

Bridging Virtual and Real-World Charity: The Role of Interactive Narratives in Ant Forest

YING MING

Communication University of China
No. 1, Dingfuzhuang East Street, Chaoyang District, Beijing
Yingming@cuc.edu.cn

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Extended Abstract

This research investigates the integration of interactive storytelling and gamification in public welfare using *Ant Forest* as a case study. *Ant Forest*, embedded within the Alipay platform, enables users to accumulate virtual energy through low-carbon behaviors (e.g., walking, public transit, online payments), which can be exchanged for virtual trees representing real trees planted by charitable organizations. This hybrid mechanism bridges virtual engagement with tangible outcomes, introducing an innovative model for public welfare promotion.

Through interactive storytelling, *Ant Forest* fosters players' agency in linking their in-game actions to real-world environmental efforts. Drawing on Ryan's (2009) narrative agency, Koenitz et al.'s (2015) interactive digital narrative framework, and Baños et al.'s (2004) sense of reality, this study examines how gamification and storytelling merge to enhance user motivation and participation in public welfare initiatives. While prior research has primarily addressed virtual-only narratives, *Ant Forest* introduces a hybrid that actively connects virtual interactions with real-world impact.

Employing a mixed-methods approach, the research includes semi-structured interviews and grounded theory to explore how players' psychological needs align with game affordances. Structural equation modeling evaluates relationships between narrative agency, charitable agency, virtual community sense, and sustained participation in public welfare.

Preliminary findings highlight how interactive narratives in *Ant Forest* build a sense of accomplishment by connecting virtual actions to real-world environmental outcomes, enhancing users' emotional investment. The gamified community fosters collaboration and a shared vision, creating an "imagined community" where collective effort strengthens public welfare awareness. However, the moral licensing effect reveals a potential drawback: players may feel their obligations are fulfilled through in-game actions, reducing their offline participation in similar causes.

This study contributes to interactive storytelling and gamification literature, emphasizing the transformative potential of virtual-real public welfare initiatives. It

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offers insights into optimizing game design for sustained public engagement and meaningful social impact.

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