

Hidden ElectRonic Objects for Social inclusion.

HEROS

PART B

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Type of instrument: Specific Targeted Research Project (STREP)

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Proposal summary page

Proposal full title Hidden ElectRonic Objects for Social inclusion
 Proposal acronym HEROS

Proposal abstract

People are being excluded from the eSociety for two main reasons:

1. Lack of connectivity to broadband services i.e. excluded by location
2. Lack of ability to comprehend or use traditional computers i.e. excluded by ability

In the project, we take a different approach, and use a hidden computer that already exists, or will exist, in 95-99% of homes – the digital set top box (DSTB). The DSTB may not physically exist as a separate object – they are being built into the next generations TVs, often as a plug-in card, which makes them field upgradeable.

Why take this approach? Most people are familiar with their TV; many are used to simple interaction with digital TV (whether terrestrial, cable or satellite), and digital TV normally has a back channel to provide limited bandwidth e.g. for authentication etc. It requires no “booting”, no software maintenance, does not (yet) suffer from viruses and has a simple user interface. Yet it is a very powerful computer system. The TV, rightly or wrongly, has a major place in many disadvantaged people’s lives.

Therefore, there are considerable possibilities for extending the function and facilities to this TV/DSTB combination, especially to aid those who are disadvantaged in some way.

The prime objective of this project is to develop a prototype of a standard for the “extensible digital set top box (EDSTB)” in such a way that smaller companies can develop applications without a major investment, and can leverage a mass produced and widely deployed existing infrastructure. In addition, the EDSTB provides a basis for introducing Smart Home facilities incrementally, and at a low cost.

In order to demonstrate the potential uses of this for the disadvantaged, a number of applications will be developed to test out the prototype EDSTB standard. These applications fall into two main categories

- (a) Extending the reach of existing services to those who are disadvantaged in some way
- (b) Providing completely new services