Human-Computer Interaction

Study mobile phone interaction patterns among elderly and propose prototypes for easier screen-based interaction

- **Group 11**

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- **Problem**

  The elder population is gradually increasing in the world. Wireless technology (Mobiles) becomes common communication technology among them. With the latest technology, smartphones' usage difficulty impact may be different for the users in different age groups, but the elders always face difficulties while adopting the technology because Elderly users are neglected in the design phase of smartphone applications, and the designers do not concentrate on the needs and requirements of elderly people. The usability of a smartphone application is essential when the target audience is elderly users, as the designer did not satisfy the specific requirements, and also they cannot avail the benefits of smartphones due to complex interface. The first problem is their age-related problems, i.e., cognitive, physical abilities, memory decline, mental models, and sensory function, making it harder for them to interact with new technologies and the second problem is software design; the designers do not carefully design applications regarding elderly user needs and requirements. A well-designed interface is very important because it satisfies a user's needs, capabilities, and limitations in the most effective way.

- **Some approaches for easier screen-based interaction**
  There is a need for interfaces that make the mobile phone more usable and accessible for elder people. The designer should come up with a concrete solution that could help elderly people to interact with smartphone applications. Previously, limited attention has been given by the designer to develop smartphone applications for elderly users. One approach for addressing this need is to design an interface that based on the principles of universal design. The designer should consider these factors to develop an easy mobile phone screen interface for easy interaction like visual accessibility, contrast, text size, buttons, subtitles in audio-video content, language, use of labels, gesture, suggestions, help feature, etc. Another approach is to create personalized interface this form of interface based on the preferences and abilities of a specific user.