採用智能居家服務機器人關鍵因素之研究

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摘要

在資訊科技不斷進步和晶片製造精進的情況下，未來智能機器人的應用由工業用機器人導入家庭生活領域，也由於各界人士大聲疾呼智能機器人將取代人類未來多數的工作，因此多數人對具備人工智慧之機器人的應用充滿疑慮與憧憬。由於對智能機器人採用的層面與深度勢必深入影響人類社會的發展，而為了使智能機器人能深入家庭，諸多設計與人因上的實際問題都必須仔細思索，因此有必要針對人類採用智能機器人的關鍵因素進行了解。本研究以整合型科技接受模式為基礎發展研究架構，並針對智能居家服務機器人為探討標地，透過網路社群滾動式抽樣的方式進行調查，共計回收問卷795份，其中有效問卷680份，經由典型相關分析後得出績效期望、社會影響、便利條件和習慣為影響採用智能居家服務機器人的關鍵因素，且社會影響與習慣具有較強的區別能力。

關鍵詞：人工智慧、智能機器人、科技接受模式

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The Adoption Determinants of Smart Home Service Robot

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Abstract

With the progress of technology and improvement of chip fabrication, the application of robots has transformed gradually from industrial uses to household robots. Many people also shouted that smart robots will replace most of the future work of humanity. However, most people are full of doubts and look forward to the application of robots with artificial intelligence. Because the level and depth of the application of smart robots will inevitably affect the development of human society, many designs and practical problems must be carefully considered. Therefore, it is necessary to understand the key factors of human adoption of smart robots.

The study based on extending the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) and investigated by questionnaire surveys on the internet. There were 795 completed surveys, and 680 of which were effective. By using canonical correlation analysis, the adoptive determinants of Home Smart Service Robots are performance expectations, social effect, convenient conditions, and users' habits.

Keywords: artificial intelligence, smart service robots, technology acceptance model

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