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Interactive to me – interactive to you? A study of use and appreciation of interactivity on Swedish newspaper websites

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Abstract
Research has indicated that although online interactive features are not used by the visitors of different websites, such features might be appreciated by the visitors. This article examines the use and appreciation of interactive features by visitors on Swedish newspaper websites. Utilizing an online survey focusing on different traits and habits of newspaper website visitors, the study presents a typology of visitor types, characterized by the different ways they use and appreciate interactive features in the online news media context. Although certain types make extensive use of interactivity, the overall results of the survey points towards rather low levels of both use and appreciation. As such, newspaper website visitors might be characterized as 'slow learners', taking their time to adapt to the interactive capabilities offered by the online news media.

Keywords
interactivity, online newspapers, survey, Sweden, visitor types

Introduction

As one of the first buzzwords to be associated with the internet, interactivity has often been presumed as an intrinsic quality of the new medium (i.e. Hujanen and Pietikainen, 2004: 388). In the news media industry, practitioners have struggled while moving from an offline to an online context (Fortunati and Sarrica, 2010), often finding it hard to adapt to the opportunities for interacting with their website visitors. Although positive attitudes towards the internet can be found in several newsrooms (Chung, 2007), many journalists

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still appear cautious when dealing with the new medium (Domingo, 2008). Remembering that interactivity could very well be defined as situated in the eye of the beholder (McMillan, 2000), the study presented in this article opts for a perceived view of interactivity, looking at how newspaper website visitors experience the concept. Focusing on Sweden, the aim of this article is to study variations in newspaper website visitor use and appreciation of interactive features. Based on the results of an online survey, the study presents a typology of newspaper website visitor types.

In times when newspapers are trying to find ways to reach out to their online audiences, Sweden is an interesting country to study, as it is characterized by both extensive internet usage and high levels of newspaper readership (Carlsson and Facht, 2010). The need for international research on online newspapers has been acknowledged (Chung, 2007; Mitchelstein and Boczkowski, 2009), as has the need to identify factors that predict the use of interactive features (Chung, 2008: 673). This article answers the call from previous research and provides results regarding user attitudes towards interactive features (as suggested by Chung, 2007; Hwang and McMillan, 2002; D. Sohn and Lee, 2005). Furthermore, the identification of visitor types should be helpful to academics and practitioners interested in newspaper websites.

Literature review

Use of interactive features

Although some have suggested that citizen media initiatives and audience participation on newspaper websites will lead to audience empowerment as well as better journalistic practice (Gillmor, 2004), media organizations often appear reluctant when it comes to letting audience members participate. While audience members may be allowed to take part in online discussions hosted by the newspaper, they are often barred from other stages of news production (Domingo et al., 2008). Thurman (2008) interviewed British journalists and found mostly negative attitudes towards user-generated content. User contributions were seen as problematic not only because of the alleged need for quality control, but also because these new opportunities challenged traditional journalistic norms and practices. Similarly, Domingo (2008) claimed that interactivity has become an uncomfortable myth in the journalistic context. Chung (2007) found comparable attitudes among US news website producers. Her results indicated that although journalists find the migration from paper to web difficult, some respondents expressed an interest in the use of interactive features to involve the readers. Although journalists face ‘a host of issues’ (Singer and Ashman, 2009: 18) when dealing with user interaction, positive attitudes like these also seem to be prevalent in both Swedish and international contexts (Frisk, 2008; Mitchelstein and Boczkowski, 2009; Singer, 2010).

A similarly reluctant attitude can be found among the news audience. In Sweden, usage of newspaper website interactivity has been reported at low levels (Bergström, 2008). Indeed, audience unwillingness to participate in the online newspaper context seems prevalent also in other countries (e.g. Hujanen and Pietikainen, 2004).

Conceptualizations of interactivity

Although several ways of operationalizing interactivity co-exist, three conceptualizations frequently reappear in the literature. While different authors give these conceptualizations different labels, the distinction between *functional, perceived* or *process* related views (suggested by Leiner and Quiring, 2008) is suitably encompassing.

The *functional* view conceptualizes interactivity as an attribute of the medium (Sundar, 2004). Interactivity is operationalized as 'the presence or absence of particular features' (Song and Zinkhan, 2008: 100). Studies adopting the functional view are often descriptive and employ content analysis in order to find 'specific features that can be identified and categorized as interactive' (McMillan, 2002a: 165). As such, more interactive features equals higher levels of interactivity. The functional view is often seen as limited as it ignores site visitor characteristics that might have influence on how these features are perceived (Bucy, 2004). For example, McMillan (2002b) found that respondents in her study did not necessarily classify sites with more opportunities for interactivity as more interactive than sites with smaller amounts of features. Taking these 'idiosyncrasies of visitors' (Gerpott and Wanke, 2004: 245) into account, the *perceived* conceptualization states that simply adding more features to websites does not necessarily make them more interactive. Here, interactivity is seen as a user attribute (Leiner and Quiring, 2008), and questions of why certain interactive features appear to be judged as more or less interactive by various users are central (Quiring, 2009). The *process* view places its focus on the roles of the participants in interactive situations. Reciprocity between the participants is of interest, and this view defines interactivity as the relatedness of messages in communicative situations (Rafaeli and Sudweeks, 1997). Focusing on how visitors of newspaper websites use and appreciate different interactive features, this article will employ a perceived view of interactivity.

Indirect effects of interactivity

One important strand in the research performed on interactivity has been the study of its effects. Even if 'interactivity effects are still enigmatic' (Rafaeli and Ariel, 2007: 84) trends can be discerned in the literature available. For example, scholars have identified what might be labeled indirect effects of interactive features – specifically, effects that take place simply by the user registering that an opportunity for interaction is present on the visited site. Such effects have been found to be positive, negative or both.

As for positive indirect effects, Chung and Zhao (2004) studied user perceptions of internet advertisements and found that the perceived interactivity of these ads had a significant positive effect on the respondents' attitudes towards the websites where the ads were placed. Similarly, Deuze noted an indirect effect of the 'interactive bells and whistles' available on newspaper websites (2003: 214). Indeed, web surfers seem to have more favorable attitudes towards sites that they perceive to be rich with interactive features (McMillan, 2002b). For newspaper websites, it has been suggested that an increase in interactivity will lead to more visitors and more on-site activity by these visitors (Gerpott and Wanke, 2004).

There might also be negative indirect effects caused by interactivity. Sites are perceived as bloated or difficult to navigate when too many interactive features are available. Sundar (2004) argues that an abundancy of interactive cues lead to over-stimulation of the user and negative evaluations. Sohn et al. found that 'increasing the level of Web site interactivity may not always yield positive communication outcomes' (2007: 116). This might also hold true for newspaper sites, as higher degrees of interactivity might not fit in with the schema of newspaper readers (Gerpott and Wanke, 2004).

Summing up, perhaps Rafaeli and Ariel are correct in that 'Interactivity's effects are curvilinear […] at a certain point, saturation sets in' (2007: 80). Similarly, Hwang and McMillan (2002: 7) suggested that 'limitless options might overwhelm consumers'. As such, a careful balance needs to be struck between too high and too low levels of interactivity.

Chung's typology of interactive features

There is currently no one clear definition of what interactivity entails (Koolstra and Bos, 2009). Regardless of conceptualization, choices must be made regarding what kind of interactive features should be examined. As pointed out by Quiring (2009), the term is associated with a number of different features and services. In the academic milieu, two types of interactive features can be distinguished (Stromer-Galley, 2004). First, *human* interactivity builds on what might be labeled a sociological definition of the term (Downes and McMillan, 2000). It places an emphasis on the conversational ideal of face-to-face communication (Schudson, 1978: 323). Human interactivity features include chat and discussion forums. Second, *medium* interactivity refers to interaction between a human user and a technical interface (i.e. a web page). Focus here is on user control (Downes and McMillan, 2000). Medium interactive features, in the context of online newspapers, includes the availability of video streams.

Chung (2008; 2009) provided empirical data on interactivity in the context of online newspapers. Her respondents identified the two types of interactive features presented above, and also conceived of two combinations of them. These two additional types can be characterized as focused around the concept of web 2.0 – allowing users to take part in creating and shaping the online experiences (O'Reilly, 2005) and to 'construct and share their own media and information products' (Harrison and Barthel, 2009: 157). Example features from the four groups are provided in Figure 1 below.

Human/medium interactive features allow users to 'express their opinion' (Chung, 2008: 666) and promote the engagement of users as co-producers (Boczkowski, 2002; Gillmor, 2004) by allowing them to contribute to the site. Examples include reader news stories, blogging opportunities or reader news tips. *Medium/human* features follow an adaptive ideal (Deuze, 2003) and allow users to customize site looks, content or use (Chung, 2008). Users might be allowed to personalize the news presented on the website, get access through RSS feeds or easily share site contents on social network services like Facebook or Twitter. This study will employ Chung's typology of interactive features in order to study if any differences can be discerned regarding how different users perceive and use the four types of interactivity.

Figure 1. Examples of interactive features. Clockwise from top left: Human (invitation to chat, screenshot from aftonbladet.se), Medium (video stream, screenshot from aftonbladet.se), Medium-Human (share to social network service, screenshot from sydsvenskan.se) and Human-Medium (reader news tip, screenshot from aftonbladet.se). All screenshots were taken from the start pages of the sites on 23 November 2010.

Method

Data collection was performed by means of a web-based survey. Before the independent and dependent measurements are disclosed, the first two sections focus on survey design, pre-tests and respondent recruitment.

Survey design and pre-testing

The survey was performed using the LimeSurvey application, installed on a university server. Numerous precautions were taken in order to maximize the number of participants and minimize dropouts. For example, the web domain pointing to the survey was clearly associated with the hosting university (Cho and LaRose, 1999) and the university logo was visible on all pages of the survey to indicate academic sponsorship (Porter and Whitcomb, 2005). A progress indicator was used (Crawford et al., 2001) and the

questions included in the survey were styled according to the suggestions of previous research (e.g. Couper et al., 2004; Reips, 2002). IP address information was logged to control for multiple answers (Chung, 2008).

The survey was submitted to two waves of pre-tests. The first wave employed individual interviews with four independent evaluators. The focus was on clarifying any ambiguous formulations or phrasings and on assessing the optimal ordering of questions. The second wave had students at a large Swedish university college testing the survey. In total, 56 out of 82 invited students (68%) took the survey during this second wave. Feedback from the two waves was integrated into the final version of the survey.

Respondent recruitment

Respondents were recruited via online advertisements on two of Sweden's biggest newspaper websites, *Aftonbladet* (http://www.aftonbladet.se/) and *Sydsvenskan* (short for *Sydsvenska Dagbladet*) (http://www.sydsvenskan.se/). When site visitors clicked the invitation to the survey placed on the sites, they were first taken to an introductory page, featuring an informed consent form. The link to start the survey was available at the bottom of this page. In total, 1343 respondents who started the survey also completed it. Table 1 contains descriptive data regarding the respondent sources.

Aftonbladet, a nationally distributed tabloid, was founded in 1830 as part of the Social Democratic press. As one of the first newspapers to go online in Sweden, *Aftonbladet* hosts one of Sweden's most popular websites (Karlsson, 2006; Tezis, 2008). *Sydsvenskan*, a broadsheet distributed in southern Sweden, was founded in 1848 and adopts a more conservative stance towards current affairs. The online rendition of *Sydsvenskan* is one of the most popular newspaper websites in Sweden (KIA-Index, 2010). Both newspapers are best described as general or non-niche in terms of both contents and target audiences – levels of newspaper readership in Sweden are high and not socially determined (Hallin and Mancini, 2004; Tezis, 2008).

Variables

The following two sub-sections explain the rationale for including the selected variables. Each section also explains how the different variables are used in the subsequent analyses.

Table 1. Data regarding respondent sources

	Length of survey exposure on site	Daily circulation of newspaper	Unique site visitors/ week during time period	Respondents from site
Aftonbladet	18/3–28/3 (11 days)	358,600 (February 2010)	5,124,774	940
Sydsvenskan	18/3–3/4 (18 days)	121,200 (February 2010)	344,701	403

Dependent variables. Data from Chung (2008; Chung and Nah, 2009) and from Larsson (forthcoming) were used to select indicators for each of the four different categories in Chung's typology. The newspaper websites were also visited beforehand in order to see if any features not previously identified could be found. In total, 14 features were employed as indicators. The respondents were asked to report their level of use and appreciation for each feature, using a series of seven-point Likert-type scales. 28 statements were posed to the respondents – 14 for use and 14 for appreciation. For the variables measuring use, a score of 1 indicated non-usage and a score of 7 indicated frequent use (i.e. 'On a daily basis'). For example, the respondents were asked how often they took part in chat sessions (example of human interactivity) or how often they contributed to the site with their own news texts or news tips (both indicators used independently as examples of human-medium interactive features). For the variables measuring appreciation, the respondents were asked to judge a series of statements about the indicators. Using seven-point Likert-type scales, a score of 1 indicated disagreement and a score of 7 indicated the opposite. For example, respondents were asked to judge statements such as 'I enjoy watching video streams when visiting the site' (example of medium interactivity) or 'If site visitors are given too much opportunity for individual customization, they might miss out on news of importance or public interest' (example of medium-human interactivity, reverse coded in order to assess respondent attentiveness).

These variables will be used in two ways. First, mean comparisons will uncover any statistically significant differences between use and appreciation of the different interactive features. Second, exploratory factor analysis will be utilized in order to find patterns and underlying factors relating to the use and appreciation of interactive features.

Independent variables. In order to study variations in user traits (Tremayne, 2005) and how these traits might influence 'user activation' (Sundar, 2004: 387) in the context of online newspapers, this study employs the independent variables described below.

Demographics. Data on respondent age, income, education etc. are often used in different social scientific settings. However, it seems that the effects of such sociodemographic data on use and perception of online interactivity has not been extensively examined. For example, Sohn and Lee (2005) argued that these kinds of respondent characteristics were not directly relevant for their study of respondent perception of interactivity. Chung (2008) used some of the sociodemographic data collected in her analysis (age, gender), while some were left out (education, income). In order to explore the effects of sociodemographic data on the use and appreciation of interactive features, data regarding respondent gender, age, education and income was collected.

Societal engagement. In order to gauge the influences of various forms of societal engagement on use and perception of interactive features, this study employed eight variables measuring various aspects of such engagement. These variables were inspired by previous research (Chung, 2008; Jennings and Zeitner, 2003) and were adapted to the Swedish context. The question posed was: 'Have you taken part in any of the following activities during the last year?' For example, respondents were asked about their frequency of involvement in tenants' associations/housing cooperatives, partaking in

political demonstrations and frequency of signing petitions and protest lists (on- or offline). For all questions, seven-point Likert-type scales were used, where 1 indicated the lowest score (i.e. 'never') and 7 the highest (i.e. '10 times or more'). Reliability for the measurements was assessed using Cronbach's α, with a satisfactory result of .71.

Media use. In order to assess the effects of media use, a series of questions were included. First, the respondents were asked 'For how many years have You used the Internet?' Second, for frequency of visits to the online newspaper sites, the respondents were asked 'During an average week, on how many days do You visit the [NAME OF NEWSPAPER] web site?' Similarly, for intensity of visits, respondents were asked to assess the amount of time spent on the newspaper's website on an average day that they visited it. Additionally, the questionnaire included a multiple choice question that asked what sections of the website (e.g. news, entertainment, sports etc.) that the respondents tended to visit on an average day of accessing the specific site.

Web-oriented Digital Literacy. Following Rafaeli and Ariel, 'an advanced internet user […] might have a different interpretation and might perform differently with interactive features' (2007: 82). Internet skill was assessed in two ways. First, a self-reported measurement was employed using a Likert-type scale, where the values 1 and 7 indicated the lowest and highest perceived skill level respectively. Second, Hargittai's work on Web-oriented Digital Literacy was consulted (2005, 2009). Following these studies, familiarity of computer- and internet-related terminology is a suitable proxy for observed internet skill measures. Using a series of seven-point Likert-type scales, the respondents were asked to indicate their level of familiarity with seven internet-related terms. A value of 1 indicated no knowledge of the term, and a value of 7 indicated a very high level of familiarity. This list of seven terms was completed with one bogus term in order to test whether the survey items were 'simply checked off by respondents in a haphazard manner' or not (Hargittai, 2009: 131). Following control for the bogus item, a composite measure of Web-oriented Digital Literacy was created by summing and averaging the remaining seven indicators. A Cronbach's α score of .86 indicated a satisfactory level of reliability for the variable.

The independent variables described above are used in two ways. First, descriptive statistics are reported in order to provide an overview of the sample. Second, in order to test the influences of these variables on the factors extracted from the previously described dependent variables, multiple regression analyses are performed.

Results

A total of 1804 respondents took part in the survey and 1343 (940 from *Aftonbladet*, 403 from *Sydsvenskan*) completed it. The completion rate was 74 percent. In general, a slight majority of the respondents who completed the questionnaire were female (54%), and the mean age for respondents was 47 ($SD = 14.64$).

Table 2 presents the means and standard deviations of the variables measuring use and appreciation of interactive features. The Wilcoxon signed rank test was employed to test whether the differences reported from the mean comparisons were significant or not.

Focusing first on the column presenting results for the *use* variables as presented in Table 2, interactive features are used rather infrequently, although there are a few exceptions. The most frequently used feature was video clips, audio clips or image slideshows ($M = 4.04$, $SD = 1.58$), allowing the visitors choice options in experiencing news stories. Also, links to similar content appeared to be relatively popular ($M = 3.50$, $SD = 1.64$), indicating that visitors fairly often take the opportunity to click through to related material. Reader questions and polls also tend to be used more than other features ($M = 3.24$, $SD = 1.71$), as did the search features often available on newspaper websites ($M = 2.60$, $SD = 1.59$). However, since the means for these variables are all low, none of the features stand out as exceedingly popular.

The differences when compared with the results for the *appreciate* variables are all highly significant ($p = < .001$), except for the questions regarding use and appreciation of commenting functionalities ($p < .05$) and the comparison between use and appreciation of video/audio/slideshows ($p = > .05$, NS). When comparing the results for use and appreciation, it is apparent that interactive features are more appreciated than used. For example, the contact staff functionalites are the most appreciated ones ($M = 4.55$, $SD = 2.10$), albeit not used that often ($M = 1.21$, $SD = 0.58$). These results echo the suggestion that users might not want to use the features offered, but that they appreciate the opportunity for use (Deuze, 2003: 214). The overall picture is one of appreciation rather than one of use – and even then, the levels of both use and appreciation must be considered low since the variables were measured on 1- to 7-point scales. Apparently, the availability of interactive features is not highly important for the respondents.

Table 2. Means and standard deviations for variables measuring use and appreciation of interactive features

Feature	Use		Appreciate		Wilcoxon signed-rank test
	M	*SD*	*M*	*SD*	*Z*-value
H – Comment	1.52	1.13	3.66	1.84	–26.93**
H – Chat	1.11	0.48	2.73	1.76	–27.51***
H – Email to friend	1.53	1.06	3.25	1.92	–27.45***
HM – Reader blogs/news	1.18	0.73	3.61	1.79	–31.34***
HM – Contribute image/video	1.06	0.39	2.78	1.67	–28.59***
HM – Contribute news tips	1.11	0.47	3.29	1.60	–31.48***
HM – Contact staff	1.21	0.58	4.55	2.10	–32.24***
HM – Reader questions/polls	3.24	1,71	4.11	1.78	–16.94***
M – Video/audio/slideshow	4.04	1.58	4.02	1.82	–.964
M – Links to similar content	3.50	1.64	4.41	1.77	–16.65***
MH – Share content to SNS	1.32	0.90	2.36	1.77	–22.33***
MH – News updates	1.26	0.99	2.10	1.54	–18.99***
MH – Search	2.60	1.59	4.49	1.99	–27.92***
MH – Customization	1.18	0.76	2.66	1.64	–14.12***

Reported z-values indicate significant differences at the *** = $p > .001$, ** = $p < .01$, * = $p. < .05$ levels respectively.

As discussed earlier, factor analysis and multiple regression analysis will be employed in order to identify user types. First, factor analysis using varimax rotation was performed. By examining the data in this way, we will be able to see if any underlying categories (or factors) emerge from the analyzed variables – factors that can then be tested against the independent variables. All 28 variables measuring use and appreciation of interactive features were used as items in the initial model. Items that cross-loaded on two or more factors were excluded from the final model reported below, as were items with factor loadings lower than .50. As shown in Table 3, the final model included 23 of the initial 28 variables. Results from KMO testing (.86) and Bartlett's test of sphericity (Sig. < .000) indicated that the data was suitable for factor analysis. Consequently, the 23 items loaded on five factors, altogether accounting for 50.2 percent of the variance.

Reliability analysis (using Cronbach's α) was performed for each of the factors. As seen in Table 3, the α for factors 3, 4 and 5 fall below the often suggested lower limit of .70. However, each of these factors scored close to or above the .60 threshold often suggested for exploratory studies such as this one (Hair, 2010). Also, α is sensitive to the

Table 3. Factor analysis

	1 – The Bystander	2 – The Prosumer	3 – The Lurker	4 – The Filter	5 – The Critic
Appreciate H – email article to friend	.702				
Appreciate H – Chat	.658				
Appreciate HM – Reader blogs/news	.555				
Appreciate HM – Contact staff	.711				
Appreciate M – Links to similar content	.670				
Appreciate MH – Share content to SNS	.608				
Appreciate MH – Search	.557				
Use H – Comment		.677			
Use H – Chat		.703			
Use HM – Reader blogs/news		.739			
Use HM – Contribute image/video		.588			
Use HM – Contribute news tips		.554			
Use HM – Contact staff		.634			
Appreciate H – Comment			.589		
Use HM – Reader questions/polls			.617		
Use M – Video/audio/slideshow			.703		
Use M – Links to similar content			.708		
Use H – email article to friend				.582	
Use MH – Share content to SNS				.675	
Use MH – News updates				.580	
Appreciate HM – Reader blogs/news					.567
Appreciate MH – News updates					.582
Appreciate MH – Customization					.646
Eigenvalues	3.46	2.67	1.97	1.79	1.66
Variance explained	15.03	11.61	8.58	7.8	7.2
Reliability (Cronbach's α)	.82	.70	.63	.56	.58
Mean inter-item correlation	.40	.31	.30	.25	.30

number of items in each factor (Streiner, 2003). Factors 3, 4 and 5 are made up of relatively few items each. In situations like these, reliability can be assessed by the mean inter-item correlation between the factor item (Streiner, 2003). Following previous research (Briggs and Cheek, 1986; Clark and Watson, 1995), mean inter-item correlation values for such items should range from .2 to .4. The reported values all fall within the suggested range. Consequently, the factors were considered reliable for further analysis.

The factors were labeled according to their characteristics regarding use and appreciation of interactive features. The labels given were: *The Bystander*, *The Prosumer*, *The Lurker*, *The Filter* and *The Critic*. The first factor, *The Bystander*, is characterized by high scores on variables measuring appreciation, but not use, of interactive features. By contrast, the variables loading on *The Prosumer* are all measuring use, indicating a visitor who regularly contributes, chats and comments on the site. According to the items that make up *The Lurker*, this factor is characterized by a rather passive front, enjoying the comments of other visitors but with use variables limited to partaking in reader questions and polls. The fourth factor was labeled *The Filter* because of the tendency to share site contents with friends, via e-mail or social network sites. Finally, *The Critic* might be described as an opinionated visitor who appreciates various opportunities for visitor input and influence on the site.

Second, multiple regression analysis was employed to test the influences of the independent variables on the five factors. By gauging these influences we take a step beyond the previously reported factor analysis and provide more detail for each of the factors, substantiating the visitor types. Specifically, the factors presented above were used as dependent variables respectively, while the same independent variables were used in all models. Table 4 presents the results of the analyses performed.

Turning first to the sociodemographic predictor variables utilized in the analysis (*Gender*, *Age*, *Education* and *Earnings*), it is clear from Table 4 that at least one of these variables emerged as a significant predictor for all but one of the visitor types (*The*

Table 4. Multiple regression analysis

Independent variables	1 – The Bystander	2 – The Prosumer	3 – The Lurker	4 – The Filter	5 – The Critic
Gender (0=female, 1=male)	–.092**	.114***	.042	–.063*	.083**
Age	–.078**	.048	–.022	.058	.077*
Education	.031	.034	–.070	–.001	–.088**
Earnings	–.076**	–.030	–.037	.002	–.038
Years online	.029	.001	.003	–.003	.005
Self-assessed internet skill	.001	.063	.008**	.070*	.005
Measured internet skill	.269***	.190***	.113**	.191***	.164***
Civic/Political engagement	.113***	.128***	.054	.128***	.054*
Days per week	.022	.049	.184***	.070*	.011
Length of visit per day	.067*	.127***	.176***	.016*	.054
Parts of site visited	.127***	.080**	.189***	.041	.080**
R (R2)	.361 (.131)	.369 (.136)	.428 (.183)	.289 (.084)	.250 (.063)

Standardized Beta values presented. Significance levels are reported at the *** = $p < .001$, ** = $p < .01$, * = $p < .05$ respectively.

Lurker). This indicates that the characteristics of this particular type are rather spread among various parts of the population, making it hard to predict *The Lurker* based on sociodemographic data only.

As for the variables focusing on online experience and skill, the first of these (*Years online*) did not turn out to be a significant predictor for any of the visitor types. This could be related to the high levels of internet penetration in Sweden, as well as to the fact that internet use in Sweden has spread quickly since the mid-1990s. With comparably high levels of internet experience spread throughout the population, variations regarding this characteristic might be hard to uncover. As such, no clear difference could be discerned between those who have used the internet for longer periods of time and those who are relative newcomers to the medium. Moreover, while the *Measured internet skill* emerges as a highly significant predictor for all of the five visitor types, the *Self-assessed internet skill* variable only significantly predicts two of the types, *The Lurker* and *The Filter*.

As stated earlier, civic and political activity are often found to have influences over online activity such as commenting or contributing content. The variable measuring *Civic/Political engagement* emerged as a significant predictor for all visitor types but *The Lurker*. Apparently, this visitor type adopts a passive stance in the online as well as the offline environment.

Finally, three variables were included that measured the intensity of use. The first of these, *Days per week*, emerged as a significant predictor for *The Lurker* and *The Filter*, indicating that these types tend to visit the newspaper's sites more frequently than the other types. As for *Length of visit per day*, the only visitor type not significantly predicted by this variable was *The Critic*. This type stands out as his rate of visitations and time spent on the site are not easily predicted. The last variable included in the analyses (*Parts of site visited*) assessed how many parts of the site that the respondent engaged with on a typical day of visiting the website. As shown in Table 4, the variable significantly predicted four of the five visitor types, with *The Filter* as the exception. This could be interpreted as a more selective attitude of this type towards what parts of the site are visited when the site is accessed. Results indicate that *The Filter* is a more focused visitor than the other identified types, concentrating his or her visit to selected parts of the site.

The main characteristics of the five visitor types can be summarized as follows. *The Bystander* can be described as a passive visitor of newspaper websites, who does not use interactive features, but who tends to appreciate their presence. *The Bystander* is a young, internet-savvy female with low earnings characterized by infrequent visits to many different parts of the newspaper site. The arguably most active visitor type, *The Prosumer*, tends to be a man with high levels of internet skill and societal engagement. He does not visit the site on a daily basis, although when he does, he spends a comparatively large amount of time on the site and tends to visit different sections of it. Rather few of the independent variables employed in this study helped predict *The Lurker*, a visitor type characterized mainly by passive behavior. This type stands out as the only one not predicted by the variable measuring civic and political engagement. *The Lurker* is also a very frequent and intense visitor, with highly significant positive values for all variables measuring site visits (*Days per week*, *Length of visit per day*, *Parts of site visited*). *The Filter* is often a female, quite focused visitor. This could relate to the fact that *The Filter*

tends to use news updates and therefore does not have to visit as many parts of the site in order to get their information as other types might have to. Finally, results indicate that *The Critic* often is a man, further characterized by his higher age and lower level of education. He appreciates user-generated content and news update services and would like to see more options for user customization of the sites. Following the non-significant results for the variables measuring frequency and intensity of visit (*Days per week* and *Length of visit per day*) we can conclude that he does not appear to be a habitually low or high frequency visitor. However, when he chooses to visit newspaper websites, *The Critic* tends to visit several parts of it, as suggested by the significant result for the *Parts of site visited* variable.

In sum, the results presented above suggest that the identified visitor types take rather different approaches towards the newspaper websites that they frequent. The results also give rise to a number of over-arching questions regarding visitor use and appreciation of interactive features in the newspaper website context. These questions are raised for further discussion in the final section of this article.

Discussion

According to Chung (2008), interactivity can be viewed as a continuous phenomenon, ranging from lower to higher forms of interactivity (see also Stromer-Galley, 2004). Higher forms of interactivity would include features that 'require more effort in that individuals must do more than clicking or selecting in order to actively use them' (Chung, 2008: 661). As is evident from the results presented here regarding use of interactive features, the respondents tended not to use various higher forms of interactivity such as Human (i.e. commenting on news items or chatting) or Human-Medium (i.e. contributing reader news or blog posts) interactive features. As such, there appears to be little interest in participating in various grassroots journalism efforts (Gillmor, 2004). Although lower forms of interactivity (Medium and Medium-Human interactive features) were used more, the overall tendency is one of non-use rather than one of use. This suggests a rather passive stance as the norm when it comes to use of interactive features – lower features allowing clicking or selecting seem sufficient for most visitors. Focusing on the results regarding appreciation, they show that even though newspaper website visitors do not use interactive features to any higher degree, they do tend to appreciate the presence of such features. Even if these indirect effects (Deuze, 2003; Gerpott and Wanke, 2004) of interactivity are present, especially when compared to the use of the features, levels of appreciation still remain rather low. With results indicating low levels of both use and appreciation of interactive features, the average newspaper website visitor could be described as somewhat jaded and uninterested in the opportunities to interact and contribute provided by the media organizations.

In sum, the results suggest that opportunities to interact are rarely acted upon by the visitors. However, the identification of five visitor types has provided some noteworthy insights into how different visitors make use of interactive features. Although two of these types are distinguished by their non-use (*The Bystander* and *The Critic*), the three remaining types (*The Prosumer*, *The Lurker* and *The Filter*) are all characterized by various forms of use.

Taking the aforementioned distinction between higher and lower forms of interactivity into account, the kinds of features associated with these visitor types are mostly of the less demanding lower variants. With the exception of *The Prosumer*, most visitors seem content with keeping more active participation to a minimum, using the 'bells and whistles' (Deuze, 2003: 214) but rarely contributing self-authored news texts, blog posts or pictures from news events. In this regard, the visitors could be understood as 'slow learners'. Perhaps as a result of the Swedish press enjoying strong societal positions in both off- and online contexts (Bergström, 2008), readers see the news reported to them as a finished product, not to be tampered with or augmented by non-journalists. The results presented in this study indicate that news consumers still see themselves as precisely that – consumers. In the Finnish context, Hujanen and Pietikainen (2004) found similar attitudes among their respondents, suggesting that the transition from news recipients to active participants might take longer time than was perhaps expected. According to the findings presented above, these results are valid also in the Swedish context.

The identification of newspaper website visitor types, their habits and characteristics, should be of interest to scholars who do research into these and similar matters. The results presented above are also relevant for practitioners in the media industry as well as for other professionals who work in similar areas of online publishing. On the one hand, practitioners might be relieved that rather few of their visitors want to contribute to any greater extent. From the early days of the internet, the media have taken on the role of 'cautious traditionalists' (Chung, 2007: 52), when attempting to adapt to the new medium. This wary attitude might derive from what is sometimes described as traditional journalistic schooling (Domingo, 2008; Gillmor, 2004). On the other hand, this *status quo* of the sender–receiver relationship might be challenged by tendencies that are increasingly emanating from online newsrooms in Sweden (Engebretsen, 2006; Frisk, 2008; Karlsson, 2006) and elsewhere (Chung, 2004; Mitchelstein and Boczkowski, 2009). For example, younger media practitioners seem to take a more open view when it comes to audience participation (Deuze and Dimoudi, 2002; Larsson, forthcoming). As such, the readers might not be alone in being characterized as 'slow learners' – it might take time for old and new generations of media professionals to adapt to the new possibilities as well.

If media industry professionals are serious about creating more than 'readers' playgrounds' (Ye and Li, 2006) on their websites, they should strive to adapt their sites to fit the needs of the audience. This challenge could be approached with the visitor types identified above in mind. The characteristics associated with these types should be of interest to professionals who strive to create appealing and suitably interactive websites for their visitors. The result that visitors tend to appreciate features more than they actually use them should be interesting in this regard. In a shorter temporal perspective, practitioners might want to draw on the results regarding appreciation of interactive features presented above and augment their sites with these features (following McMillan and Hwang, 2002) in order to please the visitors. As for long-term goals, practitioners need to set up interactive structures on their sites that could attract visitors not interested in interaction to take part in higher forms of interactivity, combining appreciation of these features with actual use. Sohn and Lee (2005) highlighted the fact that although several studies have emphasized the need for highly interactive websites in order to successfully communicate with visitors, few of these studies suggested

guidelines for designing such sites. The visitor types, their characteristics and preferences regarding interaction presented in this article should be helpful for online news practitioners planning and developing lively and competitive websites.

As online news consumers take part of news and interactive services via a variety of different sites using a multitude of devices (i.e. smart phones, tablets or desktop computers) to access these sites, the study of interactivity in online news becomes more complex. While this article did not take this breadth of options into account, the findings presented here provide the research community with important insights regarding use and appreciation of interactive features in the online newspaper context. To what extent these insights transfer to other emerging devices remains to be studied. Taking these and other limitations into account, this final section of the article goes on to suggest directions for future research on similar topics.

First, the results presented above suggest that the Swedish online newspaper audience is hesitant to interact – perhaps because of what might be described as an 'institutional respect' towards the media organizations. This suggests the need for comparative studies with countries where the media do not enjoy this position. Previous research could identify suitable countries for comparison, whose media systems could provide contrast to the Swedish context (i.e. Hallin and Mancini, 2004). Second, future studies should also take longitudinal perspectives into account. Studying the phenomenon at handover time will allow the research community to gain insight in how various groups of users change their web behavior and expectations (Leiner and Quiring, 2008: 147).

Third, although the employment of survey methodology has several advantages and provides the research community with an overall view of a specific phenomenon, this particular data collection rationale also has its disadvantages. Following Hwang and McMillan, researchers should also consider using various qualitative methods in order to 'provide insight into how consumers develop attitudes toward Web sites' (2002: 7). While the results presented in this article provide insights into how online newspaper visitors use and perceive the interactive features offered to them, future use of qualitative data can provide a deeper understanding of what drives site visitors to use interactivity. For example, talk-along procedures, in-depth interviews or focus groups could provide suitable methodological approaches to take the next step to let us gain more knowledge about characteristics, preferences and behaviors of the visitor types.

Fourth, while the focus here is upon interactivity, user experience of websites is also dependent on factors like design, usability aspects and the actual contents of the site. As such, future studies should attempt to broaden their scope and study interactivity from multiple perspectives, perhaps focusing on specialized news sites.

Finally, even though the suggestion was previously made for practitioners to augment their sites with interactive features according to the preferences of the different visitor types, the curvilinear effect of interactivity mentioned earlier should be kept in mind (Rafaeli and Ariel, 2007: 80). Too many options to interact might obstruct the user experience, resulting in negative feelings towards the site rather than appreciation (Bucy, 2004). As such, scholars should study the effects of different levels of interactivity on different types of visitors in the online news media context. The visitor types identified above should provide a suitable starting point for these and other ideas for future studies.

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