Robotics Research Technology and Methods (RRTM)

Assignment 1 – Portfolio: Critical evaluation of robotics research

Each week you should write a report that critically evaluates the robotics research you have seen that week in the RRTM seminars and reading group sessions. Each weekly report should cover:

- At most two of the four (typical) RRTM seminars you attended
- The paper you chose to read for the week's reading group assignment
- One other paper that was presented in your reading group

This should be about 100 words for each of the RRTM seminars and 100 words for each of the research papers in the RRTM reading groups.

We ask for a total of 8 weeks of material across the term. i.e. in total you should submit **sixteen** evaluations of RRTM seminars and **sixteen** evaluations from the RRTM reading groups (totalling 32 evaluations, approximately 3200 words).

For each evaluation we ask you to:

1. Write approximately 100 words reflect on the content covered in the seminar or paper.
    a For the RRTM seminar, you should split the 100 words about equally between briefly summarizing the research area and a research challenge within that area.
    b For the RRTM reading group, you should split the 100 words about equally between briefly summarizing the research discovery and your personal review of that research.
2. You do not need to provide references, but you should identify each report by the date of the lecture or group and the title/lecturer (seminar) or paper title/author (group).
3. Space the reports out neatly.
4. List the reports in the order of the seminars and reading groups attended.
5. If you do not watch a seminar or attend reading group, you should not write a report.

We strongly recommend that you write each summary in or immediately after the seminar/group. Leaving the entire assignment to the end of term will result in a poorer report and lower marks.

Plagiarism will not be tolerated. All submission will be fed through a plagiarism detector to check similarity with other reports. Penalties for plagiarism can be severe.

Deadline: **1pm Thursday 7 December 2023**

Submit your **PDF report** via UoB Blackboard.

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Marking scheme

Attendance (%) X quality of original reports (%)

If you do not watch a seminar or review a paper, you should not write a report.

The quality of your report is judged as follows:

Distinction (70% and above): Excellent range and depth of attainment of learning objectives. Excellent presentation. Able to display a command of critical analysis and judgement.

Merit (60%-69%): Attained all the learning objectives. Very good presentation of material. Able to employ critical analysis and judgement.

Pass (50%-59%): Some limitations in attainment of learning objectives. Adequate presentation. Some grasp of issues and concepts underlying the techniques and material taught.

An example

Seminar: Mon 12th October 2049. Human replicants (Phillip Dick)

The research area of human replication seeks to build robots that mimic humans in form and function. A replicant must possess a degree of self-awareness but may not be aware of its own fabricated nature. Where possible, capabilities of the replicant can exceed the human norm, but not in a manner that allows the replicant or human observers to easily infer that the replicant is an artificial device.

Research challenge: Human replicants have a longevity of only 4 years, although 'the light that burns twice as bright burns half as long'. A significant research challenge is to extend a replicant's longevity while still retaining its functional capabilities.