


Chapter 11

Gamification and Retention in Mental Health Apps: Exploring the Role of User Engagement

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ABSTRACT

User retention is a key indicator of digital platform performance in the digital era. This study examines how gamification improves user retention by applying game-design principles to non-game contexts. The research uses psychology, user experience design, and behavioral economics to examine how rewards, points, badges, levels, and leaderboards affect user engagement and retention. Gamification increases intrinsic motivation and regular usage patterns, according to literature analysis and case analyses of platforms in education, fitness, and productivity. It admits constraints like over-reliance on extrinsic motivators and user fatigue. The findings emphasize the need for user-centered, entertaining, and meaningful gamification design. Gamification can boost user loyalty and platform sustainability done ethically and psychologically, the report suggests. This study adds to the digital

DOI: 10.4018/979-8-3693-8886-0.ch011

behavior management debate and helps developers, marketers, and policymakers improve user experience in the competitive digital economy.

INTRODUCTION

Gamification, though first formally evidenced in 2008, found extensive application beginning in 2010 (Edwards et al., 2016; Sardi et al., 2017). Since then, it has emerged as a transformative approach to enhance motivation, engagement, and user satisfaction, especially within sectors like education and healthcare, where sustaining attention and adherence can be challenging (Hamari et al., 2014; Seaborn & Fels, 2015). Defined as the use of game design elements in non-game contexts—such as educational systems, corporate training, or digital health platforms—gamification is designed to improve user interaction and overall experience (Deterding et al., 2011; Zichermann & Cunningham, 2011). By incorporating game-based elements such as points, badges, leaderboards, levels, and reward systems, it transforms mundane or difficult tasks into interactive and enjoyable experiences that stimulate user participation and long-term commitment (Health, 2022; Hoepfner et al., 2016). Within digital health, gamification extends beyond mere engagement tools; it actively supports users' behavioral and emotional needs. This makes it a potentially powerful agent for positive change in areas such as mental health, physical activity, and dietary behavior (Khaddage et al., 2014). Theories of health behavior change underline that gamification elements, especially those enabling self-monitoring—like real-time feedback, tracking progress, and enabling social comparison—can significantly influence users to adopt and sustain healthy behaviors. These mechanisms provide users with a sense of control, achievement, and belonging, thereby increasing the likelihood of behavioral shifts (Edwards et al., 2016; Michie et al., 2013). Prior studies also reveal that in-app reward systems encourage sustained engagement with health-promoting activities, such as regular exercise or mindfulness practices, which can lead to meaningful behavioral change (Orji et al., 2012).

Chan et al. (2017) observed that while reward systems play a critical role in encouraging the initial adoption of such apps among young users, there is a delicate balance to be maintained. Rewards linked to sensitive aspects like calorie counting or weight tracking can sometimes lead to negative emotional responses, underscoring the need for careful design that fosters empowerment rather than judgment (Garrido et al., 2022). As research suggests, intrinsic motivation—where individuals engage in activities for their own satisfaction or personal growth—tends to produce more sustainable outcomes than extrinsic motivators based on rewards or punishments (Garrido et al., 2022). Since the onset of the COVID-19 pandemic, the landscape of digital health has dramatically shifted, with the adoption of Health and Fitness

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