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Serious Games And Comparision Of Ai Techniques

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ABSTRACT

The term serious games is kind of strange as is it has serious as the purpose (first term of a compound noun) is serious. The term serious games has developed to distinguish between games for entertainment and the games that has serious outcome. Serious games are those games which has a learning outcome such as a social message, marketing message or a learning message or strategy.serious games allow people to learn. The Present scenario of video game industry is that it has become an ever-blooming world wide industry and this becomes the main foundation block of this paper. The availability of genres and technology along with the concepts of video and games gives programmers huge gaming area for their application and one such gaming areas is the serious games. The main purpose of this paper is to compare AI techniques Artificial Neural Networks,Markov systems,Fuzzy Logic and rule-based systems with the help of rating analysis over some serious games.

Keywords: Serious Games , Artificial Neural Networks,Markov systems,Fuzzy Logic and rule-based systems.

INTRODUCTION

Artificial intelligence is being used for improving science & technology because of its capability of dealing big data ,dealing with complexity, high accuracy, high data processing speed.
AI has been used in different fields like Economics, Medicine, Computing, Engineering , Mathematics and so on for developing intelligent machines.Intelligent machine posses the skill or means to make a machine perform intellectual tasks like or close to a human would do.

MACHINE LEARNING

Machine Learning is as an application of artificial intelligence where the existing knowledge is used with the help of algorithms to assist the process of statistical data analysis.Machine learning require both the automation and human assistance. Machine learning has a high level of generalization to get a system to perform good on data instances that will feature in future.
Almost all statistical techniques uses a procedure for finding a probabilistic model that explains the best in related models.Thus, the main benefit of machine learning over the statistical techniques is that it does not require a probabilistic model. Most measurable strategies pursue the worldview of finding out a selected probabilistic version that exceptional portray watched strategies among a class of related fashions.
Like wise, most of AI techniques are supposed to discover fashions that are supposed to discover fashions that first-class suit records that are extracted from the papers of last decade from different authors. However, really those AI fashions are never once more confirmed to probabilistic ones.

ALGORITHM

The article of concept is to assume achievable article areas just as to gauge the determine-ground division for every theory. Our hypothesis depends on a deterministic plan like every SC highlight is contrasted and each code book passage and makes a forecast of the practicable article cognizance The coordinating rankings are accrued over the entire photo and the forecast with the best answer are the manageable article focuses. Given a lot of highlights {ni} at region {env},we characterize the chance of coordinating note segment to nias N(obj|env) proportional to exponential(-Km(obj,ni)). Give the in shape of obj to niitem consciousness find in characterized N(o,c|obj,env)proportional to exponential (-||n+d ok -env || 2). Presently the likelihood of the idea of item o with focus c. N(o,c) gives the democratic manual l of diverse regions.casting of nearby L in whole lot of theories {ij} = {(iu,nk)}.

Further more, discern-floor division of each Hj may be assessed through back tracking the coordinating outcomes. For the ones ni giving the proper exponential,the restoration veil m in the code book is “glued” to the pertaining to the photograph vicinity at the discern-floor department. Officially, area nl, symbol N(p= dig|obj, env) because the likelihood of point p having a place with the leading edge whilst the element at region env is coordinated to the book obj: N(p= did|obj,env)proportional to exponential(-||nl -env||)mk(-->nl env). What is greater , we accept that N(obj,env|Hj) proportional to N(iu,nk|obj,env)and N(ni|obj)proportional to N(obj|ni).

PROBLEM DEFINITION:

Challenges in developing the future generation intelligent system are:

1. It should take place very often and by itself.
2. Inaccurate prediction.
3. Loss of data.
4. Inaccurate query processing.
5. Less Accuracy.
6. It should be great in decision making.

EXISTING SYSTEM

There are many serious games such as snakes and ladders (gives social message) , chess (gives social and learning message , minmax , war games etc,.The AI techniques used for comparision are Artificial Neural Networks,Markov systems,Fuzzy Logic and rule-based systems.

1. Artificial Neural Networks

From speech recognition and face recognition to healthcare and marketing neural networks are being used in a varying set of domains. Deep learning makes use of artificial neural networks that behave similar to the neural networks in our brain.

A neural network functions when some input data is given to it which is processed via layers of perceptrons to produce an output.

2. Markov systems

Andrey Markov introduced markov systems in 1906 and defined these markov chains as stochastic process containing random variables, transitioning from one state to another depending on certain assumptions and definite probabilistic rules.

3. Fuzzy Logic in AI

Fuzzy logic in AI provides valuable flexibility in reasoning.

Fuzzy logic is a method of reasoning that resembles human reasoning. This approach is similar to how humans perform decision making and it involves all intermediate possibilities between a YES and a NO.

4. **Rule-based systems**

Rule based systems provide automatic problem solving tools for capturing the human expertise and decision making.In simple words , Rule based systems are used as a way to store and manipulate knowledge in a useful way.

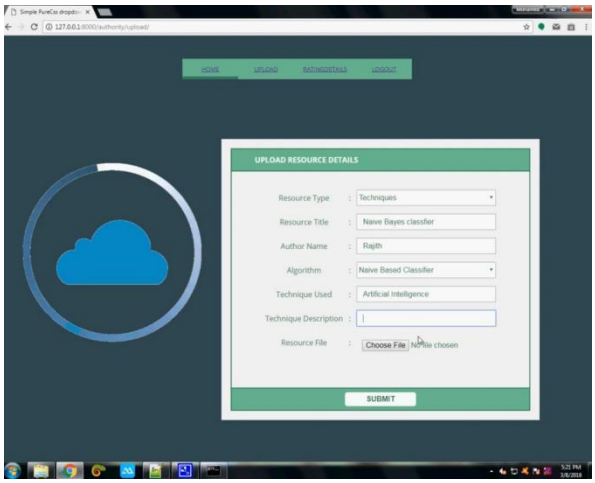
PROPOSED SYSTEM

Comparison of AI techniques Artificial Neural Networks,Markov systems,Fuzzy Logic and rule-based systems with the help of rating analysis over some serious games.

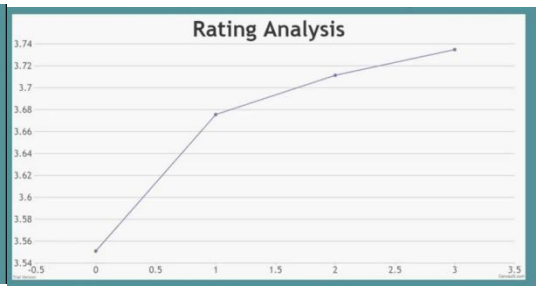
The article of concept is to assume achievable article areas just as to gauge the determine-ground division for every theory. Our hypothesis depends on a deterministic plan like every SC highlight is contrasted and each code book passage and makes a forecast of the practicable article cognizance The coordinating rankings are accrued over the entire photo and the forecast with the best answer are the manageable article focuses.

RESULT AND CONCLUSION

USER MODULE:



ANALYSIS OF AI TECHNIQUES:



Four AI techniques (Artificial Neural Networks,Markov systems,Fuzzy Loigc and rule-based systems) have been used against various serious games like hexa -chess,war croft,kregsphere,we are in the world, arigon trail etc based on papers from different authors. We can see that Rule based systems perform the best and artificial neural networks the worst on average among these games.

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