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| **PRCO304: Highlight Report** |
| **Name: Daniel Bendell** |
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| *Brief review of work undertaken (and comparison with work planned) since the last Highlight, including details of any products. Identification of any issues of concern that have arisen since the last Highlight, and any previous issues that are still a concern.*  As stated in the previous progress report this week’s focus has been on integrating the beginning of the AI. To initially get my head around how the AI is going to work was a struggle in itself. I knew it wasn’t going to be an easy process but I am happy with the progress I have made so far. I began the week creating the functions that would allow the AI to complete the basic functionality available. This included the AI finding a player, moving towards the player if needed and attacking that player. At this moment this is just an aggressive AI that doesn’t seem to be very smart, the only goal is to defeat the opposition. After completing the basic AI interactions I started and am currently working on the Bayesian game AI mechanics. This includes the AI assessing the opposition, working out the probability of each opposing characters actions (e.g. moving, attacking) based on their current state. This is the core for the chosen AI technique. Assessing the current situation and making a decision to work in the AI’s favour. Although I have only just started this development stage it has already proven to be extremely challenging. The game I have scoped out has a very large number of possibilities for each given state. For example the AI needs to figure out which targets are likely to attack them, whether or not that will be effective enough to make an impact and formulate a counter action. This could be, move away from the current position, move closer and attack an enemy, move towards an ally and heal them, and so on. Accounting for all these different situations is going to take a lot of thinking and making sure that the AI is making intelligent or just offensive decisions is going to be difficult. I am unsure how long and or effect this AI is going to be but seeing as the core functionality for the application is going well I am willing to spend a reasonable amount of time trying to get it to work. |
| *Brief plan of work for the next week (derived from the current stage plan).*  *Over the next week I will be continuing the Bayesian AI technique in hope that I will have the AI making decisions based on the game and its different situations. This will be a lot of trial and error making sure that I have calculated the scenarios correctly and have accounted for how the game might expand with additional characters on either side. I have been watching and reading a lot of resources for Bayesian within games and hope that it will continue to aim the development of this AI technique. I will be looking to organise a meeting with my tutor to ensure I am on the right tracks as his expertise will prove extremely useful* |
| *Brief notes from supervisory meeting(s) held since the last Highlight (including meeting date(s)).*  No meetings have been held. |
| *In the case when a stage has completed since the last Highlight, a brief review of whether the stage’s objectives, deliverables and timescales were met (or not).*  This week’s development has been week one of a two week stage, I will be continuing the development (stage 2) for the upcoming week, in hope that it will be completed come next Thursday (17th/01/2016). |