VIRTUAL TRIBE: GPS BASED MULTIPLAYER ONLINE MOBILE GAME:
GPS CONNECTIVITY ENGINE AND GAME USER INTERFACE

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ABSTRACT

This thesis is about how a GPS and location based services benefit gaming industry and initiate new idea and better prospect of future mobile gaming.

Virtual Tribe is GPS based multiplayer online mobile game, adopting the PBBG (Persistent Browser Based Game) into J2ME application and online text-based game, popular name for this genre of game is called MTRG (Mobile Trans Reality Game). The system integrates Bluetooth connection using JSR-82 J2ME library, HttpSession to server application PHP and online database. Player, act as a king in the game, owns virtual tribe which is located at the place where he registers the game at the first time. Using complete in-game features, player able to navigate and manage his virtual tribe and develop his tribe into stronger and bigger civilization. The competition arises when one tribe deciding to invade other’s tribe. Winning the battle will give the winner advantages over conquered tribe or even new land acquisition. No Winning condition included in the game rule, however, it’s obvious that the biggest tribe will most likely rule the world of Virtual Tribe

The system starts when GPS sentences is connected to mobile application through Bluetooth and periodically transmit NMEA Sentences which will be parsed and stored into Persistent Memory at the application. Data is processed and calculated in server application which also handles the game logic. Online database saves processed data and transaction record history. The result of every process is shown to the player through updated game display

Several testing have been done to test several aspects of the game such as: functionality, compatibility and performance. Author also conducted public survey and discussion to ensure that the game able to satisfy player’s need while also enhance the gaming experience as high as possible

Keyword: mobile games, GPS games, PBBG, text-based game, Location Based Services, MTRG