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User Preferences of Voice Controlled Smart Light Systems

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Abstract

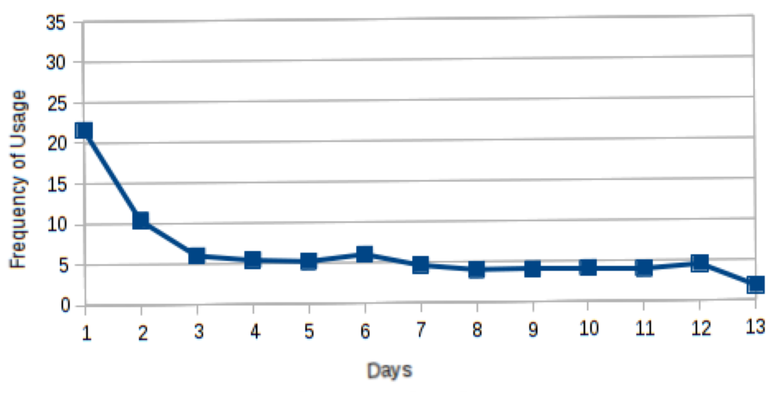
The use of smart home devices is widely spreading. Several ways exist to control such devices. Besides classical approaches such as buttons and remote controls, voice user interfaces (VUIs) are showcased as a primary input method in the context of smart home. Yet, few studies investigated the user's behavior and experience with such newly offered input techniques. In this research, we carried out a field study to investigate the user preferences in using a VUIs for con- trolling a smart lighting system. The results indicate that the usage frequency drops after the first days and that users tend to use the system mainly once in the evening.

User Study

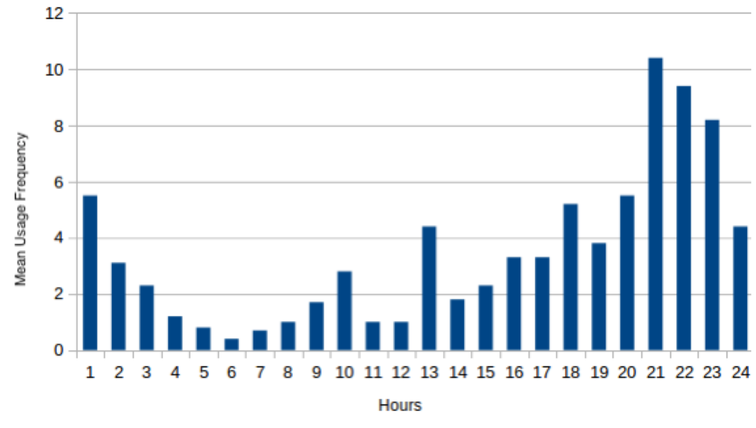
We conducted a two-week study to explore the usage of voice-controlled IPAs (i.e., Amazon Echo) to control smart lighting systems in smart home environments. We recruited 10 participants. We logged in quantitative data representing the usage frequency, as well as, qualitative data though questionnaires and interviews.

Results

Timings: "*too tired and sleepy to go and turn the light off using the switch*." [P3]



Privacy: it is "*weird*" to have something listening all the time. [P8]



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