Avatar-Based Commerce: The Business World of the Future?

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Abstract

In order to keep up with fierce competition in the forever distributed, global and virtual business world, big name companies like IBM, Toyota, etc. have ventured into exploiting the potential of Massively Multiplayer Online Role-playing Games (MMORPG) technology, via Second Life, to reinvent themselves. Investigating existing business models in Second Life, a virtual world, to see whether the avatar-based commerce is a hype or a real potential. In this preliminary study, based on the tool, Internet Business Graph Analysis Models (IBGAM) developed by the author in 2003, the analysis of the business models of 14 avatar-based business unveiled that the avatar-based commerce, though growing rapidly, it may not be roaring like the Internet businesses in the 1990's due to a fundamental structural constraint in running avatar-based business, as they have to run with the restricted tools, services, and rules provided by the owners of virtual worlds. These restrictions are a major deviation from the Internet, which has no owner. The author also found that indirect business models such as brokerage, e-auction, etc. are hard to be found in the virtual worlds. Consequently, direct exchange business models will most likely flourish in virtual worlds and avatar-based business may face some constraints.

1. Introduction

The booming population in the virtual worlds and the ability to trade virtual properties with real currency motivated the author to investigate the businesses models inside Second Life. The studies of business models of the avatar-based business in virtual worlds have not yet been fully deliberated by the academies. As the business world evolves to become more global, distributed, and virtual, more work is needed to be conducted virtually in order to meet the demand of and fierce competition. The question is which virtual environment can provide businesses the greatest ability to be more competitive than others? The massively multiplayer online role-playing games (MMORPGs) technology provides players with a highly distributed and globally, competitive virtual environments called virtual worlds. Players create their virtual representations, avatars, who socialize, explore, conduct business, and inhabit in the 3D-synthetic role–playing digital space that mimic almost all real-world activities. The avatars can sell or buy virtual products and services, priced in virtual dollars which are exchangeable with real currency. The increase of avatar-based commerce activities and the ability to make real money from virtual items motivate some scholars, including the author, to investigate the avatar-based commerce in virtual worlds.[1] [2] [3] [4] In the past few years, corporate titans, such as IBM, Toyota, etc., have ventured into Second Life, a virtual world, in order to become more competitive.[5] Pioneering entrepreneurs have already discovered the potential of making profits in the virtual worlds. For example, "Anshe Chung", an avatar representing Ailin Gref, the co-owner of Anshe Chung Studios, purchases virtual land from Linden Lab, and then develops buildings and landscapes which is then sold to other avatars in Second Life. According to the MAY 1, 2006 Business Week, Chung was the first virtual millionaire in holding of virtual land and currency in Second Life. In February 2008, Reuters reported that there are approximately 12.5 million avatars circulating US$1.4 million dollars everyday in Second Life.[6] Edward Castronova, a researcher studying the business and culture of online games in the virtual worlds, found the rate of growth of virtual worlds follows the Moore's Law – almost double in every two years.[1] [2] The growth of popularity and the amount of commerce transactions through the entire virtual worlds have reached $100 million annually in the global scale. These trading and marketing activities have turned the virtual worlds into an important host for fostering human economics and social affairs in the past few years. The author found that investigating the avatar-based business models in the virtual worlds have not been fully studied by the academies.

In this study, the author chose 14 avatar-based businesses within Second Life. The attention of big businesses to the virtual world begs many questions. Is the avatar-based business the business world of the future? What are the differences between running an avatar-based business and running an Internet business? What are the constraints and potentials for the avatar-based business?

2. Research Methodology

The Internet Business Graph Analysis Models (IBGAM) [Wang and Chan] previously developed by the author is used to analyze the businesses identified with the virtual worlds. Three basic graph building blocks, namely the Gift Model (GM), Direct Exchange Model (DEM), and Indirect Model (IM) were used to sort out numerous and confusing pre-existing Internet business models and are now systematically applied to analyze more complicated businesses found within the virtual worlds.

3. Analysis

Fourteen businesses were examined within the virtual worlds ranging from IBM, Wells Cargo, to Anshe Chung Studios by using IBGAM.

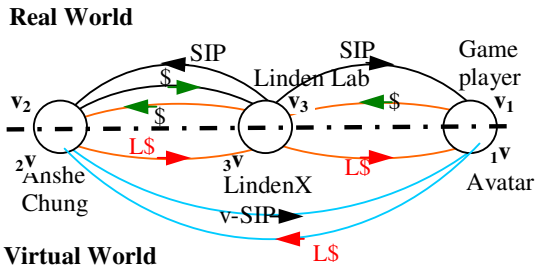

Fig. 1 The Graph Business Model of Anshe Chung. The graph is consisted of one Type I IM inside the real world, one DEM in the virtual world, and two DEM at the line between two worlds.

The followings are two graphic models by IBGAM for two avatar-based businesses, Anshe Chung and American Apparel.

"Anshe Chung" within the Second Life:

An avatar in Second Life called "Anshe Chung", $_2$v**,** representing Ailin Gref, v_2, co-owner of Anshe Chung Studios which is a company in the real world running land development business in Second Life. The company sells elaborately designed buildings and landscapes in the virtual world. The avatar, Anshe Chung, interacts with other avatars in Second Life to promote the developed properties to potential avatar customers. Chung's firm now has virtual land and currency holding worth more than one million US dollars. The graph business model of "Anshe Chung" as shown in Fig. 1 below consists of one Type I IM inside the real world, one DEM in the virtual world, and two DEM at borderline between two worlds.

American Apparel

Fig. 2 is a graph business model of American Apparel. American Apparel, v2 within real world and 2v within virtual world**,** exemplifies a virtual debut for avatars ($_1$v) in Second Life to try a line of new denim before the real world release of the first denim line in the fall of 2006. Two thousand items were sold to avatars in Second Life. The game players (v_1), whose avatars ($_1$v) purchased virtual clothes using Linden dollars (L$) paid to $_2$v (the avatar of American Apparel) inside Second Life, will get 15% off if they purchase the same items in real world. So Second Life has become a testing ground for marketers like American Apparels. The cost for American Apparels is $1250 for an island to set up a virtual store plus a $195 monthly subscription fee.

From the pattern of IBGAM on the fourteen avatar-based businesses conducting in the virtual worlds, a summary of our IBGAM results is shown in Table 1.

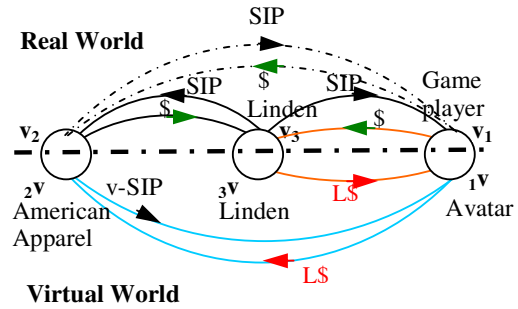

Fig. 2 The Graph Business Model of American Apparel. The graph consists of of one IM and an IEM inside the real world, one DEM in the virtual world, and one DEM at the line between two worlds.

Table 1: A Summary of IBGAM Analytical Results on Fourteen Avatar-Based Businesses.

Business	GM	DEM	IM
Toyota		1(R), 1(V)	1(R)
IBM		1(B)	1(R)
Wells Fargo	1(V)		1(R)
Harvard Law School	2(R)	1(B)	
Aloft Hotels		1(V), 1(R)	1(R)
River Run Red	1(V)		1(R)
"Anshe Chung"		1(V), 2(B)	1(R)
"Munchflower Zaius"		1(V), 1(B)	1(R)
Nathan Keir	1(V)	1(R)	1(R)
American Apparel		1(R), 1(V), 1(B)	1(R)
Christ Mead		1(V), 1(B)	1(R)
Major League Baseball		1(B), 1(V)	1(R)
Crompco Corp.[7]	1(V)		1(R)
Asperger's Syndrome	2(R), 1(V)		

In Table 1, (R) represents business model inside of Real World, (V) represents inside of Virtual World, and (B) represents at borderline between two worlds.

4. Conclusions

The avatar-based commerce is in the beginning phase We discovered that the virtual worlds do have potential, but there are constraints. From the analytical results of Internet Business Graph Analysis Models (IBGAM) on 14 avatar-based businesses, the author found that the graph business models of avatar-based businesses always consists of an IM or two GMs inside the real world and a DEM at borderline between the real world and the virtual world . The IM or two GMs inside the real world represents the business model of the owner of the virtual world. A DEM at borderline between two worlds is a currency exchange service provided by the owner of virtual world. The connection between the virtual world owner's IM business model, DEM currency exchange service, and the GM or DEM inside the virtual world for avatar-based business tells the avatar-based business has to be associated with its 3-D digital market space provider's business in order to conduct its business (See Fig. 1 and 2). The binding of avatar-based business and its virtual world provider's business evidenced the role of a virtual world's provider is a major factor in contributing to the success of an avatar-based business. When a business's success relies on another business's operations, it casts a potential risk on the business. In fact, the IM business model for a owner of a virtual world is the same IM business model for a market place provider like eBay, eTrade, etc. on the Internet but in a form that assume interactive 3-D characteristics. No one owns the Internet. The graph business models by IBGAM on eBay, Yahoo, and many other businesses [7] [8] on the Internet do not have the business model of the "owner of Internet connecting to them." It indicates the Internet business boomed in the 90's was possible because it was open to everyone, and there is no ownership over the Internet. But, the virtual worlds are owned by their providers whose guidance to avatars' activities and behaviors in their 3-D digital space exercise will be important and will have great impact on the businesses resides within it. The rules and orders demanded by the avatars to their virtual worlds' providers is an evidence of a fundamental structural constraint for avatar-based business.

We also found that DEM is the pre-dominant business models in the virtual world based on the graph patterns of IBGAM on the avatar-based businesses. There is no IM at all in the virtual world found among the 14 IBGAM avatar-based businesses (See Table 1). It indicates no avatar-based business models like brokerage, e-auction, e-mall, etc. on Internet formed within the virtual worlds. This is an interesting phenomenon. We know e-Bay or e-Trade started their IM online businesses at the very beginning of the Internet when businesses boomed in the late 90's. Why IM business models are not emerging in the virtual worlds is a puzzle. Reasons may be that the limited sources of virtual goods produced, no virtual stock market have developed, or there is no need to recycle avatars' old virtual goods are contributed to the lack of in-world IM business models.

In conclusion, with the help of IBGAM we can easily and clearly capture the characteristics of business no matter which is conducting in the real world, in the Internet, or within a virtual world. It also can tell us what kind of business model will most likely be flourishing in the virtual worlds; what are the constraints facing by the existing businesses within the virtual worlds.

8. References

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