"Gamification" from the perspective of service marketing

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Abstract

The developments in game industry and service design have led to an increased use of so-called game mechanics to drive customer retention and engagement outside the realm of, what can traditionally be seen as, games. This act of enhancing services with game-like features has largely been coined as 'gamification'. The phenomenon has been thus far discussed atomically, without ties to existing literature on service marketing, to which the goals of gamification are strongly related to. This paper presents a definition for gamification from the perspective of service marketing and lays ground for future studies on gamification and marketing.

Keywords

Gamification, games, game design, service marketing, service design, persuasive technologies

ACM Classification Keywords

H1.m. Information systems - Miscellaneous

General Terms

Theory, design, management

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Introduction

The use of game design in non-gaming environments have raised a lot of interest both in industry [10] and in academia [12][2] during the last years. This discussion has remained, however, mainly in the realm of game studies and social sciences. Although an increasing number of games are offered as services to consumers, only very few academic articles that bridge game design patterns to service or marketing literature have been published (see e.g.[15]; [8]; [9]). Anchoring game mechanics in the existing service marketing literature could however provide not only a framework on how gameplay could be viewed as a part of the overall service and on how they could support the core service offering but also bring proven models from the service marketing domain to the development of "gamified" services.

In the first section of this article, we will present an overview of service marketing, its origins and its key concepts. In the second section, we will show how games can be seen as services or service systems. In the third section, we present our definition for gamification using concepts from service marketing and present examples of our conceptualization. In the final chapter, we summarize and discuss potential directions for future research.

Emergence of service marketing

In the late 1970's and early 1980's, a handful of marketing scholars started forming a new school of thought for marketing concentrating on services because the classical marketing axioms were based on the exchange of physical goods which could not provide a sufficient understanding on services .[7]. This line of research developed guite independently of the

mainstream marketing science until the 1990's [6] when it started to gain popularity also outside the sphere of service marketing scholars. Marketing theory build to fit services started to seem applicable also for goods marketing. In their 2004 article, Vargo & Lusch [16] launched the term service-dominant (S-D) logic for marketing and proclaimed that the service approach should replace the classical marketing theory. Since then, the S-D logic for marketing has gained growing interest both in academia as well as in industry.

One of the key concepts of the service approach, *value-in-use*, help explain the ubiquitous applicability of the service logic and the profound difference between the traditional, goods-dominant logic and the new service-dominant logic.

In traditional marketing theory, value is considered to be created during the production process by the company and to be embedded in the product. The product then "carries" the value in it and the value is transferred from company to the customer with the transaction. In service context however, this value-in-exchange approach becomes meaningless, as there is no physical product to which the value could be attached.

Service marketing literature sees the customer always participating in the production process as the value is generated only once the customer uses the service or the good. In this value-in-use model company's role in the value creation is to support the customers' processes by offering resources into them. Resources can refer e.g. to personnel, machinery, service setting, or to available information sources.

Service, service system and service package

For the purpose of our paper, three key concepts of service marketing need to be defined: service, service system and service package.

Vargo and Lusch [16] define *service* as "the application of specialized competences (knowledge and skills), through deeds, processes, and performances for the benefit of another entity or the entity itself". Thus, any intentional act - no matter how small - that helps an entity can be considered a service.

A systematic bundle of services constitutes a *service system* that according to Spohrer et al. [14], "is an arrangements of resources (including people, technology, information, etc.) connected to other systems by value propositions". A service system's aim is to use its resources and the resources of others to improve its circumstance and that of others [17].

The service package model [7] in turn helps firms manage bundled services or service systems. The basic service package consists of the core service, enabling services and enhancing services. Enabling services are required for the offering of the core service while enhancing services support the offering of the core service and thus increase its value or differentiates it from the services of the competitors.

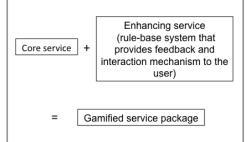


Figure 1. Definition of "gamification" from perspective of service marketing

Games as service systems

Large part of the current game design literature sees games as systems. For example, Salen & Zimmerman [13] have defined game in the following way: "A system in which players engage in an artificial conflict, defined by rules, that result in a quantifiable outcome". According to Cook [3], "Game mechanics are rule based

systems / simulations that facilitate and encourage a user to explore and learn the properties of their possibility space through the use of feedback mechanisms."

Other definitions highlight the systems' role in creating experiences. Fullerton et al [5] describes the process of designing games as envisioning what kind of an interactive experience a game should create, and proceeds to create the necessary designs, in the form of rules and procedures.

Looked through the service marketing literature described above, game mechanics can be seen as services and games as service systems. They are coproduced by the game developer and the player(s). Coproduction part of the company takes place when the game's storyline is created, rules invented and the visuals are designed and the co-production part of the player(s) as well as the value-creation take place each time the game is played. The core service is to provide entertainment and fun for the player [10] and the quality of such "game service" is strongly determined by the functional quality of the service or game experience which is often referred to with such concepts as flow [3].

A Proposed definition for gamification

Based on the literature presented above, we define gamification in the following way:

Gamification is a form of service packaging where a core service is enhanced by a rules-based service system that provides feedback and interaction mechanisms to the user with an aim to facilitate and support the users' overall value creation. Figure 1

Table 1. Examples of gamification

Core service	Enhancing service	Gamified service
Profile in LinkedIn	Progress bar for measuring progress in filling personal details	The enhancing service increases the perceived value of filling all details by invoking progressrelated psychological biases.
Café	Mayorship competition in Foursquare	The enhancing service creates a competition between customers where they have to visit the café frequently enough -> retention
Dry cleaner	Loyalty stamp card. You get 1 stamp for every visit	The enhancing service invokes the psychological biases related to progress and thus increases the perceived value of using the same dry cleaner service.
Gym	Неуа Неуа	Gym experience that sets goals and helps to monitor the progress of the training.

illustrates the definition and Table 1 gives some examples of gamification.

According to the definition, for example Foursquare is not a gamified service in itself, but it can potentially gamify, ie. enhance through rules, feedback and rewards other services, such as restaurants or bars. Moreover, the definition remains agnostic to the nature of the core service; meaning that the core service can also be a game that can be further gamified creating so-called meta games. From this perspective, it is not only non-games that can be gamified.

Conclusion & Future directions

In this paper, we have defined gamification from the perspective of service marketing. This anchoring of

References

- [1] Arnould, E. J., Price, L. L. and Malshe, A. Toward a Cultural Resource-Based Theory of the Customer. In *The Service-Dominant Logic of Marketing: Dialog, Debate and Directions* (2006), 320-33.
- [2] Bogost, I. Persuasive Games: The Expressive Power of Videogames. 2007.
- [3] Cook, D. What are game mechanics? http://lostgarden.com/2006/10/what-are-game-mechanics.html
- [4] Csikszentmihalyi, M. and Csikzentmihaly. M. *Flow: The Psychology of Optimal Experience*. HarperPerennial New York, USA, 1991.
- [5] Fullerton, T., Swain C. and Hoffman S.. *Game Design Workshop: Designing, Prototyping, and Playtesting Games*. Focal Pr, 2004.

gamification in an existing body of knowledge will help subsequent research to examine how gamification can contribute to marketing sciences. It also provides the gamification research with proven theoretical models to build upon.

An interesting line for future research could be e.g. the investigation of customer loyalty cards and other widely used marketing techniques as gamified services. Gamification could also be used to expand the servicescape model from only physical settings to more abstract constructions as Arnould and al. have evoked previously [1].

- [6] Grönroos, C. Quo Vadis, Marketing? Toward a Relationship Marketing Paradigm. *Journal of Marketing Management* 10.5 (1994), 347-60.
- [7] Grönroos, C. Service Management and Marketing: A Customer Management in Service Competition. 3rd ed. John Wiley & Sons Inc, 2007.
- [8] Hamari, J. and Järvinen, A. Building Customer Relationship through Game Mechanics in Social Games. In M. Cruz-Cunha, V. Carvalho & P. Tavares (Eds.), Business, Technological and Social Dimensions of Computer Games: Multidisciplinary Developments. Hershey, PA: IGI Global. (2010).
- [9] Hamari, J. and Lehdonvirta V. Game Design as Marketing: How Game Mechanics Create Demand for Virtual Goods. In *International Journal of Business Science & Applied Management* 5.1 (2010), 14-29.
- [10] Kim, A. J. Putting the Fun in Functional applying game mechanics to functional software.

http://www.slideshare.net/amyjokim/putting-the-fun-in-functiona?type=powerpoint.

- [11] Koster, R. and Wright, W. A Theory of Fun for Game Design. Paraglyph press, 2004.
- [12] McGonigal, J. Reality is Broken: Why Games make Us Better and how they can Change the World. Penguin Pr, 2011.
- [13] Salen, K. and Zimmerman, E. Rules of Play: Game Design Fundamentals. MIT Press, 2004.
- [14] Spohrer, J. and Maglio, P. P. The Emergence of Service Science: Toward Systematic Service Innovations to Accelerate Co- Creation of

- Value. *Production and Operations Management* 17.3 (2008), 238-46.
- [15] Stenros, J. and Sotamaa, O. Commoditization of Helping Players Play: Rise of the Service Paradigm. In *Proceedings of DiGRA 2009: Breaking New Ground: Innovation in Games, Play, Practice and Theory* (2009).
- [16] Vargo, S. L. and Lusch, R. F. Evolving to a New Dominant Logic for Marketing. *Journal of Marketing* 68.1 (2004), 1-17.
- [17] Vargo, S. L., Maglio, P. P. and Akaka, M. A. On Value and Value Co-Creation: A Service Systems and Service Logic Perspective. *European management journal* 26.3 (2008), 145-52.