Assistive Technology: UK Land-Escape Study

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Abstract

People with disabilities accomplish daily living task with the help of assistive technology products. For example, medical equipments or Tele-care can support older people living and enable them for caring themselves. Assistive technology enables quality life for peoples with disorder or impairment, and people with physical and mental weaknesses. Latest technology can help in developing assistive living products or improving caring methods. Improvement in technology enables various techniques for caring older people or people with disabilities. Research and products in result of this research are significantly increased for utilizing improved technology. For this purpose, this research investigates the current and past research/projects for assistive living technologies. This research studies various universities, research centers and companies/organizations involve in assistive living research/projects/ product development. This research can provide the insight for any business case, business who wants to invest in new innovative technology and serve the society. This study consolidates assistive living information with various perspectives, and present assistive living information with the help of various tables. The information is analyzed in relation to universities, research centers, companies/organizations, funding and timeline. It is found that there are significant numbers of research projects running by various universities and organizations with considerable amount of funding. It is analyzed that there is extensive need for assistive living technology research for utilizing advance technologies for true assistive living.

Keywords: Assistive technology, survey report, research in healthcare, research in Universities.

Introduction

Assistive technology³ is a generic term that includes assistive, adaptive, and rehabilitative devices for older people and people with disabilities and includes the process used in selecting, locating, and using them⁴. Adoption of Assistive Technology devices improve the physical and learning capabilities of disabled/impaired persons. The technological advancement in field of electronics makes it possible to produce sufficiently small, powerful and low cost computers on a small chip that can be integrated with items of daily life such as furniture, tools, appliance etc. making them smarter and interactive with the environment. Especially Assistive Technology devices are become more responsive that not only they are capable to support the disability of a person but also have the ability to communicate with each other and with central controlling system.

Assistive technology promotes greater independence³ by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing⁵ by providing enhancements to or changed methods⁶ of interacting with the technology needed to accomplish such tasks⁷. ICT (information and communication technology) and especially mobile technology research enables various application to facilitate physically/mentally impaired persons. Various research projects throughout the world and specially research in UK make these applications possible through diverse funding streams which are still happening due to significant need of this technology. In this connection, this research investigates and provides a landscape study (UK region) for assistive living technologies⁸ and reports the following. i. Current and past assistive living projects/research conduct by Universities and research centers in UK, ii. Various funding bodies’ involvement for assistive living work, iii. Funding allocated to various research/projects with associated time period. iv. Companies and organization involve in assistive living work.

Research Structure

This study provides the information about universities and research centre involve for assistive living technology research⁹. Project wise information is available in section IV for analyzing various perspectives. This information is available project wise. Each project information is available in relation to funding bodies, timeline and allocated fund for that project. This research analyze the funding amount, period of each project and total allocation in various areas of funding streams for assistive technology research and innovation. This analysis and categorization helps to understand the significance of doing research and potential for involvement in this field for next few years.
Universities Involve in at (Assistive Living) Research

This section describes universities involved in AL (assisted living) research. Each university work is categorized into research centers and projects. Brief description, commissioning and duration are defined for each project/research. Following section IV describes universities involved in AL work.

Universities Research Projects reflecting Funding bodies, cost and timelines

1. University of Bath, 5, EPSRC, Technology Strategy Board (TSB) and others, 3706829, 1st Apr 2008 to 29th Feb 2012.
22. Queen Margaret University Edinburgh, 1, Multiple Sclerosis Society Charity, 94027, 1st Jan 2009 to 31st Dec 2012.
23. University of Ulster, 6, DELNI - Department for Employment and Learning in Northern Ireland and The Atlantic Philanthropies (Ireland) Limited, UK-India Education and Research Initiative (UKIERI) and EPSRC FP7, 10922,610, 1st Oct 2006 to 1st Dec 2011.
26. De Montfort University Leicester (DMU), 1, Technology Strategy Board’s Assisted Living Innovation platform, 1650000, 22nd Sep 2010.
32. UCLIC - University College London Interaction Centre, 1, EPSRC, 1504100, 1st May 2010 to 30th Apr 2014.
34. Lancaster University, 1, EPSRC, 147233, 1st Oct 2009 to 31st Mar 2011.
is significant gap between technology advancement and research centers involved in assistive living work. iii. There are considerable number of universities and research centers involved in assistive living work. iv. Significant number of projects engages collaborative research for assistive living.

**Key Findings:** In relation to above mentioned data following can be elaborated: i. Significant funding is allocated for assistive living research. ii. Considerable number of universities and research centers are involved in assistive living work. iii. There is significant gap between technology advancement and true assistive living for older population and people with disabilities.

**Scope of the Study:** This research considers UK as a case and other significant research is ongoing around the globe and landscape study based on UK proves the importance of this research throughout the world. However, this study has following limitations. i. This study investigates data available through internet and did not consider healthcare professionals’ perspective. Adding their perspective can provide more understanding for problems facing by older or disabled people. It can also provide understanding of problems facing by professionals for caring older or disabled people. ii. This study does not include professionals’ opinion working on assistive living technologies. Adding their opinion can provide significant understanding for technology limitation or support for assistive living products.

**Conclusion**

This study provides the snapshot for the assistive living research in UK between 1997 to 2012. This study presents detail of assistive living projects conducted by various universities and organization, these projects include current and past research for various duration. The detail of the projects include allocated funding, funding body and collaborative organizations (if applicable). This study also include organization and companies information involved in assistive living research including various assistive living products. The study analyzes assistive living work with various perspectives such as how many funding bodies involve in fund allocation for assistive living research, evolution of assistive living research during various time frames and universities/organizations involvement in various type of assistive living research. There is need for understanding the new technology potential for supporting the daily life.

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**References**


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