

# **Planning and Developing Literature Review**

*Current Topics in AI & Machine Learning (Dubai) [06 34149]*  
*Current Topics in Data Science (Dubai) [06 37861]*

The following are some general guidelines on developing a **Literature Review** and are used here to help you prepare for your module assessment. You should use this in conjunction with the guidelines provided to you for your mid-semester assessment on **Critical review**.

These guidelines will also help you evaluate your peer's work, establish what area are typically considered and how much detail is expected.

The specific requirements for your particular assignment are also given.

## **1. Given your assigned topic, select papers accordingly**

Consider your specific area of Research Topic that you have been assigned. Think about what specific area within this topic interests you and what interests other researchers within this field. Remember that this topic must be related to the module you are taking and therefore you **MUST** identify an area of research within this topic.

Revisit the module content for this topic, listen to the talks again, and read the papers provided to you. Read lecture notes and recent issues of periodicals and journals in this field.

## **2. Search for literature**

Define your source selection criteria e.g. articles published between a specific date range, focusing on a specific area (e.g., Robotics, Imaging, or using a specific methodology such as CNN).

Using keywords, search a library database: Google Scholar is a good start! Reference lists of recent articles and reviews can lead to other useful papers. Include any studies contrary to your point of view.

## **3. Read the selected articles thoroughly and evaluate them**

Evaluate and synthesize the studies' findings and conclusions. Note the following:

- assumptions some or most researchers seem to make
- methodologies, testing procedures, subjects, data tested
- conflicting theories, results, methodologies
- popularity of theories and how this has/has not changed over time

Note to use the guidelines provided to you regarding Critical review.

## **4. Organize the selected papers by looking for patterns and by developing subtopics**

Note the following:

- Findings/methodologies that are common/contested
- Important trends in the research
- The most influential theories
- Develop headings/subheadings that reflect the major themes and patterns you detect

## **5. Develop a set of purpose discussion**

Your presentations should be centred around the following sub-heading:

- What are the main highlights of topic (i.e. introduction and motivation)?
- What are the main applications?
- What are the main open research questions?
- What are the main challenges?

Note that a strong emphasis should be on a good overview of the Topic and the current trends that a computer scientist can appreciate.

## **6. Develop your presentation**

Follow the structure you developed above, in section 5.

Make certain that each section links logically / coherently to the one before and after. Structure your sections by themes and create a slide for each bullet point from Section 5. You will have 90 seconds per bullet point and 1 slide.

Use bullet points/figures to help you talk about each aspect coherently.

## **7. Format**

Your submitted assignment should be a recorded video presentation using PowerPoint (or equivalent) of no more than 6 minutes:

- No more than 5 slides
- Slide 1: Student ID, Module Name, Degree Programme, and the Topic of your Review
- Slide 2: What are the main highlights of topic? ~ 90 seconds
- Slide 3: What are the main applications? ~ 90 seconds
- Slide 4: What are the main open questions? ~90 seconds
- Slide 5: What are the main challenges? ~90 seconds

Further details on how to upload your video presentations and also peer evaluation will be provided on Canvas.

### **Note for MSc AIML (Dubai) students only.**

Based on your stronger understanding and experience of AI/ML through the degree programme in comparison to MSc AICS and MSc DS, you are expected to demonstrate a stronger in-depth understanding of the chosen area and topic through sharing insights and literature understanding in all four aspects (highlights, applications, open questions, and challenges). This will be considered for marking the submissions.