

Intelligent Help: Communicating with Knowledge-Based Systems

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EU FP6 Project RESCUER: the development of a dexterous robot and intelligent information technologies for EOD/IEDD/rescue missions

1 Abstract

The RESCUER project of the European Commission's 6th Framework Programme for Research, Technology Innovation and Demonstration focuses on the development of an intelligent Information and Communication Technology and mechatronic Emergency Risk Management tool for the improvement of Explosive Ordnance Disposal, Improvised Explosive Device Disposal, and Civil Protection Rescue Mission scenarios. The tool will be tested in five selected tasks. The project output will include guidance for management of risk, which extends the range of interventions possible beyond those, which are currently considered. The extended range of interventions will include tasks which are too risky at present to commit human involvement, tasks where access might not be possible without ICT and mechatronic support, tasks where such support would significantly enhance the speed, accuracy or range of tasks/sensors especially in EOD, IEDD, significant toxic/radiation/flammable/explosive contamination, mechanical failure and other relevant hazardous situations or combinations of hazards. The paper reviews the technical concepts formulated during the first eight months of the project.

Keywords: Civil protection, Emergency management, Robotics, Secure wireless communication, Multi-sensory technology, Explosives technology, Military technology, Knowledge-based systems, Safety technology

2 Introduction

Today numerous companies from around the world manufacture robots for use in military, bomb disposal (Figure 1), and surveillance applications. The sizes of these robots can vary from as small as a shoebox to as large as a teleoperated tank. Control and traction methods vary considerably. Some are controlled by radio frequency while others use fibre optic or coax cable. Traction methods vary from multiple-track tank-like treads to multi-wheel combinations.

Currently the bomb disposal robots are focused mostly on the possibility to grasp simple-shape rigid objects and to transport them to a disposal place, or to disrupt the threat on-site. They all have single manipulator arm with a two-jaw gripper, a vision system limited to mo-

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Intelligent Help: Communicating With Knowledge-Based Systems (Series in Human Computer Interaction) [Rachel M Pilkington] on rstilleyphotography.com *FREE*.DOWNLOAD. INTELLIGENT HELP COMMUNICATING. WITH KNOWLEDGE BASED SYSTEMS. PDF - Search results, Communication (from.Semantic Scholar extracted view of ""Intelligent Help: Communicating with Knowledge-Based Systems, " by Rachel M. Pilkington (Book Review)" by Deborah K.Reviewer: John David McGregor. Pilkington has written an interesting blend of a review of basic artificial intelligence concepts, a discussion of expert systems.Trove: Find and get Australian resources. Books, images, historic newspapers, maps, archives and more.As the role of knowledge-based systems grows in the marketplace, the necessity a system's knowledge cannot be used to train, advise, or assist an individual we examine the features needed to enable intelligent expression of knowledge.Intelligent help: Communicating with knowledge -based systems. Printer-friendly version PDF version. Author: Pilkington, Rachel M. Shelve Mark: CHO QA.The field of knowledge-based systems (KBS) has expanded enormously during the architectures, and natural language-based man-machine communication. Processes (J E Vargas); Application of Axiomatic Design in Intelligent Design for Architectural and Functional Issues of a Decision Support Expert System for .Contribution to CHI85 addressing the topics: intelligent interfaces, cognitive its details, keyword based help systems (including synonym lists and pattern matching . 3. knowledge about the communication partner: the user of a system does.The support system is outlined and its accessories (the knowledge-based specification editor, the validation expert system, the software generation expert.The design of medical knowledge-based computer systems requires effective interdisciplinary communication for the clinicians, have developed a prototype knowledge-based computer system to aid clinicians in the care of women in labour. Preliminary Evaluation of an Intelligent System for the Management of Labour.Purchase Intelligent Communication Systems - 1st Edition. Intelligence, Expert Systems and Knowledge-Based Systems; Intelligent Communication Systems.Knowledge-based Intelligent Information Engineering Systems and Allied communications, signal processing, virtual reality, multi-media, web-based.The thesis addresses topics such as design of intelligent interfaces for Keywords: DSS, knowledge-based decision support system, structure of a decision support system will enhance its ability to communicate and.They improve communication and make sense of massive amounts of data. . Fully brandable, and we even help customize your knowledge base, to make it Say goodbye to KBs that dont feel YOURS - Instant Intelligent Search brings up .. system combines the best elements of wikis and card-based management tools.This component-based framework is by the proposed knowledge-based system, and mobile communication networks. from home sensors to assist the patient in.the Communications Support System (CSS) and the are scarce and mobile, therefore knowledge based systems that capture their expertise are required.information, process it into knowledge and communicate it to

others. brought us an opportunity to attack all such questions with the help of new knowledge, Knowledge-Based Systems (KBS), which are a step towards an intelligent system .Intelligent knowledge-based repository to support informed design decision making Most of the CAAD systems have web communication tools that enable .