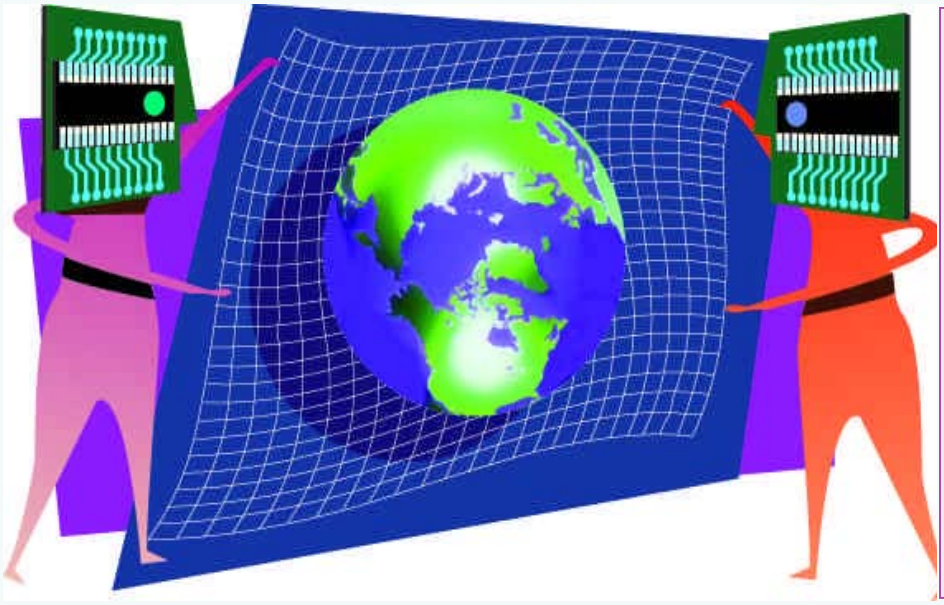
A I and the Net



Virtual Museum Education Assistant, Call Center Computers, Nose Mouse, Network of Robotic Telescopes, and more

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Virtual Museum Education Assistant

The Science and Technology Museum in India has integrated a virtual education assistant called a "Cyberlady" that helps visitors learn about the exhibits and answers questions. "Cyberlady" was developed through a collaboration between the museum and the Centre for Development of Imaging Technology. When a user types in a question, the "Cyberlady" uses artificial intelligence technology to formulate a response that grabs the user's attention and provides interesting information. The "Cyberlady" responds using a synthesized voice. The "Cyberlady" learns from the conversations and stores the information gleaned from interacting with visitors so that new answers can be developed.

In addition to the "Cyberlady," the museum has also integrated virtual laboratory modules that simulate various scientific experiments. One module simulates the flame test whereby a rod is dipped in various chemicals and then is exposed to flame. The flame changes color based on what type of chemical is on the rod. Another module simulates the four-stroke engine. In this module a cross-section of an engine is observed and all of the components are identified. Other modules are in the works for the future.

http://www.hindu.com/lf/2004/09/24/stories/2004092400500200.htm

AI Learns How to Cram

We all remember those late night study sessions from college where we desperately tried to fill our minds with a semester's worth of information in a few hours. Well, now there is a tool powered by AI that helps students to study smarter. The tool, called Cram101, is available at many university bookstores. Cram101 distills information from textbooks and organizes it into outline form. The outlines are printable so that students can take them to class and augment them with information from the professor's lecture.

Cram101 also creates practice tests that give students a means of diagnosing the level to which they have learned the material. Since students often have short attention spans and bore easily, the practice tests are presented in the form of a game. The tests are designed to be a self-teaching tool rather than an accurate representation of the types of tests found in the classroom. Therefore, the answers to questions give clues to the answers of other questions. With those connections, the student has a better chance of remembering the information. Cram101 membership is

available for a monthly fee. *www.fsunews.com/vnews/display.v/ART/2004/09/23/4151f0e8c872a* .

Call Center Computers

A new AI tool aims to take the frustration out of call center assistance. Once a person finally gets through to a customer service representative, often they will have to wait additional time while the operator searches through the computer to find the answer they are looking for. IBM is developing a combination speech recognition utility/search engine that listens in to the support phone calls and begins searching for the required information before the caller has finished their request. The tool works by using speech recognition to pick out key words indicating the caller's trouble. Those keywords are then entered into the call centre database, giving the operator a head start on pulling up the information.

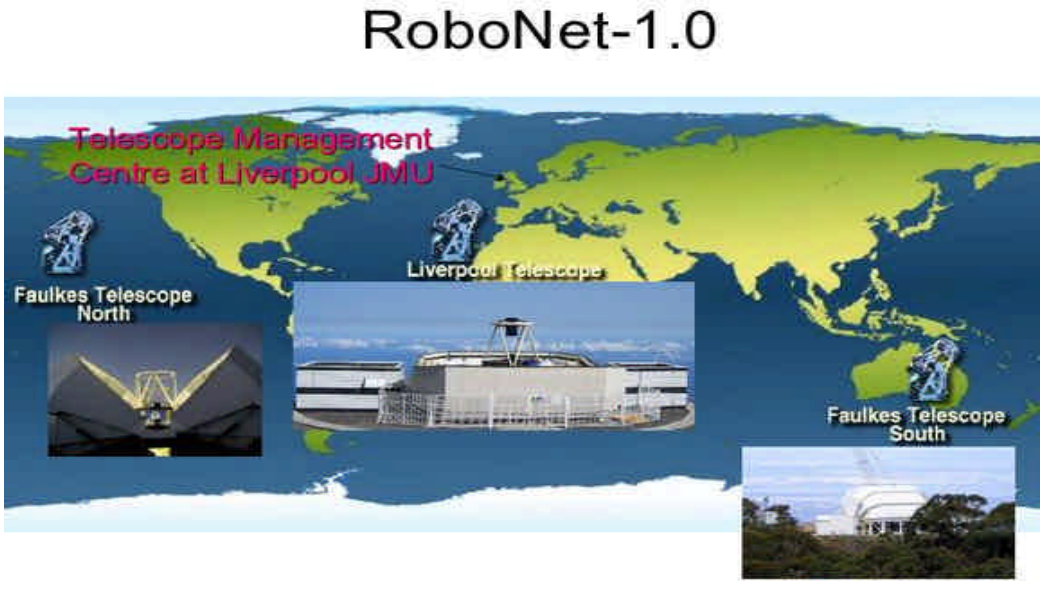
In addition to assisting the operator in finding the correct information, the system can also alert the operator to important points that must be stressed - especially if those points constitute legal warnings. Just as the system listens to the caller's end of the conversation, it can also listen to the operator and provide on-screen reminders in order to ensure that the operator handles the call properly. While the software is still in its infancy with only a few phrases and words identified, commercial versions are in the works with a trial version scheduled to be implemented in a Dutch bank. *www.newscientist.com/news/news.jsp?id=ns99996430* .

Model of a Multi-Agent System

In a joint research project from Los Alamos National Laboratory, the University of Houston and Rensselaer Polytechnic Institute, a model of a network of agents has been created. The goal is to use the model to predict the behavior of multi-agent systems - a task that can be very difficult. The model is based on the "minority game." In this game, agents make decisions and try to be in the minority when the results are revealed. The agents learn from experience what strategies are successful. In addition, the researchers created social networks amongst the agents so that information about strategy could be shared. Therefore, when making decisions a single agent will consider its own experience as well as the experiences of its neighbors. The agents strengthen connections with agents that provided useful recommendations in the past. This can be compared to human social interaction - we come to value the advice of certain people and thus turn to them preferentially in the future for support. As a result of these connections, a leadership structure emerges. To optimize the model, the researchers are adjusting the connectivity of this leadership so that the influence of those agents is regulated. The information gleaned from this model could lead to the development of multi-agent systems suited to applications where human intervention has been required in the past. Since the agents learn from each other, the human component becomes less important. *www.trnmag.com/Stories/2004/092204/Agent_model_yields_leadership_092204.html*

Network of Robotic Telescopes

With many astronomical events occurring in a very short span of time, it is important to be able to react quickly in order to observe them. Anyone who has watched a meteor shower knows that this is true. If you are not looking in the right place at the right time you will miss the show. However, if there are many people watching the meteor shower from many different positions then it is possible to observe more of the action.



British astronomers are hoping to take advantage of the information-capturing power of robotic telescopes by linking them together and controlling them with artificially intelligent software. The network is called RoboNet-1.0. Since the robotic telescopes in the network are located around the world, the connection provides a wider range of view as well as the ability to react quickly to interesting phenomena. Researchers hope to use this network to study gamma ray bursts. Gamma ray bursts are very intense energy bursts. The bursts are detected frequently; however the longest ones last