Four different interface paradigms are compared and contrasted to meet the requirements: 1) The non-smart home, information from newspapers, care worker direct contact, regular house controls, 2) Television with remote. 3) Software running on a standard computer. 4) Touch screen panels & smart mobile phones

**Methods** A four-stage experiment is being undertaken to investigate the options. Presented here a paper review. Stage two is an ongoing age friendly community survey in the northeast of Ireland (n=1000) subjects aged 50+. Phase three trials the system with a home in lab and the final stage is a 12 month in-home trial in 16 purpose built ambient assisted living smart homes starting February 2010.

**Results and discussion:** Low tech is familiar, but cannot provide quick feedback for instructions, additionally understanding all device controls interfaces can be cumbersome to the user. Desktop computers have a requirement for at least an interest and a minimum level of computer experience, which would provide a barrier for large-scale adoption.

Television interfaces and touch screen devices both provide solutions to the system requirements. Each have different usage patterns, television users tend to be seated and are prepared to spend longer absorbing information, but require the user to activate the television before interacting and also be stationary in front of the TV. The touch panels can be “always-on” which means they can be used for more ubiquitous interaction and for novice users touch screens can work better than a controller. Both devices will be taken through stage three and four for further analysis.

Results to date from phase two the age friendly county survey indicate that the majority of the subjects have a positive attitude towards "technology" (internet, etc.) but they have a limited understanding of what it is capable. A smaller number suggested that technology "worried" them, but what worried them is more complex technology interaction such as email.


**Keywords:** Smart home, User interface, assisted living.

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