

*An active aging App design for older adults*

H-M. HUA, H. HAYES, H. HUSSAIN, C-Y. HSIAO, V. PATEL. **An active aging App design for older adults.** *Gerontechnology* 2014;13(2):207; doi:10.4017/gt.2014.13.02.204.00 **Purpose** The global tablet market is undergoing rapid growth. According to IDC's statistics, 49 million tablets were shipped worldwide in the first quarter of 2013<sup>1</sup>. Since the development of touch-screen technology, more and more adults use smartphones or tablets to connect to Internet and to enhance their social communication and relationships<sup>2</sup>. Mobile touchscreen applications designed for older adults must be simple to process and engaging for the user<sup>3</sup>. Such applications may help older adults meet their need for self-actualization<sup>4</sup>. **Method** Supporting active and dignified living for older adults is a promising use of current mobile device technologies. The layout of the app is designed to be consistent across all screens, with a clear visual layout. Additionally, every UI element is ensured to be appropriately sized for ease of use. The game mechanics were designed to make the game simple to play without learning complex rules or needing to read a manual. The active aging APP was created using the Unity 3D game engine, and provided 'instant' gratification - game duration was generally limited to under 5 minutes. All environment objects in older adults' past time are considered to be elements for cognitive and memory training. This allows training to be carried out using images, audio, and video with which older adults are familiars. Backgrounds and characters were permitted to change to give older adults the sense that they were 'the main character' in the application. Recognizing the surrounding environment and understanding what time, people, and places are represented helps older adults make appropriate decisions and improves their memory. Engaging with familiar images and sounds helps older adults enhance personal interactions, and provides emotional support as well<sup>5</sup>. **Results & Discussion** Initially, faces could be grabbed by older adults through the camera on smartphones or tablets and placed easily onto a character. *Figure 1* shows the simple interface design, large screen, and portability that allow older adults to enjoy a virtual community just like young adults. APP with culturally relevant designs, such as karaoke APP, would bring fond memories to older people and enrich their spiritual life.

**References**

1. Erkinjuntti M, Vaahoranta K, Alihanka J, Kero P. *Early Human Development* 1984;9(2):119-126; doi:10.1016/0378-3782(84)90092-6
  2. Brink M, Müller CH, Schierz C. *Behavior Research Methods* 2006;38(3):511-521; doi:10.3758/BF03192806
  3. Fozard JL, Bouma H, Franco A. *Gerontechnology* 2009;8(4):187-196; doi:10.4017/gt.2009.08.04.001.00
  4. Poston B. *The Surgical Technology* 2009 (August);346-353; [http://www.ast.org/publications/journal%20archive/2009/8\\_august\\_2009/ce.pdf](http://www.ast.org/publications/journal%20archive/2009/8_august_2009/ce.pdf); retrieved May 22, 2014
  5. Rentz CA. *Journal of Psychosocial Nursing & Mental Health Services* 1995;33(11):15-20
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Figure 1. An Interactive screen on iPad