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# The Effects of Interactive News Presentation on Perceived User Satisfaction of Online Community Newspapers

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Using a statewide, Web-based survey, this study examines the associations between online community news audiences' uses of interactive features offered in various news presentations and the perceived satisfaction of community news sites. In addition, the study aims to identify associations between different types of interactive news presentation styles and levels of satisfaction. Results indicate that use of interactive features is positively associated with perceived satisfaction with the exception of forums and Q&A features. Results also reveal that customization features, such as content submissions, letter-to-the-editor, and e-mail byline links, are the sole significant positive predictor of perceived satisfaction toward community news sites.

**Key words:** Interactivity, interactive features, perceived satisfaction, customization, community newspapers.

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#### Introduction

Interactivity is thought to be a key quality of the Internet (Fortin & Dholakia 2000; Jakobovits, 1997; Morris & Ogan, 1996; Rafaeli & Sudweeks 1997; Williams, Rice & Rogers, 1988). The potential for interactivity has launched the exponential growth of thousands of online newspapers and millions of online news consumers (Newslink, 2004; Abdulla, Garrison, Salwen, Driscoll, & Casey, 2005). Many online news sites are now serious publications incorporating various storytelling techniques and even providing various methods of audience engagement (Li, 2006).

The ideal of interactivity speaks to critical issues the popular press has been struggling to deal with for some time. Christians, Ferre, and Fackler (1993) argue that the traditional press has acted as a vehicle of expert transmission rather than a network for community discussion, and the public will reawaken when they are encouraged to fully join the talk and are addressed as a conversational partner.

Lacy (1992) also suggests that reader input and feedback, a two-way journalism, could mend the disconnect between citizens and the media and revitalize public communication.

Although many attempts to define interactivity (Bordewijk & van Kamm, 1986; Rogers, 1986; Rafaeli, 1988, Rafaeli & Sudweeks, 1997; Heeter, 1989; Steuer, 1995; Kiousis, 2002) and the implementation of interactive features on websites exist (Chan-Olmsted & Park, 2000; Greer & Mensing, 2006; Ha & James, 1998; Kenney, Gorelik & Mwangi, 2000; Massey & Levy, 1999; McMillan, 2002; Noar, Clark, Cole, & Lustria, 2006; Rosenberry, 2005; Schultz, 1999; Stromer-Galley, 2000), research on the effects of interactivity are sparse and relatively inconclusive. Furthermore, there are limited reports as to the relationship between various news presentations and online news consumers who use various interactive features. While consumer attitudes of online sites have been the topic of research for academics in the business and advertising fields (Cross & Smith, 1996; Ghose & Dou, 1998; Cho & Leckenby, 1999), little has been done to examine such trends within the communication discipline. Despite the continued interest toward online news and various styles of interactive news presentation, little is understood about the outcomes of the uses of interactive features and their contribution toward users' satisfaction with their news consumption experiences. It is important to understand how news consumers are satisfied with various news presentation styles, as this may be related to their intention to revisit the news website.

This study examines the associations between online community news audiences' uses of interactive features generally present in various news presentations and the perceived satisfaction of community news sites. In addition, the study aims to identify associations between different types of interactive presentations and levels of satisfaction.

# **Theoretical Background**

Interactivity has been called the "hallmark of the digital medium" (Online News Association, 2003) and the key advantage of new media (Morris and Ogan, 1996). As such, it has been discussed in conjunction with various other concepts, such as flow (Csíkszentmihályi, 1996), presence/telepresence (Lombard & Ditton, 1997; Steuer, 1995), and media richness/vividness (Steuer, 1995) or sensory immersion (Kim & Biocca, 1997). However, the interest in this concept by news media professionals and scholars addresses a double disconnect that exists between journalists/news organizations and citizens/communities and between the people and public life (Nip, 2006).

Traditional mass communication models have followed a sender to receiver, unidirectional, centralized approach to information dissemination (Shannon & Weaver 1949). The senders of information have been distinct from the traditional receivers of information. In traditional news media outlets, the audience is relatively passive and relies on the information source to deliver the day's news. However, as

the Internet can now be considered a mass medium, it has raised questions about traditional theories that don't quite seem to fit and audiences who refuse to stay passive. Increasingly, online news sites, for example, allow users to contribute stories, and this has implications for traditional theories, such as agenda setting, as issue salience is no longer solely dependent on the mainstream press but may also follow citizens and individuals, such as A-list bloggers and citizen journalists.

The Internet allows for communication that some times fits and follows traditional models and sometimes allows for altogether new configurations of communication (Morris & Ogan, 1996). As such, there has been interest in the potential of online news sites to serve as a forum for political discussion, to enhance deliberative democracy and to allow citizens to become more actively involved in community and social happenings. At the core of interactivity is the idea that audience members can become actively involved as participants. Sundar (2008) calls this agency—"the degree to which the self feels that he/she is a relevant actor in the CMC situation. . . it is the extent of manipulability afforded by the interface to assert one's influence over the nature and course of the interaction" (p. 61). In essence, interactivity allows users to feel like active participants who are engaged in the communication process and less as passive recipients of messages.

# **Interactivity and Online News**

Studies document that among the newspapers that publish online editions, more than 32 percent are small, community nondailies and only about 2 percent are considered major metro daily newspapers (Newslink, 2004). As previous studies have focused almost exclusively on larger, metro dailies, this study targets smaller, community-based newspapers, which have not been given adequate attention. Smaller, community-based newspapers are important to examine as there is greater variability in the rate of online adoption and many lack interactivity (Lowrey, 2003). In addition, small-town newspapers are often the only source for local news and may have the responsibilities of being the town's cheerleader and watchdog (Tezon, 2003). Thus, community newspapers play "a significant role in defining and reflecting the perspectives of community members." (Husselbee & Adams, 1996). Local community newspapers can build community ties, community identify as well as mobilize community members to engage in community activities through various information and news regarding the communities that the newspapers serve (Friedland & McLeod, 1999). There is also greater opportunity for audiencejournalist interactivity, which can lead to critical relationships in smaller, less pluralistic communities (Lowrey, 2003).

In conceptualizing interactivity, numerous scholars have made the distinction between medium interactivity from human interactivity (Bucy, 2004a; Lee, 2000; Outing, 1998; Stromer-Galley, 2000, 2004). Medium interactivity, also known as user-to-system/document or content interactivity, is communication between users and technology based on the nature of the technology itself and what it allows users

to do. Human interactivity, also known as user-to-user or interpersonal interactivity, on the other hand, is communication between two or more users that takes place through a communication channel.

Outing (1998) argues that truly interactive sites must facilitate communication between users and bring them together through human interactive features. Schultz (1999) also focused on human interactivity in conducting a content analysis of interactive features available on 100 U.S. newspapers online. Stromer-Galley (2000) considers human interactivity to be more interactive than medium interactivity and suggests it to be the foundation for public deliberation online. The focus on human interactivity by various communication scholars speaks to the importance of democratic deliberation online through news websites as there has long been concern with the top-down, one-way communication model of newspapers. Media critics argue that traditional mass media largely produce messages independently from the very news audiences they serve (Habermas, 1962; Schultz, 1999), and that they have not provided opportunities for citizen dialogue or political discussion (Barber, 1984; Habermas, 1996). Through interactivity, online news publications afford audiences with a sense of agency (e.g., increased choice, personalization, customization, and interpersonal communication opportunities) through the use of interactive features.

In conceptualizing interactivity for news presentation online, Deuze (2003) translates interactivity dimensions for the design of news websites into navigational interactivity, adaptive interactivity and functional interactivity. Navigational interactivity, much like medium interactivity, allows users to "navigate" a site through hyperlinks and menu bars. Adaptive interactivity, a sort of cross between both medium and human interactivity, allows users' experiences to have consequences on site content. Functional interactivity, like human interactivity, allows users to communicate with each other. Similarly, Chung (2008) found four types of interactive features that facilitate different news presentations online: medium, medium/human, human/medium and human interactive features. Features representing medium interactivity rely on the technology to allow users to select and elicit choice options. Medium/human interactive features, or features that provide interactive tailoring, allow users to personalize information to their liking much like that available through push technology. Human/medium interactive features that allow users to submit customized perspectives and opinions further provide the audience with a sense of ownership. Finally, interactive options that promote human interactivity facilitate user-to-user mutual communication.

In this study we conceptualize interactivity as a multidimensional construct with different types of interactive features facilitating different forms of news presentation styles. As suggested by Chung (2008), four primary interactive news presentation styles exist: 1) presentation of news with features that allow audiences to experience news stories through increased choice options, such as different modalities; 2) presentation of news with personalized tailoring options; 3) presentation of news with options for customized opinions and stories; and 4) presentation of news with interpersonal communication opportunities. Each distinct news presentation style

provides news consumers with unique engagement experiences, some providing more agentic news consumptions experiences than others.

# Interactivity and its Outcomes

Studies have identified satisfaction as one of the most obvious outcomes of increased interactivity (Rafaeli, 1988). The marketing literature shows that satisfaction is a strong predictor of behavioral intention. User satisfaction of a site is a desirable design goal as it may lead to users spending more time on a site, revisiting the site and even recommending it to other users (Zhang & Gisela, 2000). There has been growing interest in identifying features that can enhance user satisfaction and loyalty to the Web as this can enable the long-term relationships critical to the success of these ventures, including online news sites (Zviran, Glezer, & Avni., 2006). Research also shows that Web site design characteristics affect customer evaluations of online channel service quality and risk, which subsequently leads to online channel use (Montoya-Weiss, Voss, & Grewal, 2003). Measures such as total site usability, design features, information, and Web site quality appear to be relevant indicators of site success (Chang, Torkzadeha & Dhillon, 2004). Thus, it is critical to examine satisfaction as an outcome variable to interactive news presentation styles.

While some research reports on the complex nature of interactive presentation (Bucy, 2004b; Sundar, 2000; Sundar, Kalyanaraman & Brown, 2003), it is generally considered a positive characteristic of new media. Newhagen and Rafaeli (1996) argue that interactivity used appropriately can determine the success or failure of a website.

Rafaeli (1988) further writes that the consequences of interactivity are satisfaction, motivation, sense of fun, cognition and learning. More recently, Rafaeli and Ariel (2007) state that there is a preponderance of field evidence pointing to the positive outcomes of interactivity. Sundar et al. (2003) found that level of website interactivity influenced individuals' perceptions of and levels of agreement with political candidates and their policy positions.

Similarly, in the advertising and business disciplines, Cho and Leckenby (1999) found higher degrees of interactivity yielded more positive advertising effects. Wu (1999) also found interactivity to have a positive impact on user attitudes. Furthermore, Ghose and Dou (1998) found that the likelihood of getting into the Lycos Top 5% list becomes stronger as the total number of interactive functions found in a given site increases. Berthon, Pitt, and Watson (1996) suggest that interactivity level of a site would be critical in converting visitors to customers, and Light and Wakeman (2001) suggest that the relationships between the site and the users change as the level of interactivity also changes. Teo, Oh, Liu, and Wei (2003) also found that increased levels of interactivity on websites have positive effects on satisfaction, effectiveness, efficiency, value, and overall attitude towards a website. They operationalize different levels of interactivity by providing only product information for low levels of interactivity, included feedback forms and search engines

for medium levels of interactivity and further included online guestbooks, forums and chats for high levels of interactivity.

On the other hand, researchers have also found that interactivity has no significant effect on customer satisfaction (Shankar, Smith, & Rangaswamy, 2003) and that interactivity may even have negative advertising effects (Bezjian-Avery, Calder, & Iacobucci, 1998).

Thus, the benefits of interactivity in general and on online news sites in particular have not been consistently established in empirical studies. Limited research shows that news audiences find the immediate back-and-forth communication valuable with interactive features, such as e-mail links and chat functions, offering the potential to recreate community (Pew, 2004). In addition, there is a dearth of research regarding smaller, rural newspapers, and even less is known about rural weekly newspapers. Smaller community-based newspapers deserve more attention as they can offer increased audience-journalist connectivity and result in positive outcomes in engaging the community.

Based on the above review of literature and conceptualization of interactivity, the following research questions and hypotheses were developed:

**RQ1:** Is there a relationship between use of interactive features and perceived satisfaction of a community news website?

**RQ2:** Is engagement with a certain news presentation style associated with more positive perceptions (perceived satisfaction) of a community news website?

In addition, while the relationship between satisfaction and use of specific types of online news presentation styles has not been examined, Teo et al.'s research (2003) found that features allowing human-human communication and customization opportunities on a website led to higher perceived satisfaction of a product. Thus, this study predicts the following:

**H1:** Use of customization features will be a positive predictor of perceived satisfaction toward a community news website.

**H2:** Use of interpersonal human interactive features will be a positive predictor of perceived satisfaction toward a community news website.

## Method

## **Data Collection**

The data were collected during Spring 2008 using a Web-based survey, which was launched through KeySurvey.com. As a statewide survey in partnership with the Kentucky Press Association (KPA), the survey targeted online community news audiences in Kentucky. Community newspapers in this study are defined as having a circulation of less than 50,000 (Lauterer, 2006). Two major daily newspapers in Kentucky, *The Louisville Courier-Journal* and *The Lexington Herald-Leader* are excluded from this analysis because their circulation exceeds 50,000.

In the first stage, we requested help from all community newspaper editors from the KPA to host the survey on their homepage. A personalized e-mail invitation was sent to all 145 community news editors and periodic reminders were sent in the following weeks. In addition, newspaper owners were contacted directly to help encourage participation in hosting the survey. As a result, a total of 10 community newspapers hosted the survey representing one daily and nine weekly publications. The newspapers participating in this study serve mostly rural communities from 120 counties (see Appendix for details). The survey was active for roughly 14 weeks.

The host newspapers sponsored a news-type ad to entice users to participate in the survey. In order to increase participation in the survey, the initial screen after the link was clicked informed participants that they would be automatically entered into a drawing for a gift card upon completion of the survey. The link then led the survey participants to the Informed Consent form, which then made the link to the actual survey available.

Relevant characteristics of the sample are reported in Table 1. In general, about 52 percent of the participants are female and 99 percent is white. The mean age is 48.67 (SD = 13.25). In addition, participants visited their community news sites about 4 times a week and spent about 33 minutes per day.

The survey consisted of a self-administered questionnaire that asked respondents regarding their frequency of use of specific interactive features. In addition to basic demographic questions, the questionnaire also assessed respondents' attitude toward site and satisfaction. The final sample size was 239. A total of 406 individuals participated in the survey and 239 completed it. The completion rate for the survey was 58.9 percent.

#### Measurements

Independent Variables

Respondents were asked to indicate how frequently they use various interactive features on their online community newspaper. Prior literature informed the inclusion of 14 interactive features generally offered by online news sites in this study (Chan-Olmsted & Park, 2000; Massey & Levy, 1999; McMillan, 2002; Noar et al., 2006; Schultz, 1999; Stromer-Galley, 2000). The response scale ranged from 1 (not at all) to 7 (very frequently). These features were then conceptually grouped based on prior literature to classify distinct interactive news presentation styles (Chung, 2008; Deuze, 2003; Massey & Levy, 1999; Schultz, 1999; Stromer-Galley, 2000). First, interactive features that provide increased choice selections were represented by audio, video, and Webcam features (M = 2.26, SD = 1.48, Cronbach's alpha = .76); second, interactive features that provide personalized tailoring were represented by e-newsletters, search features, alerts features and RSS (M = 2.50, SD = 1.37, Cronbach's alpha = .73); third, interactive features that allow customized opinions were represented by content submissions, letter-to-the-editor, and e-mail byline links (M = 3.24, SD = 1.67, Cronbach's alpha = .67); fourth,

Table 1 Profiles of Survey Respondents

Female       51.9%         18-25       3.9%         26-35       3.5%       15.5%         36-45       20.7%       46-55       27.2%         56-65       23.3%       Over 65       9.5%         Race/Ethnicity         White       99.7%         Black/African American       0.4%         Asian       0.4%         Native American       14.0%         Less than \$25,000       14.0%         \$25,000-34,999       13.5%         \$35,000-49,999       13.5%         \$50,000-74,999       23.0%         \$75,000-99,999       13.5%         \$100,000 or more       Education level         Completed high school or less         Some college       26.9%         Associate's degree       13.4%         Master's degree       18.9%         Graduate/professional degree       27.7%         Frequency of visits to site         4 times a week         Duration of site visits		Gender	
Age   3.9%   26-35   3.9%   26-35   3.5%   36-45   20.7%   46-55   27.2%   23.3%   25-65   27.2%   25-65   27.2%   25-665   25-	Male		48.1%
18-25       3.9%         26-35       15.5%         36-45       20.7%         46-55       27.2%         56-65       23.3%         Over 65       9.5%         Race/Ethnicity         White       99.7%         Black/African American       0.4%         Asian       0.4%         Native American       0.4%         Household income         Less than \$25,000       14.0%         \$25,000-34,999       13.5%         \$35,000-49,999       13.5%         \$75,000-99,999       13.5%         \$75,000-99,999       13.5%         \$100,000 or more       17.4%         Education level         Completed high school or less         Some college       26.9%         Associate's degree       13.0%         Master's degree       13.4%         Master's degree       18.9%         Graduate/professional degree       27.7%         Frequency of visits to site         4 times a week       Duration of site visits	Female		51.9%
26–35 36–45 36–45 46–55 56–65 27.2% 56–65 09.5% White Race/Ethnicity  White 99.7% Black/African American 0.4% Asian 0.4% Native American 0.4% Native American 0.4%  Ess than \$25,000 14.0% \$25,000–34,999 13.5% \$35,000–74,999 13.5% \$50,000–74,999 13.5% \$75,000–99,999 13.5% \$100,000 or more 17.4%  Education level  Completed high school or less Some college 26.9% Associate's degree 13.4% Master's degree 18.9% Graduate/professional degree 7.7%  Frequency of visits to site 4 times a week Duration of site visits		Age	
36–45 46–55 56–65 27.2% 56–65 Over 65 Race/Ethnicity White Black/African American Asian Native American Household income Less than \$25,000 \$25,000–34,999 Household income Less than \$25,000 \$25,000–74,999 \$35,000–74,999 \$13.5% \$35,000–99,999 H8.7% \$50,000–74,999 \$13.5% \$50,000 or more Education level Completed high school or less Some college Associate's degree Graduate/professional degree Frequency of visits to site 4 times a week Duration of site visits	18-25	<u> </u>	3.9%
46-55 27.2% 56-65 23.3% Over 65 9.5%  Race/Ethnicity  White 99.7% Black/African American 0.4% Asian 0.4% Native American Household income  Less than \$25,000 14.0% \$25,000-34,999 13.5% \$35,000-49,999 13.5% \$50,000-74,999 23.0% \$75,000-99,999 13.5% \$100,000 or more 17.4%  Education level  Completed high school or less Some college 26.9% Associate's degree 13.4% Master's degree 18.9% Graduate/professional degree 27.7%  Frequency of visits to site  4 times a week  Duration of site visits	26-35		15.5%
56–65       23.3%         Over 65       9.5%         Race/Ethnicity         White       99.7%         Black/African American       0.4%         Asian       0.4%         Household income         Less than \$25,000       14.0%         \$25,000-34,999       13.5%         \$35,000-49,999       18.7%         \$50,000-74,999       23.0%         \$75,000-99,999       13.5%         \$100,000 or more       17.4%         Completed high school or less       13.0%         Some college       26.9%         Associate's degree       13.4%         Master's degree       18.9%         Graduate/professional degree       27.7%         Frequency of visits to site         4 times a week       Duration of site visits	36-45		20.7%
Over 65       9.5%         Race/Ethnicity         White       99.7%         Black/African American       0.4%         Asian       0.4%         Native American       0.4%         Household income         Less than \$25,000       14.0%         \$25,000-34,999       13.5%         \$50,000-74,999       23.0%         \$75,000-99,999       13.5%         \$10,000 or more       17.4%         Education level         Completed high school or less         Some college       26.9%         Associate's degree       13.4%         Master's degree       18.9%         Graduate/professional degree       27.7%         Frequency of visits to site         4 times a week       27.7%	46-55		27.2%
Race/Ethnicity         White       99.7%         Black/African American       0.4%         Asian       0.4%         Native American       0.4%         Household income         Less than \$25,000       14.0%         \$25,000-34,999       13.5%         \$35,000-49,999       18.7%         \$50,000-74,999       23.0%         \$75,000-99,999       13.5%         \$100,000 or more       17.4%         Completed high school or less       13.0%         Some college       26.9%         Associate's degree       13.4%         Master's degree       18.9%         Graduate/professional degree       27.7%         Frequency of visits to site         4 times a week       Duration of site visits	56-65		23.3%
White       99.7%         Black/African American       0.4%         Asian       0.4%         Native American       0.4%         Household income         Less than \$25,000       14.0%         \$25,000-34,999       13.5%         \$35,000-49,999       18.7%         \$50,000-74,999       23.0%         \$75,000-99,999       13.5%         \$100,000 or more       17.4%         Education level         Completed high school or less         Some college       26.9%         Associate's degree       13.4%         Master's degree       18.9%         Graduate/professional degree       27.7%         Frequency of visits to site         4 times a week       10.0%         Duration of site visits       10.0%	Over 65		9.5%
Black/African American       0.4%         Asian       0.4%         Native American       0.4%         Household income         Less than \$25,000       14.0%         \$25,000-34,999       13.5%         \$35,000-49,999       18.7%         \$50,000-74,999       23.0%         \$75,000-99,999       13.5%         \$100,000 or more       17.4%         Education level         Completed high school or less       13.0%         Some college       26.9%         Associate's degree       13.4%         Master's degree       18.9%         Graduate/professional degree       27.7%         Frequency of visits to site         4 times a week       Duration of site visits		Race/Ethnicity	
Asian 0.4% Native American 0.4%  Household income  Less than \$25,000 14.0% \$25,000-34,999 13.5% \$35,000-49,999 18.7% \$50,000-74,999 23.0% \$75,000-99,999 13.5% \$100,000 or more 17.4%  Education level  Completed high school or less Some college 26.9% Associate's degree 13.4% Master's degree 18.9% Graduate/professional degree 27.7%  Frequency of visits to site 4 times a week  Duration of site visits			99.7%
Native American       0.4%         Household income         Less than \$25,000       14.0%         \$25,000-34,999       13.5%         \$35,000-49,999       18.7%         \$50,000-74,999       23.0%         \$75,000-99,999       13.5%         \$100,000 or more       Education level         Completed high school or less       13.0%         Some college       26.9%         Associate's degree       13.4%         Master's degree       18.9%         Graduate/professional degree       Frequency of visits to site         4 times a week         Duration of site visits	Black/African American		0.4%
Household income			0.4%
Less than \$25,000       14.0%         \$25,000-34,999       13.5%         \$35,000-49,999       18.7%         \$50,000-74,999       23.0%         \$75,000-99,999       13.5%         \$100,000 or more       17.4%         Education level         Completed high school or less         Some college       26.9%         Associate's degree       13.4%         Master's degree       18.9%         Graduate/professional degree       27.7%         Frequency of visits to site         4 times a week       Duration of site visits	Native American		0.4%
\$25,000 – 34,999		Household income	
\$35,000-49,999			14.0%
\$50,000 – 74,999			
\$75,000 – 99,999			
\$100,000 or more  Education level  Completed high school or less Some college Associate's degree Associate's degree Graduate/professional degree  Frequency of visits to site  4 times a week  Duration of site visits			
Education level  Completed high school or less Some college Associate's degree Associate's degree Master's degree Graduate/professional degree Frequency of visits to site 4 times a week Duration of site visits			
Completed high school or less  Some college Associate's degree Associate's degree  Master's degree Graduate/professional degree Frequency of visits to site 4 times a week  Duration of site visits	\$100,000 or more		17.4%
Some college Associate's degree Is.9% Master's degree Graduate/professional degree Frequency of visits to site 4 times a week Duration of site visits		Education level	
Associate's degree 13.4% Master's degree 18.9% Graduate/professional degree 27.7%  Frequency of visits to site 4 times a week  Duration of site visits			
Master's degree 18.9% Graduate/professional degree 27.7%  Frequency of visits to site 4 times a week  Duration of site visits			26.9%
Graduate/professional degree  Frequency of visits to site  4 times a week  Duration of site visits			
Frequency of visits to site  4 times a week  Duration of site visits			
4 times a week  Duration of site visits	Graduate/professional degree		27.7%
Duration of site visits			
33 minutes per day			
r		33 minutes per day	

features that allow person-to-person communication were represented by chat features, Q&As, blogs, and forums (M = 1.64, SD = .94, Cronbach's alpha = .74). The individual features were summed and then averaged to create scales that represent different interactive news presentation styles. The scores for the scales ranged from 1 to 7, with smaller values indicating lower levels of interactive feature use.

We also included additional variables, such as how often participants visited the site and the duration they spent on the site to assess if intensity of use affects perception of satisfaction as such associations between uses and perceptions are well documented in the literature (Gerbner, Gross, Morgan & Signorielli, 1994; Morgan & Shanahan, 1997; Flanagin & Metzger, 2000; Johnson & Kaye, 2004). We specifically asked "During an average week, on how many days do you visit your community newspapers' Website?" and "On days when you visit your community newspaper's news site, how many minutes/hours do you spend on the site?"

#### Dependent Variable

The perceived satisfaction scale was constructed by summing six questions about attitude toward website (Chen & Wells, 1999). Participants were asked to indicate their agreement with the modified questions: 1) My community news site builds a relationship with me; 2) I would like to visit my community news site again; 3) I am satisfied with the services of my community news site; 4) I feel comfortable in surfing my community news site; 5) My community news site is a good place to spend my time; and 6) I would rate my community news site as one of the best. The variable derived from this scale (M = 4.75, SD = 1.48, Cronbach's alpha = .92) was produced by the same method as that used for the independent measures and had scores ranging from 1 to 7, with smaller values indicating lower levels of perceived satisfaction.

#### Data Analysis

To answer the research questions and hypotheses, we first ran a correlation analysis to identify the relationships between use of various interactive features and levels of perceived satisfaction (RQ1). Following this analysis, a hierarchical multiple regression was used to assess predictor variables for perceived satisfaction (RQ2). Prior research also found that demographic variables, such as gender and age, are associated with different uses of interactive features (Chung, 2008) and differences in perceptions about technology in general (Schumacher & Morahan-Martin, 2001), thus such demographic variables were also examined. In the regression analysis, we entered the demographic and site usage variables together in the first block and the interactive news presentation scales in the second block. We followed these procedures to control for the effects of all other variables to specifically examine the relationship between the four main presentation styles on satisfaction. Multicollinearity tests through such parameters as tolerance and VIF scores revealed that there were no high correlations among the independent variables.

#### **Results**

As shown in Table 2, in general, online news audiences use interactive features moderately to somewhat infrequently. Content submission features were used most frequently (M=4.07, SD=2.30) followed by search features (mean = 3.44, SD=2.07) and letters-to-the-editor (mean = 3.38, SD=2.25). Chat features (mean = 1.37; SD=1.04), Webcams (mean = 1.47, SD=1.31) and, Q&As (mean = 1.56, SD=1.17) were used least frequently. When grouped conceptually for presentation style, customization features were used most frequently and interpersonal features used least frequently. See Table 1 for details.

In answering RQ1, we used correlation analysis. As shown in Table 3, use of interactive features is strongly correlated with each other. Results further indicate that use of interactive features is positively associated with perceived satisfaction of the news site with the exception of forums and Q&A features. Among the significant relationships, all but the associations between perceived satisfaction and

Table 2 Mean Scores of Interactive Feature Usage

Interactive Feature		Mean (SD)
Customization features $M = 3.24$ ; SD = 1.67	Content submissions Letters-to-the-editor E-mail bylines	4.07 (2.30) 3.38 (2.25) 2.34 (1.92)
Personalization features $M = 2.50$ ; SD = 1.37	Search Alerts E-newsletters RSS	3.44 (2.07) 2.91 (2.14) 2.30 (1.91) 1.66 (1.42)
Choice features $M = 2.26$ $SD = 1.48$	Video Audio Webcam	2.88 (2.08) 2.48 (1.97) 1.47 (1.31)
Interpersonal features M = 1.64; SD = .94	Forums Blog Q&A Chat	2.14 (1.68) 1.72 (1.42) 1.56 (1.17) 1.37 (1.04)

Interactive features: 7-point response scale from not at all (1) to very frequently (7)

blogs (r = .14, p < .05) and Webcams (r = .17, p < .05) were significant at p < .00. In particular, the relationship between perceived satisfaction and use of the search feature (r = .35), byline link feature (r = .33) and video feature (r = .32) resulted in the strongest positive associations.

In order to address RQ2 we used regression analysis. As shown in Table 4 this model accounted for about 19 percent of the variance in the dependent measure (perceived satisfaction). In the first regression, no demographic variables surfaced as predictors of perceived satisfaction. The two site usage variables also failed to yield significant relationships. When the four interactive news presentation styles were added to the regression equation, the model was significantly improved,  $R^2 = .186$ ,  $R^2$  change = .143, p < .00. All demographic and usage variables remained insignificant and did not surface as predictors of perceived satisfaction. The addition of three of the four interactive presentation variables also yielded no significant relationships. However, the customization features ( $\beta = .26$ , p < .01) surfaced as a significant positive predictor for perceived satisfaction toward the news website. Thus, hypothesis 1 is supported but hypothesis 2 is rejected.

#### **Discussion and Conclusion**

The implementation of interactivity through the use of interactive features had brought much anticipation to news organizations as a method to reconnect with information consumers following intense criticism with traditional media's one-way communication paradigm. The Internet, with the quality of interactivity, has provided hope that interactive features can further allow news audiences to become more involved in their news consumption experiences.



 Table 3
 Correlations Between Use of Interactive Features and Perceived Satisfaction

	BL	BG	FR	SR	AD	VD	EN	AL	CS	LE	QA	RSS	CT	WC	SF
Byline (BL) Blog (BG) Forum (FR)	1	***-	.38** .54**	.44** .29*** .24***	.50*** .38*** .41**	.33 ** * * * * * * * * * * * * * * * * *	.46** .42***	38**	.17*	.40***	.43** .48** .43**	.34** .40***	.33*** .41***	.30***	.33***
Search (SR) Audio (AD) Video (VD) E-newsletters				i I	.59** -	***09. ******	.45** .70*** .62***	.43 * *	.33** .31** .27** .32**	37** 34*** 31***	.38** .34** .49**	.28** .34** .28** .35**	.26** .41** .37** .38**	.22** .36** .28**	.35** .32** .32**
(EN) Alerts (AL) Content Submission								I	.39**	.39** .55**	.34**	.21** .21**	.38**	.28** .16*	.28**
(CS) Letters-to- Editor										I	.33***	.28**	.23**	.20**	.19**
(LE) Q&A (QA) RSS (RSS) Chat (CT) Webcam (WC) Satisfaction (SF)											I	% **	.39***	.39** .36** .52***	.11 .19** .19**

Note.\*p < .05, \*\*p < .01, \*\*\*p < .001.

**Table 4** Hierarchical Regression Analysis of Factors Influencing Perceived Satisfaction of a News Site

Predictor variables	Block I	Block II	Incremental R <sup>2</sup>
Age	06	05	
Gender	13	10	
Education	.02	001	
Income level	.02	.000	.043
Frequency of site visit/week	.15	.11	
Duration of site visit/day	.01	.05	
Medium interactive features		.08	
Personalization features		.19	
Customization features		.26**	
Human interactive features		14	.143**a

 $p^* < .05 p^* < .01.$ 

The findings from this study indicate that indeed news audiences perceive their news consumption experiences to be positive when they are engaged by frequently using various interactive features. Correlation analysis shows that there is a robust relationship between the use of various interactive features and perceived satisfaction. In general, interactive features were used in moderation, yet the findings from this study are in contrast to Chung's 2008 study that found customization features implemented in news presentation to be used least frequently. This may be attributed to the larger online community newspaper that participated in that study as the circulation for that newspaper was more than two times larger than the largest community newspaper that participated in the current study. Such contradictory findings suggest that type and size of community can influence how certain interactive features are implemented or used.

In this study we were also interested in identifying which presentation formats offered through the implementation of interactive features provide the most satisfactory news consumption experiences. Using the literature to inform our conceptual grouping of interactive features, we identified four types of online news presentation styles. When the four types of formats were created as separate scales, the regression analysis revealed that customization features alone surfaced as positive predictors of perceived satisfaction. Prior literature also points to differences in demographic and usage influences, yet this study did not yield such findings.

The findings from this study also suggest that while interactive features in general are likely to lead to positive perceptions of a news site, the type of news presentation one engages in can ultimately result in more satisfactory perceptions of the site. Much of the literature indicates the critical need for a dialogic journalism, yet the interpersonal communication possibilities of a news site did not increase perceived satisfaction among users. While much literature in the communication

<sup>&</sup>lt;sup>a</sup>cumulative  $R^2 = .186$  Gender: female = 1 and male = 2 Interactive features: 7-point response scale from not at all (1) to very frequently (7).

discipline reports this importance of human interactivity and the ideals of democratic deliberation online (e.g., Barber, 1984; Habermas, 1996; Stromer-Galley, 2000), this study demonstrates the significance of customization features that allow individuals to express their views and voice personal opinions. The highest mean scores for content submissions and letters-to-the-editor indicate that these features are not only used most frequently, but frequent use of these features leads to increased levels of perceived satisfaction. On the other hand, stories that are presented with human interactive features allow news consumers to actively participate in conversation with other news consumers (horizontal communication) or communication with newsroom personnel (vertical communication). However, such opportunities for interpersonal communication are not fully exploited as is evident in the low mean scores for chat and Q&A features, nor does the use of such features produce increased levels of perceived satisfaction. Perhaps the limited availability of certain features (i.e., video features) and therefore the infrequent use of them impact users' perceived satisfaction.

Online newspapers may consider employing such customization features that allow users to participate as sources of information. Content submissions enable news audiences to participate in the production of news by allowing them to write and submit stories or share photographs. These features allow users to act as citizen journalists. In addition, these features invite users to work together with journalists to make journalism more meaningful and in the process allow news consumers to have more positive and satisfactory news consumption experiences.

It may be that online community news audiences do not consider online newspapers to serve as a place for interpersonal communication. Community newspapers are smaller and the local communities are tightly knit, thus local residents may not feel the urgency or the necessity in communicating with individuals online. It may also be likely that community news audiences are not ready for social media offered through online news publications. For now, it appears that the ability to express views rather than engage in two-way conversation has more intrinsic value to local online community residents. This finding contradicts research by Teo et al. (2003) who found that interpersonal interactive features elicited higher levels of perceived satisfaction.

#### **Limitations and Future Research**

While the findings from this study provide important information about engaging online news audiences and creating positive perceptions, this study has a few shortcomings. First, the use of a Web-based survey is an inherent weakness of this study. Respondents who feel comfortable using the Web would be more likely to participate in such a study possibly skewing the survey results. Second, the sample consisted of community residents from a rural, southern state in the U.S., which lacks a diverse population as is illustrated in the overrepresentation of Caucasians

in the sample. Third, a total of only 10 newspapers hosted the survey questionnaire. The 10 newspapers represent one daily and nine weeklies from the state in which the study was implemented. The circulation of the daily was 17,600 and the weeklies had circulations between roughly 2,950 and 9,370. Thus, the number of individuals participating in the study would have been significantly influenced by the size of the circulation, and the individuals would likely contribute characteristics unique to the local communities. While extant literature points to numerous studies that use the purposive sampling method (e.g., Kaye & Johnson, 2002; Viegas, 2005; Lee & Choi, 2005), newspapers that participated in the survey do not represent all newspapers in the state. These shortcomings limit the generalizability of the current study. Moreover, the low mean scores of certain features, such as chat and O&As, may be a reflection of the generally infrequent presence of such features and the likely unavailability of them on the 10 community websites that hosted the study. It is important to note that among the news sites that participated in the survey, all 10 provided personalization options, such as search features and e-mail updates, and customization options, such as staff contact information and content submissions. Most websites offered interpersonal communication options through forums. Some of the larger websites offered increased story telling options through video files. While all 10 sites generally offered a range of interactive features, the depth of the features that were offered varied. For example, the single daily newspaper that participated in the survey offered a wider variety of customization and interpersonal communication options than some of the weeklies that also offered all four types of presentation but were limited in the diversity of features provided. Thus, as the initial assessment of the availability of these features reveals, not all sites offered the four news presentation styles. While most sites generally provided audiences with all four types of features, a minority of the sites offered video features, for example. While interpersonal communication opportunities were available, they were not easily assessable and required user registration.

Future studies should seek to take these short comings into consideration as still very little is known about the effects of news presentation on user perceptions of their news consumption experiences. While this study examined the affective domain of perceived satisfaction of users, future studies should assess whether different interactive online news presentation styles enhance the processing of information as studies have shown that interactivity could lead to cognitive overload (Bucy, 2004b). Future studies should examine antecedent (what drive/motivate people to use interactive features) and outcome (what are the results from using interactive features) variables together sorting out complex and confounding relationships tying cognitive, affective, and behavioral approaches.

In addition, there is limited understanding about smaller, community newspapers that may have greater opportunities for community engagement; therefore, scholars should continue to examine local online newspapers and their efforts.

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**Appendix** Participating community newspapers

Newspaper Name	Circulat	ion/size	
Carrollton News-Democrat	Weekly	2,951	
Cynthiana Democrat	Weekly	5,529	
Grant County News and Express	Weekly	5,661	
Henry County Local	Weekly	4,240	
The Kentucky Standard	Weekly	9,371	
Pioneer News	Weekly	8,373	
Sentinel-News	Weekly	8,309	
Daily Independent	Daily	17,600	
Journal-Times	Weekly	3,414	
Morehead News	Weekly	5,407	
N = 10	•		