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"Fun and Friends and Stuff" On the Stickiness of Social Virtual Worlds among Teenagers

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Abstract

Social Virtual Worlds (SVW) on the Internet have become increasingly popular during the past decade. Largely unnoticed by Information Systems research, Habbo Hotel, which focuses in teenage users, has advanced to become the largest SVW, boasting ten times more users than Second Life. Despite their increasing usage, business potential and societal impact, limited prior research has focused on understanding the factors that drive users to participate in SVWs. Our case study uses a largely quantitative, hypotheses-testing design to uncover the factors behind continuous SVW participation in Habbo Hotel. A research model is developed from prior IS adoption literature and tested with a sample of 844 German Habbo users using PLS. We substantiate our analysis with a qualitative examination of the reasons reported by the users. Our findings illustrate that Habbo use is driven by the stickiness of the platform, i.e. factors intrinsic to Habbo rather than external social pressure. Users engage in the SVW because of what they gain inside, not what they gain in the 'real' world, nor because of other people's opinions. The qualitative analysis reveals that social experimenting is a common behavior displayed by teenagers in the virtual world. We discuss implications for IS research and practice.

Keywords

Social Virtual Worlds, Habbo, Adoption, Motivational factors, Teenage users.

INTRODUCTION

Virtual worlds (VWs) are one of the most topical forms of online social interaction that attract more than one billion registered users worldwide. In VWs, users are present in the form of avatars, i.e. visual representations of one's digital identity. In contrast to other social technologies, such as instant messengers and social networking sites where the social interaction largely takes place with one's acquaintances, in VWs the users do not necessarily know each other from the offline world. While the increasing usage makes VWs interesting from business, societal and Information Systems perspectives (Messinger et al. 2009), relatively little is known about what drives users to use and spend time in VWs. In the literature, virtual worlds have often been divided into Gaming Virtual Worlds (GVWs) and Social Virtual Worlds (SVWs) (see e.g. Jung and Kang 2010). In contrast to GVWs, SVWs do not have explicit narratives or level-ups. However, SVWs include features to gain and show status inside the virtual environment such as premium memberships, badges and collectable virtual items. All in all, SVWs open up spaces in which the users define the purpose and content of the usage through their use and interactions.

According to Bell (Bell 2008, 2) a VW can be defined as "a synchronous, persistent network of people, represented as avatars, facilitated by networked computers." As such, SVWs can be further characterised as "non-game spaces where games can be part of them but are not the defining characteristic of a virtual world." (Iqbal et al. 2010, 3191). Consequently, in this study, we define SVWs as *persistent, computer-mediated, networked environments; used for various user-determined purposes such as social interaction, where the users are represented as avatars, and games can be part of the environment, but are not constitutive of the user experience.*

Prior research on virtual worlds has investigated the utilitarian and hedonic usage motivations (Shin 2009). However, especially in SVWs, the usage decisions and the value derived from the usage are likely to depend heavily on the social outcomes that are obtained in relation to other users, as the social interaction aspect is constitutive of this type of ICT innovation. As SVWs are designed to facilitate user-to-user interaction and building one's user groups and sub-communities within the world, social outcomes as well as social influences are likely to be key drivers of user participation. Thus far, the literature offers limited information on the social outcomes

derived from virtual world usage. Moreover, the current literature has examined the social influence in the VW context mostly by employing the subjective norm construct (Hua and Haughton 2009), largely leaving the actual sources of normative influence unnoticed.

From a contextual standpoint, prior research has largely focused on VWs such as Second Life (Fetscherin and Lattemann 2008; Zhou et al. 2010) targeted at an adult audience, while VWs targeted at teenager audiences are the largest and fastest growing VW category (Wasko et al. 2011; see also Spence 2008). In this paper we report on a study focusing on user motivations in Habbo, which in terms of user numbers is by far the largest SVW. Habbo is specifically targeted at teenagers and has customers in 150 countries. With this paper we address specifically a key topic of the conference track by focusing on the population of young users. We develop a research model examining the utilitarian, hedonic and social outcomes of VW usage as well as the role of normative beliefs in determining SVW engagement. The research model is empirically tested with data collected from 844 Habbo users in Germany and analyzed with PLS. In addition, we draw on qualitative data to complement our analysis.

We find that user intentions are driven by the stickiness of the platform, i.e. factors residing inside the platform environment, such as perceived enjoyment, utilitarian outcomes derived from interacting and chatting with friends, as well as social presence in terms of human warmth and belonging. At the same time, none of the external factors (e.g. social peer groups, or informational sources) exert any significant influence on Habbo use intentions; teenagers are surprisingly independent in their adoption decision. We discuss our findings in light of the particular characteristics of the user group, which leads us to conclude that teenagers get immersed on the platform for the sake of spending time in a fairly non-directed manner. In doing so, they experiment with their social identity and engage in social status games and virtual consumption. Our findings lead us to reason on the particular nature of Habbo as a technology-enabled service offering.

After the introduction, we give an overview of Habbo Hotel. In the third section, we describe the research design and develop our research model and hypotheses. The fourth section reports on data collection, measurement and results. In the fifth section we discuss our findings regarding the nature of Habbo as a service and the particularities of the teenage user group. We also derive implications for future research, before the sixth section concludes the paper and exposes study limitations.

HABBO HOTEL

Habbo Hotel is the world's largest SVW with about ten times the number users as Second Life. Habbo Hotel is specifically targeted at teenagers; it has 10 million monthly unique visitors users in 32 country-specific portals with local payment system. According to Sulake, the Finnish Company operating Habbo, 90 % of the users are aged between 13 and 18[1].

Habbo Hotel runs in a web browser environment. Upon first joining, a new user needs to create an avatar, which acts as the user's digital representation in the virtual space. This space "resembles a giant contemporary Western indoor space, presented in isometric 'retro style' three-dimensional graphics and populated by blocky avatars, each controlled by a user" (Lehdonvirta et al. 2009 1065). Habbo avatars do not resemble human beings but are more like cartoon figures. The users are anonymous inside Habbo, revealing one's real identity of contact information is prohibited and moderated by the operator.

Unlike with Second Life, Habbo users cannot manipulate their surroundings. Each avatar is provided with a virtual room that one can decorate with various pieces of furniture (called Furni in Habbo) and invite other users into. Being in a room together, via their avatars (called Habbos) users can text-chat with each other. In addition, Habbo accommodates various non-violent games users are free to play. Certain events, such as celebrity visits are organized on a regular basis and can participate in dress-up and decoration competitions. Habbo users can use real money to purchase virtual items and premium memberships that provides exclusive features, but Habbo does not apply access fees or periodical subscriptions, so use of the platform is free in general. Finally, in contrast to Second Life, Habbo does not facilitate an in-world economy or a currency that could be exchanged to real money. The trade of virtual goods outside of the platform is prohibited. In sum, the activities Habbo users can engage in relate to social interaction with other users, spending time in various ways, decorating and accessorising their rooms and avatars and trading their virtual possessions with other users inside the platform.

Despite its significant user population, Habbo has not been very extensively investigated. Griffiths and Light (2008) have investigated ethical implications of Habbo as a social platform for teenagers, while Lehdonvirta et al. (2009) use Habbo as a vehicle to investigate the nature of consumption of virtual goods. Finally, Iqbal et al. (2010) have undertaken a small-scale study among children in a Finnish school into the use of virtual world platforms, only one of which was Habbo. To the best of our knowledge, except few contributions (Mäntymäki and

[1] http://www.sulake.com/habbo/?navi=2

Salo 2011; Mäntymäki and Merikivi 2010), little academic research have thus far investigated individuals' motivations for using Habbo.

STUDY DESIGN

Overview

Our study is based on a case study design, applying multi-method data collection methods, with a quantitative hypotheses-testing main method of enquiry. In line with a typical case study design, we have accessed and used a range of materials to undertake this study. Information available on the Sulake website, on various Habbo fansites on the Internet, as well as the Habbo portal itself have proved invaluable in gaining a rich initial understanding of the phenomenon before embarking on the main data collection. Rather untypical for a case study, the main part of our study is a quantitative, hypotheses-testing enquiry.

Any research into the private, personal use of a highly social technology among teenagers raises a multitude of ethical questions with regards to empirical access, which renders the application of rich enquiry methods (such as shadowing, observations or even interviews) near to impossible. While a questionnaire-based survey is a sensible choice for this reason alone, it also provides us with a broad understanding of the phenomenon. Moreover, it allows us to apply tested and tried constructs, which have been shown to influence ICT usage intentions in other domains. Hence, we opted to carry out a typical survey-based study, in order to investigate the influence of a range of typical influence factors on Habbo users' motivations for using the SVW. In addition to the structured survey questions, users were asked one open question regarding their reasons for using Habbo. The analysis of the qualitative comments complements the quantitative analysis..

In order to investigate user motivations for adopting and using Habbo, we draw on the existing IS adoption literature. Motivation theorists view human behaviour as being driven by the desirable outcomes of that behaviour (Lawler and Porter 1967). In prior technology adoption literature factors such as increases in one's performance (Davis 1989), perceived enjoyment (Davis et al. 1992) or gains in one's status and image (Moore and Benbasat 1991) have been found to be desirable outcomes driving the decisions to use technological innovations. Consequently, such benefits associated with the use of information technology innovations can broadly be divided into utilitarian, hedonic and social outcomes (Venkatesh and Brown, 2001). In addition to desirable outcomes, decisions to adopt and use innovations are typically affected by social influences, such as normative beliefs (Venkatesh and Brown, 2001). Table 1 provides an overview of the nomological net of the constructs and associated theories that form the basis of our quantitative study. In the next sections we will spell out our research model and introduce our hypotheses.

Factor	Theory	Construct	Definition	Reference
Social outcomes	Innovation diffusion theory	Status gains	The degree to which the status of an individual is conferred by using the SVW	(Moore and Benbasat 1991)
	Theory of network externalities	Perceived network size	The perception of the degree to which the important others are present in the SVW.	(Katz and Shapiro 1986)
	Social presence theory	Social presence	The degree of human warmth associated with the SVW.	(Yoo and Alavi, 2001)
Utilitarian outcomes	Self-determination theory	Utilitarian outcomes	The extent to which using the SVW will help to attain gains in social interaction and free time	(Deci and Ryan, 2000; Venkatesh and Brown, 2001)
Hedonic outcomes	Self-determination theory	Hedonic outcomes	The extent to which using the SVW is perceived enjoyable on its own right.	(Deci and Ryan, 2000; Venkatesh and Brown, 2001)
Normative beliefs	Theory of reasoned action	Interpersonal influence	The normative influence from the important referents to use the SVW.	(Fishbein and Ajzen 1975)
	Innovation diffusion theory	Secondary sources of information	The extent to which information from TV, newspapers and other secondary sources influence the SVW use.	(Brown and Venkatesh, 2005; Rogers, 2003)

Table 1. The nomological net of the quantitative study part

Development of research model and hypotheses

Research on the adoption of technology has developed and tested numerous models in order to understand the factors driving use decisions (Venkatesh et al., 2003). These models propose a number of predictor variables

that presumably influence IT usage intention. For example, the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB) assert that IT usage is determined by *IT usage intention,* due to the human tendency to behave in accordance with intentions, which in turn are predicted by other cognitive beliefs or perceptions of IT usage. The relationship between IT usage intention and usage behaviour has been empirically verified in numerous previous studies (Davis 1989; Taylor and Todd 1995). Consequently, we take usage intention as our dependent variable of interest. More precisely, due to the design of our study in focusing on SVW users, our dependent variable is *continuing usage intention*, i.e. the intention to keep using the Habbo platform, which has been frequently used as an effective surrogate for technology use.

Abundant prior literature has found IT use decision being influenced by the perceived utility derived from the usage (Venkatesh et al., 2003; Davis et al. 1989; Venkatesh and Davis, 2000). Prior VW research has found utilitarian outcomes influencing the decision to engage in virtual worlds (Fetscherin and Lattemann, 2008; Hua and Haughton, 2009). Given the nature of Habbo Hotel and its affordances, we reason that the potential utility is likely to be related to enhanced communication with other people, spending time inside the platform and self-expression via decorating the virtual room or the avatar. This leads us to formulate the first hypothesis as follows; items for operationalising the measurement of our constructs can be found in the appendix.

H1: Utilitarian outcomes have a positive effect on the intention to use the SVW.

In addition to utilitarian outcomes, usage of a range of IT applications and services has been found to be influenced by hedonic outcomes (van der Heijden, 2004). While prior research offers inconclusive evidence regarding the role of hedonic outcomes in virtual world usage (Hua and Haughton, 2009; Shin, 2009), with regards to Habbo we see a likely influence in predicting the user engagement since this platform is not used in business or education contexts such as other platforms.

H2: Hedonic outcomes have a positive effect on the intention to use the SVW.

Prior research uncovering the role of social outcomes in VW usage decision is scant. However, prior research on the adoption of other forms of IT has found that status expectations drive the decision to use technological innovations (Moore and Benbasat 1991; Venkatesh and Davis, 2000; Venkatesh and Brown, 2001). Gaining status and social recognition can be assumed to be particularly important among the Habbo teen audience for building and supporting self-image and the seeking for social acceptance.

H3: Status has a positive effect on the intention to use the SVW.

In addition to status, the need to feel close to and accepted by other individuals has been found to drive participation in online communities (Bagozzi and Dholakia, 2002; Rheingold, 2000). We examine the fulfillment of this need using the concept of social presence i.e. the perception of sociability and human warmth in Habbo.

H4: Social presence has a positive effect on the intention to use the SVW.

According to the theory of network externalities, a large number of users in one's personal network is likely to increase the value of adopting a technological innovation that is used to interact and communicate with other users (Katz and Shapiro 1986). Iqbal et al. in their study on Habbo argue that connecting with real-life friends in Habbo might be a motivator for SVW use (cf. Iqbal 2010). Hence, we suggest that the presence of other users is likely to increase the value of the SVW for an individual. Since evaluating the actual number of users in one's network poses significant data collection challenges (Li et al., 2010), we define perceived network size as the perceived degree to which members of one's social network are present on the SVW (Lin and Bhattacherjee, 2008). We pose that perceived network size is a direct predictor of use intention (Van Slyke, 2007).

H5: Perceived network size has a positive effect on the intention to use the SVW.

External influences impacting on use intentions have typically be captured by the subjective norm construct (Venkatesh and Davis, 2000). However, given the social nature of SVW as a technology we propose a more holistic capturing of such normative influences by investigating two sets of normative beliefs: interpersonal influence and external sources of information (Venkatesh and Brown, 2001). Interpersonal influence explicitly covers the referring of others to adopt and use the technology. It has been found to influence IT use decisions in household contexts (Brown and Venkatesh, 2005), as well as for interactive digital technologies (Hsieh et al., 2008), both of which are relevant referent contextual domains for VWs. Sources of interpersonal influence may include family, friends, relatives, and peers (Hsieh et al., 2008).

H6: Interpersonal influence has a positive effect on the intention to use the SVW.

External influence factors such as mass media, expert opinions, and other forms of non-personal information have been shown to yield an effect on adoption intentions (Rogers, 2003). For example, Brown and Venkatesh (2005) found secondary sources of information influencing the intention to purchase PCs for domestic use. As Habbo is visibly present is such mass media outlets, subscribed to by the teen audience, it seems reasonable to assume that mass media and commercials exert normative pressure on the target group.

H7: Secondary sources of information have a positive effect on the intention to use the SVW.

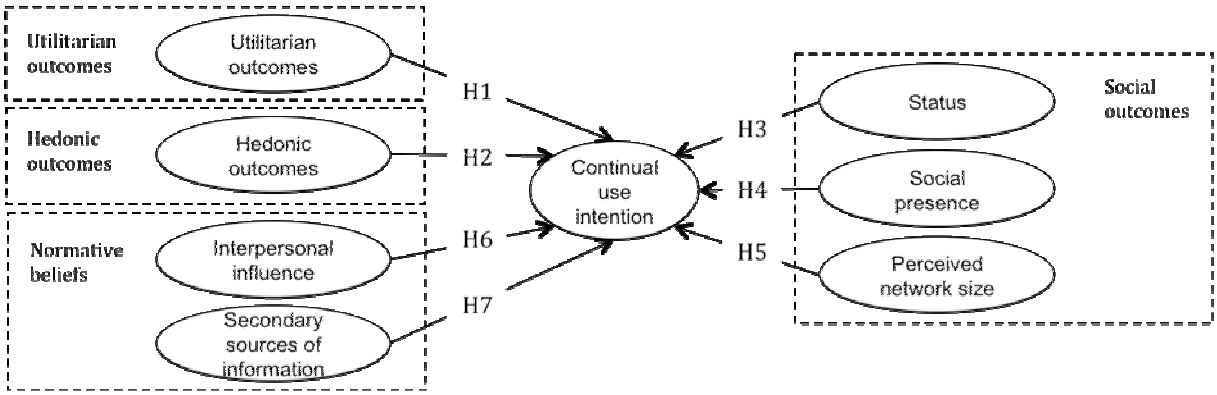

Figure 1. The research model

EMPIRICAL RESEARCH

Measurement & data collection

Data for the quantitative part of our study was collected through an online survey published on the start page of the German Habbo Hotel portal. The survey contained worded items on a 7-point Likert-scale ranging from strongly agree to strongly disagree, adapted from existing measures. The measurement items with references to literature are presented in Appendix 1. Each construct was modelled using reflective indicators, except referents' influence that was viewed as an explanatory combination of its items and thus treated as a formative construct (Hsieh et al., 2008).

In total, the online survey was accessed 3,459 times. A total of 1,811 responses were received. Thus, the response rate was approximately 52 %. To ensure the best possible quality of the responses, only fully completed responses were included in the analysis. Given that according to the operator, 90 % of the Habbo Hotel users are aged between 13 and 18, only respondents from this group were analysed. As a result, the final dataset consisted of 844 responses. Within the final dataset 13 and 14 were the most common age categories. 62 percent of the respondents were males. The respondents were relatively experienced users; only 4.1 percent had reported having less than six months of experience.

Data analysis & results

The data was analyzed using partial least squares (PLS) with SmartPLS M3 software (Ringle et al., 2005). The PLS method is typically recommended in situations in which there are no stable, well-defined theories to be tested in a confirmatory research setting, the research model includes reflective and formative constructs (Haenlein and Kaplan, 2004).

The convergent validity was evaluated based on three criteria: 1) all indicator factor loadings should be significant and exceed 0.7, 2) composite reliabilities should exceed 0.80, and 3) average variance extracted (AVE) by each construct should be greater than the variance due to measurement error (AVE > 0.50). (Fornell and Larcker 1981) The factor loadings exceeded 0.7 and were significant at the .001 level. Thus, all reflective measures met the criteria for convergent validity. With regards to the formative interpersonal influence construct, family and relatives did not significantly contribute to the construct. Discriminant validity was investigated by examining whether the square root of AVE for each construct was higher than the squared correlation between it and all other constructs (Fornell and Larcker 1981). The statistics for convergent and discriminant validity are presented in Appendix 2.

Hypothesis	Std. path coefficient	Support
H1: Utilitarian outcomes → continual use intention	.192***	Yes
H2: Hedonic outcomes→ continual use intention	.363***	Yes
H3: Status → continual use intention	n.s.	No

H4: Social presence → continual use intention	.149***	Yes
H5: Perceived network size → continual use intention	n.s.	No
H6: Interpersonal influence → continual use intention	n.s.	No
H7: Secondary sources of information → continual use intention	n.s.	No

Table 2. Results from the hypotheses structural model.

Table 2 illustrates the results from the structural model. Altogether, only 3 of the 7 hypotheses were supported: hedonic and utilitarian outcomes as well as social presence from the social outcomes block. Together, the three constructs account for 37% of the use intention. While prior research in the VW context offers very little point of reference, in general terms, explanatory power of around 40 % for use intention can be considered typical for technology adoption research (Venkatesh and Davis 2000), which is satisfactory.

DISCUSSION

Our results demonstrate that Habbo participation is mainly determined by hedonic and utilitarian outcomes, i.e. the pleasure experiences when using and immersed in the SVW and the perceived benefits through social interaction. Social presence was the only social outcome exerting a significant influence on the use intention indicating that users appreciate the human contact and feeling of belonging derived from Habbo participation. Given that Habbo falls into the category of social virtual worlds, the fact that social presence was the only, albeit not very powerful social outcome influencing the usage of this social virtual world is surprising and in contrast with findings of prior research investigating other communicative technologies, e.g. on instant messaging (Li et al. 2010; Lin and Bhattacherjee 2008) or social networking sites (Sledgianowski and Kulviwat 2009). Most notably, perceived network size was not a significant determinant of usage intention. This seems somewhat counter-intuitive, if Habbo is perceived as a tool for social interaction, since the number of relevant other people would intuitively make the usage more meaningful.

Moreover, our results show that teenagers seem to make a self-informed decision in using Habbo, since the influence of both one's peers and public media were found to be non-significant. This contrasts with Hua and Haughton (2009) who found social influence as a significant predictor of the use intention among Chinese VW users. Finally, our results reveal that teenagers do not use Habbo to impress others in their social network, as status (among peers) was found to exert no significant influence on use intention. In the following sections we will interpret and make sense of these findings in light of the nature of 1) Habbo as a service and 2) the particular user group. In doing so, we will draw on quotes taken from the qualitative part of the questionnaire in order to make sense of the quantitative results and illustrate our reasoning.

The stickiness of Habbo

The most notable finding of our quantitative study is that the three factors found to have an influence are in fact those that are concerned with what happens *inside* Habbo: 1) connecting with friends and spending time, 2) having fun, and 3) feeling human contact and warmth; while those that were non-significant are those factors residing outside of Habbo: 1) the influence of others and 2) public media, 3) one's status among others as gained from using the service, as well as 4) how well Habbo captures one's social network.

This finding is interesting as it reveals that it is the service itself that draws the user group into using it, rather than any external factors promoting use. The analysis of 165 randomly selected qualitative utterances, made by the participants, supports our quantitative findings: In 66% of the quotes, users refer to 'fun' as their main reason for using Habbo, with 50% explicitly mentioning the socialising with (new and old) friends as a motivator (e.g. *"I visit Habbo to have fun and to chat with friends I met there."*). Activities such as chatting (22%) or playing games (8%) come third and fourth *("I think Habbo is quite cool. You can decorate apartments, just like in real life. Also, you can chill with friends.")*

Overall, our findings show that teenagers appreciate Habbo as a space for meeting, chatting and "hanging out". The users seem to appreciate becoming absorbed in this virtual space for the sake of this absorption. In doing so, the SVW proofs to be a highly social environment, even so most of the social outcome factors were non-significant. The big difference to other social technologies is that Habbo appears to have created a self-contained social space, rather than resembling a service that one uses to connect with one's 'real life' social network (such as with Facebook). While interacting with friends in Habbo is appreciated (utilitarian outcome), the (re)building of one's social network in Habbo is not a major concern (perceived network size).

We conclude that Habbo as a service proofs to be highly 'sticky'; stickiness is the ability of websites to draw and retain customers (Lin 2007). While teenagers are using Habbo in a fairly non-directed manner, they are using the service for the sake of using it: as an absorptive experience, to "hang out", "kill time", "have fun", and "as a change from the real day".

Social experimenting as typical user behaviour

Teenagers typically find themselves in a period of change, where one's place in the complex social configuration of real life has yet to be found. Against this backdrop, Habbo appears to offer an anonymous environment in which it is safe to experiment with various styles and behaviours by way of self-expression, through communication, dressing up, room decoration or social competitions. Iqbal et al. 2010 have described developing a virtual identity as constitutive of engagement in Habbo. As one user states: *"It is fun to compare yourself as an avatar"*.

Such forms of self-expression are also a way of gaining social status in Habbo. Lehdonvirta et al. (2009) in their study on virtual consumption have argued that teenagers in Habbo like to engage in social games, by comparing virtual identities, accumulating virtual riches and engaging in social competitions. Hence, while our results demonstrate that using Habbo is not a vehicle for gaining status among one's real life peers, status is still an integral part of the activities performed inside the platform. Again, this result points to the inside of the platform rather than external factors.

Finally, Griffiths and Light (2008) have argued that teenagers make a strong distinction between their interactions in Habbo and what they perceive as their real life (commonly referred to as 'IRL' – 'in real life'). In line with our findings above, we conclude that teenagers perceive Habbo (and their interactions inside the platform) as genuinely different from real life. They seem to appreciate the casual nature of the social space and the fact that they can adopt a virtual identity, engage in various interactions and in doing so deliberately leave behind some of the constraints faced in real life, as expressed by a user: *"Because I have many friends there and it is easier for me to get in contact there, because I'm pretty shy."*

IMPLICATIONS

Our research has revealed that external factors do not exert any significant influence on participation in our Habbo case; use intentions are solely influenced by the experience inside the platform. As such, Habbo as a service allows teenagers to step out of their real life situation, to become absorbed in the virtual world, albeit in a non-directed manner without following a traditional goal associated with IS or tool usage. Hence, Habbo can best be described as a virtual world, which creates a highly social, absorptive space that facilitates hedonic, non-directed forms of use. This description however reveals that the platform is to a large degree constituted by its forms of use and the particular nature of its user group, and not by its technological characteristics. We find that Habbo is different from both other social technologies (e.g. Facebook or Twitter) that facilitate social interactions 'in real life', as well as from gaming platforms, as these typically come with a predefined story line and the scaffolding of goals and achievements.

We have approached our study from a distinct technology/innovation angle focusing on IS adoption factors. However, to fully understand the Habbo phenomenon, our study needs to be complemented with research that approaches the phenomenon from the characteristics of the teenage user group. In particular, further research into 1) the nature of status games, 2) the proliferation of various hedonic behaviours, 3) the role of anonymity, and 4) relationship management with the target group from the platform provider point of view seem promising.

1) By purchasing virtual items and premium memberships users in Habbo can obtain additional means for self-expression and differentiation from the holders of the basic account. As a result, purchasing behaviour can be a way to boost one's status and enrich the user experience in other ways. Thus, further research should examine user purchasing behaviour and the effects on user experience.

2) Moreover, as the hedonic outcomes have been revealed as the primary determinant of usage, an appropriate subsequent step in the research process would be to uncover the factors that contribute to a pleasurable user experience in SVWs, in order to better understand what exactly constitutes (and in what ways) the hedonic experience in Habbo.

3) Protecting users' identity inside the virtual world is designed to prevent cyber bullying and sex crime. As the target audience are legally minors, these precautions are important and beyond any economic interest. However, the anonymity makes transferring status between 'real' and virtual world more difficult, as well as it potentially makes more difficult to recognise the 'real' life friends inside Habbo. Further research should enquire about the role of anonymity as an enable of the particular user experience discussed above.

4) The influence of external informational factors (e.g. mass media and commercials) was relatively weak. This raises the question whether the marketing activities of Sulake have been to a sufficient extent targeted to existing users. Future research might enquire about the role of the platform provider in reinforcing the existing users' commitment to remain active and in promoting to spend money on virtual items and premium memberships.

CONCLUSION AND LIMITATIONS

Our findings illustrate that Habbo use among teenagers is driven by the stickiness of Habbo, i.e. factors intrinsic to Habbo rather than external pressure or attempts to demonstrate status to people outside the virtual world. Gains such as enjoyment, interaction with friends and self-expression as well as the feeling of social presence are all something that the users experience when being immersed in the virtual world. In other words, users engage in the SVW because of what they gain *inside* Habbo, not what they gain in the 'real' world nor because of other people's opinions. Our study suggests that among today's digital natives, even in a use context that is highly dependent on the presence and behaviours of other users and used to a large extent for social interaction, traditional social influence or social outcomes do not automatically act as predictors of use decisions.

With regards to IS theory we find that the established adoption factors do not apply in this context, which not only points to the different nature of this technology, but to the need to contextualise IS adoption research, as context factors such as the nature of the user group also need to be taken into account. On a more general note, our findings reveal limitations with regards to the transferability of adoption factors between contexts and cautions against the over-generalisation of IS adoption results. More research is needed to investigate the particular hedonic nature of this type of service as well as the boundaries of traditional IS adoption research.

Our study has certain limitations. First of all, the quantitative study uses self-reported measures and behavioural intention instead of the actual behaviours. Second, due to the self-selection of the respondents, statistical generalisation of the results is not an appropriate course of action. Rather, we have approached our research as a multi-method case study. Also, the current study examined only one service and one cultural context. Thus, extending the scope of inquiry towards other applications (other SVWs) as well as cultural settings (other countries) would be highly appropriate to validate the findings.

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APPENDIX 1: SURVEY INSTRUMENT & DESCRIPTIVE STATISTICS

	Mean	S.D	Loading	Measurement item	Reference
UTI1	5,175	1,982	0,821	Using Habbo... Helps me stay in close touch with my friends.	Li et al. 2010)
UTI2	5,416	1,761	0,811	Helps me to make new friends more efficiently.	
UTI3	5,341	1,791	0,769	Allows me to express myself.	
UTI4	5,383	1,753	0,829	Is a good way to spend free time.	
HED1	5,036	1,785	0,793	It is enjoyable to use Habbo.	(Venkatesh 2000)
HED2	5,955	1,503	0,897	It is fun to use Habbo.	
HED3	5,866	1,528	0,909	It is entertaining to use Habbo.	
HED4	5,598	1,608	0,898	It is pleasant to use Habbo.	
STA1	4,232	2,209	8,471	People who use Habbo have high profile.	(Brown and Venkatesh 2005)
STA2	3,361	2,187	0,884	People who use Habbo have more prestige than those who do not.	
STA3	3,250	2,168	0,955	Using Habbo improves my status among those who are richest and smartest.	
STA4	3,415	2,269	0,938	Using Habbo improves my status among those who are the most meaningful to me.	
SP1	4,517	2,048	0,885	There is a sense of human contact in Habbo.	(Yoo and Alavi 2001)
SP2	5,168	1,834	0,884	There is a sense of human warmth in Habbo.	
SP3	4,118	2,134	0,852	There is a sense of sociability in Habbo.	
PNS1	3,466	1,914	0,927	How many of your friends use Habbo? (none…all)	(Lin and Bhattacher-jee 2008)
PNS2	3,989	1,949	0,882	How many of yours peers use Habbo? (none…all)	
PNS3	3,595	1,858	0,904	How many people in your environment use Habbo? (none…all)	
EXT1	4,076	2,227	0,858	Media (Internet, magazines, TV, etc.) and commercials are an important source of information about using Habbo.	(Brown and Venkatesh 2005)
EXT2	3,846	2,118	0,895	I feel encouraged by media and commercials to use.	
EXT3	3,878	2,278	0,868	I feel persuaded by media and commercials to use Habbo.	
INT1*	2,821	1,848	n.s.	My family thinks I should use Habbo.	(Hsieh et al. 2008)
INT2*	2,769	1,821	n.s.	My relatives think I should use Habbo.	
INT3*	3,518	2,154	0.408	My friends think I should use Habbo.	
INT4*	3,541	2,151	0.719	People I communicate with most often think I should use Habbo	
CUI1	5,732	1,857	0,926	I intend to continue using Habbo during the next three months.	(Bhatta-cherjee, 2001; Hsieh et al. 2008)
CUI2	5,42	1,852	0,930	I intend to continue using Habbo frequently during the next three months.	
CUI3	5,440	1,842	0,894	I will keep on using Habbo in the future.	

(*formative measurement)

APPENDIX 2: CONVERGENT AND DISCRIMINANT VALIDITY

	AVE	C.R.	CUI	ENJ	EXT	INT	PNS	PU	SP	STA	(square roots of AVEs in the main diagonal)
CUI	0,841	0,941	**0,917**								
ENJ	0,766	0,929	0,570	**0,875**							
EXT	0,620	0,860	0,288	0,390	**0,788**						
INT	n/a	n/a	0,276	0,366	0,491	n/a					
PNS	0,818	0,931	0,205	0,254	0,400	0,599	**0,904**				
PU	0,652	0,882	0,538	0,739	0,493	0,461	0,361	**0,808**			
SP	0,763	0,906	0,441	0,510	0,440	0,410	0,290	0,613	**0,873**		
STA	0,786	0,936	0,249	0,371	0,499	0,527	0,492	0,480	0,385	0,887	

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