

## ABSTRAK

*Smartphones have become an important communication tool for older people to stay connected with their family and friends. Older people are generally considered techno-phobic (fear of technology), thus posing a challenge for them to use smartphones. Besides, smartphones are not designed to meet the needs of the elderly. This prevents them from making full use of smartphone technology.*

*This study aims to build a smartphone launcher for elderly users, which are people over 65 years old. It applies an agent-based method. The requirements were gained through a qualitative survey, which was an interview. Based on the survey results, a smartphone launcher which could meet the elderly needs was modeled. The launcher was tested through an experiment which required the elderly participants to complete three tasks, including voice calls, phonebook, and using WhatsApp. The parameter measured was completion time.*

*The experiment results show that all participants were able to complete all tasks. On average, the completion time for task 1 was 49 seconds, task 2 was 61 seconds, and task 3 as 63 seconds. Hence, it can be concluded that the proposed smartphone launcher meets elderly people's needs.*

**Kata kunci :** *Adaptive Learning, Launcher, Agent-based model, Elderly, smartphone*