Application of Saas to Interactive Media Marketing in Public Transportation

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ABSTRACT

How to render the benefit of advertisement is a question difficult to be answered in the out-of-home advertising industry. With the advance of information technology this question can be answered efficiently and effectively. Moreover, with the innovation of gamification [5], a brand vendor can interact with its consumers directly. For media companies, they not only have to provide innovative applications to attract the attention of consumers but also to serve multiple advertisers simultaneously in the same time. In this paper, we introduce a "software as a service (SaaS)" architecture [1] of interactive marketing media to solve the problem of providing interaction between brand vendors and consumers simultaneously in the cloud computing environment. According to prior research [3], advertisers can benefit from their scalability and foci on core competencies with a cloud service.

In the proposed system architecture, a series of interactive activities can be designed by an advertiser with high flexibility. The activities can be initialized with any traditional or digital signage when the attention of a consumer is caught. An instruction of online interaction with any smartphone can be provided in the signage. The consumer can follow the instructions to interact with the advertisers or to place orders online immediately. Since the whole system was designed as an interactive SoLoMo application, various multimedia content databases can be plugged in as data sources, including geographic, game, and video stream databases. The system was designed with three layers (presentation, domain, and data) distinctively according to Fowler [2].

We follow the seven guidelines suggested by Hevner et. al. [4] in the paradigm of design science research. These guidelines, including design as an artifact, problem relevant, design as a search process, research rigor, design evaluation, research contributions, and communication of research, provide us a rigorous process when developing a brand new information system or solving an existing problem with a new way [4]. We evaluated the proposed SaaS architecture with three scenarios and a benchmark comparison.

The contribution of our work lies in that we provide a systematic framework of value co-creation among media owners, advertisers, and consumers. The advertising activity can be interesting, economic, and flexible on scale with the help of cloud computing.

Keywords: SaaS, design research, marketing media, gamification, cloud computing.

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