Abstract: Account security is an ongoing issue in practice. Two-Factor Authentication (2FA) is a mechanism which could help mitigate this problem, however adoption is not very high in most domains. Online gaming has adopted an interesting approach to drive adoption: Games offer small rewards such as visual modifications to the player's avatar's appearance, if players utilize 2FA. In this paper, we evaluate the effectiveness of these incentives and investigate how they can be applied to non-gaming contexts.

We conducted two surveys, one recruiting gamers and one recruiting from a general population. In addition, we conducted three focus group interviews to evaluate various incentive designs for both, the gaming context and the non-gaming context.

We found that visual modifications, which are the most popular type of gaming-related incentives, are not as popular in non-gaming contexts. However, our design explorations indicate that well-chosen incentives have the potential to lead to more users adopting 2FA, even outside of the gaming context.