

TIARA

A large part of the global market expects the arrival of a computer easy to use and inexpensive. This is in this way that a French company has developed the prototype of a user-friendly man-machine interface based on 20 years experience in Artificial Intelligence. This interface transforms radically the behaviour of the PC. For the first time, a simple software application allows the computer to function by reasoning, like a human being, instead of following the directives of a program developed by data-processing specialists (imperative programming). Imperative programming makes the PC too expensive, too complex to use, and insufficiently reliable. It needs specialists. 99 percent of the users are unable to automate the daily tasks they perform on their machines. As for the others, they are not much more effective because existing operational systems are not designed to be individually tailored, they are just toolboxes. These defects slow down the penetration of computers on the market, the development of new and essential services (medical or for disabled people, for example), the universal and advantageous sharing of knowledge through the Internet, factor of progress for the planet.

A French company's software prototype installs on PC from a DVD. It's a vocal chatterbot (a program with a human face able to have a conversation with the user). It works by reasoning on knowledge, not by following data-processing procedures. At the beginning, this knowledge is that of a specialist in Windows PC. Using it, the PC acts as if a computer specialist were installed at the keyboard. It answers the user's questions and realises the required work. With the chatterbot, the user can increase his/her knowledge continuously in any field, thanks to an extraordinary and very simple tool that they invented (declarative programming). The chatterbot itself was developed with that tool, which is also used to develop classic applications, whatever their complexity. It describes the program in decision tree form, written in natural language, which it transforms into one program.

Using voice commands, the user can launch:

- Specific chatterbot services:
 - Conversational online help (to find software in the computer, solve a bug, explain how to use a tool, discover all the features of the computer, etc.).
 - Develop classic simple software or vocal software, controlling peripheral devices if necessary.
 - Programming tool: schedule the task that will be automatically launched at start-up, at a certain time or under certain conditions, routine tasks (e.g. scanning a newspaper).
 - Keep silent, getting back to talk, hiding the face of the chatterbot and its balloon dialogue.
 - Repeat a question, retrogress in the dialogue to allow the user to correct an answer, explain its question, its conclusion or a contradiction found within the data.
 - Read a text, forward or backward, stop reading, re-read.
 - Tune the parameters of the PC audio, optimise voice recognition, change the name of any voice command.
 - Post lists presenting the user's favourite software: programs, text files, pictures and video files, Web pages, vocal orders list, others.
- Classic services of the PC:
 - Launch programs.
 - Close windows, applications.
 - Turn the computer off.
 - Read DVD.
 - View emails.
 - Play music CD, advance or move back.
 - Devices: "print the letter to Mr Smith", etc.

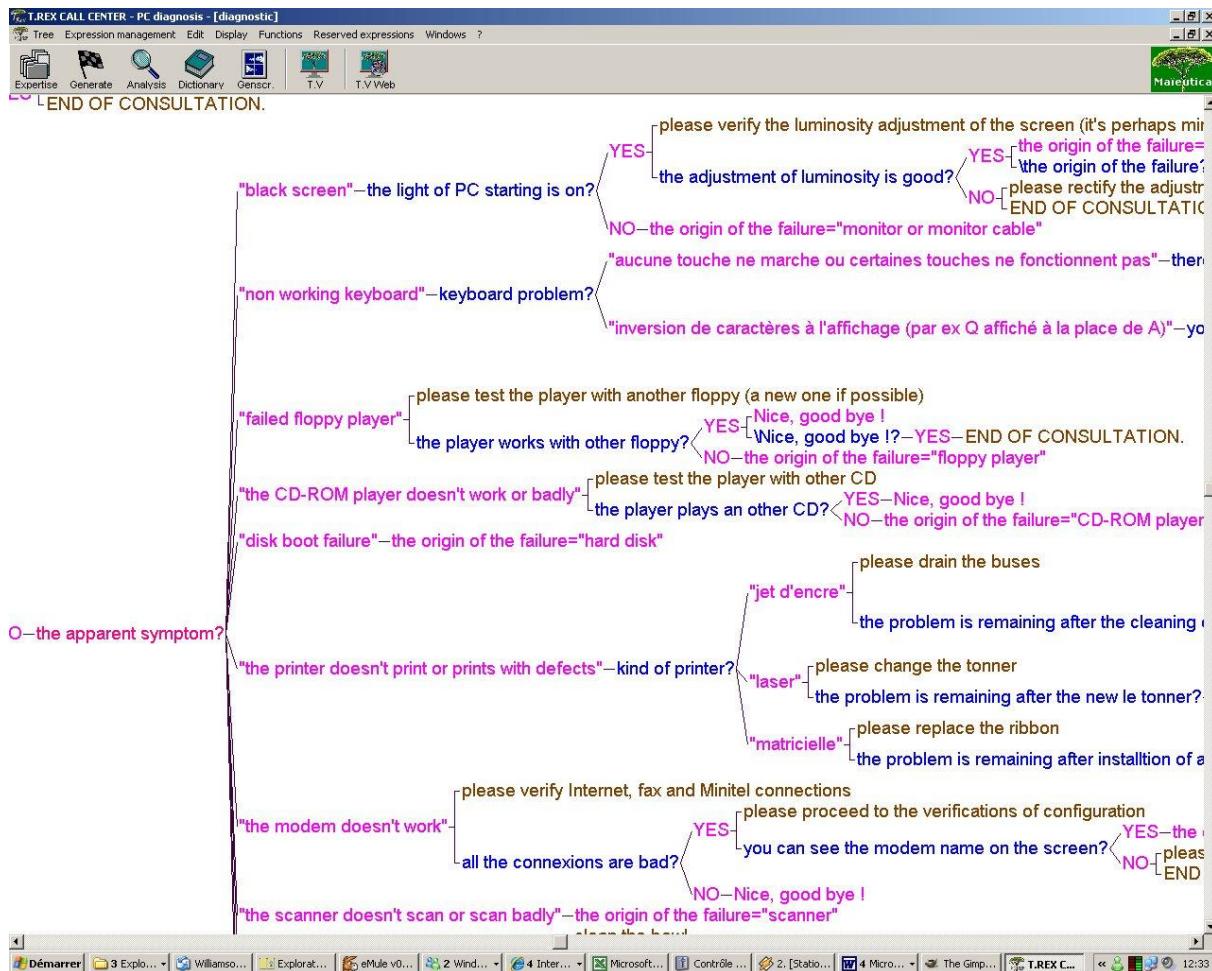
Many other features, already developed, can be included in the chatterbot:

- Dialogues in European languages.
- Complex application development: voice or conventional (word copyright).
- Intelligent answering machine (screening and referring calls, solving the caller's problem without human intervention).

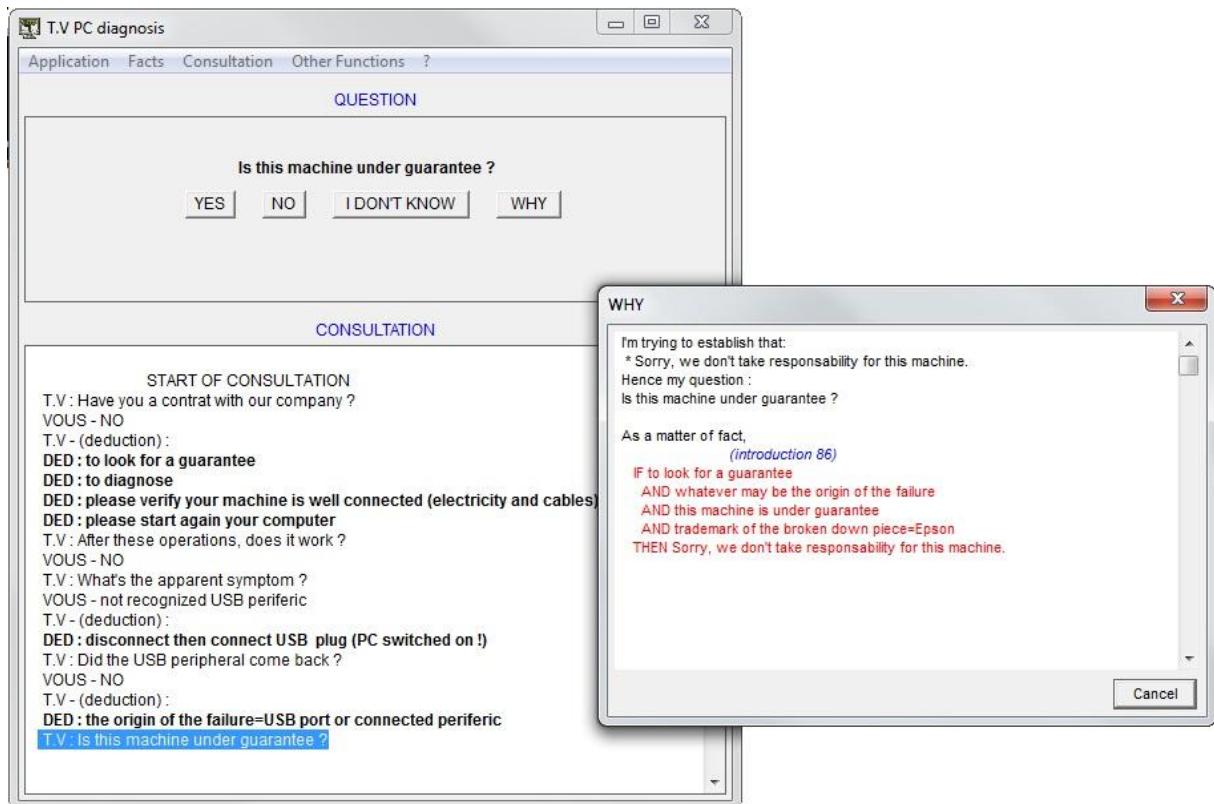
- Intelligent parental control, history of use of the PC.
- Super powerful fault diagnosis (regardless of the technology of the machine or system).

Other interesting and easy-to-develop features:

- Linux support: to make the computer friendly and inexpensive
- Piloting by voice any classic software by using its keyboard shortcuts.
- Voice recognition of the user for parental control or adaptation of the computer according to the user.



The computer operates by its own reasoning. Thanks to its intelligence, it can have conversations with its users, and thanks to its knowledge, it can help them. The users are no longer required to sit in front of their computer; they can use it remotely (e.g. by phone). If they have to create a program, it is more efficient than a pool of developers as chatterbot will write it for them, in the best possible way. Thanks to the chatterbot they can improve the program every day without a bug, which is impossible with the current technology. The programs are better designed (they are databases), the computer becomes more reliable. Thanks to this offer, computing is now accessible by the entire world population. Those who were afraid of computers will feel reassured. They may finally decide to buy one. This offer opens a huge new market.



List of Keywords

Technology

- Automation, Robotics Control Systems
- Information Processing, Information System, Workflow Management
- IT and Telematics Applications
- Multimedia
- Diagnostics, Diagnosis

Market

- Telephone Related
- Computer Software
- Other Computer Related
- Diagnostic
- Handicap aids

Current Stage of Development

Available for demonstration

Exploitation of RTD Results

None

Collaboration Type

- Joint further development
- Testing of new applications
- Adaptation to specific needs
- Assembly
- Engineering
- Technical consultancy
- Maintenance

Comments

- Type of partner sought:

Industries, companies.

- Specific area of activity of the partner:

PC manufacturer or software company.

- Task to be performed:

The partner should be able to co-develop the interface under Linux, and/or market it.