Final Project Idea Worksheet CMP6046B/CMP7040B Week 6

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Think of a real-world problem first then from a **problem first** approach to think through how you can solve it with a new idea based on all of the facets of Ubiquitous Computing. Use this worksheet to think through the problem first, then potential solutions, remember there are usually more than one answer for each of the stages.

Project Title:

1. What overall real-life problem can you think of that maybe solvable by Ubiquitous Computing? Think about your own experiences e.g. hobbies, work experience, areas where you have specific knowledge etc.

2. What information process will the system need in principle to work? E.g. for a health promotion system this could be – the amount to time spent walking, running and other exercises done over a day.

3. Based on your answer in 1 and 2 what sensor(s) will you need to get this information, do the sensors exist, what further platform/equipment do you need to run this sensing? Is it feasible? Do you have access to the right scenarios to collect the data? If not can you create a feasible mock scenario?

4. Based on you answers in 1 ,2 and 3, what further processing of the sensed data will you need? Are simple rules such as thresholds enough (e.g. A1), will more complex machine learning be needed (e.g. A3) or some other functions (e.g. A4). Will you be able to get the right quantity and quality of data to make it work? Does the process need to be in real time?

5. Based on your answers from 1-4 how should the overall system be designed so that it is useful to the user? What feedback type is it e.g. alerts, recommendations, informational or trigger other parts of the system?? How should you form this output? Do you need a create a user interface? What modality should you use so it is understood by the user? Is it real time, offline or is there a just in time element?