Understanding How Social-Behavioural Science Theory Can Explain the Design of Software Websites

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Abstract

Websites and application (app) stores are the primary gateway for users to encounter, interact, utilize, and purchase new technologies. Over forty years of diffusion and technology acceptance research from the social-behavioural sciences has provided theoretical guidelines in regards to what users evaluate while deciding to purchase a new technology. While many of these ideas are well diffused in the social science literature, however the question of whether this accumulated knowledge is actually implemented in the business world remains unanswered. The current research analyses over 200 consumer and business software app websites and evaluates the extent to which the design of software websites reflects diffusion and user acceptance theories. It appears that business software websites tend to provide comparatively more image and trialability information, dedicate a proportionally greater percentage of their website space to providing ease of use and social influence information, while consumer software websites focus more on the software’s compatibility and provide more usefulness information.

1. Introduction

Design often lies within the realm of graphic artists and programmers who tend to focus on functionality elements and tangible aspects of technology. In contrast, social-behavioral science theories look to the implications of design—users’ internal, perceptual factors that lead to prospective technology adoption. With the tangible elements of design and the theoretical perspective of design remaining in two separate worlds, an important question remains: Do technology application and software websites follow the mature diffusion and user acceptance principles that have been proposed and validated by social-behavioral science research? This is the key question that drives the present investigation.

Websites continue to be one of the main gateways for users to encounter, understand, test, and utilize new technologies. Whether it be individuals downloading computer software or mobile applications (“apps”), the provider’s website remains the primary mechanism for communication and information exchange about the product. These websites are the marketplaces where consumers compare different technologies, gauge their relative efficacy and value, and eventually purchase the technology. The content of these individual websites are, hence, pivotal in the diffusion/user-acceptance process. Not only do consumers form initial impressions about the technology on these sites, but they also leave feedback that other perspective adopters utilize while making a decision to adopt or reject the technology. Such initial impressions, once formed, potentially endure and affect the adopter’s subsequent interactions with the technology. Since diffusion occurs through a social contagion process, these early impressions, in-turn, spread to other adopters either through direct interaction between the adopters or indirect communication through user blogs, website feedback, and other media. The content of technology websites therefore plays a critical role in framing a new technology to its potential and future users [1].

Over four decades of research in the diffusion of innovations [2] and user acceptance research in information systems (IS) has exhaustively evaluated, defined, and discriminated the factors that best predict user adoption of technological innovations. Extant research has examined the various phases in the technology acceptance process, the process of user decision-making, the ideal attributes of technologies, and even the types of social systems within which innovations diffuse. This accumulated knowledge has provided many theoretical guidelines on the types of information and the specific aspects of technologies that users evaluate while deciding to adopt a new innovation. While many of these ideas are well diffused in the social sciences and scholars in many fields understand and accept them, the question of whether any of these ideas are actually implemented by
organizations that design and sell software, remains unanswered. Hence, what is unclear is whether software websites are actually designed using theoretically driven principles or whether the websites utilize website-usability or aesthetic standards instead.

The present research chose to study personal computer/Microsoft software for the following reasons: First, in spite of the recent growth of the mobile app market and the emergence of newer operating systems (e.g., Chrome, Linux, Apple OS), Microsoft’s various operating systems and the computer software market continues to dominate with close to 90% of the overall global computing market share. Second, the majority of computer software is sold online, often exclusively, through websites, making websites the necessary conduit in the marketplace. Apart from a handful of well-known brands, the bulk of the client this industry is comprised of smaller entities [3]. Hence, for many users, the software’s website is the only point of contact for information, decision-making, and reinforcement. Third, most software is privately consumed. Potential adopters, therefore, do not have the added benefit of vicarious observation. These factors coupled with the ability of small, seemingly innocuous software programs to seriously and permanently damage a computer, translate to higher permanence among potential adopters of new software and an increased reliance on the information presented on the software’s own website.

Hence, the current research examines the content of information presented on different software websites. The research focuses on the quality of the content on the software’s website, its adequacy from a diffusion theory standpoint, and the differences, if any, in the content of software websites targeted at consumer and business users. We begin by presenting an overview of diffusion theory, followed by a section detailing the study methodology, the sample used, and the results and conclusion of the study.

2. Literature Review

2.1. Diffusion and User Acceptance Theories

Diffusion theory presents a systematic analysis of the factors that best predict the adoption of innovations [2]. The strength of the theory lies within its ability to systematically explain the factors that predict the adoption of an innovation. According to the theory, the decision to adopt any innovation is best predicted by the potential adopter’s perceived beliefs about the innovation. Five perceived beliefs best predict adoptive intent: the relative advantage of the innovation over preceding innovations; the compatibility of the innovation with other existing technologies; the ease with which one can learn to use the innovation; the perceived visibility or ability to vicariously observe its consumption by others; and the ability to test the innovation on a limited basis prior to adoption.

Research in IS, which focuses on the organizational adoption of software innovations, has attempted to improve the measurement of these attributes with the goal of more accurately modelling the adoption process. One of the most important IS models, the Unified Theory of Acceptance and Use of Technology (UTAUT) [4], is tailored to explain user behaviour across a broad range of end-user computing technologies. Dissatisfied with the multitude of competing models and measures explaining end-user behaviour, UTAUT was formulated to reduce the redundancy between prior models, isolate the core determinants of user acceptance and present a single, comprehensive model of technology adoption.

According to UTAUT, four beliefs about an innovation are core determinants of an individual’s intent to adopt: performance expectancy, effort expectancy, social influence, and facilitating conditions. Performance expectancy and effort expectancy are similar to the innovation-diffusion constructs of relative advantage and perceived complexity, respectively; social influence is similar to the construct of image, while facilitating conditions taps into the innovation-diffusion construct of compatibility. Together these attributes explain between 50 and 60 percent of the variance in the intention to adopt software innovations.

The perceived attributes of innovations explain between 50 and 75 percent of its rate of adoption. Innovations that are positively rated on these attributes tend to diffuse faster than innovations that are negatively rated. For instance, cellular phones are thought to have a perfect set of diffusion related attributes, which has contributed to its rapid global diffusion [2], [5]. In contrast, innovations such as laser discs and electronic medical records have suffered because they do not possess similar favourable qualities. Of particular interest in the current research is how these beliefs about innovations are shaped.

2.2. User Beliefs about Technologies

Much of the research on diffusion focuses on the impact of the users’ internal beliefs on their decision to adopt the innovation [6], [7], and how these internal beliefs are, in turn, influenced by various external factors [8]. Less research, however, focuses on how these beliefs are formed.

Since diffusion of technology is conceptualized as a communication process, where potential adopters
process innovation specific information received from the mass media and through interpersonal exchanges with other adopters, one could surmise that beliefs about innovations are based on messages communicated through these media.

Because of a lack of prior users to provide subjective information during the early stages of an innovation’s diffusion, earlier adopters tend to rely on the mass media for much of their information. For potential adopters of new computer software, the primary sources of such information include the software’s own website, recommendations provided on specialist sites such as CNet and ZDnet, and any early evaluations provided on user blogs. Since most innovations are equivocal [9], the content of this information plays a vital role in defining the innovation.

During the later stages of an innovation’s diffusion, adopters rely on the richer subjective experience of earlier adopters, communicated through interpersonal means. Hence, not only do the mass mediated messages influence early adopters, they also have the potential of influencing the later adopters of the innovation. Recent research has demonstrated an enduring quality to these early impressions. Vishwanath [1] explored the influences of message frames on adoption new computer software and demonstrated a significant effect of message content on adoption decisions overtime. Interestingly, the adopter’s early impressions about the software, based on such content, seemed to endure and become expectations, affecting all future interactions with the technology.

Since the information provided on the software’s website is an initial, and in many instances the only, information source for a prospective adopter, the content of the website has the potential to significantly create initial impressions about the software, impact its interpretation, and influence its overall rate of adoption and use. Though a large body of research has explored the user beliefs that influence the adoption of computer software, none have evaluated the software websites and its content from a diffusion standpoint. Hence, it remains unclear whether existing websites are designed in accordance with the principles espoused in diffusion and IS theory.

There are at least two reasons to expect the content and structure of software websites to reflect diffusion theory. First, a number of sciences have focused attention on the design, development, and testing of software and software websites. Among the contributing disciplines are computer science, computer engineering, information systems, communication science, and library science. Hence, it is reasonable to expect the application of fundamental scientific theory in the design of software websites. Second, all the recommended methodologies for the development and testing of software architecture and web layouts suggest involving end-users during its construction, testing, and development stages [10]. Since end users’ beliefs about the innovation reflect their expectations from the innovation, one would expect the outcome of the design process to discover these expectations. Moreover, the vast majority of diffusion research has shown that potential adopters have a limited set of five to seven expectations from any new innovation. Given these reasons, it is reasonable to expect the content of software websites to consistently reflect diffusion theoretic principles.

Though a number of researchers have explored the construction of websites from a usability and design point of view [11], none have explored the appropriateness of website content, especially for software websites, from a theoretical standpoint. Hence, a number of important questions remain unanswered. For example, it is unclear whether the content of software websites emphasizes any one specific diffusion specific feature over another. That is, does the content of software websites emphasize ease of use over usefulness and image? Also, are there any differences in the types of software and the emphasis on the website? For instance, do consumer software websites promote trialability because consumers are potentially more risk averse, and do business software websites provide less emphasis on these factors? Likewise, does image and social influence significantly manifest the content of consumer websites, while compatibility and usefulness significantly influence business software websites? Alternatively, because business software is often purchased on a larger scale and in greater quantity, do their websites emphasize pricing and licensing issues rather than trialability? Due to absence of prior research to guide specific hypothesis, the following questions are posed:

- **RQ1.** Is the content of software website consistent with diffusion theory?

- **RQ2.** What are the differences between consumer software websites and business software websites on their application of diffusion theory?

### 3. Methods and Measures

#### 3.1. Sample of Websites

To evaluate software websites from a diffusion perspective, the research conducted a content analysis of 218 third-party Windows compatible software
websites. The software and their websites were chosen from Winappslist, which lists more than 7500 third party software that work on Microsoft’s Windows operating systems. Most of the software listed on this directory is self-submitted by small to mid-sized software companies, vendors, and individual developers. For each software listed on the directory, the site provides a link to the software’s own website along with a brief description of its application, and information about its price, file size, and compatibility.

The website organizes submissions based on their end-user application into one of 21 major categories ranging from business software to games, home and hobby, and educational software. Within each major category, the software is further classified based on its application. For instance, within business software, there are 42 alphabetically organized sub categories ranging from accounting software to word processing software.

For the current study, links to 106 software websites were randomly selected from within the Business categories, and links to 112 consumer software websites were randomly selected from within all the other 20 major categories and subcategories.

3.2. Content Analysis

The websites were content analyzed by two independent coders. Because the homepage of a website is the primary gateway to a site, and because most users make purchase decisions based solely on information provided on a site’s homepage [11], coders were asked to access and review only the homepage of each software. Coders were Communication seniors, enrolled in an advanced research methods course at the University of Buffalo.

Before the start of the study, each coder was shown a few sample websites, presented an overview of diffusion and IS theory, and trained on content analysis over a four-hour period. Coders were each provided with a printed codebook, and a link to each website embedded within an Excel coding sheet. The codebook provided a detailed definition of each measure, along with an example of website features that reflect each definition, and a measurement scale. Coding took place over a three-week period.

3.3. Measures

The following construct definitions and measures were provided in the codebook. Definitions were simplified and adapted from prior theoretic work presented in the diffusion and IS literature.

3.3.1. Ease of use. Based on the definition of ease of use [6], coders were instructed to look for any information on the homepage about how easy the software was to use, how quickly one could learn to use it, or how well the software was designed. Screen shots of the software provided on the website were also considered as ease of use information. Coders rated each software website’s presentation of ease of use information on a scale from 0 = cannot decide or ascertain, 1 = provides no information, 2 = provides little information, 3 = provides some of such information, and 4 = provides a lot of such information.

3.3.2. Usefulness. Based on Davis et al. [6], any information about the software’s utility in terms of what the software could do, its impact on the user’s performance or productivity, and its ability to make a task, function, or process easier or more efficient, were classified as usefulness information. Again, coders rated the presentation of usefulness information from a scale of 0 = cannot decide or ascertain to 4 = provides a lot of such information.

3.3.3. Social influence. Based on the definition provided by Venkatesh et al. [4], any references on the software’s website about other people, other users of the software, or their experiences were scored on a 0 – 4 scale.

3.3.4. Image. Based on Moore and Benbasat [12], coders were instructed to evaluate each website for any information on how the software could enhance the user’s status or image on a 0 – 4 scale.

3.3.5. Trialability. Based on Rogers [2], coders were instructed to look for any information on the software’s website communicated free trial or limited risk. Examples of trialability information included free software downloads for a limited period of time, a basic version of the software available for free, or any other information that was meant to reduce user risk such as warranties, freeware, and guarantees. Again, coders used the 0 – 4 scale to rate the information.

3.3.6. Compatibility. Based on Rogers [2], the presence of information about to software’s compatibility with a particular platform, hardware, or other software, on the software’s website was coded using the 0 – 4 scale.

3.3.7. Page allocation to model elements. From the above set of features, three - ease of use, usefulness, and social influence – are considered to be the core determinants of user acceptance of software technology [4]. Hence, coders were next instructed to ascertain the percentage of the front page devoted to each of the three features.

3.3.8. Page allocation to text and graphics. Communication research has demonstrated a differential influence of textual information and
graphical information on web users [13]. Hence, coders were also instructed to code for the percentage of the front page presented in text and graphics.

3.3.9. Brand, price, and user information. Finally, coders rated each software on how well know it was using a scale of 0 = cannot decide, to 5 = very well known brand; its price (1 = no pricing information anywhere, to 6 = more than $200), and the user targeted by the website (0 = cannot decide or ascertain, to 5 = very clearly states who the end user is).

4. Results

4.1. Inter-coder Reliability (ICR)

A random sub-sample of 86 software websites (39% of the total sample) was independently coded by both coders to assess the reliability of the coders. The ICR coefficient was assessed using Spearman’s rho (ρ) and was estimated separately for each measure using the sub-sample of websites. Table 1 presents the ICR for each measure. The desired ICR cut-off is .85 [14]. For all the measures in the current study, ICR met or exceeded this cut-off.

Table 1. Inter-coder reliability (ICR) estimates

<table>
<thead>
<tr>
<th>Measure</th>
<th>IC R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of use</td>
<td>0.9</td>
</tr>
<tr>
<td>Usefulness</td>
<td>3</td>
</tr>
<tr>
<td>Social Influence</td>
<td>0.9</td>
</tr>
<tr>
<td>Image</td>
<td>4</td>
</tr>
<tr>
<td>Trialability</td>
<td>0.9</td>
</tr>
<tr>
<td>Compatibility</td>
<td>3</td>
</tr>
<tr>
<td>Page allocated to UTAUT elements:</td>
<td>5</td>
</tr>
<tr>
<td>Percentage of front page allocated to Ease of use</td>
<td>0.7</td>
</tr>
<tr>
<td>Percentage of front page allocated to Usefulness</td>
<td>0.9</td>
</tr>
<tr>
<td>Percentage of front page allocated to Social Influence</td>
<td>0.8</td>
</tr>
<tr>
<td>Page allocated to text and graphics:</td>
<td>5</td>
</tr>
<tr>
<td>Percentage of page presented in text</td>
<td>0.9</td>
</tr>
<tr>
<td>Percentage of page presented in text</td>
<td>4</td>
</tr>
<tr>
<td>Brand information</td>
<td>0.9</td>
</tr>
<tr>
<td>Target user information</td>
<td>2</td>
</tr>
<tr>
<td>Pricing information</td>
<td>0.9</td>
</tr>
<tr>
<td>Average Inter Coder Reliability</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Note. ICR estimates based on Spearman’s rho (ρ).

4.2. Analysis

Table 2 presents the means and standard deviations of the coded measures. To evaluate the differences between different types of software websites on their application of diffusion theory, a one-way MANOVA was conducted with the coded measures as dependent measures and type of website (business vs. consumer) as the independent factor.

The multivariate main effect for type of site was significant: Wilk’s lambda = 0.64, F(14, 202) = 7.96, p < .001, η² = 0.36. This was accompanied by significant univariate effects of site type on image, trialability, compatibility; percentage of front page allocated to ease of use, usefulness, and social influence; percentage of front page allocated to text and graphics; brand information, and target user information. The results of the univariate tests for each measure are presented in Table 2.

When compared to consumer software websites, business software websites had significantly (p < .05) more image (MD = 0.48, SE = 0.07) and trialability information (MD = 0.32, SE = 0.13), and significantly less compatibility information (MD = -0.32, SE = 0.13). Interestingly, a significantly greater percentage of the business software’s website presented ease of use (MD = 8.46, SE = 2.45) and social influence information (MD = 3.30, SE = 1.85), while consumer software websites presented comparatively more usefulness information (MD = -10.48, SE = 2.81). A greater percentage of business software websites, however, consisted of textual content (MD = 10.51, SE = 2.76), while consumer software sites had significantly higher graphic content (MD = -10.61, SE = 2.77). Finally, brand information was significantly more pronounced in consumer software websites (MD = -0.12, SE = 0.05) than business software websites, and business software websites specified the targeted end-user of the software more clearly (MD = 0.37, SE = 0.14). Incidentally, business and consumer websites did not differ in the amount of ease of use (MD = 0.06, SE = 0.11, p = 0.27), usefulness (MD = -0.08, SE = 0.09, p = 0.09), social influence (MD = 0.09, SE = 0.12, p = 0.34), or pricing information (MD = -0.08, SE = 0.19, p = 0.68).

5. Discussion

The research explored the application of diffusion theory in the construction of software websites (RQ1), and the extant differences between business and
The business and consumer websites evaluated in the current study applied diffusion and general IS principles. Both types of software’s websites had at least some content that reflected the software’s ease of use, usefulness, social influence, image, trialability, and compatibility. Viewed specifically from a UTAUT model perspective [4], both types of software websites allocated significant portions of their site to presenting ease of use, usefulness, and social influence information pertaining to the software. Between the three constructs, the maximum amount of space was devoted to the presentation of usefulness information, followed by ease of use information, and social influence information. Thus, it appears that social-behavioural theory does in some ways influence the design of software websites.

Table 2. Means and standard deviations of measures, and between-subjects effects
Note. *indicates significant at .05 level

<table>
<thead>
<tr>
<th>Measure</th>
<th>Business Software Websites (N = 106)</th>
<th>Consumer Software Websites (N = 112)</th>
<th>Between-subject effects (df = 1, 215)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Standard Deviations</td>
<td>Mean</td>
</tr>
<tr>
<td>Ease of use</td>
<td>2.36</td>
<td>0.82</td>
<td>2.32</td>
</tr>
<tr>
<td>Usefulness</td>
<td>3.11</td>
<td>0.69</td>
<td>3.22</td>
</tr>
<tr>
<td>Social Influence</td>
<td>1.64</td>
<td>0.85</td>
<td>1.56</td>
</tr>
<tr>
<td>Image</td>
<td>1.47</td>
<td>0.80</td>
<td>1.01</td>
</tr>
<tr>
<td>Trialability</td>
<td>2.24</td>
<td>0.86</td>
<td>1.94</td>
</tr>
<tr>
<td>Compatibility</td>
<td>1.98</td>
<td>1.02</td>
<td>2.29</td>
</tr>
</tbody>
</table>

That said, however, as seen in the results section, the presentation of information differed depending on the type of software. Consumer software websites presented more information on the software’s compatibility, while business software websites presented more information on the software’s image and trialability. Thus, design considerations were partly influenced by theories such as UTAUT [4] and partly based on the end-user.

There are two possible explanations for these results. One explanation is that consumers are more concerned about compatibility than businesses, especially because unlike the average consumer many purchasers of business software tend to be specialists, such as network engineers and purchase specialists, who are inherently more knowledgeable about the software’s compatibility issues prior to purchase. Another explanation is that within most large businesses the implementation of software poses a greater risk because of distributed and networked computing. Hence, the software’s image, which communicates its dependability and trialability and allows for the software to be tested on a limited basis, is more critical to business software users.

Interestingly, compared to consumer software sites, business software websites dedicated a greater percentage of the page to ease of use and social influence information, while consumer software sites devoted more space to usefulness. Again, the differences in target end-user might be an explanation. Buyers of business software focus on the time or effort needed to learn the software, a critical determinant of the software’s final acceptance within organizations [4]. Likewise, the fact that other people, in similar organizations and functional areas, already utilize the same software potentially provides added impetus towards adoption. In contrast, the average software consumer is more focused on the usefulness or the utility of the software and its compatibility with the existing hardware and software already owned. Hence, consumer software sites present comparatively more usefulness information than business software sites.

Also, though all the software websites presented the majority of the information in text rather than graphics, consumer software sites had relatively more graphics rather than text. Moreover, the end user was more clearly identified in business software sites, while...
branding information was more apparent in consumer software sites. The relatively less sophisticated nature of consumers compared to organizational software users and the larger body of possible business applications might explain the need for business software sites to clearly identify the software’s end-user, comprehensively articulate its attributes. In contrast, consumers require simple information, which is often presented graphically, and focus on brand names, which in-turn helps reduce purchase anxiety and result in the software’s acceptance.

5.1. Practical Applications

When faced with the task of designing a website for an organization, service, or product, decision-makers are faced with a multitude of options. The decision maker has to choose from simple options such as the fonts, colors, and general themes of the website to more complex options such as the quantity, type, and sophistication of the graphics on a page; the overall nature and quality of the content presented on the page; and the relative percentage of every page on the site that is devoted to these elements. Because the homepage is the gateway to the rest of pages on the website, the success or failure of the service, product, and organization the website promotes depends on it. Hence, decisions regarding content, graphics, and site construction become particularly important when designing the home page.

Surprising little or no research exists that helps decision makers during the process. Most of the books written to-date tend to focus on general themes rather than on specific industries. For instance, no of the books written in this area specifically focus on the design of websites for software companies. Furthermore, many of the books address the need for end user involvement during the web design process [10], but provide little specific guidance on how much content, how much graphics, or the type of content that might be appropriate. Thus, the findings of the present research fill an important gap in the literature. The practical implications of current research are fourfold.

First, the research found widespread application of diffusion and IS theory-based principles in the design of software websites. Decision-makers, when making content decisions, should therefore attempt to design sites and develop manifest content that reflect user expectations in terms of the software’s ease of use, usefulness, social influence, image, trialability, and compatibility.

Second, because only a finite amount of space is available on the home page, decision makers need to carefully allocate space to various elements. Here, the results of the present study suggest that when designing consumer software websites, the focus on the page should be on primarily the software’s compatibility and usefulness along with the other diffusion theoretic elements. In contrast, when designing a business software website, the home page should primarily focus on image, trialability, ease of use, and social influence.

Third, in the allocation of the page elements, again, the current research presents interesting practical implications. When designing consumer software’s website, the homepage should display more graphics and present less text. In contrast, the elements of business software’s website should clearly identify the target end user and articulate the attributes of software in text. The results also reveal that consumer software websites tend to prominently display brand names. Hence, designers of such sites should focus on credibility displays such as awards won by the site or product, or news articles that cite the software.

Finally, the results of the study also suggest the need for content analyzing the competition’s websites as an important step during the web design process. Clearly, many structural similarities seem to exist across websites depending on the website’s target end user. Hence, in addition to end-user involvement during the website design process, web designers and decision makers should begin the design process by content analyzing the websites of their competition. From a theoretical perspective, a thorough analysis of the extent site in conjunction with end-user inputs should be utilized to develop a successful website.

5.2. Limitations

Content analyzing software websites and finding these differences, however, does not answer two important questions: Do the differences reflect the differential expectations of the end-user? And, do the differences matter? The assumption of the current analysis is that the content of the site is a reflection of the expectations of the end user. It is, however, possible that the differences are in-fact reflections of the developer’s assumptions about the end-user, and not that of actual users. Alternatively, it is possible that rather than conduct focus groups and polls of end-users, developers use website templates, or simply copy the content, layout, and information presented on a competitors website. This is a limitation of the current study. Another limitation is that the current study did not assess whether the differences in information mattered to the final consumer. That is, does the relatively higher emphasis on graphics in consumer sites matter to the end-user. Likewise, did the relatively greater allocation of ease of use and usefulness information in case of business consumers,
and the relatively greater allocation of usefulness information for general software consumers, matter.

5.3. Future Research

Most of these limitations can be overcome by future research. Future research could provide a sample of business and general consumers with a sample of software websites and evaluate their likelihood of adoption. The software sites could then be content analyzed from a diffusion theory perspective. Another option might be to create a series of business and consumer software website that differ in the amount of information, types of information, and the method of presentation (text and graphics). An actual panel of end-users could then evaluate the sites for their appropriateness. Finally, future research could extend the present analysis to other industries and their websites. A large-scale study of this nature that theoretically content analyzes the top 100 websites across multiple industries might be able to reveal the structural similarities or dissimilarities of website elements across different industries. These results could be used to create a database of elements for each industry that designers and decision-makers could draw from during the development process.

5.3. Conclusions

The current research is noteworthy. It takes a novel approach to analyzing the application of diffusion and IS theory by focusing on the innovation’s website rather than the preferences of the end-users. The study is also the first to analyze software websites from a diffusion/IS theory perspective. In conclusion, it appears that socio-behavioural diffusion and IS theory does permeate the design and development of software websites in an interesting way. It appears that design, although premised on theory is interactively influenced by who the software website targets. Thus, the quality of information presented, the amount of space devoted to different elements of the theory, the format used to present this information differs based on the type of software and its targeted end user.

6. References


