Ambient Notifications and the Interruption Effect

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Abstract : The technology of mobile devices has changed our daily lives. Since smartphone have become a multi-functional device, many people spend unnecessary time on them, and could be interrupted by inappropriate notifications such as unimportant messages from social media. Notifications from smartphone could draw people’s attention and distract them from their priorities and current tasks. This research investigated that if the users were notified by their surroundings instead of smartphone, would it create less distraction and keep their focus on the present task. The experiment was a simulation of a lamp and door notification. Notifications related to work will be embedded in the lamp such as an email from a colleague. A notification that is useful when going outside such as weather information, traffic information, and schedule reminder will be embedded in the door. The experiment was conducted by sending notifications to the participant while he or she was working on a primary task and the working performance was measured. The results show that the lamp notification had fewer interruption effects than the smartphone. For the door notification, it was simulated in order to gain opinions and insights on ambient notifications from participants. Many participants agreed that the ambient notifications are useful and being informed by them could lessen the usage of their smartphone. The results and insights from this research could be used to guide the design process of ambient notifications.