# Progress Report

This report is structured in to three sections as my work thus far, expected target and problems and questions/ problems I have encountered and needs direction.

## Work Thus Far

* Identifying an individual player using player movement sequences (PRICAI 2012)
  + The experiments were conducted on 10 subjects with a GSOM of spread factor 0.9, neighborhood radius of seven and a learning rate of 0.25 for 100 iterations. The initial weight vectors of the four nodes were kept constant for all the subjects to ease comparison of the generated maps.
  + During the analysis, it was identified that players tend to create clusters that is associated with a single move and this pattern appears in both the walkthrough mode and the game mode.
  + A prediction of play sequences (ICONIP 2012) was made using a limited sample of generated GSOMs but require a large set to confirm finding plus a statistical significance test.
* Created a basic taxonomy for player modeling (Rejected by TCIAIG last week)
  + The model came in to a lot of criticism from certain reviewers while it some accepted it.
  + Currently planning to refine it for the thesis

## Expected Target

* Creating a useable model of player actions using the GSOM
  + Extension of the PRICAI and ICONIP results
* Currently focusing on creating a Finite State Machine based on winner nodes of the GSOM. The link in the winner node of the GSOM would have a decay factor that diminishes over time to depict forgotten or less chosen paths.

## Current Problems/Questions

* How to analyze the absolute effects of smoothing?
* When creating a data skeleton why do we resolve to a POS only mapped with the test data. Why not use a POS on individual presentations so we can see the progression of cluster creation?
* How to quantify (squash) a fully trained GSOM into a number or a structure which could be used to train another GSOM? I’m not referring to hierarchical clustering with different spread factors or incremental learning system like Daswin.