Adoption of Social Media by Online Retailers: Assessment of Current Practices and Future Directions

Farhod P. Karimov, Vrije Universiteit Brussel, Belgium
Malaika Brengman, Vrije Universiteit Brussel, Belgium

ABSTRACT

In the online environment, the absence of social presence may prevent consumers from purchasing online, while it can enhance their trust, loyalty and enjoyment toward the e-retailer. Thus, today many online retailers try to create social presence by adopting media-rich technologies. In this paper, the authors assess to what degree social media cues are currently adopted by thriving web-vendors and on that basis speculate about future developments. To this purpose, 210 top B2C e-commerce websites have been content analyzed to identify how they differ in the deployment of diverse social media cues. While a wide range of social media cues are adopted by a majority of top e-retailers, a number of more advanced social media features like avatars, recommendation agents, and video-streams are in their infancy where adoption is concerned. The paper demonstrates that the utilization of social media features differs according to the monetary and symbolic value of products sold by the e-commerce vendors.

Keywords: Content Analysis, E-Commerce, Social Cue, Social Media, Social Presence, Website Design

INTRODUCTION

Forecasting how rapidly technologies will advance and how society will use them is not an easy task. While a decade ago, many scholars predicted that by offering 24x7 online services, internet retailing would be superior and would replace traditional retailing instantaneously (Peterson et al., 1997; Swinyard, 1997), current U.S. e-commerce sales still only account for 3.4 percent of total retail sales (U.S. Census Bureau, 2009). One of the main factors holding back consumers from purchasing online is the lack of social contact with store employees as well as with other shoppers (Lowry et al., 2010). As this deficiency can be overcome by the application of new media-rich technologies conveying social-presence (Gefen & Straub, 2003, 2004), we feel this can be an important factor contributing to the future success of e-retailers.

While the absence of social-presence in the online environment may prevent consumers from purchasing online, its presence can enhance...
customer trust, loyalty and enjoyment towards the e-retailers. Thus, today many e-commerce businesses are trying to create social-presence by adopting media-rich technologies. The aim of this paper is to provide an understanding of how the adoption of different social-media features can affect online sales and also to assess the current deployment of diverse social-presence enhancing technologies among ‘top’ e-retailers in order to reveal opportunities for other e-commerce businesses and to speculate about future developments in this area.

We will first discuss how different social-media features can be applied by e-retailers to enhance perceptions of social-presence and why this can be important in generating online sales. Because it is necessary to understand the present adoption of technological trends before making any predictions for the future (Odlyzko, 2010) we subsequently investigate the current adoption of such social-media features by top business-to-consumer (B2C) online retailers. We also examine more specifically how e-commerce websites differ in their utilization of these social-media cues depending on the monetary and symbolic value of the products they sell. Based on these findings we will point out prospects for other e-businesses and will discuss what the future may bring. Understanding how top e-retailers differ in their utilization of social-media cues depending on the monetary and symbolic value of the products they sell will contribute to a better understanding of social-media diffusion among the variety of e-retailers and will allow us to make better predictions about the future.

THE IMPORTANCE OF SOCIAL-MEDIA CUES FOR E-RETAILERS

In the offline retailing world, direct contact with a salesperson provides the customer with important cues for the establishment of trust (i.e., eye contact and gestures) which enhance the relationship and intentions to buy (Steinbrück et al., 2002). In contrast, the Internet lacks these kinds of human aspects, limiting the potential of purely virtual businesses (Anderson et al., 2010). To enhance this capacity, e-commerce companies must deploy mechanisms which enable two-way interactions between customers and e-retailers. This involves embedding social-media cues (i.e., cues based on human characteristics) into website interfaces via different communication media (Wang & Emurians, 2005). Today, new media tools like weblogs, instant messaging platforms, video conferencing, and online social-networks are reengineering the way people interact and are unleashing the potential of businesses worldwide (Hawn, 2009; Reding, 2010). Face-to-face communication is being replaced by synchronous and asynchronous communication such as e-mail, texting, blogging, podcasting, instant messaging and mobile devices (Badawy, 2009). The integration of such social-media cues into retail websites will increase the perception of employee presence and improve consumers’ online experiences (Wang et al., 2007). ‘Virtual advisors’, one particular form of website social-presence, may for instance facilitate customers to make a decision to purchase the right product (Dash & Saji, 2007).

Scholars found that social-presence has a positive impact on trust, loyalty, perceived usefulness and enjoyment, and in turn positively influences the customer’s intention to purchase products and services online (Cyr et al., 2007; Dash & Saji, 2007; Gefen & Straub, 2003). Social-media permit firms to engage in timely end-consumer contact at relatively low cost and with high efficiency (Kaplan & Haenlein, 2010). Dell Inc., for example, generated a total of $6.5 million in revenue in orders for PCs, accessories and software from their social-presence on Twitter (Guglielmo, 2009). Active users on Facebook are contributing more than 3% of all traffic to the top retail sites online, and 25% of social-network users post links to other companies, products or services (Mahoney, 2009). Thus, e-retailers need to invest in creating and maintaining effective social-media channels with potential customers if they want to stay competitive in the future. While it is necessary
for Web based companies to know what kinds of social-presence enhancing new media-rich technologies they need to implement, depending on their resources, capabilities as well as commodities traded, research evaluating different online social-media mechanisms (i.e., text, voice or video chat, the use of avatars, etc.) is predominantly lacking (Benbasat, 2010). This paper aims to fill this gap.

**ONLINE SOCIAL-MEDIA CUES**

In this paper the focus is on the instruments which generate social-presence in e-commerce websites (Table 1). Because the degree of social-presence clearly differs between offline and online communications, investigating the mechanisms of online social-presence is a valuable Information Systems (IS) research topic (Lowry et al., 2010). Social-presence can be defined as “the degree of illusion that others appear to be ‘real’ physical persons in either an immediate (i.e., real time/synchronous) or a delayed (i.e., time-deferred/asynchronous) communication episode” (Kreijns et al., 2010). In a Web environment, social-presence can be achieved either via virtual communities, message boards, chats or via socially rich text and picture content, personalized greetings, human audio and video, intelligent agents, etc (Hassanein & Head, 2007). These social-media cues refer to the emerging digital communication channels where anyone can generate and disseminate information content, both as provider as well as consumer (Kim et al., 2010). The availability of more social-media cues in a website generates a higher level of social-presence (Lowry et al., 2010), and may enhance consumers’ trust and purchase intentions (Gefen & Straub, 2004).

In the subsequent paragraphs we discuss different instruments that can be used by e-retailers to generate online social-presence: photo cues, video cues, avatars, recommendation agents, live help features, online social-networks, support web-blogs and user customization features.

**Photo-cues** – of people can convey a sense of personal, sociable and sensitive human contact and so the perception of social-presence can be created by presenting photos of smiling people on the web interface (Gefen & Straub, 2004). Embedding facial photo-cues is costless and does not require any additional resources.

**Video-cues** – are rich media streams embedded into the website and can generate a high level of social-presence by simulating face-to-face interaction as they transmit many visual and audio cues (Aldiri et al., 2008). The deployment of a video-stream feature can be costly and may require extra resources both technological and human.

**Avatars** – are 2D or 3D humanoid interface characters which entail humanlike characteristics, such as facial expressions, speech output, body gestures, auditory and kinesthetic feedback, human emotions, and social intelligence (Qiu & Benbasat, 2009). These graphic characteristics can be animated by means of computer technology (Holzwarth et al., 2006). The integration of avatars into retail websites may enhance the perception of employee presence and influence consumers’ purchase intentions (Holzwarth et al., 2006; Wang et al., 2007; Keeling et al., 2010). Obviously there are considerable costs associated with the implementation of avatars in e-commerce websites.

**Recommendation Agents (RAs)** – are software entities that carry out some set of operations on behalf of online-shoppers such as content-filtering, providing shopping advice

<table>
<thead>
<tr>
<th>Photo cues</th>
<th>Assistive interfaces</th>
<th>Support blogs</th>
<th>Instant help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video cues</td>
<td>Social networks</td>
<td>Review boards</td>
<td>User customization</td>
</tr>
</tbody>
</table>

Table 1. Web-based instruments to generate online social-presence
and guiding and directing consumer choices (Schafer et al., 2001). Consumers treat online RAs as “social actors” and perceive human characteristics (e.g., benevolence and integrity) in computerized agents (Wang & Benbasat, 2005). The appropriateness and deployment of online RAs differ according to business goals (Schafer et al., 2001). They can bring added value to online-shoppers particularly in the case of complex purchase decisions.

Instant messaging – is the most popular manifestation of near-synchronous technologies which support Internet-based synchronous chat with point-to-point communication between users on the same system (Grinter & Palen, 2002). These live help functions allow consumers to engage in social interaction when making their shopping decisions and are deemed particularly relevant when perceived risk associated with the purchase is high. The deployment of media-rich communication technologies such as text chat, audio and video chat can be costly and require additional financial and human resource investments to operate.

Online social-networks (OSNs) – refer to online platforms where people are interconnected (Douglis, 2010). These platforms are used for information sharing, video sharing, photo sharing, chatting, tagging and blogging (Hoadley et al., 2010). OSNs became very popular despite the probability that they may put the privacy of internet users in danger (Vascellaro, 2010). Today, individuals, businesses, and even governments communicate with each other, their customers, and constituencies via OSNs such as YouTube, Facebook, and Twitter (Badawy, 2009). Facebook.com alone, for example, has more than 500 million active users (Facebook, 2010). While the impact of such social-networks on online customers’ purchasing behavior has not been studied yet, we expect that they will be of more relevance in purchasing high involvement products when perceived risk is higher.

Support web-blog (forum) – is Web information sharing technology (Boulos et al., 2006). It contains an online personal journal with reflections and comments, and is updated with individual entries or postings frequently according to the website owner’s editorial purposes (Reichardt & Harder, 2005). Support forums contribute to Web content by linking and filtering evolving content in a structured way and by connecting people through shared interests (Lindahl & Blount, 2003). They engage people in knowledge sharing, reflection and debate, constructing knowledge around a common topic within a community of practice (Boulos et al., 2006). Online customers may seek supportive information for some technically complicated product categories, especially when there is little brand information or for very specialized but less familiar niche products.

Online product review/rating – is provided by customers who previously purchased products and may add value for prospective consumers (Mudambi & Schuff, 2010; Williams et al., 2010). Today they have become a major information source for consumers regarding product quality (Hu et al., 2008). Interestingly, consumers who shop from an unfamiliar e-retailer in search of lower prices seek more negative word-of-mouth information and are more likely to believe that problems may occur as compared to e-retailers with whom they are more familiar (Chatterjee, 2001). However, positive as well as negative reviews increase consumer awareness, whereas positive reviews, in addition, improve attitudes toward products (Vermeulen & Seegers, 2009). Hence, customer reviews are found to have a positive relationship with sales (Chen et al., 2004). Even though Duan et al. (2008) found online user reviews to have little persuasive effect on actual consumer purchase decisions, their positive impact appears to be stronger for less-popular products than for more-popular ones (Chen et al., 2004).

User customization – enables e-retailers to automatically interact with their customers, offering them a variety of web-based personalization opportunities that might drive customer satisfaction and trust (Riemer & Tötz, 2001). The positive impact of offering customization possibilities on customer trust has been
empirically confirmed by different scholars (Chen & Barnes, 2007; Koufaris & Hampton-Sosa, 2004). The personalization of products to specific requirements obviously increases customer value and lowers the competitive comparability, thus increasing switching costs (Riemer & Totz, 2001). User customization opportunities may vary depending on the type of the products sold. Some products such as airline tickets, laptops and gifts are easily customizable. For example, online-shoppers can customize the dates, times and number of stop-overs for plane tickets or they can customize the entire hardware and software configuration of laptops (Koufaris & Hampton-Sosa, 2004). In addition, customization features can serve as a key means of acquiring customer information (Chellappa & Sin, 2005).

E-RETAILER CATEGORIES AND THEIR NEED FOR SOCIAL-PRESENCE

Some products appear to sell better on the internet than others. Products that have a low cost, intangible value proposition and which score relatively high on differentiation are more likely found to be purchased online (Phau & Poon, 2000). As a consequence, the lack of online social-presence can be a strong inhibitor for purchasing certain product categories on the Internet. For that reason we assume that the need for social-presence and consequently also the adoption of social-media cues will vary depending on the kind of products offered by the e-retailer. Many scholars have offered diverse categorizations of e-retailers according to the type of goods they trade (Choi et al., 2006; De Figueriedo, 2000; Girard et al., 2003; Peterson et al., 1997; Rosen & Howard, 2000). Most of them categorized online retailers based on customer involvement (i.e., low versus high) and product characteristics (i.e., search versus experience goods). Correspondingly, we propose that commercial websites can be distinguished according to the ‘monetary’ and ‘symbolic’ value of the products they sell and that their need for social-presence and consequently also their adoption of social-media cues will differ accordingly. The proposed categories are not conceived to be clear-cut but rather to represent a continuum with two axes from ‘less’ to ‘more expensive’ and from ‘more functional’ to ‘more symbolic’ (Figure 1). The general proposition is that e-retailers belonging more or less to these different categories will vary in their need for social-presence and consequently in their adoption of social-media cues.

‘Monetary value’ is probably the most commonly used indicator of consumer involvement because perceived risk is higher when the price is high (Laurent & Kapferer, 1985). This evokes more complex information search behavior, as such products are bought less frequently and increases the need for confirmation. Therefore, we assume that the need for social-presence and the adoption of social-presence enhancing features will be higher for e-retailers selling more expensive products.

H1: e-retailers selling products of higher monetary value are expected to utilize more social-media cues.

‘Symbolic value’ refers to the differentiation of products based on brand image. In contrast to more functional products, where image is less important, products with a higher symbolic value, like fashion for example, are more ego-involving because of their symbolic meaning which conveys one’s lifestyle or personality (Laurent & Kapferer, 1985). As it can be tricky to express such symbolic qualities via the website interface (Degeratu et al., 2000), we assume that the need for social-presence will be higher in the case of e-retailers selling products of higher symbolic value. In accordance, Hassanein and Head (2006) found websites selling high symbolic value products (e.g., apparel) to benefit from higher levels of social-presence, while websites selling more functional products (e.g., headphones) did not exhibit a positive effect from higher levels of social-presence. Thus, they confirm that the effect of social-presence differs according to the type of products offered.
by the e-retailer and more specifically, according to the symbolic value of the products offered. Consequently, we assume that the utilization of social-presence enhancing features will be higher for e-retailers selling more symbolic versus more functional products.

H2: e-retailers selling products of higher symbolic value are expected to utilize more social media cues.

**METHODOLOGY**

**Content Analysis: Method and Procedure**

In order to establish to what extent media-rich technologies which convey social-presence are adopted by B2C e-retailers, we content analyzed their websites identifying the different social-media cues utilized (see first column of Table 2). Content analysis is a scientific, objective, systematic, quantitative, and generalizable research technique for making replicable and valid inferences from textual, pictorial, or audible matter to the contexts of their use (Krippendorff, 2004). This method has been used by many scholars to investigate website content across different domains (Choi et al., 2007; Govers & Go, 2005; Henry & Story, 2009; Maynard & Tian, 2004; Zhao & Zhao, 2004). The analysis of the website content was carried out during June-July 2010 and proceeded in 2 stages: (1) careful investigation of the website’s front page, (2) choosing a product and clicking till the last checkout page. While browsing through the shopping process, we carefully investigated web pages for the presence or absence of the different social-media cues using a pragmatic coding scheme (absence=0; presence=1). The obtained data is reliable because coding two clear possibilities satisfies the condition of reliability and there is no need to perform an additional record of nominal data by different observers (Hayes & Krippendorff, 2007).

**Sample**

The sample consisted of 210 top revenue producing B2C e-commerce retailers as identified by Internet Retailer’s ‘Top 500 Guide’. In view of the fact that utilizing a broad range of interactive web features may require high financial and human resource investments to maintain effective e-commerce activity, it is expected that the Internet Retailer’s Top 500 companies can be considered as the most apt to have adequate resources to employ fully-featured websites. The Top 500 ranks B2C retailers in the U.S. and Canada based on full-year online sales, including retail chains, catalogers, Web-only merchants, brand manufacturers and digital content sellers (Internet Retailer, 2010). As we aimed to examine whether there are significant differences in the utilization of social-media
Table 2. Adoption of social-media cues among e-retailer categories

<table>
<thead>
<tr>
<th>Social-cue feature</th>
<th>2 x 4 design</th>
<th>Total</th>
<th>( \chi^2 )</th>
<th>Sig. 2-sided</th>
<th>2 x 2 design</th>
<th>Total</th>
<th>( \chi^2 )</th>
<th>Sig. 1-sided</th>
<th>2 x 2 design</th>
<th>Total</th>
<th>( \chi^2 )</th>
<th>Sig. 1-sided</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low monetary value</td>
<td>High monetary value</td>
<td>%</td>
<td>df = 3</td>
<td>Low</td>
<td>High</td>
<td>%</td>
<td>df = 1</td>
<td>Low</td>
<td>High</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low symb. value %</td>
<td>High symb. value %</td>
<td>%</td>
<td>df = 3</td>
<td>Low</td>
<td>High</td>
<td>%</td>
<td>df = 1</td>
<td>Low</td>
<td>High</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Photo cue</td>
<td>62.7</td>
<td>81.7</td>
<td>50.9</td>
<td>57.1</td>
<td>63.8</td>
<td>13.24</td>
<td>.004</td>
<td>71.2</td>
<td>53.5</td>
<td>62.9</td>
<td>6.971</td>
<td>.006</td>
</tr>
<tr>
<td>Video cue</td>
<td>25.5</td>
<td>28.3</td>
<td>31.6</td>
<td>19.0</td>
<td>26.7</td>
<td>2.071</td>
<td>.558</td>
<td>25.2</td>
<td>26.3</td>
<td>25.7</td>
<td>.029</td>
<td>.494</td>
</tr>
<tr>
<td>Avatar</td>
<td>0.0</td>
<td>0.0</td>
<td>2.4</td>
<td>5</td>
<td>4.019</td>
<td>.259</td>
<td>0.0</td>
<td>1.0</td>
<td>.5</td>
<td>1.127</td>
<td>.471</td>
<td>0.0</td>
</tr>
<tr>
<td>RA</td>
<td>0.0</td>
<td>0.0</td>
<td>5.3</td>
<td>0</td>
<td>1.4</td>
<td>7.169</td>
<td>.043*</td>
<td>0.0</td>
<td>3.0</td>
<td>1.4</td>
<td>3.412</td>
<td>.103</td>
</tr>
<tr>
<td>Live help</td>
<td>15.7</td>
<td>31.7</td>
<td>43.9</td>
<td>33.3</td>
<td>31.4</td>
<td>10.02</td>
<td>.018</td>
<td>24.3</td>
<td>37.4</td>
<td>30.5</td>
<td>4.206</td>
<td>.029</td>
</tr>
<tr>
<td>Review tool</td>
<td>56.9</td>
<td>76.7</td>
<td>75.4</td>
<td>52.4</td>
<td>66.7</td>
<td>10.73</td>
<td>.013</td>
<td>67.6</td>
<td>65.7</td>
<td>66.7</td>
<td>.086</td>
<td>.441</td>
</tr>
<tr>
<td>Rating tool</td>
<td>49.0</td>
<td>80.0</td>
<td>66.7</td>
<td>45.2</td>
<td>61.9</td>
<td>17.41</td>
<td>.001</td>
<td>65.8</td>
<td>57.6</td>
<td>61.9</td>
<td>1.488</td>
<td>.141</td>
</tr>
<tr>
<td>Support blog</td>
<td>39.2</td>
<td>16.7</td>
<td>38.6</td>
<td>21.4</td>
<td>29.0</td>
<td>10.72</td>
<td>.013</td>
<td>27.0</td>
<td>31.3</td>
<td>29.0</td>
<td>.466</td>
<td>.298</td>
</tr>
<tr>
<td>Facebook</td>
<td>54.9</td>
<td>56.7</td>
<td>70.2</td>
<td>57.1</td>
<td>60.0</td>
<td>3.432</td>
<td>.330</td>
<td>55.9</td>
<td>64.6</td>
<td>60.0</td>
<td>1.685</td>
<td>.124</td>
</tr>
<tr>
<td>Twitter</td>
<td>45.1</td>
<td>55.0</td>
<td>64.9</td>
<td>45.2</td>
<td>53.3</td>
<td>5.633</td>
<td>.131</td>
<td>50.5</td>
<td>56.6</td>
<td>53.3</td>
<td>.786</td>
<td>.227</td>
</tr>
<tr>
<td>Myspace</td>
<td>5.9</td>
<td>13.3</td>
<td>10.5</td>
<td>14.3</td>
<td>11.0</td>
<td>2.182</td>
<td>.535</td>
<td>9.9</td>
<td>12.1</td>
<td>11.0</td>
<td>.262</td>
<td>.385</td>
</tr>
<tr>
<td>Flickr</td>
<td>0.0</td>
<td>3.3</td>
<td>10.5</td>
<td>0</td>
<td>3.8</td>
<td>10.73</td>
<td>.013*</td>
<td>1.8</td>
<td>6.1</td>
<td>3.8</td>
<td>2.590</td>
<td>.106</td>
</tr>
<tr>
<td>Youtube</td>
<td>5.9</td>
<td>18.3</td>
<td>35.1</td>
<td>16.7</td>
<td>19.5</td>
<td>15.10</td>
<td>.002</td>
<td>12.6</td>
<td>27.3</td>
<td>19.5</td>
<td>7.158</td>
<td>.006</td>
</tr>
<tr>
<td>Customize</td>
<td>11.8</td>
<td>5.0</td>
<td>10.5</td>
<td>7.1</td>
<td>8.6</td>
<td>2.028</td>
<td>.567</td>
<td>8.1</td>
<td>9.1</td>
<td>8.6</td>
<td>.064</td>
<td>.496</td>
</tr>
</tbody>
</table>

* The assumption has not been met because the minimum expected count is less than 5.
cues depending on the type of products traded, we included various industries in our sample, classified according to the monetary and symbolic value of products sold (cf. Figure 1):

**Selling products which are relatively cheap in price and low in symbolic value:**
- Books/Music/Videos (N=20)
- Flowers/Gifts (N=11)
- Food/Drug (N=20)

**Selling products which are relatively cheap in price and high in symbolic value:**
- Apparel/Accessories (N=20)
- Health/Beauty (N=20)
- Sporting Goods (N=20)

**Selling products which are relatively expensive and low in symbolic value:**
- Computers/Electronics (N=20)
- Hardware/Home Improvement (N=20)
- Office Supplies (N=17)

**Selling products which are relatively expensive and high in symbolic value:**
- Jewelry (N=15)
- Housewares/Home Furnishings (N=20)
- Automotive Parts/Accessories (N=7)

**Analyses and Results**

The quantified data gathered from the content analyses was entered into SPSS and the frequencies of adoption of the social-media cues under investigation were counted (Singleton & Straits, 2009). We performed ANOVA and cross-tabulations to measure the variation and relation between our variables of interest.

An overview of our findings regarding the overall adoption of the different social-media cues is presented in Figure 2. While some social-media cues have been readily adopted by e-retailers (a.o., facial photographs, customer reviews and ratings, and some online social networks such as Facebook and Twitter), other social-media cues appear to be still in their infancy what their adoption is concerned (a.o. video features, avatars, recommendation agents and live help and support blogs).

The results also indicate that the adoption of social-media cues (mean = 4.40; st.dev. = 2.49) appears to vary markedly along the websites investigated: 13 out of 210 websites did not display any social-media cues, while 9 of them featured 9 or more different kinds of social-media cues and should be considered exemplary in this regard (i.e., Mountain Equipment Co-op, Dell Inc., Newegg Inc., HP Home and Home Office Store, Abt Electronics Inc., Weight Watchers International, Gaiam Inc., Recreational Equipment Inc. and BestBuy).

Differences in the amount of social-media cues utilized across website categories are first compared by means of a 2 by 2 (monetary value x symbolic value) ANOVA. This initial analysis, pertaining to the summated total number of social-media cues featured in the websites, reveals that there are no main differences in adoption of social-media cues when the monetary or symbolic value of products sold is concerned. However, there does appear to exist a significant interaction effect (F=12,788; p<.001; see Figure 3).

Apparently, the average number of social-media cues utilized is higher in e-retailing websites selling expensive products low in symbolic value than in websites selling expensive products high in symbolic value (av. number of social-cues = 5.21 MV high x SV low versus 3.71 MV high x SV high), which is somewhat contrary to expectations. Nevertheless, a post-hoc Bonferroni test confirms the statistical significance of this difference (p=.016). When websites selling cheaper products are concerned, as expected more social-media cues seem to be utilized when products sold have a higher symbolic value as compared to when they have a lower symbolic value (av. number of social-cues = 4.67 MV low x SV high versus 3.75 MV low x SV low). In this case however, a post-hoc Bonferroni test reveals that this apparent difference is not significant. Nonetheless, for commercial websites offering products low in symbolic value it is obvious from our results that those selling more expensive products utilize more social-
media cues than those selling cheaper products, which partially confirms our expectations (av. number of social-cues = 5.21 SV low x MV high versus 3.71 SV low x MV low; post hoc Bonferroni p=.012). In summary, rather remarkably, when there appears to be ‘congruency’ between the monetary and symbolic value of products offered on the website, which can both either be low or high, then there seems to be less usage of social-media cues in the website than in the case where there is some form of ‘incongruency’ between both (av. number of social-cues = 3.73 Congruent Values versus 4.93 Incongruent Values; t-test p<.001). It is as if the adoption of social-media cues should mend the issue of ‘incongruency’.

In a subsequent analysis cross tabulations and χ² analyses are carried out in order to compare the utilization of individual features across groups. Table 2 presents the detailed results of this analysis.

‘Facial photo-cues’ are used in 64% of all the websites investigated. They appear to
be used more in websites offering cheaper products as compared to those selling more expensive products (71% versus 54%, χ²-test p=.006), which seems logical considering the low cost needed for the implementation. Facial photo-cues are also used more in websites offering products of high symbolic value than in those offering more functional products (72% versus 56%, χ²-test p=.012), which is in line with expectations. As a matter of fact e-retailers selling cheaper products of a high symbolic value appear to make the most use of facial photo-cues in their websites (82%).

‘Video-cues’ are used in only 27% of all the websites investigated. Although we notice some slight variations among website categories, these differences appear to be insignificant. Websites making use of video-cues are not limited to those demonstrating their product by a representative through an embedded video-stream, but there are also some which enable their customers to upload user-generated video clips showing their experiences with products they purchased.

An ‘Avatar’ was only used in one of all the websites examined (i.e., Ikea.com). While Ikea offers some relatively cheap decorative products, it also sells more expensive built-in kitchens, bedding and upholstered furniture. In our categorization, e-retailers selling home-furnishings were classified in general as selling more expensive and more symbolic products. It is in line of expectations that some technologically more advanced social-media tools would rather be adopted within this category of online retailers.

‘Recommendation agents’ also appear to be scarce as they were used in only 3 of all the websites scrutinized (1.4%). The e-retailers featuring RAs in their websites (i.e., SonyStyle.com, HP Home & Home Office Store and Dell Inc.) all can be categorized as selling more expensive products of a more functional nature, which may require somewhat more technical assistance.

‘Live-help’ can be found in 31% of all the investigated e-commerce websites. They turn out to be featured more by e-retailers selling more expensive products (37% versus 24%, χ²-test p=.029), which might be due to the cost and human resource investments associated with adoption. While there does not seem to be a significant difference when the symbolic value of the products sold is concerned, live-help chat lines actually seem to be utilized most by e-retailers putting expensive products of low symbolic value on the market and least by those vending cheap products of low symbolic value (44% versus 16%; χ²-test p=.018), demonstrating a clear interaction effect. Only a few websites utilized the instant audio-chat feature (5.7%).

The results show that numerous top e-commerce websites try to create a social-presence by utilizing different kinds of ‘Online Social Networks’. Among many, Facebook.com (60%) and Twitter.com (53.3%) are the most utilized ones compared to MySpace.com (11%) or Flickr.com (3.8%) which are adopted to a far lesser extent. Although we notice some slight variations in adoption among website categories, these differences appear to be insignificant. For YouTube on the other hand, which is adopted by 20% of e-retailers, we can reveal a significant difference in adoption among e-retailers depending on the cost of the products sold, with 27% of those selling expensive products featuring YouTube as compared to only 13% of those selling cheaper products (χ²-test p=.006). While there does not seem to be a significant difference when the symbolic value of the products offered is concerned, YouTube actually seems to be utilized most by e-retailers putting more expensive products of low symbolic (i.e., more functional) value on the market and least by those vending cheaper products of low symbolic value (35% versus 6%; χ²-test p=.002), demonstrating a clear interaction effect once again. Especially, e-retailers which sell technically complicated and expensive products are trying to show video clips of their products via YouTube.

‘Support forums, discussion boards, and blogs for sharing ideas’ were available in 29% of all the websites investigated. Results indicate that especially websites offering more
functional products appear to feature support forums in comparison to those selling products with a more symbolic value (39% versus 19%; \(\chi^2\)-test \(p=.001\)). When the monetary value of the products on sale is concerned, no significant differences can be discerned in the adoption of support forums among website categories.

‘Customer reviews’ were featured in 67% of all the websites inspected and ‘customer ratings’ were available in 62% of them. Thus, most web-based companies are allowing their customers to post their experiences about the products or services they have purchased. Although we cannot reveal any main effects with regard to the monetary or symbolic value of the products sold in the websites, a clear interaction effect becomes apparent. When there appears to be ‘congruency’ between the monetary and symbolic value of products offered on the website, which can both either be low or high, then customer reviews appear to be less featured in the website than in the case where there is some form of ‘incongruency’ between both (76% Incongruent Value versus 55% Congruent Value; \(\chi^2\)-test \(p=.002\)). The same is true for the display of customer ratings (74% Incongruent Value versus 47% Congruent Value; \(\chi^2\)-test \(p<.001\)). It seems as if the issue of ‘incongruency’ needs to be resolved by the adoption of customer reviews and customer ratings.

Finally, only a few websites allow ‘User customization’ (8.6%). Although we can see some slight variations among website categories, they do not appear to be significant. Product personalization appears to be offered most by merchants selling gift cards, apparel and computers.

**DISCUSSION AND CONCLUSION**

While some social-cue features seem to be readily adopted by online retailers (e.g., facial photographs, customer reviews & ratings and some online social-networks such as Facebook and Twitter), we see that certain, more advanced social-cues (such as video-streams, avatars, recommendation agents, live-help and support blogs) are still applied rather scarcely (cf. Figure 2), demonstrating that there is still room for enhancing social-presence in a majority of top B2C e-commerce websites. This finding is consistent with a recent Forrester Research report which states that online retailers are lagging with social-media marketing (Sainsbury, 2010), which might be due to the cost of adoption or the relative immaturity of the technology which supports these social-media features (Qiu & Benbasat, 2005).

In this paper we also examined more specifically how online retailers differ in their utilization of these social-media cues depending on the ‘monetary’ and ‘symbolic’ value of the products they sell. While we could identify some significant differences, the findings are not straightforward. In some cases there appears to be an important interaction effect. When there is ‘congruency’ between the ‘monetary’ and ‘symbolic’ value of products offered on the website, which can both either be low or high, then there seems to be less usage of social-media cues in the website than in the case where there is some form of ‘incongruency’ between both. It is as if the adoption of social-media cues should resolve this issue of ‘incongruency’. More specifically, websites selling products with incongruent ‘monetary’ and ‘symbolic’ values (i.e., expensive and functional or cheap and symbolic) are found to feature customer review and customer rating features more often. On average, websites selling more expensive products of a more ‘functional’ (i.e., less ‘symbolic’) nature seem to feature the most social-media cues. More specifically, such websites appear to utilize more live-help (e.g., chat lines), make more use of YouTube media-stream and make exclusive use of recommendation agents. In general, when the impact of the ‘monetary’ value of products sold is concerned, we can conclude that websites selling cheaper products make more use of facial photo-cues, while websites selling more expensive products use
live-help and YouTube media-stream. When the impact of the ‘symbolic’ value of products traded is concerned, we can conclude that websites selling products of a more functional (i.e., less symbolic) nature utilize support forums, discussion boards and blogs for sharing ideas more often. Websites selling more symbolic products, on the other hand, appear to make more use of simple facial photo-cues.

Having portrayed the current situation of social-media adoption among online retailers, we would like to take the opportunity to speculate a little about future developments. As the lack of social contact with store employees as well as with other shoppers is still one of the main factors holding back consumers to purchase online (Lowry et al., 2010), we feel that further application of new media-rich technologies conveying social-presence can be an important factor contributing to the future success of e-retailers. The integration of such social-media cues into retail websites has actually been demonstrated to positively affect consumers’ online experiences, trust, loyalty, perceived usefulness, enjoyment and purchase intentions (Cyr et al., 2007; Dash & Saji, 2007; Wang et al., 2007; Gefen & Straub, 2003). The findings of our research clearly indicate that there is still considerable potential to enhance social-presence in a majority of top online retailer websites. As we expect that the technology behind these social-media features will further evolve and mature and that the costs involved in adopting more advanced social-media features will reduce correspondingly, we anticipate an increased adoption of social-media in e-commerce websites and predict a bright future for online retailing.

Obviously, the supporting technologies are in constant evolution and it is not an easy task to imagine what the future might bring. One has to bear in mind that online social-networking sites, for example, such as Facebook and Twitter, did not even exist just a couple of years ago. Today, new Web technologies allow the use of social-networking tools which are becoming an essential part of our daily life that cannot be ignored or simply turned off (Badawy, 2009). Since the boom of ‘Web 2.0’, online social-networking websites have been on the rise (Van den Eede, 2010). As a result, every day more people are getting connected through popular OSNs to express themselves, and share content (Mislove et al., 2010). Most e-commerce companies are recognizing the importance of this trend and have started utilizing OSNs at a fast pace. Simultaneously, the usage of virtual communities such as ‘Second Life’ is growing for activities like dating, sharing ideas and education as well as for purchasing products from e-retailers (Berthon et al., 2010; Salmon, 2009). We expect that in the future the social-networks as well as virtual communities will continue to grow and that businesses will invest more in community building applications as a marketing driver.

The current study also revealed that customer reviews and ratings have been readily accepted by top online retailers. As they have been demonstrated to positively impact sales (Chen et al., 2004; Chevalier & Mayzlin, 2006; Mudambi & Schuff, 2010), we expect that in the future e-retailers will utilize Web technologies which allow customers to post not only text but also their own photos as well as user-generated audio and video comments to share individual product experiences. In the future, more powerful streaming and advanced technology will enable more e-retailers to adopt these features. This would definitely engender more social atmosphere in the websites and will add value for prospective consumers, lowering their perceived risks and thus increasing their purchase intentions (Mudambi & Schuff, 2010; Williams et al., 2010).

‘Support forums, discussion boards, and blogs for sharing ideas’ are currently offered by about one third of top online retailers. As they have been demonstrated to positively impact sales (Chen et al., 2004; Chevalier & Mayzlin, 2006; Mudambi & Schuff, 2010), we expect that in the future e-retailers will utilize Web technologies which allow customers to post not only text but also their own photos as well as user-generated audio and video comments to share individual product experiences. In the future, more powerful streaming and advanced technology will enable more e-retailers to adopt these features. This would definitely engender more social atmosphere in the websites and will add value for prospective consumers, lowering their perceived risks and thus increasing their purchase intentions (Mudambi & Schuff, 2010; Williams et al., 2010).
future. They can be used to engage consumers and can provide a way to ‘draw in’ online shoppers. Particularly, we see a positive evolution in the adoption of multi-media chat-room features where customers can instantly socialize with each other, not only through text-chat, but also through live audio and video-streams.

‘Live-help’ features also appear to be utilized somewhat less commonly by online retailers. As this might be due to the cost and human resource investments associated with proper adoption, we feel that this will initially stay an important obstacle and that its use in the near future will stay a privilege for online retailers selling more expensive products. However, as conversational interface devices (such as Spoken Dialog Systems) and humanlike agents that can “talk” to customers using data-rich semantic protocols will probably become readily accessible in the somewhat further future, this obstacle should be overcome easily, making the prospect of daily interactions with hundreds of millions of people within the system over mobile devices or communication networks actually feasible (Höge et al., 2008; Pieraccini, 2009). While most online retailers currently only feature text-chat help, for the future we see an evolution towards audio- and video-chat help features. It has actually been demonstrated that voice-chat has a significantly better effect on trust and cooperation than text-chat (Åberg & Shahmehri, 2001). As the competition among online businesses is becoming more intense, we can therefore, expect that in the future more instant multi-media (i.e., including audio and video) feedback and sharing opportunities will be provided, integrating different social-media cues which are designed to enhance customer involvement.

The adoption of recommendation agents (RAs), as means to enhance social-presence, appears still very uncommon. Only three top retailers in the current study have already adopted this technology. Considering that this social-media cue can induce trust towards the Web retailer, that the technology behind it is advancing at a fast pace, and that it will become a necessity for any e-commerce website that has a large amount of products or services to offer, we speculate that its utilization by e-retailers will rise considerably in the near future. Empirically, it has been demonstrated that online RAs are actually able to provoke consumer trust towards e-retailers (Qiu & Benbasat, 2009; Wang & Benbasat, 2007). The technology behind recommendation systems is also in full evolution and has shifted from characteristic-based recommendation algorithms to social-based recommendation algorithms (Ochi et al., 2010). Because of their positive impact on the online shopping experience we expect that especially this last type of RAs will become popular.

Our findings also show that current use of “avatar” technology by top e-retailers is almost non-existent. An avatar was only used in one of all the websites examined. As recent empirical literature emphasizes the positive effects of such a virtual salesperson on perceptions towards the Web retailer, we assume that this social-presence enhancing feature will be utilized more frequently by e-retailers in the future. Avatar sales agents have actually been demonstrated to engender more satisfaction with the e-retailer, a more positive attitude towards the products, and a greater purchase intention (Holzwarth et al., 2006). In addition, avatar presence has been shown to induce consumer trust towards e-retailers (Keeling et al., 2009; Luo et al., 2006). While at moderate levels of product involvement, featuring an attractive avatar appears most effective, at high levels of product involvement, an expert avatar turns out to be a more successful sales agent (Holzwarth et al., 2006). Due to the current technological advancements, which will become commonly available at a lower cost, we also expect that high quality personalized 3D avatars will become soon accessible and will be adopted by e-retailers enabling customers to use virtual fitting rooms to try on fashion products (cf., OptiTex fashion design software featured in Tim Gunn’s Guide to Style). The online shopper’s personal avatar wearing the new clothes and accessories can subsequently be revealed.
to friends or other shoppers for advice and confirmation regarding likeability and fit. This will reduce the online shopper’s cognitive dissonance and will enhance his online shopping experience considerably, which should give a boost to e-tailers in the fashion industry.

While providing user customization possibilities involves increased costs, Web merchants should realize that it can be a perfect way to generate more customer value and to differentiate their offer from that of the competition. Therefore, we are also positive on our expectations for its future adoption. Finally, considering these trends and evolutions, we predict that current advancements which make the Internet more social might help online shopping to displace traditional shopping behavior to some extent in the next decades.

LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This study is based on a sample of ‘top’ e-retailers. Because these most probably have the necessary resources to invest in their websites, the findings of this study will most likely give a more positive impression with regard to the adoption of social-media cues than if we would look at the general population of B2C e-commerce websites. As, based on this sample, we can already reveal a huge potential for improvement, we can only assume that this potential will be even bigger in reality. It would be interesting if the adoption of social-media cues could actually be compared between higher and lower ranked online retailers.

Based on our investigations, carried out at a certain point in time, we have tried to depict the current adoption of different social-media cues by online retailers, in order to be able to make some predictions about the future. It would be fascinating to actually track the evolution of the adoption of social-media cues in the websites investigated by performing a longitudinal study. This would allow us to get a better view of the actual diffusion of social-media among e-retailers. The fact that supporting social-media Web technologies are in constant evolution will make such longitudinal research all the more challenging.

As this research focused specifically on B2C online retailers, it would also be interesting to look at the adoption of social-media cues by B2B e-vendors or C2C e-commerce portals. In future studies also a comparison could be made of the adoption of social-media features by pure plays versus bricks and clicks retailers, as it could be assumed that the need for integration of social-presence will be even higher for pure plays as they lack physical stores altogether.

In the current research paper a categorization of online retailers was proposed, classifying them according to the ‘monetary’ and ‘symbolic’ value of products sold, because we expected that the need for social presence and consequently also the adoption of social-media cues would be different between these online merchants. Understanding such differences should contribute to a better comprehension of social-media diffusion among the variety of e-retailers. Nevertheless, categorizing e-commerce companies based on the products they sell is not always straightforward as often they sell different kinds of products. For example, e-retailers selling office-supplies may offer simple inexpensive goods such as a variety of office-stationery as well as expensive customized office furniture or multi-function laser printers. While the proposed categories were not conceived to be clear-cut but rather to represent a continuum with two axes from ‘less’ to ‘more expensive’ and from ‘more functional’ to ‘more symbolic’, we categorized different industries representing a variety of retailers in each of the categories. We acknowledge however that also within these industries there can be a huge variety between e-retailers which was not really taken into account in the present study (e.g. Ikea.com versus Restorationhardware.com, both offering home furnishings but to a diverse audience and clearly with a different price-positioning). Further research should investigate how consumers experience the need for social-presence among different kinds of online retailers and whether

Copyright © 2011, IGI Global. Copying or distributing in print or electronic forms without written permission of IGI Global is prohibited.
the proposed e-tailer classification is adequate in this regard or whether it should be refined.

Furthermore, it would be interesting to investigate the impact of the implementation of different social-presence enhancing technological features such as synchronous video-cue, audio-cue and social-networks on consumer trust and buying behavior. As the likelihood to shop online depends on the consumer’s shopping orientation such as price-consciousness, risk-aversion, innovativeness, brand-loyalty, variety-seeking inclination, impulsiveness as well as information processing (Girard et al., 2003), it should also be interesting to investigate how different types of online shoppers vary in their dependence on social-media cues in e-retailer websites.

Finally, while the deployment of some of these social-media tools still may be relatively costly and require high financial and human resource investments to utilize them effectively (Whelen & McGrath, 2002), the challenge faced is that their use can be quite tricky and may require some new ways of thinking (Kaplan & Haenlein, 2010). Making suggestions to users via social-networks to increase their degree of engagement is becoming a common practice, but the most important task for e-retailers is to know how to recommend the right content, products, or ads to consumers (Machanavajjhala et al., 2010). Thus, in adopting these emerging e-business technologies internal capabilities of a company may play a more influential role than the environmental drivers (Chang, 2010). Thus, the central concern is not whether to utilize these new media tools but how to utilize them. These new media tools can enhance the shopping experience, but applications should be tailored to meet the unique requirements of product categories and consumer segments (Burke, 2002). Further research has to investigate how social-media should be used to lead to optimal results.

REFERENCES


Douglois, F. (2010). It’s all about the (social) network. IEEE Internet Computing, 14(1), 4–6. doi:10.1109/MIC.2010.13


Govers, R., & Go, F. M. (2005). Projected destination image online: Website content analysis of pictures and text. Information Technology & Tourism, 7(2), 73–89. doi:10.3727/109830505X3217327


---

Copyright © 2011, IGI Global. Copying or distributing in print or electronic forms without written permission of IGI Global is prohibited.


---

Farhod P. Karimov is a doctoral scholar at the Vrije Universiteit Brussel (Belgium). He received his bachelor degree in business administration from Tashkent State Technical University (Uzbekistan) and master degree in marketing science from University of Ulster (UK). From 2002 to 2006, he was vice-president of Marketing at Ulugbek Textile joint-stock company where he was responsible for leading, directing and mentoring marketing team to success. In 2006, he started his academic career at Westminster International University in Tashkent (WIUT), where he has been lecturing on Marketing Management, Marketing Research, and Creating and Delivering Customer Value. As a guest lecturer he has also been teaching Marketing, Consumer Behavior, and Pricing Strategies in Marketing at International Business School in Tashkent. His current scientific research is focused on understanding the impacts of website atmospherics on online consumers’ shopping motivations and behavior. The aim of the research is to capture the lessons of successful models for e-businesses serving promising online segment. He is actively involved in studying the role of social-media in e-commerce and specifically how it influences the acceptance of online shopping. In addition to his interest in Internet marketing, he also studies entrepreneurial marketing and ICT research in transition economies.
Malaika Brengman (PhD in Applied Economics, University of Ghent) (UG), is Associate Professor at the Vrije Universiteit Brussel (VUB), where she teaches Marketing, Strategic Marketing Management, Consumer Behaviour and Market Research. She started her academic career as Assistant Professor at Hasselt University, where she has also been lecturing in Marketing Communications, e-Business, Services Management and Customer Relationship Management. She has also been guest lecturing at other academic institutions such as Solvay Business School at the Université Libre de Bruxelles and the International School of Management at the Leti-Lovanian University in St. Petersburg, Russia. Guided by her strong interests in Retailing, Marketing Communications and Consumer Behaviour, her scientific research generally focuses on the impact of store atmospherics and consumers’ shopping motivations and behaviour, specifically also with regard to alternative distribution channels such as e-commerce and shopping in Virtual Worlds. She also studies marketing communications’ effectiveness, especially with regard to new media. She has published her work in well-established journals, such as the ‘Journal of Electronic Commerce Research’, the ‘Journal of Business Research’, the ‘Journal of Marketing Communications’, the ‘Journal of Retailing and Consumer Services’, the ‘Journal of Brand Management’, the ‘Journal of Product and Brand Management’, and ‘Advances in Consumer Research.’ She has presented her findings at numerous international conferences.