Implementation of Protus2.0 by Ontology for Advanced E Learning

L.Lakshmanan, D.C.Tomar, Japala Saikrishna Rao

Abstract- Protus2.0 E_ learning environment is used in learning process for decision making, communication and problem-solving. The semantic web used in real-time annotations of these ontology for debriefing of the students, student self study and better guidance of the learning methodologies of mentors.A ever-present methodology environment will provides an interoperable, pervasive, and flawless learning structural design to connect, fix together, and share three major scope of learning resources such as learning collaborators, learning services, and learning contents. ever-present learning is characterized for identify right learning collaborators, right learning contents and right learning services in the right place at the right time. it promotes the achievement of practical knowledge as well as decision production, communication, and problem solving with help of ontological Skills-based learning environments. These environments are a important to give feedback about the students from the practically conducted sessions and comments of learners actions can notify to the assessment of their quality process. And also, those learning environments are helping to the researchers for better understand the learning process. The proposed system examined study environments. Also, achieve the better student improving the knowledge as well as feedback of the understanding of learning environments; we proposed a new mechanism such as semantic based approach with the ontology is used.

Index Terms: semanticweb,ontology mapping methods, fuzzy logic, fuzzy grouping, k-means algorithms, tutorial systems.

I .INTRODUCTION

To provide an effective learning environments to the students (for self study) using learning materials such eBooks. To offer an efficient learning materials to the students and researchers with help of semantic based annotations of the recording of simulated environments and with effective mapping method.

Ontology is used to promote the gaining of practical skills as well as team working, decision making, communication and problem solving. They can be incorporated into opinion of student performance, which brings a condition that the approaches for estimation and feedback need to be , valid, reliable, feasible, educational, and of course acceptable to practitioners. Through the ontology, the student experiences are designed to be exactly as they would experience in the workplace in real time.

By this ontology method student can analyze himself whether he is good in a particular domain and it is very useful for the persons who are not able to pay the amount for technical educations. in this approach the questionnaires all are related to the frequently asked questions with the correct approach.

Manuscript received April, 2014.

Mr.L.Lakshmanan, Research Scholar, Department of Computer Science and Engineering, Sathyabama University,Chennai, India.

D.C.Tomar, Senior Professor, Department of IT, Jerusalem college of eng & technology, Chennai, India.

Japala Saikrishna Rao, PG Scholar, Department of Computer Science and Engineering, Sathyabama University, Chennai, India.

II. RELATED ARTICLES

Ballan et al. (2011)has proposed approaches for robust detection and representation of spatio-temporal interest points and motion features, modelling of events and approaches to represent domain knowledge and contextual information of activities and actions. The methods are used to several different domains.

The real time based event detection is very complicated. This research does not discuss about any observer's audio. Also, the location identification of objects is very difficult.

Tiropanis et al. (2009) developed a paper for establishes the availability of semantic tools and services , searching and matching, repository and collaborative annotations &semantic infrastructure development.

The relate things for semantic tools and services are knowledge, teaching and

Institutional challenge for higher education. The tool does not provide an efficient semantic link between the other videos.

McDonald et al. (2008) developed a paper for how Semantic Grid technologies can be used to generate enhanced tools for data collection that provide enabling technologies for interdisciplinary work, thereby enhancing the capacity to address substantive social science research.

The research work focus on only simulation environments. The research work is not suitable for visual and textual videos.

Lindgren et al. (2008) developed a paper for describe DIVER, a platform designed to solve a set of core challenges we have identified in supporting video collaboratories. Characterize five Collaboration Design Patterns (CDPs) for video-based practices.

CDPs used for characterizing interaction patterns. The DIVER video platform embodies a new kind of communication infrastructure for video conversations by providing persistent and searchable records of video pointing activities by participants to specific time and space moments. The learning technologies community to refine and advance our conceptualizations of collaboration design patterns for video platform uses in research and education and the creation of systems that support the important needs for video conversation in the work practices of educator and researchers.

J.A Muras (2006)Proposed a novel taxonomy of pervasive healthcare systems. The taxonomy is using hierarchy structure of the properties of pervasive healthcare systems and can be used as a framework for system categorization. The taxonomy identify a set of fundamental properties, that properties are used in a system to be describe according to its user's kind, its purpose and environment of use, as well as the technologies implementation.

Published By:
Blue Eyes Intelligence Engineering
& Sciences Publication Pvt. Ltd.

The properties of invasive healthcare system are straight in hierarchical manner initial from the root of the taxonomy. The root describes the relationships between all seven main feature categories. Novel taxonomy is based on the ICF.ICF provide standard language and a structure for the explanation of health and disability.

Novel taxonomy was considering the attributes of the users in a number of different ways. Taxonomy was extended for novel system properties without reorganisation of existing structure.

K.R. Page et al. (2005) developed a paper for hypertext and knowledge based

tools .this Paper supporting e-Science, also explores the similarities and application of CoAKTinG (Collaborative Advanced Knowledge Technologies in the Grid) technologies as part of a human-centred design approach to e-Learning.

Introduced the tools that have been developed by the CoAKTinG project and identified how they are typically used in meetings, and in support of collaborative science in the Semantic Grid. Includes the application of Semantic Web technologies to help with the initial identification of the members of the virtual organisation.

III SUMMARY OF EXISTING SYSTEM

This is used to establish a complete attribution trail through to learned output, enabling researchers to follow back to the original data.

The Task Computing project involves Semantic Web technologies (Resource Description Framework, Ontology Web Language) and Web Services (Simple Object Access Protocol, Web Service Description Language) to pervasive computing, aiming to "fill the gaps between tasks and services." Learners will see the tasks are possible in their current context and are assist in designing composite tasks from easy tasks, they can be reused.

Disadvantages of learning environments are cannot offer effective way of learning. Time usage is high. Issues in accessing the learning related material to by the research team. The collection, storage, and dissemination of staff and student data could not be anonymized.

IV PROPOSED SYSTEM

A proposed system constructed an ontology that contains all the entities describing the, sessions, and participants. This ontology allowed the basic online ontological framework to be independent of the specific structure of ontology. The system takes a domain ontology that includes the following conditions of tutorial libraries such as a series of workshops, observational sessions, and discussion groups.

Identified the types of annotation (manual textual, location based are shows how to create ontology's with semantic based), the constructed ontology representing the range of annotations applicable in the scenarios. The ontology consists the basis for the sharing of an knowledge is to be developed. For an ontology for successful, it is important to design prompts that are easily identifiable and familiar to the users (students).

In this protus system by using the fuzzy logic algorithms the user has to qualify the particular level of the learning system then only he will enter into the second level after cleared in second level third level like that he will achieve a total knowledge about the particular tutorial in this paper we are going to implementt for java language. The below figure shows the advanced e_learning in proposed system.

This diagram describes the total flow of the project and the approach how is the approach for the proposed system. And by this architecture we can assume the proposed system very clear manner and this is mostly used in ontology system this ontology will be very used in the intelligent tutorial systems. And by this ontology system all the systems are merging and it is used for using the multi database at a time.

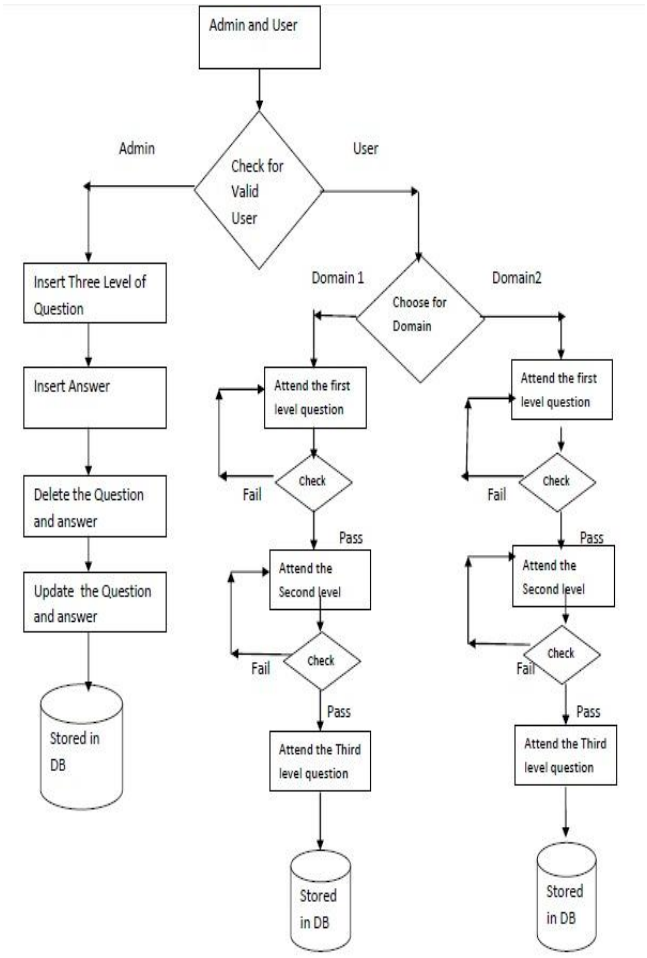

Figure 1: functional architecture

In above diagram it is clearly understood that first learner should enter into the admin module after that only he will enter into the learning the particular courses if he clears the starting level he is eligible to enter into the next level like that till the last module this process will continued.

V IMPLEMENTATION

In this implementation of protus 2.0 ontological system, the detailed information regarding how the tutorial system exactly in these by using four modules this system was implemented by using the ontology and fuzzy logics .

A. administration :-

in the implementation part admin is the authorized person to maintain on line exam, admin has the responsibilities of preparing the questions and depends upon the level from easy level to hard level preparation of questions will takes place here by using intelligence tool the questions are generated depends upon the user automatically these questions will be generated ontology rules are applied in this phase.

Published By:
Blue Eyes Intelligence Engineering
& Sciences Publication Pvt. Ltd.

Admin will stores all the questions and answers in database. Depends upon the particular question the answer will be evaluated these above all things are to be in the admin phase. Here by intelligence system the person has failed in particular level he will not be enter into the next module.

B. user system

The user system has the certain rules first he has to learn the particular tutorial he has to register in administration module he has to give all the details like name ,security questions like that all things need to give in this phase the learner or user must and should be aware about the system generation of the questions and navigation systems he has to know all the tutorial system for that by using tutorial system and mapping methods we are assigning the users to the administrator.

C. online question paper

The online question paper phase is responsible for generating the marks for the correct option and also in this phase some particular time has to be given if the user will edit the correct answer are not it doesn't bother after the finishing of the time slot the question paper will disappears these all things are done in this Phase.

D. result evaluation

In this phase the evaluation of result takes place here in this the advanced result manipulations like graph based evaluation takes place and depends upon the levels this results will be displayed by this user will understood in which level he is lagging.

VI. PERFORMANCE EVALUTION

In the existed system the ontology rules are not that much implemented and here in this tutorial we are adding the online compiler by this user can easily achieve the programming concepts actually in this tutorial particularly implemented for java tutorial system.

By this proposed system we can achieve the following things.

A. Coherent navigation
B. flexible entry points
C. concept. Matching
D. reasoning

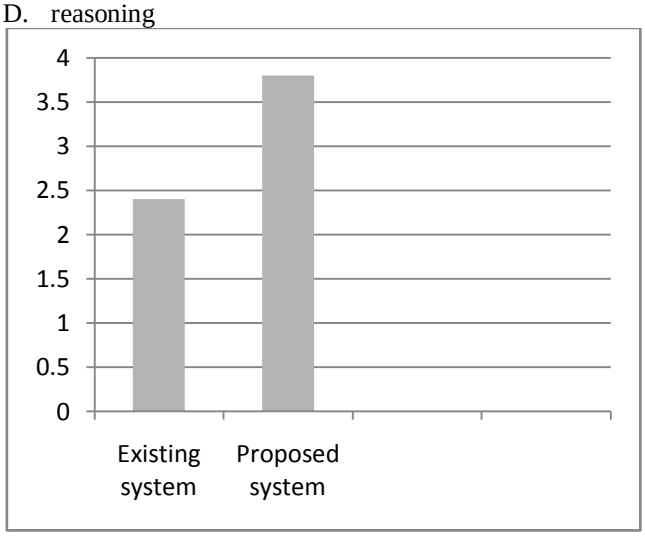

Figure 1.2: Performance of existing and proposed systems

And the result evaluation will be done in a advanced manner .user will achieve his goal.

The above fig 1.2 shows how the proposed system and existing system performed.

The proposed system contained the symbol annotation so the system having more performance than existing system. From the graph we are taking the y-axis as number of Exams conducted.

By writing the we can easily analyse the online exam with symbol annotation which was proposed in the proposed system.

VII CONCLUSION

The protus 2.0 main aim is to provide a flexible tutorial system by this user can evaluate his status in particular field by this we are using advanced technologies like ontology and fuzzy rules.

VIII ACKNOWLEDGEMENT

I would like to thank Dr.B.Bharathi, Head of the Department, Department of Computer Science and Engineering and Mr.L.Lakshmanan for his encouragement and support.

REFERENCES

[1] M.J. Weal, D. Michaelides, K.R. Page, D.C. De Roure, E. Monger, and M. Gobbi, "Semantic Annotation of Ubiquitous Learning Environments," IEEE Trans. Learning Technologies, vol. 5, no. 2, pp. 143-156, Apr.-June 2012.

[2] T. Tiropanis, H. Davis, D. Millard, and M. Weal, "Semantic Technologies for Learning and Teaching in the Web 2.0 Era—A Survey," Proc. Society On-Line (WebSci '09), http://eprints.ecs.soton.ac.uk/17106, 2009.

[3] J.W. McDonald, M.O. Gobbi, D. Michaelides, E. Monger, M.J.Weal, and D. De Roure, "Grid-Enabled Data Collection and Analysis: Semantic Annotation in Skills-Based Learning," Proc.Fourth Int'l Conf. E-Social Science, June 2008.

[4] M.J. Weal, D.T. Michaelides, D.C. De Roure, M. Gobbi, E. Monger, and J.W. McDonald, "Semantic Annotation in Ubiquitous Healthcare Skills-Based Learning Environments," Proc. Workshop Semantic Web in Ubiquitous Healthcare (ISWC), Nov. 2007.

[5] K.R. Page, D.T. Michaelides, S.J.B. Shum, Y.-H. Chen-Burger, J.Dalton, D.C. De Roure, M. Eisenstadt, S. Potter, N.R. Shadbolt, A.Tate, M. Bachler, and J. Komzak, "Collaboration in the Semantic Grid: A Basis for E-learning," Applied Artificial Intelligence, vol. 19, nos. 9/10, pp. 881-904, Nov. 2005.

[6 O. Lassila and M. Adler, "Semantic Gadgets: Ubiquitous Computing Meets the Semantic Web," Spinning the Semantic Web, D. Fensel, ed., MIT, pp. 363-376, 2003.

[7] T. D. of Health, "Delivery 21st Century IT Support for the NHS: National Strategic Programme," technical report, The Stationary Office, June 2002.

Published By:
Blue Eyes Intelligence Engineering
& Sciences Publication Pvt. Ltd.