that need to be changed as well as broad themes. Does the story being told flow, and is it easily understood? What additional material should be included for a general audience? What material is not relevant to the subject of the paper and may be removed?
* **Your Recommendation**: Make a recommendation to the editor as to the readiness of this paper for publication. Your choices are:
  + **Reject –** provide a brief explanation as to why
  + **Accept without revision –** the paper is perfect and has no errors
  + **Accept with revisions –** the paper is in need of revision prior to publication

After you have finished your review, place your review in the Box folder for the paper you just reviewed. For example, if you reviewed the paper for Group 07, place your review of that paper in the Box folder for Group 07.