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(54) Title: COMPUTERIZED MEDICAL DIAGNOSTIC SYSTEM UTILIZING LIST-BASED PROCESSING

(57) Abstract

A system and method for providing computerized, knowledge-based medical diagnostic advice. The medical advice is provided to the general public over a network, such as a telephone network with the use of a telephone or the Internet with the use of an Internet access device. Alternatively, the medical advice can be provided to a patient in a stand-alone mode by use of a computer. The invention utilizes a list-based processing method of generating and executing diagnostic scripts. For the purpose of diagnosing a health problem of a patient, medical knowledge is organized into a list of the diseases to be considered. Each disease on the disease list includes a list of symptoms that is checked in a patient. Each symptom on the symptom list is then further described as a response to a list of one or more questions asked of the patient about the symptom. This triply-nested list structure is converted by suitable data structure transformations into a script that is stored. When a patient requires diagnosis, the script is played back as a sequence of questions. The responses of the patient are analyzed and converted into symptoms. The symptoms are accumulated into diseases. Finally the diseases are selected and reported as a diagnosis.

