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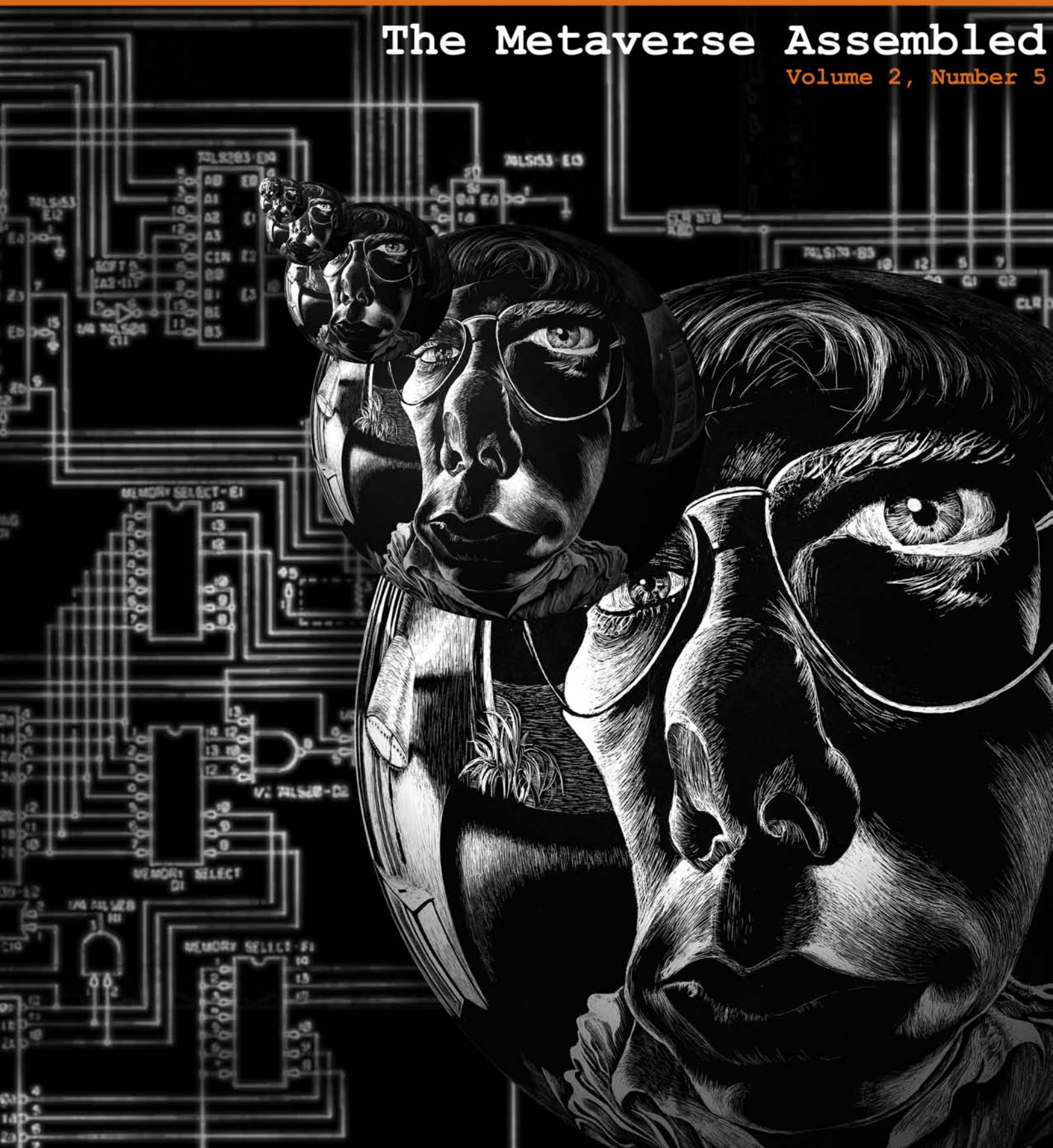

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Staging the new retail drama: At a metaverse near you!

By Savvas Papagiannidis
Newcastle University Business School, United Kingdom

Michael Bourlakis
Brunel University Business School, United Kingdom

Abstract

Consumers have traditionally looked for products that could fulfill their needs and retailers responded to demand by initially adopting product-oriented, and then more recently, customer-oriented strategies. This shift was heavily underpinned by technology, which enabled retailers to implement more intelligent approaches that evolved around consumers based on their profiles. The next step in this transformation is now towards a "unique" experience creation, with retailers providing a retail theater experience that is different and special and consumers enjoying an increased opportunity to interact and participate in the overall experience. In this paper, we examine how metaverses, i.e. Internet-based virtual worlds, and more specifically Second Life, can potentially provide the stage for this retail theater experience. Our discussion takes place in the context of two cases that are used to highlight the implications of retail theater for both consumers and retailers and illustrate the opportunities and challenges they face.

Keywords: retailing, metaverses, retail theater, Second Life, electronic business, electronic marketing.

Staging the new retail drama: At a metaverse near you!

By Savvas Papagiannidis
Newcastle University Business School, United Kingdom

Michael Bourlakis
Brunel University Business School, United Kingdom

Introduction

Technology has radically influenced retailing both by extending the scope and reach of established channels and by creating new ones. Although new channels, especially Internet-based ones, have provided the means effectively and efficiently to reach customers directly, they often lack the atmospherics and context that traditional offline approaches enjoy. Metaverses, i.e. Internet-based virtual worlds, can potentially add the missing piece to the online retail puzzle by allowing customers to immerse themselves in retailing experiences while overcoming the limitations that other online channels - such as the two-dimensional Web - pose.We begin by outlining the development of metaverses and their use as a retail channel. Particular emphasis is put to their cross-space applications and interfaces. The paper then moves on to examine how metaverses could form the stage for retail theater upon which a "unique" experience could be created. Following this, two case studies, that of the retail space of I Want One Of Those (IWOOT) and that of Vodafone InsideOut are presented in order to put theory in context. The paper concludes with implications for academics and practitioners alike.

The creation of multiple spaces

The Internet and related technologies affect our businesses and social environment, enabling the development of an electronic space, which intertwines with the space and place of our physical world (Li, Whalley, et al., 2001). The intertwined "two spaces" have marked the advent of a new period in economic and social activities that were manifested through the development of e-business and related activities since the mid-1990s, affecting the way we live, work, communicate, learn and play (Li, 2007). A further technological development, that of metaverses (a phrase first used in Neal Stephenson's novel *Snow Crash* in 1992, in order to describe how a virtual reality-based Internet might evolve in the future) extended the electronic space, creating in the process a plethora of new environments within which economic and social activities could take place. Metaverses and the activities within them are not isolated from the rest of the electronic space or the real world itself: "The emergence of these practical virtual reality spaces will have significant consequences primarily because events inside and outside them cannot be isolated from one another," (Castronova, 2005).

Different types of metaverses support and encourage different types of applications, depending on the underlying theme. In this paper we use the experience of Second Life (http://www.secondlife.com), which is a continuous and persistent world that was designed to provide users with control over nearly all aspects of their world, in order to stimulate users' creativity and self-expression, translating into a vibrant and dynamic world full of interesting content (Ondrejka, 2004). Users can exercise their control by creating any objects they want, for

which they own the copyright. This allows trading them for the Second Life currency, the Linden Dollar, which can be exchanged for real currency, allowing them to benefit not only within Second Life, but also in the real world.

Initially, first-mover advantage led many well-known brands to establish a presence in Second Life, mainly to capitalize on the associated hype of being the first in their market to make such a move. However, it soon became apparent that unless the environment's characteristics were taken into consideration, such moves were not going to result in any tangible business benefits (Rose, 2007). Consequently, metaverse marketing paved the way for a new phase in marketing and retailing. Specifically, Kotler and Armstrong (2007) argue that consumers have been traditionally looking for products that could fulfill their needs. Retailers responded to demand by initially offering the right product for the right consumer (segmentation strategy), which was then gradually developed to a customer-oriented strategy. Electronic retailers were particularly successful when it came to developing customer relationship management tools using the Web extensively and by targeting specific customers via the use of e-mails (Feinberg and Kadam, 2002). Nowadays, as shown in **Error! Reference source not found.**, we are going through the next step of this gradual transformation, with consumers seeking not only to consume a product or service, but to interact and experience it, (Eroglu, et al*.,* 2001).

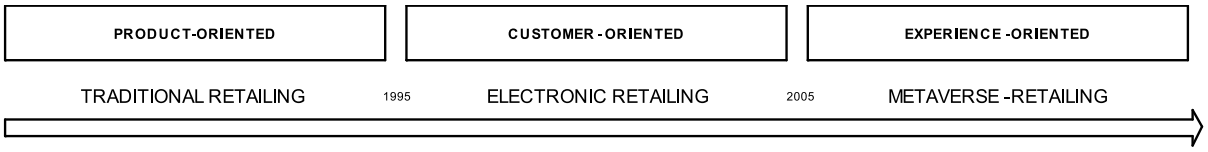

Figure 1. The evolution from traditional to electronic and metaverse retailing.

The challenge for retailers is that the atmospherics that play a critical role in the consumers' experiences in real life are difficult to be translated into electronic environments (Dennis, Fenech, et al., 2004) and especially on the Web - a flat environment. Metaverse retailing, i.e. retailing that takes place in metaverses (Bourlakis, Papagiannidis, et al*.,* 2009), such as Second Life, could provide the stage on which these experiences can be set up and lived, bridging the gap between the real space and the electronic space, at least as we have got to know it so far. Such a transition from a two-dimensional to a three-dimensional retail environment is not an easy one and brings retailers to face a diverse set of challenges before they can reap any potential benefits (Papagiannidis, 2008).

Metaverses could be an implementation of what in the retail literature has been described as "retail theater" (Harris, Harris, et al., 2001), with retailers providing a service that is different and special and consumers enjoying an increased opportunity to interact and participate in the overall experience. The concept of retail theater is further discussed in the next section, with examples provided to illustrate the arguments made.

Retail Theater

Wells, et al. (1999) note that organizations are more successful if they focus on getting and maintaining a share of each customer instead of aiming for the whole market and argue that information technology has become the key enabling factor. Hence, firms are employing information technology to support and improve their marketing offerings. For example, information technology can support and improve customer service strategies by personalizing or augmenting service and even transforming products (Ives and Mason, 1990). Wells, et al. (1999)

also point out that these strategies should offer customers an effective interactive interface and that these interfaces should be built on other information technology elements of customer interaction. If this does not happen, the firm will not be capable of interacting satisfactorily with customers and of increasing the overall customer value. All of the above is applicable to Second Life, where a range of firms have established a presence, in order to interact with their customers and their avatars, i.e. the characters who act as the users' proxies in the virtual world. In fact, many retailers have even started using metaverses and mechanisms within them to offer their products or services and by doing so to maximize the customer value. However, this value sought by customers may vary in metaverse retailing compared to traditional and electronic retailing. In traditional retailing, customers are generally looking for convenience, customer service, product availability, social interaction and atmosphere, competitive prices and product choice (McGoldrick, 2002), while in electronic retailing consumers are looking for excellent prices, as they have the ability to run online price checks, a plethora of product choice, satisfactory product/service delivery at the consumer's home and user friendliness/ease of Web site navigation (Kim, 2002). For example, when it comes to grocery shopping and consumers selecting a transacting space, they face the dilemma of selecting the atmospherics and interaction of the real space over the convenience of the electronic space and vice versa. Metaverse retailing has the capability to put back the context and enrich the environment, while at the same time maintaining the convenience factor. More research will be required in the area of human-computer interaction in the context of retailing in order to review best practice and benchmark Web-based commerce systems against metaverse-based points of sales.

More importantly, the avatar plays a critical role in the formation of the final product or service offering as he/she (assuming the avatar has a humanoid form) has the ability to select and choose different elements of the final product. For example, an auto-retailer could provide customers with a paint tool to spray a car with favorite colors before ordering it. Although such extreme customization may not yet be possible or at least economically viable when it comes to mainstream retailing, it still illustrates how the customer could be potentially encouraged to actively engage and not just be a passive receptor of the outcomes of his choices.

In fact, when it comes to transacting virtual items, such as houses, furniture or clothes, retailers in Second Life can allow customers to modify the objects as they see fit in order to match their exact requirements. The digital nature of products is ideal for such modifications, although the customer must possess the skill-set required to perform the modifications. With the avatar creating a product or service that matches his/her needs, we are witnessing another case of a "transient employee." This concept was initially proposed by Namasivayam (2003), aiming to illustrate the evolving role of the contemporary consumer, who is, nowadays, focusing on developing products or services that will satisfy his/her personal requirements. A further point is that the more a customer is engaged in the retail offering, the more likely it is that the customer will consider the whole process as an experience; painting a car is a much richer experience than just clicking on a color selection. An instance of this can be seen at Reebok's Second Life island, where avatars can live and experience the whole co-design process, using their virtual trainers to extend and express themselves just as in the real world, and experimenting with possibilities they might not have considered before (Rivers Run Red, 2007).

The customer first purchased a box for L$50, which contained a pair of DJII shoes that were ready to be customized. These came in three sizes to choose among. Once the avatar put them on, the shoes could be customized by standing in front of a booth that provided the interface to color each of the 12 shoe sections using the 17 available colors. When the customer

was satisfied with the design, this was transferred to the shoes for L$5. In the context of this example, the actual product is not the customized shoes, but the experience the customer gains by customizing and then enjoying the shoes.

In terms of the unique experience offered by retailers to consumers in Second Life, we suggest the analogy of "retail theater" as proposed by Harris, et al. (2001) and Baron, et al. (2001) aiming to shed further light on metaverse retailing. It is a metaphor transferred from the theater setting to the traditional retail setting to illustrate the "creation of exciting retail theater environments that invariably involve opportunities for audience participation and interaction, characteristic of theatrical performances" (Baron, Harris, et al., 2001). As avatars effectively share the metaverse space, they can also share the experiences among them.

In the aforementioned examples, while an avatar is going through the selection or modification process, other avatars can observe and comment or even actively engage in the process themselves. This is something not easily possible in other electronic spaces, e.g. the Web, where the retail experience is confined within a few inches in front of the computer monitor. The real world may potentially allow experiences to be shared locally, but this will still be limited, not only spatially but also socially, especially now in the era of social networking with personal networks often spanning over continents. For example, one of the most popular retail sectors in Second Life is fashion, which has proven so popular and successful that many designs have actually made it to real life (Trollop, 2007). A bride in real life could invite all her friends from around the world to come into the metaverse, while she tries on many different wedding dresses, sharing her joy with them.

Baron, et al. (2001) note that the retail theater concept has been used extensively by retail firms selling an enormous amount of product categories and is "generally presented as a fun experience involving spectacle and excitement" (ibid, p. 103). There are different motivations, though, for retailers. They argue that some retailers aim for consumers to interact with their products, in order to create a range of responses that will result in product sales. Other retailers aim for consumers to develop a "sense of belonging." It is our view that Second Life retailers aim to develop both, i.e. to capitalize on the strong social network already developed in a metaverse and to enhance product sales and customer loyalty by offering fun experiences. By doing so, retailers offer a "total customer experience" to customers and examine product consumption as a holistic experience (Harris, Harris, et al., 2003) that are influenced by the social interactions with other consumers, as was also suggested for another retail setting by Aubert-Gamet and Cova (1999). These social interactions should not be ignored and can make a strong contribution to an organization. As Davies, et al. (1999) pointed out: "consumers appear to add value to the service experience of other consumers through oral contributions (for example, offering honest opinions, independent product knowledge and reassurance about purchase decisions) that contact personnel cannot provide."

Overall, in metaverses, the retail theater concept is creating a new space for consumers within which they can interact with the other avatars, and potentially transform the retail offering from being a passive (as with Internet retailing) and a less spectator-based process to an active and participatory-based experience. At the same time, the consumer is entertained via getting a unique experience. We suggest that this experience is the actual product that the consumer is getting in Second Life, drawing similar conclusions to Sherry, et al. (2001), who analyzed another form of a retail theater. Most of these issues are summarized in **Error! Reference source not found.**, where we illustrate the differences of the application of the retail theater concept between traditional, Web and metaverse retailing. **Error! Reference source not found.**

also includes a number of aspects, which will be discussed further during the analysis of the findings.

	Traditional Retailing	Internet Retailing	Metaverse Retailing
Theater Stage	Store	Retailer's Website	Metaverse (Second Life)
Key Actors	Personnel and customers	Delivery and order taking personnel	Avatars
Approach	Social interactions	Non-interactive	Active, participatory-based
Key Benefit Sought	Competitive prices and product choice	Excellent prices, satisfactory product delivery	"Unique" experience creation
Key Limitations	The customer should visit the store to interact socially and to experience social integration	Minimum/basic store interaction and integration with retail personnel	It does not portray the real identity of the person, creating possibilities for misbehavior. Further limitations posed by technology.
Customer Integration	Possible integration with retail personnel and other customers confined within the store	Basic integration with retail personnel confined within customer's house	Possible extensive integration with other avatars confined within the metaverse space
Activity Categorization	Purchasing real goods Full integration with the supply chain Total market approach	Purchasing mainly real goods Full integration with the traditional supply chain Mass customization	Purchasing mainly virtual goods Possible integration with aspects of the traditional supply chain A small/"niche" market for the time being

Table 1. Retail theater in traditional, internet and metaverse retailing.

Methodology

Our empirical research aimed primarily to identify and explore the retail theater phenomenon in Second Life and more specifically, it had the following objectives:

- To explore whether and how the retail theater concept is applied to metaverse retailing. To meet that objective, secondary data were collected for retailers' applications in Second Life.
- To analyze successful practices, techniques and processes that retailers in Second Life employ in order to offer a unique experience to their customers through their virtual representations, i.e. their avatars. To shed light on that objective we gathered secondary data on retailers' practices, techniques and processes in Second Life.

These objectives were examined via the use of a qualitative case study methodology, which according to Patton (1990), allows for in-depth studies that produce a wealth of detailed information, albeit at the expense of generalization. The qualitative case study methodology does not seek to illustrate statistical significance or patterns (Denzin and Lincoln, 1994; Patton, 1990;;

Stake, 1995). It aims to facilitate the in-depth exploration of cases and to provide rich knowledge of a specific context (Eisenhardt, 1989). In general, a small number of individual case studies can shed light on the circumstances they occur in, or as a result of, thorough analysis of the case in relation to the sector or sphere examined. Multiple case studies can support the development of an in-depth, empirically grounded, theory of the studied phenomena (Miles and Huberman, 1994; Yin, 1984). Following the above, the qualitative case study methodology was deemed appropriate for this research. In order to ensure that the research produced relevant findings, we selected a small sample of cases. This approach is typical of qualitative research as Patton (1990) notes: "… there are no rules about sample size… sample size depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources… a qualitative sample size only seems small in comparison with the sample needed… when the purpose is generalizing from a sample to the population of which it is part…"

The sample comprised two cases representing retailers which operated in Second Life. The first case deals with an online retailer that sells tangible products, while the second one is that of a service provider which also has a retail presence both on the Web and in the real world. These were selected in order to examine both sides and come up with insights for product retailing and service provision in virtual worlds. In particular, the first case is a prime example of how Web-based retail spaces can provide the platform for virtual spaces and how the two can be integrated into one supply chain that eventually reaches the real world, while the second case makes it possible to examine transactions that span multiple spaces. The two cases also represent organizations with a significant real and Web presence that have utilized the virtual world for more than just promoting activities. As we are still in the early days of metaverse retailing there are not many organizations that lend themselves to such a study. In fact, both cases presented seem to have worked as pilot projects for the organizations involved, as after a while they both closed down.

The non-participant observation method was employed for data collection. This is a technique where the researcher observes the subjects of study, but without taking an active role in the situation under examination (Marshall, 1998). We used this technique extensively and we observed how the retail theater concept is applied to metaverse retailing by looking into practices, techniques and processes that two retailers in Second Life follow. Findings stemming from each case were considered on an individual case basis and were analyzed in relation to the aforementioned research objectives (Yin, n.d.).

The Case of I Want One Of Those

I Want One Of Those (IWOOT) (http://www.iwantoneofthose.com) is a UK-based online retailer offering a selection of gadgets, toys and home, office, outdoor and travel accessories. IWOOT was one of first companies to allow users to purchase products in Second Life and get them delivered in real life. The IWOOT island featured five buildings, which when looked at from high enough spelled out the word IWOOT. The one corresponding to the letter W was the retail area.

The Shopping Process

Customers first grabbed a shopping cart, which was used to carry the customer's selected items. As is often the case with real life shopping carts, the cart could be used to carry another avatar, transforming shopping to a shared enjoyable experience. The customer could browse the items available and add them to the cart, by clicking on them. The first time this happened IWOOT asked customers to register their contact details as these were required for the delivery. Once the customer was ready to check out a summary of the order was presented to the customer and the total cost in Linden Dollars was also calculated. The customer paid the amount of money requested and the transaction was then complete.

Supply Chain and Customer Relationship Management Challenges

The company's supply chain needed to be synchronized and integrated in order to deal successfully with both the online and metaverse aspects of product selling and the resultant financial payments and flows. Adding a new customer interface to the supply chain infrastructure in order to extend the retail activities into Second Life could have been a significant task and overhead. However, once the retail space is in place the retailer can capitalize on the already deployed supply chains. This is not, though, the case with customer support. On the Web, customers are used to not being offered live support and their enquiries are answered asynchronously (Sterne, 2000). In Second Life, though, where interaction is critical and with the retail spaces resembling those in the real world, not meeting shop assistants to greet and help the customer can be detrimental to the customer's experience. Automated avatars (bots) assuming the roles of shopping assistants could potentially be used to record customer enquiries, but could not be used as a substitute for a real human being.

When it comes to supply issues it should also be pointed out that IWOOT was only making a small number of products available through its points of sale, which were represented by photographs and short descriptions for each product. Hence, the customer could not see a three dimensional representation of the product, neither could the customer experience it. For instance, instead of just displaying a radio-controlled helicopter using a photograph, IWOOT could have offered a working model to the customers and let them play with it for a few minutes. Both of these approaches would have required significant investment, which might explain why the experience fell short. The complexities of such an undertaking become even clearer when one considers retailers who stock thousands of products. For example, a grocery retailer such as Tesco would have been required to recreate many thousands of products (Fernie and Sparks, 2004).

This is not actually possible at the moment as a Second Life island will only support up to a few thousand primitive objects, which at best could only translate to a few thousands products. Another limitation of the technology is the number of simultaneous visitors, as an island will only accept about 250 visitors at a time mainly due to the hardware requirements and bandwidth needed to sustain these connections. Of course, technology will improve and will eventually be mature enough to allow deployment of such demanding retailing applications.

The Customer Experience

In addition, IWOOT created a metaverse retail space which was in alignment with the image they wanted to convey to their customers, an image that is also consistent with the very nature of their products, which are supposed to be fun and entertaining. This was illustrated in

the other activities available on the IWOOT island or the fact that a user could carry an avatar in their shopping cart. In such a case, the experience was not only shared by those directly involved, but also those close by. Many metaverse customers may feel they are free to have fun with the carts, while others may be more tolerant than they would normally be in real life, because this is a virtual environment. However, for others, this may not constitute appropriate behavior and could discourage them from visiting that retail space again. This is further complicated by the role-playing nature of the environment. For example, a user may decide to role-play a gangster and try to disrupt the retail space in any way possible. Access rights could potentially prevent them from doing so, but as the cost associated with such actions is minimal one can continue under a different account/identity (Dibbell, 2008), giving consumer behavior a whole new meaning.

Finally, consumer ethics may also be affected. It may be the case that on the Web it is more difficult to share a shopping experience, but this indirectly protects the privacy of the customer, who can only interact with the retailers. Hence, if one was to order a product that was considered "taboo," no one, but the retailer, would know. This is not the case in real life, where one has to physically enter a space and can be seen by others. Similarly, metaverses may pose such privacy challenges. Although in principle avatars protect the identity of the user, the avatars themselves have established relationships and a role to play in the metaverse that they may not want to jeopardize. As a result, the user may not want to visit such a retail space using that particular identity.

The Case of Vodafone InsideOut

Papagiannidis, et al. (2008) have proposed that actors in a transaction are represented by a projection of their selected identity depending on the space. In real life this will be their real persona, while in a metaverse it is their avatar (

). These representations will have their own "identity capital" (avatars may not necessarily be humanoids) and social capital may span beyond the boundaries of the originating space. Space crossovers allow actors to effectively live and transact in multiple spaces (Li, Papagiannidis, et al., Forthcoming, n.d.), which results in often complex and sometimes futuristic scenarios.

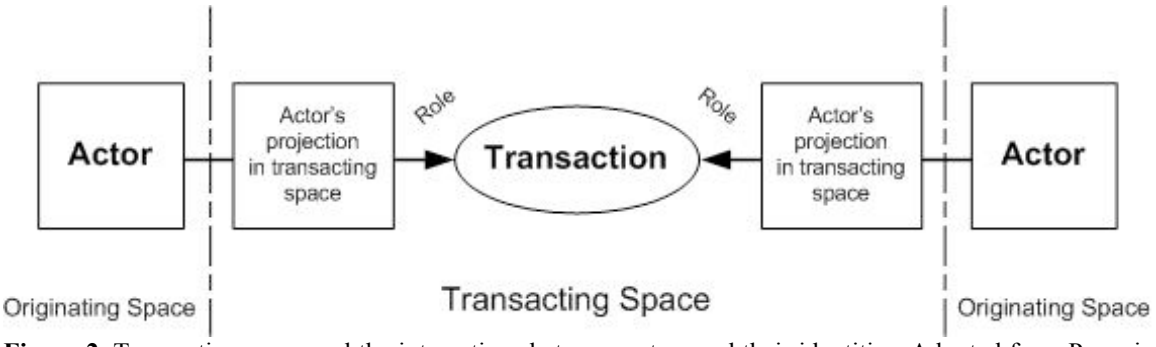

Figure 2. Transacting space and the interactions between actors and their identities. Adopted from Papagiannidis, et al. (2008).

The Service

One such case was Vodafone's InsideOut service, which made possible connecting actors in different spaces and more specifically actors in Second Life and real life, through mobile phones. Avatars in Second Life used the supplied heads-up display (HUD), which had all the functionality of a real life mobile phone, to call other avatars and Vodafone connected the call to their real mobile, with the virtual identities intact. It follows that users could also receive phone calls too when inworld or even when offline. As with real mobile phones, the Vodafone service provided a messaging solution too, which made it possible to send and receive SMS. Again, if the recipient was online, the message was delivered in Second Life, while if the recipient was offline the message was routed to their mobile phone in real life.

The Customer Experience

The service carried an important symbolism as a mobile phone contact lists is something that we only associate with real life and not with synthetic worlds. With avatars having their own mobile phone contact lists the boundaries between the two spaces blurred even further. It should be noted that in this case, with the avatar acting as a proxy for the user's communication, it effectively protected the user's identity. Vodafone achieved this by providing unique numbers for the avatars' mobile phones as they would have done for real life mobile phones. The same applied when a real phone initiated a call to a number in Second Life, with a virtual phone number assigned to the communication. These virtual phone numbers, though, were unique and only worked between the two friends who were involved in the communication. Each side was assigned a different virtual number that could be used for reaching the other person.

Marketing and branding opportunities

The free HUDs were branded with Vodafone's logo. Potentially, a range of HUDs from different mobile phone manufacturers could have been used illustrating the various models they offered. These could have been given away for free, promoting new handsets. Alternatively, Vodafone may have decided to bundle these to real life purchases and offer real life customers the same mobile phones they purchased for real in Second Life. This could enhance branding even further, as those who had a different handset from the default one could differentiate themselves in Second Life from the other avatars, effectively making a statement with their choice.

When it came to the features offered by the Vodafone virtual phone, these only included making and receiving phone calls and SMS messages. The HUDs functionality could have been extended to match the functionality of real life mobile phones. For example, cameras could have been built into the phones, allowing avatars to use their virtual mobile phone to take photos or even video clips. They could have also included MP3 players that connect to the users' favorite MP3 streams or even to any subscription services to which users had access, allowing them to listen to their favorite music. Examples like this one illustrate how product manufacturers and retailers can use virtual worlds such as Second Life for more than just advertising. By adapting their products to the virtual environment they could offer them in virtual worlds too, which can not only strengthen their brands but also increase the value of real life products too. In this case, Vodafone's service was extending the retail theater concept to the metaverse environments by using HUDs as the medium to offer a unique and unparalleled experience, online and offline.

Discussion

The two cases studies presented in the previous sections met our first research objective by providing evidence of how metaverses were used for retail purposes and how elements of the retail theater concept were employed. Our evidence also highlighted key practices and techniques used in order to enhance the customer's unique experience in metaverses, effectively meeting the second objective.

Specifically, in both cases, the customer interacted with the retailer, the retailing area, the objects in it and the application itself through a dedicated HUD or mobile phone (Vodafone case), which followed the nature of the products or services offered. On the other hand, in the first case (IWOOT), this was a shopping cart. The processes themselves imitated the processes followed in real life, although there was no real-time interaction with customer representatives, despite the virtual world lending itself to this. This may have not been a big difference compared to Web-based retailing, but it is a major deviation from what customers are used to in real-world retailing. As in both cases discussed the organizations involved were attempting to reproduce real-world experiences, this was clearly an area that required attention. In addition, both cases demonstrated a certain level of integration with real world supply chains and service offerings. For example, IWOOT delivered to real world addresses, but offered only a limited number of products in Second Life. Similarly Vodafone's InsideOut although allowed calling and messaging other users, it did not allow sending them MMS or using other more advanced applications. These may have not been required or they may have not been even necessary.

There was also good evidence of the application of the retail theater concept in metaverses. For instance, the shopping process in IWOOT was a shared enjoyable experience as an avatar could have be carried in a cart by another avatar; hence, the avatars were following an active, participatory-based approach. In the Vodafone case, the opportunity to connect actors in different spaces via the InsideOut service offered another unparalleled and unique experience, supported by excellent supply chain integration between the physical and metaverse mobile systems.

Still, for the retail theater concept to be applied in full, retailers will need to go to greater lengths to provide richer experiences. This is not to say that significant steps have not been taken, it just highlights the fact that there is scope to engage more with the customer. For example, IWOOT could have allowed customers to test the gadgets in the virtual world, while Vodafone could have potentially provided customers with the option to customize their handset or even use their own designs. Further challenges relate to synchronizing and integrating the supply chains which exist simultaneously in different retail spaces, the limited number of visitors that a metaverse retail space can accommodate and possible misbehavior by the avatars, as the IWOOT case has shown. Overall, both cases offered different perspectives of the metaverse-retailing phenomenon and illustrated a plethora of opportunities and challenges that need to be taken into consideration by managers and retail professionals.

Finally, although the cases presented in this paper are good examples of how metaverse retailing can cross to the real world, this is not a prerequisite. In fact, the vast majority of retailers operating in virtual worlds are metaverse-only retailers, typically a sole entrepreneur selling virtual objects like furniture or apparel. Their practices can become "innovations" for real world organizations that enter metaverses, as they have a good understanding of the environment. A good example of this can be seen in metaverse retailers paying other users a small fee to role-play their members of staff, not only attracting more visitors to their retail area

by making it a popular destination (because of the staff spending time in that area), but also enhancing the experience customers get. After all, who wants to shop in an empty store?

Conclusion

The findings have shown that if a retail organization aims to keep its customer base, it should use integrated information technology strategies, in order to maximize its interaction with customers. Retailers operating in physical, electronic and metaverse environments have to link their systems to match the above. In this paper we have presented two cases, that of IWOOT's retail space and Vodafone's InsideOut service to highlight important aspects of metaverse retailing and the associated opportunities and challenges. IWOOT and Vodafone were not the only real life organizations in Second Life. On the contrary, many real world companies and organizations have established a presence in Second Life. These spanned over a wide range of industries, markets and functions. In most cases, engaging with the customer was just for promotional purposes. What makes cases like the two presented above stand out is the level of integration of virtual activities to the real life activities these companies offered and their excellent application of the retail theater concept to the metaverse environment.

Apart from the emerging metaverse retailing and its characteristics, future research should consider whether existing retail business models and marketing strategies need to be adapted in order to become more effective in this new business environment. It should also examine the customer's views and, probably via controlled experimentation, whether it is actually feasible and if so, how easy or difficult it is for the experiences to be created in metaverses. Other future research could shed light on the supply chain challenges faced by retailers, like IWOOT, operating in metaverses and whether these are similar to or different from those faced by Web-based retailers. In addition, these could be operational challenges emanating from a supply chain complexity as having a presence in various environments altogether could be problematic. For example, what kind of information technology systems will be able to manage the various product and service flows in these environments? Or what kind of infrastructure will be required to accommodate the different currencies used (normal currency vs. Linden Dollars) and to communicate these financial flows with the relevant stakeholders involved, such as customers and banking institutions? Do these firms need to develop separate supply chain systems and infrastructure or should they seek a full integration between the alternative environments they operate? These are some of the issues that require immediate attention and further research will prove extremely beneficial.

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