Framework for Mediation Driven Learning

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Abstract

Learning is a complex process in which the learner experiences permanent and lasting changes in knowledge, behaviour, or ways of processing the world. Every learner is unique and learns and perceives things differently, at a different pace. In the classroom environment which is designed for an average student, same content is delivered to all the students in the same way. There is a fundamental flaw in designing the curriculum in this way for an average student, since there are virtually no students who fit into this category of average [1]. Hence, there is a need to address the individuality of the student for effective learning. A learning theory called as "Independent Learning" addresses this. Independent learning encourages and enables students to become self-directed in their learning experiences and to have more autonomy and control over their learning. In addition to this, it is found that learning is very effective where there is a collaboration with other learners. [2] [3].

The ubiquitous reach and scale of the web provides an opportunity for creating this type of learning environment for the students. There are current educational technologies like MOOCS who started out to achieve some of the above objectives but they are nothing more than getting a traditional environment on-line.

In our work, we propose the concept of "mediation driven learning" which builds upon the theories of independent learning and collaborative learning and uses the power of Web to mediate or facilitate learning. We create a framework for mediation driven learning where we get the learners and tutors together on one platform and provide a mediation algorithm that finds an optimal matching between the learners and tutors for a particular learning concept. A learning concept is not only content based (video or text) as seen in most on-line educational tools, but also has different learning concepts like personal coaching, on-line coaching(web talk or live chat), discussion forum, peer coaching, group project and more. Whenever a student wants to learn a topic, student's skills are assessed and his preferences are taken into consideration to suggest a learning concept for the student. For this learning concept, if there is a need for a tutor, mentor or peer, the mediation framework finds an optimal match for the same and suggests it to the student. Teacher or tutor also has preference for selecting the student for any learning interactions, which is considered while finding an optimal match. Factors like familiarity of the tutor/student, the success of their previous interactions(which we can obtain from the student assessments, tutor feedback and reviews), proximity of a tutor in case of personal coaching(physical presence), cultural aspects influencing learning environments are also considered while finding the optimal match.

References

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