Groundwork

The team has focused on preparing our tools and accumulating some preliminary research to help us move forward with the project.

Unity

Our programmers have been learning to use the Unity engine. We chose Unity because it allows us to remain flexible with platforms and assets, and makes it fairly simple to have multiple people contribute to a prototype.

Further, the ETC is increasingly supporting Unity, so we have many resources available to us if we encounter challenges with the software.

AI Implementations

Our programmers have also begun exploring existing artificial intelligence implementations for various purposes. It is likely that we will be able to build on these as we go, and it is important that we develop an understanding of what has been done as soon as possible.

Human Terrain

Per the original project description, we have dug into human terrain research - that is, the use of socio-cultural understanding in military planning. Although our client meeting on Wednesday evening revealed that the project need not focus on (or even involve) human terrain, we still consider it an interesting and viable direction for some part of the project.

Brainstorming

With research and a lengthy client meeting behind us, we began brainstorming as many ideas as possible for areas in which we might be able to develop useful predictive algorithms. The list currently runs the gamut from smallscale gaming applications (such as predicting player strategy in a game of Rock-Paper-Scissors) to predicting non-obvious effects on large scale, real world systems (for instance, can we farm Twitter for clues about what may happen in the stock market?). Next week, in addition to continuously expanding this list of possible avenues, we will refine a few and choose some initial prototypes to develop.

Next Week...

After the long weekend, we plan to continue aggressively brainstorming, researching, and further developing some of these project concepts. The goal for next week is to decide on an initial prototype or two.

Also, we have decided that henceforth the project shall be called **Project Augur**.

Resources

Al (Real-Time Strategy) Dynamic Formations in Real-Time Strategy Games

Color Theory Seeing Red: Tweak Your Brain with Colors

Decision Fatigue
Do You Suffer from Decision Fatigue?

Human Terrain

- Iraq's Human Terrain
- Dartmouth's Laboratory for Human Terrain

Music Theory

Bobby McFerrin Hacks Your Brain With Music

Neural Networks

- <u>Medical Disease Prediction Using Artificial</u>
 <u>Neural Networks</u>
- <u>Stock Market Prediction</u>
- <u>Automatic Landmarks Prediction Using the</u> <u>Artificial Neural-Network-Based Technique</u> on 3D Anthropometric Data

Rock, Paper, Scissors How to Beat Anyone at Rock, Paper, Scissors