The Invisible Persuasive Hand: Interplay Between Consumers and Developers of Gamified Applications

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Mobile applications for sport related games and activities are adopting gamification to satisfy users psychological needs and enhance engagement. Gamification is the concept of applying gamified elements, such as competitions, rewards, leaderboard, and badges, to applications. While previous research has adopted interdisciplinary approaches to examine gamified applications (Meschede & Knautz, 2017), these efforts have focused on either the consumer perspective (Suh et al., 2018) or developers perspective (Dubois & Tamburrelli, 2014) which leaves a gap in understanding the relationship between these two perspectives. To address this gap, this research explores the unobservable interactivity between consumers’ and developers’ respective interactions with gamified elements in mobile applications.

Scholars highlight the conditional success of gamified applications, emphasizing the importance of consumer experience and consumer-oriented game design versus the integration of gamified elements that appeal to a developer (Webb, 2013). Moreover, past literature has restricted itself to analyzing different combinations of gamified elements, that are context dependent, thereby limiting the research’s generalizability (Baptista & Oliveira, 2019). Furthermore, provided the consumers and developers work in synergy, with developer’s continuous processing and monitoring of consumer’s feedback and engagement levels with gamified elements, respectively, there is dearth of literature that captures the symbiotic relationship between the two groups. As a result, we examine the relationship between consumers’ needs and experiences, and developers’ needs and modifications to gamified applications that can provide better clarity on individuals’ acceptance and engagement with such applications.

Qualitative research was employed with semi-structured interviews of twelve consumers and nine developers of gamified applications for fantasy sports, fitness-tracking, and arcade games. The Gioia method of constructing themes and dimensions from data (Gioia et al., 2013) was used in conjunction with observational and archival data for triangulation. Thirteen dimensions emerged that provided evidence of the interplay between factors influencing consumers’ engagement with gamified applications, like need satisfaction and consumer experience with application’s gamified elements, and developers’ persuasive tactics using gamified elements to reinforce consumers’ behaviors.

Based on the findings, a symbiotic relationship emerged between consumers’ psychological needs – satisfied through gamified elements – and developers’ ‘artificial’ generation of needs in consumers through these gamified elements. Developers utilize algorithms to identify behavioral segments of users based on probabilistic dropout patterns and deploy extrinsic gamified elements that motivate continued use and engagement for these segments. Resultantly, a need treadmill emerges reflecting that once a need is satisfied, it is replaced by another need to be satisfied and the circular process continues. However, users who broke free of this cycle had an unsatisfactory in-game experience or lacked motivation to engage for a prolonged period of time, thereby deleting the application. Developers employed a Continuous-Integration-Continuous-Deployment framework to frequently enhanced the overall experience in the application by continuous improvement or addition/removal of gamified elements based on consumer’s feedback and level of engagement with the gamified elements. A major contribution of this research is to provide a new perspective to gamification scholars that currently research consumer engagement in gamified environments without considering the actions of developers that manipulate consumer engagement from the backstage.