

Literature Review on the Application of Automatic Classification

Using Machine Learning Techniques

- I. **Essence of literature review articles:** Please review the description of the [Writing Competency Requirement in Computer Science](#) on the CS program website. Essentially, you need to write a stand-alone literature review article to fulfill the writing competency requirement. The following is the general description of the purpose and the structure of stand-alone literature review article.

The purpose of a stand-alone literature review article:

- Overview and analysis of the current state of research on a topic
- To evaluate and compare previous research on a topic
- To provide an analysis of what is currently known and to reveal the success, weaknesses, and issues not yet addressed in current work—pointing to directions for future research

The structure of a stand-alone literature review article:

- **Abstract** – A succinct summary providing an overview of the contents
- **Introduction** - Description of the topic, the importance of the topic and the related applications, the aspects of topic you want to explore, and the level of understanding you want to bring about through the paper.
- **Literature review of a number of aspects on the topic:**
 - Aspect #1: A description of relevant work done so far on this aspect to show how the current study relates to what has already been done
 - Aspect #2: A description of relevant work done so far on this aspect to show how the current study relates to what has already been done
 - ...

- **Discussion and Conclusion** - What was found in the course of the study? What do the results mean for the future? For example, describe (i) the success, weaknesses, and issues not yet addressed in current work, and point out (ii) what could be done further in the future.

II. Evaluating the draft of a literature review article: Please read this [sample draft paper](#) as a stand-alone literature review article submitted for the Writing Competency Requirement. How well do you think the paper lines up with the **purpose** and the **framework** of a stand-alone literature review article depicted in **(I)** above? What extra things do you think you like to learn about the topic but are not there in the draft? **In your report, please put your comments of at least 300 words regarding possible improvement over the draft.**

III. Choosing a topic and locating relevant journal articles: Instead of having so many references to the internet in the end of the draft, you should use the Biola library resources to locate journal articles related to the topic of your own WCR paper. For this assignment, you should choose a topic related to the application of automatic classification (of music or other things of interest to you) using machine learning techniques. We will meet **3:00pm Thursday, Dec 11** at the **Library Instruction Lab** (just to the right of the entrance of the library) to learn about how to use library resources for literature research. You should locate at least 5 relevant journal articles using the Biola library resources. **In your report, please put down (i) the title of your subject and a brief abstract of at least 200 words about what you intend to write in the WCR paper and (ii) at least 5 relevant journal articles you have found. Put them down in your report and list (cite) them in the following format:**

Last, F. M., & Last, F. M. (Year Published). *Article title*. Journal Name, Volume: Issue, Pages.

Example:

Lin, S., Gertsch N., and Russell, J. R. (2007). *A Linear-time Algorithm for Finding Optimal Vehicle Refueling Policies*. Operations Research Letters, 35:3, 290-296.