The Circulation of Good – Implementation of a cooperative information-gathering agent for Squeak.

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ABSTRACT. This is about the implementation of a cooperative information-gathering agent as Morph on Squeak. The purpose of this project is to make an agent that solves this point on Squeak.   This agent includes three main functions. First, it collects information.   Second, it shows information to the user, who selects from it, and then properly stores it. Lastly, which is also a characteristic, it allows fellow agents that have received information disclosure range and permission from the user exchange information to further refine it.   With these three functioning continually, the circulation of knowledge occurs, and the Internet can become a true knowledge processor.

1..BACKGROUND

In the nine years since the appearance of Mosaic, the Internet has become a very big source of information for us.   Internet sites in 1994 numbered only around 150 in Japan, but now there are so many that it is meaningless to try counting them.   Information on the Internet became necessary for people's lifestyles and work.   For example, professional programmers like us can obtain programming methods from the Internet in realtime, and in cases they perform harvest programming for sample codes with logic from the Internet.   Aside from that, even in life in general, information from the Internet becomes important as judgment materials in various situations (such as when buying something).   However, it is very difficult to find an effective search method to obtain the information that an individual needs.   We need a pilot for information.   The Yahoo search engine prompts us for parting from a dark state of information, but the engine does not provide us with enough solution methods.   The current weak point of search engines is that they cannot look for information adequately because of the explosive increase of the Internet population and information, and the relative deterioration of Internet user literacy.   Time required learning the directions for use of search engines and the effort we put into spending time examining output results can be called the new waste of the new century.   It becomes absolutely essential for us to take our time carefully to sort innumerable homepages after a word search. Without ignoring that point, services solving for the problem have already begun.   For example, there is the Service where a person registers a key word of their interest, and they are informed by e-mail of the pertinent page. Certainly these services give you the information, but in the end they are unable to perform total representation.

2.IMPLEMENTATION

There are three main products of this project.
1) Agent Morph and class. - A class working on Squeak has to have the appearance and interface of operation that a child can approach easily, for example, the Sketch Morph which is implemented with Agent class. The interface setting of a search theme can be handled easily by children.

2) An agent Information joint ownership function on Croquet - The place where a Squeak agent class changes information. The place that an agent class leaves work to other agents.[1]

3) The expand file format to 3DX on Croquet. 3DX is a popular WEB3D file format in Japan. For example, A new year greeting software – Agenda ATENA SYOKUNIN bundles 3DX. ATENA SYOKUNIN is installed in about 140,000 PCs in Japan. There are fun and many beautiful preset shapes and avatars. Users are able to try to play easily with these and it is useful for the Croquet spread.[1]

Fig

3.EFFECT

● For cancellation of intellectual differences
The rapid promotion of IT was planned in Japan from 1999 by government policy. For example, the IT organic law plan and preparation of the later infrastructure. An

ideal IT nation was discussed successively in the Diet. The problem of intellectual differences was pointed out by witness invitation of a constitutional investigating committee in the Diet of March 2001. In addition, NPOs aiming at the cancellation of intellectual differences on the Internet were approved, and a cabinet prefecture recognized activity simultaneously.   However, compared with promotion of IT and the rapid spread of infrastructure, the effect of NPO activity is generally unclear. Intellectual difference cancellation by administration is important, but the main procedure is to make a structure for the educational methods of improving the digital divide - Internet literacy, and it is not the structure helping an application to be useful in the Internet and intellectual difference cancellation and technology development. It is described as "explosive," and the information available on the Internet has increased rapidly in these past several years. We always sieve necessary information from search sites, portal sites or news, for introduction from people and information from the large quantity of information. It is truly a work of "patience." If the appropriate key word is set several times and it takes several minutes, or several tens of minutes, to choose the right link from a list of hundreds, many businessmen that do not have time simply give up when the work takes up several hours. Even when appropriate literacy has been acquired, as for the problem of intellectual differences, those that cannot be solved become self-evident only through the acquisition of Internet literacy.

This project was conducted in order to test whether the intellectual difference caused by the information explosion on the Internet could be solved from the application side. Time spent acquiring Internet literacy is effectively reduced, and time for collection / judgment of information is shortened.   It was also an experiment to perform appropriate judgment and practical use of that information, "Reproduction of intellect, intellectual processing and circulation of good on the basis of appropriate judgment."

● Adaptation to education - Why Squeak?
When this project is accomplished, there are two main reasons why Squeak should be implemented:
1) Squeak works on many platforms. It already possesses the class where resources on various computers can be easily utilized.
2) Squeak is for education, particularly to establish an important point in education of a young age group.
The setting of the project at this time was a trial to solve the problem that cannot be settled from the application side only by improvement of Internet literacy, and because the degree of completion rises if it is a tool that can be used by the young generation and the road to results opens. Another reason is that it was felt to be necessary for children to have a tool that would help them to closely examine the goodness or badness of information. Children are always exposed to a large quantity of bad information on the Internet. Children must judge the right and wrong information by themselves from the age when they are used to a computer. Children utilize an information agent class for their own projects on Squeak by implementing an information agent in a Squeak class, and Children are able to make use of their intellect and ability to select good. Implementation in various platforms is finished, and a resource on a computer including Internet can be very easily utilized, and, in an ideal environment - Squeak of the computing that the first children can become for offering it, necessity of such an intellectual processor is felt deeply.

4.BEYOND STEP
I am a joint researcher of Hokkaido University, the Graduate school of Engineering. We started to join "the study of IT CARROZZERIA" from F.Y.2002. This study is a part of the intellectual cluster enterprise of Ministry of Education, Culture, Sports, Science and Technology. The IT CARROZZERIA has a purpose to study the basics of the making of IT product. Of course the subprogram includes the education of young people for IT, too. We examine that we adopt Squeak/Croquet in the program. This program begins from F.Y.2003.

5.REFERENCE
[1].David A. Smith, Andreas Raab, David Reed, Alan Kay, "Croquet The User Manual", Viewpoints Research Institute, October 2002.