

RESORT - Providing Remote Support for PC based AAC Systems

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Abstract

The experiences and results of the RESORT project which has developed a state of the art prototype system for remote service provision for rehabilitation technology (RT) products are described. The RESORT approach enables systems such as AAC, environmental control and learning software to be remotely supported.

Introduction

An increasing number of disabled people are using RT systems that help them to live more independent and self-determined lives. Analysis of the provision process shows that buying and installing an RT system is definitively only the starting point of a process of continuously tailoring the system to the changing needs of the individual user. Lack of ongoing support, however, often leads to the total abandonment of Rehabilitation Technology. In general, it is expected that the actual use of RT systems is much lower than the need. Currently support is a complicated and expensive procedure high workloads and large amount of travelling of professional support personnel.

A number of research and pilot projects have explored the potential for providing remote support. Examples include the work of Burns et al [1], Cole et al [2], and the CATCHNET Project [3]. Support specifically for the rehabilitation professionals is being piloted by Nelms and Colven [4]. The RESORT project recognised that a new approach was needed to address the time critical aspects of the use of RT systems. For example, where scanning arrays are used in the user interface, current approaches don't provide the time critical synchronisation between actions taking place at each end of a remote link.

The RESORT project team therefore, developed a PC-based system, which provides online support for by establishing a videophone link and by synchronising the RT applications. Whenever a problem arises the carer call a RESORT service centre (RSC) and ask questions, get an explanation and support, can demonstrate what seems not to function correctly or can learn by watching the RSC operator solving problems on the remote PC.

System Test

Within the RESORT project two existing RT systems were used to verify and demonstrate the benefits of the RESORT idea. These were Mr. STEP [5], a PC-based learning system for motor or learning disabled children, the other one is a combined environment control and AAC system for severely disabled persons, called AUTONOMY [6]. The advanced prototype system was demonstrated to more than 200 professionals and disabled users in 15 workshops organised for care persons, disabled users, manufacturers and service providers in Austria, Germany, the Netherlands and Scotland. Overall, the users' response was very positive. Additionally, real life tests have been

carried out in these countries using the system over a variety of wireless LAN and 64Kbps ISDN links.

The results from the real life tests showed that the system was usable by disabled people and their primary carers. Furthermore, both primary and secondary carers consider the system a viable tool for the delivery of support for users of RT systems. In order to ensure ongoing development the RESORT Interest Group (RIG) has been set up. The RIG is providing a framework for users, carers, manufacturers, service providers, and researchers to continue collaboration in the area of remote service provision.

References

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