

Investigating the Role of Future-orientated Feedback in Self-Monitoring Devices

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Abstract

Standard self-monitoring devices provide real-time daily feedback. This may not help users learn the long-term future cumulative effects of their behaviour because it orientates attention on the now. We test the hypothesis that future oriented feedback is more effective than real-time feedback in increasing users propensity to exercise. We asked 54 female treadmill users in a gym to report the feedback they got from the machine (calories burnt, time spent running and distance covered) upon finishing their workout and were then provided with additional feedback which varied in format across three between-subject conditions: day only feedback (no additional feedback), monthly feedback (additional projection of the future cumulative effect of the activity repeated daily after one month), and all times feedback (additional projection of the future cumulative effect of the activity repeated daily after one month and after one year). All participants were then asked about the extent to which they felt their own running workout affected their weight loss, as well the extent to which running leads to weight loss in general. They also all answered two questions aimed at measuring their time perspective after being exposed to the various feedbacks. In comparison to participants who had been exposed to the standard real time feedback, participants who had been exposed to the future oriented feedbacks perceived the causal connection between their own running workout and their weight loss as significantly higher, and reported a significantly more future oriented time perspective. The results highlight the need to consider time orientation as an important dimension to aid decisions through technologies.