

Can Intelligent Agents Improve Persistence?

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Abstract - The coupling of intelligent agents with learning resources create an important synergy with improved persistence as an outcome.

Keywords: Artificial Intelligence Intelligent Agents Electronic Commerce Retention Graduation Persistence

1.0 Introduction

The goal of the work presented in this paper is to offer possible methods to advance the study of intelligent student resources. The use of intelligent agents in e-commerce was designed to facilitate transactions for the buyers as well as sellers. It has been proposed that intelligent agents can assist with this process. Can intelligent agents choose learning resources in furtherance of intelligent learning technologies? The synergistic possibilities offer advances in learning around the globe.

2.0 Literature Review

2.1 Intelligent Agents

Intelligent agents have grown from little known computer programming into a wide variety of agents with multiple characteristics and competencies. Intelligent agents have advanced to even achieve a competitive advantage in the business world. Intelligent agents, like humans, have differing levels of intelligence. At the lowest level, agents merely carry out user assigned tasks. More intelligent agents can perform repetitive tasks and even monitor activity and report results. This last level refers to a semi-intelligent agent. A truly intelligent agent, at the highest level, can maintain user profiles, update the profile based on user actions, and even anticipate a users' action and learn from an error [3][6].

2.2 Intelligent Agents and Students

Studies of intelligent agent use demonstrate that agents can work in tandem to achieve a common task [1]. Original work with agents dealt with simple negotiation systems in a business-to-business or business-to-consumer e-commerce environment. Agents negotiated for simple goods or services. The ability to negotiate the acquisition of specialized goods or services will require more advanced systems. Advanced agent systems are under development with promising possibilities. Agents have also developed into the consumer-to-consumer e-commerce environment [4][5]. This level of sophistication will enable students to progress through higher levels of learning by accessing resources as necessary.

Intelligent agents enable people to maintain contact with the business world while at the same time releasing an individual from social interaction [7]. One study showed that people would rather deal with an intelligent agent than a human when conducting business online [9]. Students that are shy tend to engage online learning more fully when not overshadowed by gregarious classmates [2][8].

2.3 Freshman Success

Less than 60 percent of college freshmen graduate from the college they first entered [10]. There are several factors that mix and match in this failure. An important factor is the availability of resources to bolster weak areas. Many students discover that they left high school unprepared for college-level math and/or writing. Modern students are normally computer savvy from hours spent playing digital games. Many students interact with "online friends" separate from other relationships.

3.0 Synergy

The synergistic possibility of student needs and intelligent agent technologies is promising. In an e-commerce environment, a prospective buyer from one part of the world contacts a seller or seller's agent. In an education environment, a student will access a needed resource regardless of venue. The intelligent agent systems developed today will allow agents to discover the learning resource in the required language in a manner similar to addressing different desires for size, color, or financing options in the e-commerce space.

The combination of intelligent agents with other web intelligences has been proposed. The opportunity to deal with complex real-world education problems is the key. These new solutions will make money, satisfy students, and give educational businesses a competitive advantage [11]. When mobile marketing adopts this technology, products will be offered to students in their preferred language [7]. The ultimate purpose is for agents to anticipate the need for language appropriate learning resources and attained preparedness to meet the need [11].

4.0 Summary

The elements needed to combine intelligent agents with educational resources are in development. The combination opens a world of possibilities to enhance university retention and ultimately graduation rates. The opportunity for competitive advantage in educational venues is ripe as those that move first will reap the first benefits.

5.0 References

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