Simulating human civilisation and the evolution of society based on factors such as culture, religion, and technology – Project plan

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1. Introduction And Hypothesis

History is a divisive subject, and rightfully so. Stories from centuries past still define the day-to-day life of people across the world – simple lines drawn by forgotten men have resulted in chaos and oppression, while small mistakes have resulted in prosperity for millions. Any discussion of this topic will inevitably end in disagreement, some idolize figures of the past, while others resent them – regardless though, it is undeniable the impact some people have had on the world. It is quite interesting then, how these actions that have changed the lives of thousands, are so easily represented on a simple piece of paper – conflicts of family, money or faith reduced to simple points on a map.

This idea has fascinated me for the last decade of my life, and in October of 2017 I decided to combine this passion with my love for software development, developing a program designed to make a new history – starting with a random map populated with various peoples that would build new nations which would rise and fall as conflicts with those around them occurred. When this project was finished, it successfully met my initial concept, but fell short of what I had wanted to achieve – populated with the mistakes of a more amateur developer, the project was error-prone and inefficient, nevertheless it was completed, and I considered it my best project id ever completed for years afterwards.

The year now is 2021, and I have learned a lot more about both software development and history over the years. I’ve found that even the ideas and concepts of that project were flawed in many ways, particularly relating to how the nations of the world acted. This is why over the next year I will be revisiting this concept, not only creating a new and better simulation, but also changing the focus in a way that I believe gives more meaning to the project – answering the hypothesis “*Can a simulation be used to believably portray a new world history, using artificial representations of factors that have defined real history, and what methods can and should be used to achieve this objective?*”

1. Aims and Objectives

To expand on the concept discussed above, the specific aim of this project is to develop a simulation of a world map that portrays the birth, expansion and recession of nations over a period of time. Starting from an empty map, over time the simulation will develop a populated world map which has been defined by socio-economic factors such as culture, access to resources and faith as well as ideas like international relations, technology and geography. This artefact will also be heavily documented; presenting algorithms used, comparisons to existing projects (Primarily my own, as I have an intricate knowledge of how it functions and the flaws and advantages of these functions) as well as extensive logs of testing whenever a key point in development is reached. At the end of the development cycle, I will also record the accuracy of the program, demonstrating instances where I believe the model has particularly shown evidence to support my hypothesis, as well as incidents where it has failed to meet my goals.

It is my hope that this project will at the very least serve as an interesting experiment demonstrating how computing can be used to represent the world around us. I also believe that as the game industry is currently leaning heavily towards procedurally generated content, this project could see use as a world map generator – a service that may have relevance in a number of different genres, ranging from strategy games, roleplaying games and even to roguelike titles. If the project is particularly successful, it could see use as an educational tool which, while not portraying real history, could demonstrate what factors have had an impact on our world’s history.

Discuss current important of project

OBJECTIVES:

* Basic tool development and system design
* World generation + population of factors
* Simulation of history
* System testing
* Comparison to hypothesis
  1. Basic tools
  2. Geography
  3. Preliminary Factors

1. References