Service with an E-Smile: Employee Authenticity and Customer Usage of Web-Based Services

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Abstract
Companies often go to great lengths to ensure that service representatives are friendly during their interactions with customers. Friendliness, however, is not always enough - customers must believe that employees are being authentic in their exchanges. Unfortunately, providing an authentic customer service experience becomes complicated when companies use web-based support services as a way to assist their customers. In this study, we seek to explain the effect customer judgments of service provider authenticity have on evaluations of web-based customer support services. Data collected from real users of a library e-reference (live-chat) service suggest that the perceived authenticity of online service representatives’ communications predicted patrons’ intentions to use the system again in the future. This main effect was mediated by patrons’ perceptions of the service encounter as well as of the web-based support system itself.

1. Introduction
With the advent and proliferation of the Internet, many companies are now offering customer service and related support online, mostly through instant messaging or “live chat” interfaces [1, 2]. At their best, online support services are an efficient and cost-effective means of providing customer assistance, as they have the ability to bolster customer satisfaction by providing instantaneous, around-the-clock access to company products and personnel.

The actual success of web-based customer support services ultimately depends on usage. Customers typically have several alternative channels through which to seek support, including telephone access to service representatives, traveling to a local service center or retail outlet, and in some cases, choosing not to act at all. Nevertheless, there are many customers who prefer to use online supports for service-related questions such as inquiries about order status, company promotional information, and shipping options [3]. Because web-based customer support services are relatively inexpensive to provide, are easily accessible [4], and have the ability to enhance customer satisfaction and associated positive outcomes [e.g., repatronage, positive word-of-mouth, brand loyalty; 5], it is important to understand the factors that affect their use.

An important aspect of online customer support services is that these platforms act simultaneously as technology artifacts and service provision conduits, which suggests that a complex array of factors will affect customers’ decisions to use them. In this paper, we integrate theories from the service marketing literature with models of technology use, to better understand customer reactions to web-based support services. By combining perspectives from both of these literatures, we suggest that the usage of online customer support services will be influenced by patrons’ beliefs regarding the instrumentality of the technology itself [e.g., 6], as well as by their assessments of the human service provider with whom they interact. According to Cho and Menor [7], there have been “only nascent efforts to date examining the operational elements underlying e-service quality,” and as such, this is one area that requires “immediate service management research attention” (p. 84). Indeed, stimulating service innovation, enhancing service design, and using technology to leverage service provision have recently been identified as comprising three (of ten) priorities for service-management research [8]. In line with these calls for research into e-service delivery, we build on research about the importance of employee authenticity in customers’ service evaluations [9, 10] to suggest that the ability of service providers to convey authenticity via electronically mediated interactions will affect customer reactions to, and usage of, e-support services.

2. Conceptual background

2.1. Web-based customer services
E-retailing has quickly become a competitive service market, making it important to understand the
relationships that online service providers have with their customers [11]. E-business implementation and success have been linked to a variety of factors including efficiency (i.e., the streamlining of service-related processes and coordination costs), novelty (i.e., the ability of a firm to identify innovative business opportunities), lock-in (i.e., the promotion of customer loyalty and repatronage), and complementarities (i.e., the synergistic effects between on- and off-line service provision; [12, 13]. Overall, increases in the use of technology for service delivery have sparked greater interest in understanding technology’s role in customizing service offerings [14], recovering from service failures [15], and spontaneously delighting customers [16]. Extant research in this domain has examined factors affecting satisfaction with electronic service encounters [e.g., 17, 18], variables influencing the decision to use self-service technologies over other services [19-22], and predictors of online service expectations and use [23-25].

2.2. Online customer support transactions

The online customer support transaction is a special type of service encounter, one with increasing importance given recent growth in the e-retailing industry. Online support typically involves a customer seeking service-related information from an employee via web-based media. The ability of online retailers to provide effective customer-oriented support has been identified as contributing to a positive service experience beyond such factors as product selection and pricing [26, 27]. As such, many organizations have integrated online support into their customer service portfolios. For example, the online travel company Orbitz provides customers with web-based tools to chat with customer representatives about a variety of issues, including billing, reservations, and seat assignments. A similar service is provided by Bank of America, allowing customers to chat with customer representatives regarding financial transactions and investments.

Relative to research examining traditional (e.g., face-to-face) forms of service provision, the amount of research dedicated to online service encounters – especially the provision and use of web-based customer support services – is lacking. Given that many web-based communication technologies (e.g., email, text-based chat) are inherently lower in “media richness” than many other forms of communication, they will potentially be influenced by a different set of factors than those relevant to off-line settings. In general, lean media limits the ability of users to simultaneously transmit and receive multiple communication cues, potentially leading to erroneous perceptions, miscommunication [28, 29] and to exacerbated conflicts [30]. In light of the unique context in which online retailing occurs, it is possible that service delivery elements critical to customer satisfaction in face-to-face settings (e.g., courtesy, professionalism, and attentiveness) may be less predictive in technology-mediated communication contexts [31].

2.3. Factors influencing web-based customer service satisfaction

Service encounters represent goal-oriented interactions between service personnel and customers [32]. Such dyadic exchanges are the foundations upon which customer attitudes and behavioral intentions are built, and as such, much work has been dedicated to understanding what constitutes good service. In addition to providing a high quality product and being technically proficient in service delivery processes [33], customers attend to employees’ affective demeanor, such that higher levels of encounter satisfaction are reported when positive emotions are conveyed by service representatives [34, 35]. Interestingly, providing “service with a smile” is not enough. Customers can differentiate authentic from phony emotions, and they respond positively only when an employee’s expressed feelings are perceived to be genuine [10].

Unlike traditional face-to-face service encounters, the electronic retailing environment has been described by some as being largely artificial and inauthentic. These factors may lead patrons to view e-service alternatives as riskier, and therefore as less attractive than more conventional service options [36, 37]. Although providing an authentic service experience may be one way in which online service providers can establish that they are trustworthy, reliable, and responsive [38], “eservices and their evaluation cues are IT mediated and inherently virtual, and thus harder to evaluate” [37, P.116]. Lean media, such as text-based chat, is limited in its ability to transmit multiple cues simultaneously. While media richness does not seem to influence users’ performance or communication satisfaction [39], it does influence perceptions about the other party [40]. In short, online service transactions may have an unexpected impact on the way service encounters and personnel are evaluated, as customers may be influenced by factors deemed to be less salient in offline contexts. An examination of the variables that affect customers’ assessments of web-based service provision is therefore warranted.
3. The current study

As noted previously, the manner in which service personnel interact with customers is a non-trivial predictor of consumer satisfaction, repatronage, and positive word-of-mouth [e.g., 41, 42]. Customers like interacting with good natured (e.g., smiling) employees, particularly when displays of good cheer are believed to be authentic. Because people typically rely on facial muscle movements to evaluate authenticity [43, 44], one might wonder how authenticity can be assessed in web-based settings, where text is often the only means of communication. Overall, empirical studies have demonstrated that Internet-based messages can generate strong interpersonal (e.g., emotional) reactions [45]. Indeed, such responses can be elicited by the content of the message itself, sender and/or recipient attributes (e.g., expressivity, experience using a specific technology platform), the relationship between parties (e.g., friends versus business partners), and the context in which communication occurs [28]. Research indicates people tend to use the structural elements of language differently when they communicate online and that these text-based cues are the basis upon which the ‘true’ content of messages is evaluated [28, 46]. Focusing on message content, for example, the use of “emoticons” (i.e., emotional icons) such as the ;-) “wink” and the :-) “smile” can help convey feeling, strengthen the intensity of verbal messages [47], and help individuals feel that an online interaction is more personalized [48, 49]. From a service marketing perspective, authenticity is important, as it has been found to predict service-related outcomes [9]. Building on this research, we predict that perceptions of employee authenticity are a critical component of e-service provision and will predict customers’ future intentions to use online support services.

Customer perceptions of service employee friendliness have been found to mediate the effect of “service with a smile” on post-encounter behaviors [e.g., repatronage intentions, 50]. Furthermore, individuals perceived as inauthentic are often described as dishonest, unstable, and insincere [51] - traits that can create anxiety about the trustworthiness or completeness of the service provided [28]. In an electronic customer support environment, inauthenticity may therefore affect evaluations of employee friendliness and lead customers to feel dissatisfied with the nature (e.g., breadth and depth) of information provided. Dissatisfaction with information provided by an e-service representative will, in turn, negatively influence customer perceptions of system utility and ultimately, intended system usage (Information satisfaction a general attitude that predicts the usefulness attributed to an IT platform [52] via perceived system usefulness). Perceived system usefulness is a critical mediating variable, as the utility attributed to an IT artifact (e.g., online help system) strongly influences intentions to use it [6, 52].

Building on extant research, we contend the perceived authenticity of an online customer support employee will enhance customers’ evaluations of both service-referenced (e.g., employee friendliness, repatronage) and technology-referenced (i.e., information satisfaction and platform utility) outcomes (see Figure 1).

Hypothesis 1: The perceived authenticity of an e-service representative will predict customer intentions to use online support services in the future.

Hypothesis 2: The relationship between perceived authenticity of an e-service representative and customers’ repatronage intentions will be mediated by a) perceived employee friendliness, b) information satisfaction, and c) perceived system usefulness.

Figure 1. Structural Model of the Effects of Service Employee Authenticity on Future Usage
4. Method

Data for this study were collected from users of web-based customer support services associated with the libraries of two North American universities. These services allowed users to chat with a service representative (i.e., a librarian assigned to live-chat patron services). Such patron support services are quite common. As with many chat-based programs, the provided services occurred in real-time, and were synchronous as well as text-based. The service examined in this study was “intervenient”, in that (a) librarians diagnosed each patron’s unique needs to deliver a tailored service experience, (b) all encounters occurred in real time and were of short duration, and (c) the platform required high levels of involvement from employees, relative to patrons [see 7]. The services offered by the universities differed slightly in their underlying technology. One library’s service was designed to be compatible with common instant messaging applications (e.g., MSN Messenger, Google Talk, Skype) and patrons had to have their own instant messaging account and add the library to their “buddy list.” The second library’s service was embedded in the library website and users of the service did not have to have an instant messaging account. Customer service representatives (i.e., librarians) in both locations received some training in instant messaging.

4.1. Procedures and sample

Library patrons were asked by their respective librarians to complete an online survey at the end of their chat session. Participants were solicited over a period of 12 months. Eighty-six individuals provided valid survey responses, 67% of whom were female. The response rate was 16% which is reasonable for web-based surveys [53]. The average age of respondents was approximately 30 years (Range: 18 to 66). The majority of the sample (58%) indicated graduate student status, 32% were faculty, 5% were undergraduates, and the remainder were members of the local community. On average, participants reported using instant messaging two times per week, and face-to-face library services once a week. Although many participants reported having no experience with the online support service, 58% had used it at least once before. Participants used the online support system primarily to address questions related to research (68%) or library information and services (32%). Finally, self-reported session length ranged from 1 to 50 minutes (M = 9.25).

4.2. Survey instrument

All scales used in the current study were adapted from existing measures. Scales were selected based on their validity and reliability as reported in extant research. All survey items were reported on a seven point Likert-type scale anchored at 1 = Strongly Disagree and 7 = Strongly Agree. Sample items, Chronbach’s Alphas and the means for each scale are included in Table 1.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Sample Items</th>
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<tbody>
<tr>
<td>Perceived Friendliness</td>
<td>The librarian provided the service in a friendly manner</td>
</tr>
<tr>
<td>α = 0.92, M=5.99</td>
<td></td>
</tr>
<tr>
<td>(In)authenticity</td>
<td>The librarian was pretending, or putting on an act, in this interaction (Reversed)</td>
</tr>
<tr>
<td>α = 0.92, M=6.02</td>
<td></td>
</tr>
<tr>
<td>Information Satisfaction</td>
<td>Overall, the information I got from the library chat service met my expectations</td>
</tr>
<tr>
<td>α = 0.97, M=5.76</td>
<td></td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>Using the library chat service improved my ability to complete the tasks I was working on when I contacted the library</td>
</tr>
<tr>
<td>α = 0.97, M=5.70</td>
<td></td>
</tr>
<tr>
<td>Behavioral Usage Intentions</td>
<td>I plan to increase my use of the library chat service over the next year</td>
</tr>
<tr>
<td>α = 0.91, M=5.67</td>
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5. Results

5.1. Preliminary analysis

To alleviate concern that the type of e-service technology may account for any observed results, a Multivariate Analysis of Variance (MANOVA) was conducted including service type (Library 1 versus Library 2) as a fixed factor and the model’s measurement items as dependent variables. A Pillai’s Trace value of .21, p < .05 indicated no omnibus differences in participant responses across the two universities, indicating the dataset could be analyzed as a whole.

Given that all data in this study were self-reported, we tested for the potentially biasing effects of common method variance [CMV; i.e., variance attributed to the manner in which constructs are measured rather than substantive differences on those constructs; 54]. To
address concerns about CMV, we first conducted Harman’s single factor test. Study items loaded on more than one principal component, indicating no single dominant (i.e., methods) factor [55]. We subsequently applied the Lindell and Whitney [56] procedure by including items tapping an unrelated construct [i.e., Agreeableness, 57] in a principal component analysis procedure. The agreeableness measure loaded highly on a separate factor (> .83) with low cross-loadings on other factors (< .32), further indicating that CMV is not a significant concern in this study.

5.2. Main analysis

The structural model was assessed in two steps [58] using AMOS. We first conducted a confirmatory factor analysis (CFA), in which all five constructs of the model were included and allowed to freely correlate with one another. The fit statistics for this model were good \( \chi^2(55) = 54.3, p < .50; \text{IFI} = 1.00; \text{TLI}=1.00; \text{CFI} = 1.00; \text{SRMR}=0.027; \text{RMSEA} = .00 \) (p-close > .84)). Following the guidelines by Hu and Bentler [59], the Standardized Root mean Square Residual (SRMR) was considered simultaneously with the Root Mean Square Error of Approximation (RMSEA), and their values were below .08 and .06 respectively. Thus, it was concluded that the CFA model fit the data well, and that the specification and estimation of the structural model are plausible.

The second step, given the good fit of the CFA model, involved the specification of a structural model based on hypothesized relationships. The fit statistics for this model \( \chi^2(59) = 63.3, p < .33; \text{IFI} = .99; \text{TLI}=.99; \text{CFI} = .99; \text{SRMR}=0.036; \text{RMSEA} = .029 \) (p-close > .73)) satisfied Hu and Bentler’s criteria for good model fit [59]. The fitted structural model is depicted in Figure 1 and results indicate that all the hypothesized relationships were supported. The authenticity attributed to e-service representatives influenced customer evaluations of the technology system and employee friendliness, ultimately explaining 92% of the variance in future usage intentions.

5.3 Analysis of mediated pathways

The Sobel test [60] is often used to test whether an indirect joint path (a product of all sub-paths) is significantly different from zero. However, it assumes normality while the product of two variances is typically not normally distributed, and it is not always appropriate with small samples. It thus may lead to inaccurate conclusions. To overcome these deficiencies, Cheung and Lau [61] suggest a bootstrapping-based procedure. We therefore tested all proposed mediated pathways using bias-corrected bootstrapping with 1000 re-samples. The results of these tests are presented in Table 2. All mediated effects were significant.

<table>
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<tr>
<th>Table 2. Assessment of Indirect Effects</th>
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<tr>
<td>Indirect Path</td>
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<tr>
<td>Perceived Authenticity → Behavioral Intentions</td>
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<tr>
<td>Perceived Authenticity → Perceived Usefulness Information Satisfaction → Behavioral Intentions</td>
</tr>
<tr>
<td>Information Satisfaction → Behavioral Intentions</td>
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6. Discussion

Scholars have recently called for finer granularity in the classification of e-services [7], and raised the need to further examine the factors influencing e-service provision. In accordance with this call, the current study sought to explain how the perceived authenticity of web-based interactions influences customer reactions to an online customer support service. Our empirical study of 86 actual library patrons suggests the perceived authenticity of interactions with service representatives predicts both service and technology-referenced cognitions. Although the importance of employee authenticity has been demonstrated in traditional face-to-face service encounters [9], this study is among the first to suggest authenticity may also play an important role in online, technologically-mediated exchanges.

The implications of our results for service research are both interesting and significant. Previous research has examined the e-service channel as either an IT artifact [14, 36] or conduit to service provision [15] without integrating these perspectives. The current study suggests that the technological and humanistic aspects of e-service provision are inextricably linked, anchored by customers’ perceptions of encounter authenticity. Given the growth and increasing
importance of e-service innovations such as web 2.0 technologies [8], it is imperative that scholars further integrate information systems and marketing theories to better understand how customers respond to these and other types of electronically-mediated service encounters [7].

In this study, the perceived authenticity of a service employee drove customer reactions to an online chat (i.e., customer support) service. Although body language and eye contact have been described as the typical strategies by which authenticity is conveyed and evaluated in the social domain, this research suggests such physical cues are not essential for deciphering the genuineness of an interaction partner. In an online environment, for example, recipients have can judge the emotive content of text messages [28, 62, 63]; reactions to senders of such messages are driven by recipients’ personalities and perceptions of nonverbal cues [29]. Our research builds on this existing work and suggests that individuals form perceptions of authenticity in relatively brief interactions that take place over lean media (e.g., instant messaging).

In addition to driving both service and technology-referenced cognitions, the results of this study indicate customer perceptions of employee authenticity were correlated with encounter length such that shorter sessions were associated with higher authenticity. This relationship seems somewhat counterintuitive, because longer interactions (i.e., service relationships) have typically been described as allowing for the development of greater intimacy, social rapport, and authenticity [64, 65]. A possible explanation for the relationship observed here is that users’ past experiences with the media examined in this study (i.e., instant messaging) may have been primarily social [66]. As such, patrons may have begun their interactions with customer-service representatives with positive, yet unrealistic, a-priori expectations about how their counterpart should behave. As the interaction unfolded, patrons may have needed to adjust their expectations to reflect the actual behaviors of the customer-service representative, which may have been less intimate and seemingly less authentic than those they might typically experience during an online chat with friends.

Although research suggests longer encounters tend to contribute to the development of personal ties between individuals - thereby leading to greater authenticity - it is also possible that the quality of an employees’ service provision and demeanor can deteriorate over time, especially if a customer is difficult or time consuming to serve. In lengthy service encounters, there is a greater likelihood that employees will experience dissonance between felt and displayed emotions and as a result, actively regulate their emotions [67]. Such regulation may lead employees to express themselves in ways that contradict their true feelings, behavior that may be rather transparent to customers. Future research should explore the factors that influence e-service representatives’ authenticity during online transactions with customers. The number of online transactions being managed concurrently may, for example, negatively impact an employee’s ability to provide more personalized (i.e., “authentic”) service [34].

6.1. Practical implications

In addition to requiring that customer service representatives be knowledgeable about products or services being offered, organizations providing online support should make certain that employees are technologically proficient (i.e., they are able to use instant messaging effectively). This research also points to the importance of ensuring that employees are provided with training about how to communicate in ways that are both convincing and authentic in their online encounters. As such, organizational policies regarding e-based communication should be examined and revised, if necessary. Many corporate policies prohibit certain forms of e-communication (e.g., the use of ALL CAPS, the use of emoticons, etc.), but our results suggest there may be advantages to giving employees some degree of latitude when communicating via lean media.

We also observed a negative correlation between session length and perceived authenticity. I.e., the shorter the e-service encounter is, the higher the authenticity attributed to the service representative. Therefore, e-service representatives may be encouraged to keep online sessions as brief as possible. One way to keep sessions brief would be to encourage employees to use “canned” responses generated from a pool of carefully crafted common scenarios (i.e., frequently asked questions) that employees could customize as needed. While this strategy may accelerate the speed at which online service unfolds, it should be noted that the use of previously-generated responses may also unintentionally reduce the perceived authenticity of any ensuing interactions. Future research should therefore explore how online customer support can be provided expeditiously and authentically.

6.2. Limitations and future research

Despite the contributions of this research, some limitations should be acknowledged. First, this study was based on a specific type of customer support
service, namely instant-messaging-based library reference services as offered in a North American context. Future studies should examine other types of e-service provision, using different technologies [see other variations of e-services in 7], and serving different populations. Second, the type of service examined in this study captured a specific type of service encounter, one that a) catered to relatively non-emotional and impersonal queries and b) was of moderately brief duration (approximately 9 minutes, on average). Future research should focus on service environments where customer inquiries may be more emotionally-charged (e.g., complaints to airlines about luggage), or situations in which there is a vested relationship between customers and service providers (e.g., online counseling services).

Moreover, this study has focused on perceptions regarding the service employee as well as on system-referenced perceptions. There is a broad range of factors in each of these domains that may be instrumental to future usage (e.g., perceived ease of use). In addition, there are perceptions regarding the service encounter itself (e.g., satisfaction with the previous encounter) that can affect future usage decisions. Future research should expand the range of factors in the current model.

Lastly, the current research indicates that while customers do formulate perceptions of an e-service provider’s authenticity, it does not indicate how individuals reach such conclusions, nor whether they are accurate. Recent research shows that individuals are more likely to lie when communicating via email as compared to using more traditional media of the same richness level (e.g., pen and paper), suggesting that inauthenticity may be quite pervasive in online communications [68]. Our research provides a basis for further exploration into what specific cues contribute to customer perceptions of service employee authenticity as deciphered in online environments.

7. Conclusion

As lean computer technologies and online service provision become more commonplace, organizations are increasingly turning to web-based customer support systems. Although such systems offer several potential benefits (e.g., quick and effective service at a relatively low cost), it remains important for organizations to consider the factors affecting service delivery. Overall, organizations should aim to provide customer service with an “e-smile”, and not just any “e-smile”, but one that is perceived to be authentic.

8. References


[59] L. T. Hu and P. M. Bentler, "Cut off criteria of fit indices in co-variance structure analysis; Conventional criteria versus new alternatives,"


