JOURNALISM AND BLOGGING
A test of a model of occupational competition

Wilson Lowrey and **Jenn Burleson Mackay**

Adopting a systems framework from the sociology of occupations, this study proposes a model to explain the vulnerabilities of journalism in the face of challenges from blogging, and the conditions under which journalists are likely to change their practices to address these vulnerabilities. A test of this model shows that editors' awareness of local blogging activity corresponds to increased use of blogs as sources, discussion of blogs in planning meetings and adoption of the blogging form on news websites.

KEYWORDS blogging; Internet; media sociology; news organizations; news profession; occupational control

Introduction

Does blogging present an opportunity or a challenge to journalists and their organizations? Journalists, bloggers and media scholars have seen it both ways.

Topics and information in news-oriented blogs are similar to those in traditional news content—at times, uncomfortably similar. For some, such blogs represent a force that will end journalism's reign of "sovereignty" (Rosen, 2005) and bring journalism's inherent weaknesses to light (Regan, 2003). "Watchblogs" have developed to track news coverage and to "shame journalists into doing their jobs better" (Smolkin, 2004, p. 40). For their part, journalists have traditionally viewed online journalism as being less than professional (Singer and Gonzalez-Velez, 2003; Singer, 2004). However, others say the journalism versus blogger debate is "tired and false" (Rosen, 2005). They say both sides should realize their work is complementary (Lasica, 2003), as bloggers are particularly dependent on mainstream journalism for content (Haas, 2005; Lowrey and Latta, 2008; Singer, 2005; Wall, 2006), and heavy blog users also tend to be heavy users of traditional news media (Eveland and Dylko, 2007; Johnson and Kaye, 2007). Yet even those seeking blogger–journalist harmony recognize blogging is likely to change the way news organizations operate (Andrews, 2003; Fisher, 2006), perhaps even "transforming the ways in which journalism is practiced" (Andrews, 2003, p. 63).

This study lays out and tests a model that depicts journalism's vulnerabilities, as viewed by journalists and news managers, in the face of news-oriented blogging.[1] Findings suggest conditions under which managers of US news organizations are likely to change journalism practices to repair perceived vulnerabilities. Given journalism's dual orientation toward profession and organization, it is proposed that these conditions exist at both professional and organizational levels.

In this study, "blogging" refers to news or public affairs blogging—the production of easy-to-create Web pages with regularly updated information, commentary, and links of public interest, wide and narrow (see similar definitions in Blood, 2003; Grabowicz, 2003;

Lasica, 2003; Wall, 2004, 2005). The blogging form has been adopted by both news organizations and by those who are outside organizations—here, blogging refers to the latter. Adopting Lowrey's (2006) distinction, traditional news is considered an institutional creation, unlike the independently created blog.

Certainly, however, the news industry is abuzz over blogging. Numerous industry trade articles have portrayed blogging as a threat and as an opportunity (e.g. Baetke, 2006; Baker, 2006; Bednarski and Benson, 2006; Fisher, 2006; Tallent, 2006; Smolkin, 2006; Stepp, 2006), and blogging is a common topic at professional journalism conventions and workshops (American Society of Newspaper Editors, 2006; PoynterOnline, 2006; Society of Professional Journalists, 2006). One recent study found that of 142 daily newspaper websites sampled nationally, the percentage offering blogs doubled from 33 percent in 2005 to 61 percent in 2006 (Lowrey, 2006). Large media corporations such as Gannett and Rupert Murdoch's News Corporation have called for a stronger focus on online, interactive and social networking media, as an increasingly high percentage of Internet users under 30—who are generally affluent and well-educated (Johnson and Kaye, 2007)—are using these media for information (Lenhart and Fox, 2006; MacManus, 2007).

Yet whatever their financial potential, blogs do not appear to represent an immediate financial challenge to US news organizations. More than six in 10 Americans say they do not know what a blog is, and of the 66 percent of Americans who were Internet users in 2005, 4 percent said they regularly used blogs for news information (Lenhart and Fox, 2006). Blogs are not yet serious competitors for advertising revenue. Advertisers spent $49.4 billion on US newspapers in 2005 (Newspaper Association of America, 2007), while ad spending on blogs in 2005 was between $10 million and $15 million (Foege, 2006). According to Internet consultant Jeff Jarvis, "Blogs represent such a tiny percentage [of advertising expenditure] it hardly even matters" (Foege, 2006, p. 18).

Such figures suggest the industry's interest in, and concern over, blogging is sparked more at the occupational level than the level of organizational management. Though financial competition may increase, it is presently weak. This suggests the conflict between bloggers and journalists persists because each stakes out similar areas of occupational expertise. Each asserts some jurisdiction over selecting events and issues for audience attention, commenting on these issues, and to a lesser degree for bloggers, doing reporting work. Hard-earned public legitimacy hangs on these jurisdictional claims. As mentioned, public affairs bloggers commonly target journalists—so whereas relatively few readers use blogs, news managers and staffers are increasingly aware of them.

The fact that financial motive in this conflict is not immediately acute suggests theory at the occupational level may be helpful. Thus, a "systems" perspective from the sociology of work serves as a framework for the model's propositions. According to this framework, occupations exist within a network of other occupations and institutions, occupations seek to encroach into the jurisdictional areas of other occupations, and these interconnections influence decisions and work processes, as occupational members try to adjust to external challenges (Abbott, 1988; Child and Fulk, 1982; Freidson, 1994; Simpson, 1985). A variety of factors shape the system's fluid processes, including technological change, relationships with clients (audiences), and factors related to the organizations that house occupations, such as resources, division of labor, and ownership type. As is discussed below, blogging is not considered a full-blown occupation, but as a community based on common tasks and goals, bloggers may still lay some claim over an area of work.

Sociology of Professions: The Process Perspective

The process perspective from the sociological study of work suggests occupational relationships, status, and control over work vary. The perspective emphasizes factors that shape changes in control over areas of work, and steps occupations take to build and maintain control (Hughes, 1958; Ritzer, 1972). Sociologist Andrew Abbott's systems theory of professions, a process perspective, suggests occupations exist in an interrelated system and compete for jurisdiction over "work tasks," which he defines as "human problems amenable to expert service" (Abbott, 1988, p. 2). According to this framework, occupational groups try to keep control over areas of work in the face of external challenges and challengers. For journalists, the primary area of work is the task of assembling and distributing news content for publics.

What explains changes in occupational jurisdiction? According to Abbott, "jurisdictional claims" (1988, p. 2), or the links between expert tasks and the occupations that claim them, are pressured, reshaped, strengthened, and sometimes broken by both "objective qualities" of the work environment and "subjective" qualities of the professional process. Objective qualities mostly come from beyond the occupation. They include efforts by rival occupations to expand their jurisdictions, changes in technologies, relative financial health of an industry or of the organization in which occupational members work, the size, structure, and ownership of organizations, relationships with community and institutions on which occupations depend, and government and legal constraints (Abbott, 1988; Freidson, 1994; Larson, 1977; Weeden, 2002; Zetka, 2001). This list includes factors presently pressuring journalism, such as technological innovation, public ownership, and the changing nature of competition.

In the face of changes in external objective qualities—which are qualities occupations have little control over—occupational members will adjust internal factors over which they have more control in order to maintain jurisdiction over an area of work. Such factors include work goals, tasks, procedures, and measurement of success (Child and Fulk, 1982). Abbott calls these adjustable work characteristics "subjective qualities." Examples of subjective qualities include the ways occupations define problems and client needs, and claims about the success with which client problems are solved (Abbott, 1988; Dooley, 1999; Hoff and McCaffrey, 1996; Zetka, 2001). For working journalists, readers are a more relevant client than advertisers, though certainly commercial pressures shape journalists' professional logic.

Subjective qualities of work can be located in the three stages of professional practice: *diagnosis*, which involves gathering information and categorizing problems, *treatment*, which involves supplying solutions, and *inference*, which connects diagnosis to treatment. These three stages constitute the professional process, and their subjective qualities form the occupation's public claim of jurisdiction over an area of expert work. The success of this claim leads to public legitimacy.

In the past, journalists have altered their diagnosis, inference, and treatment in response to encroachment by rival occupations. For example, the emergence of objectivity, balance, and news analysis was partly the result of a need to reposition goals and practices because of competition from public relations (Abbott, 1988; McQuail, 2005; Schudson, 1978) and politicians (Dooley, 1999). Similarly, it is argued here that pressure from blogging challenges the jurisdictional claim of journalists.

### The Occupational Nature of Journalism and Blogging

Though journalists have some outward trappings of professionalism, they tend to define professionalism in terms of the needs of the news organization, with pursuit of facticity and neutrality becoming a professional ideology that serves the organization (McQuail, 2005; Soloski, 1997; Tuchman, 1978). Most media scholars view journalism as falling short of professional status, with financial needs often trumping considerations of professional responsibilities (McQuail, 2005; Shoemaker and Reese, 1991). But according to Abbott, "whether journalism's inability to monopolize makes it 'not a profession' is not particularly interesting"—of greater importance is the external competition that "shaped it decisively" (1988, p. 225). Generally, sociologists who study occupations view the question of whether or not an occupation qualifies as a profession as a theoretical dead-end. Most scholars have shifted from a focus on static professional traits to the role of conflict among professions and occupations in pursuit of control over work, how occupations define themselves publicly, and the social antecedents and consequences of occupational control and public legitimacy (e.g. Abbott, 1988; Freidson, 1994; Larson, 1977). Certainly within this perspective, journalism's reaction to the blogging challenge is worthy of attention.

As with a growing number of other professionals such as accountants, engineers, and doctors, journalists are subordinated to the hierarchy and rules of their organizations, but their occupational norms encode the practices and rules of the organizations that house them (Child and Fulk, 1982; Hall, 1968; Leicht and Fennell, 1997). Such organizationally bound professions are called heteronomous. When heteronomous occupations maintain or increase control over expert work, financial rewards and rewards of status and public legitimacy accrue to both occupation and organization.

Blogging is generally not considered an occupation—most bloggers do not blog for a living, and by most definitions occupations are associated with compensated work. Also, types of blogs and bloggers vary. However, bloggers who produce public affairs content are beginning to view themselves as a loose collective. Public affairs bloggers have pursued accouterments of occupational status such as ethics codes and professional association (Kramer, 2004; Lasica, 2005)—more than 1000 bloggers are registered and paying members of the Media Bloggers Association (Baetke, 2006). Many bloggers perceive themselves as part of a community that shares values, rituals, and language (Kramer, 2004; Media Bloggers Association, 2006). Therefore, blogging is considered here a nascent occupational community, or a group of individuals who believe themselves to share some values, language, practices, and goals (Van Maanen and Barley, 1984).

Theoretical Model and Hypotheses

This paper proposes a model (Figure 1) to explain journalism's reaction to occupational competition, exemplified here by blogging. The model suggests professionals regulate their level of vulnerability to jurisdictional encroachment (e.g., the blogging challenge) by revising subjective qualities of the professional process. For example, journalists may redefine the nature of problems, audiences, and goals, or they may reshape definitions of the purpose of journalism and journalists to put themselves in a more defensible position (such as emphasizing the importance of reporting over commentary). Objective constraints and benefits, such as organizational structure and resources, affect journalists' vulnerability and influence journalists' ability to alter
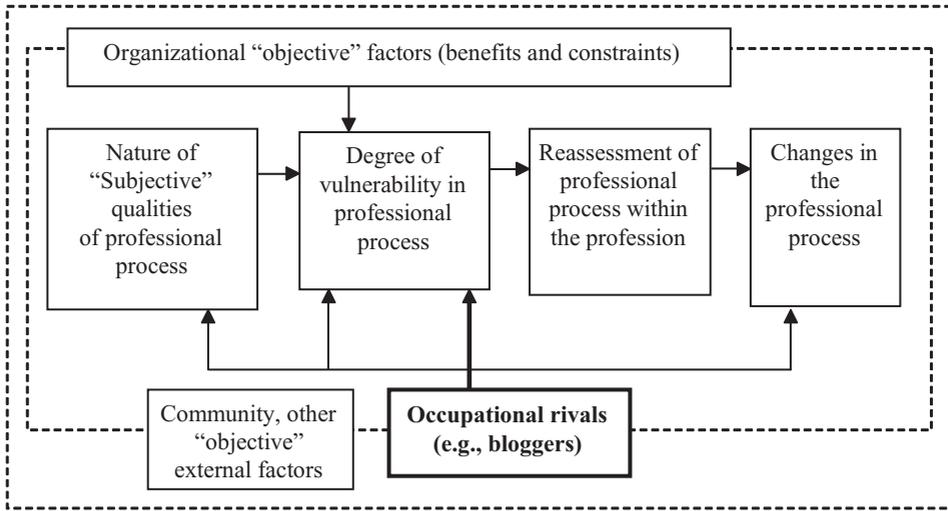
FIGURE 1
Professional adjustment to outside influences

professional knowledge and practice. The model suggests professionals use intra-professional discussion such as conventions and trade publications to determine how to adjust professional practice in order to repair vulnerabilities. This process calls to mind Zelizer's (1997) suggestion that journalists work to maintain consensus about, and authority over, journalistic practice through professional discourse, particularly when faced with challenges.

Stages of the Professional Process

As mentioned, the professional process consists of the stages of diagnosis, inference, and treatment. Competitors with an occupation may exert pressure at any of these stages, and each stage has subjective qualities that shape an occupation's vulnerability to competitors. The stages derive from medical work, but Abbott suggests they can be applied to any occupation seeking control over work. For physicians this professional process is straightforward. Physicians *diagnose* clients' problems by observing symptoms in particular cases. In the *inference* stage, they make sense of symptoms by researching treatments that correspond with diagnoses. Physicians *treat* clients' problems by providing remedies and directions.

It is proposed here that the essential problem journalists' clients (audiences) need diagnosed is that they are uncertain how to act socially or politically given the conditions of a particular day (or other brief time period). Unlike doctors or lawyers, journalists do not meet with individual clients, and so the journalist's client is an "every client." Journalists' *diagnoses* are broad news coverage categories that match clients' presumed broad needs. In the *inference* stage, journalists enter a community to analyze conditions during a particular day, with their broad diagnosis for the "every client" in mind. They then make sense of the day's conditions so they can provide the appropriate *treatment*—news stories, photos, video, etc. and their juxtaposition.[2]

Hypotheses

The model suggests journalists are likely to alter professional practice to meet competition from bloggers. In what ways do bloggers pressure journalists at each stage of the professional process? To what degree do journalists reposition their professional practice to better address client (audience) problems and maintain control over work in the face of the blogging challenge?

One important aspect of the diagnosis stage is the relationship between the professional and the client to be diagnosed. The professional must have a publicly acknowledged ability to relate to and understand clients. However, evidence suggests the journalist–audience relationship is strained, and the blogging community appears to be taking advantage. Blogging advocates say journalists are out of touch with audiences (Lasica, 2003; Regan, 2003; Rosen, 2005), and survey findings suggest audiences perceive a cultural gap between themselves and journalists (e.g., Pew, 2002). This disconnect is a problem for journalists in the diagnosis stage, as "society has little time for [professional] experts who lack cultural legitimacy, irrespective of their success rates" (Abbott, 1988, p. 54).

The model suggests journalists will respond to perceived vulnerabilities in their professional practice by adjusting subjective qualities of this practice. In response to journalists' perceptions that "local bloggers" are active, it is expected that news managers will try to strengthen the "professional–client" relationship by becoming more accessible and transparent in their news content and in audience interactions. "Local bloggers" are defined as bloggers addressing issues in the paper's circulation area, regardless of bloggers' geographical location.

- Hypothesis 1a (H1a): The more active that local bloggers are perceived to be by news managers, the more managers will attempt to make coverage more accessible to their client-audience.

Occupations may try to change the diagnosis inventory in response to jurisdictional incursions from others. For example, in response to challenges from alternative medicine, traditional physicians have broadened their diagnosis inventory to accommodate the possibility of psychosomatic problems.[3] Similarly, journalists' traditional diagnoses of news types (local news, features) and forms (inverted pyramid story structures, neutral tone) have been challenged by bloggers, who advocate quick, continually updated, off-the-cuff, opinion-laden information, and who call for mainstream journalism to adopt or validate these approaches (Gillmor, 2004; Lasica, 2003; Regan, 2003). In response, journalism appears to be adjusting news forms and types (its diagnosis inventory). Recently, many news organizations have devoted sections of their websites to blogs and have created link buttons on site navigation bars to send readers to these pages. This reflects a change in the inventory of presumed reader interests and needs, and may require a reshuffling of staff resources. It is proposed here that the more news managers perceive bloggers to be active in the newspaper's community, the more likely managers will reshape their traditional news diagnosis categories to accommodate blogging.

- H1b: The more active that local bloggers are perceived to be by news managers, the more likely it is that managers will adjust news content to accommodate the blogging form.

Inference is the middle stage of the professional process. Occupations infer treatment from diagnoses, and for journalists, inference largely means reporting. Just as doctors analyze individual client cases, journalists investigate community conditions during a day, keeping in mind the broad diagnosis inventory they have for reader-clients. Journalists then make sense of the day's conditions (the counterpart to the professional "case") so the appropriate treatment (stories, photos, video, etc.) can be delivered.

One way journalists may choose to meet the blogging challenge is to incorporate blogging information into their inference process. This is a form of co-optation, whereby journalists conceptualize blogging as a newsgathering tool, as opposed to an occupational threat (e.g. see Lasica, 2003; Park, 2004). Managers may formally assign staff to track blog postings or encourage reporters to use bloggers as sources, or blog content may be discussed in news planning meetings.

● H2: The more active that local bloggers are perceived to be by news managers, the more managers will use blogging as a newsgathering tool.

Treatment is the final stage of the professional practice process, involving production of the final news content form. Journalists may try to co-opt the blogging challenge in this stage by appropriating the blogging form. News websites may offer blogs written by staff writers, solicit community blogs, or hire well-known bloggers. In both the inference and treatment stages, journalism may be attempting "amalgamation" (Abbott, 1988, p. 105), whereby dominant occupational groups deal with a challenge from a subordinate occupation by absorbing their techniques and treatments, much as medicine absorbed apothecaries, homeopaths, and osteopaths.

● H3: The more active that local bloggers are perceived to be by news managers, the more news organizations will try to co-opt the blogging form.

Finally, the model suggests that reassessment of professional practice is an important step in the repair of vulnerabilities in the profession. The degree to which news managers participate in professional conferences, workshops, and associations should, therefore, increase the likelihood that steps will be taken to accommodate the blogging challenge. The model suggests that pressure from the blogging community will have an impact on the relationship between professional involvement and attempts to repair vulnerabilities in the profession.

● H4: The more active that local bloggers are perceived to be by news managers, the stronger will be the relationship between editors' professional involvement and the attempt to repair vulnerabilities in diagnosis, inference, and treatment.

The model suggests a variety of other "objective" factors will shape changes in the professional process, including organizational and environmental factors. In testing the above hypotheses, several rival objective factors will be included as controls, including organizational size, public ownership, level of competition from other newspapers, and level of success reaching audiences. These were chosen for a number of reasons. The larger the organization, the greater the resources and specialization, and the greater the opportunity to develop expertise in coverage areas (Blau, 1970; Hall, 1999; Leicht and Fennell, 1997) and in areas that match the rival group expertise (Blau, 1970; Leicht and Fennell, 1997). For example, the emergence of the online journalist subgroup in news

organizations serves the occupation of journalism, as these experts in online media are more likely to understand blogging form and practice, making it easier to co-opt this form. Organizational size also attracts resources such as source information from other large institutions (Griswold, 1999).

The other three controls also affect level of resources. Publicly owned news organizations seek high profit margins, which leads to controlled costs in high-cost areas such as newsrooms (Martin cited in Lacy et al., 2004, p. 330). However, competition from other newspapers typically leads to more investment of resources in newsrooms (Lacy and Martin, 2004; Martin, 1998). Strength of the paper's market position is included because it affects the likelihood managers will see a need for change in order to increase the organization's revenue (Lowrey, 2005).

Method

Any study of journalism as a profession must address the issue of unit of analysis because journalism is heteronomous—i.e., both an occupational and organizational entity. Certainly the sociology of news literature makes it clear that factors influencing news decision-making exist at different levels of analysis, ranging from professional orientation to organizational resources, to social and cultural pressures external to the organization (McQuail, 2005; Schudson, 2002; Shoemaker and Reese, 1991). Goals and norms of organization and occupation may conflict (Beam, 1990), but they may complement as well, an idea noted by Tuchman (1978) in her observation that journalists' professional ideology serves organizational needs. The integration of organization and occupation takes place in several ways. Organizational rules are typically encoded with the norms of the occupations they house, and organizational resources and marketing strategies can aid an occupation's effort to maintain status, public legitimacy, and jurisdiction over an area of work. Also, the organization's division of labor makes it easier for professional experts to shed routine tasks and focus on more abstract ''big picture'' decisions (Abbott, 1988, 1991). This is not to minimize the potential for organizations to commodify expertise (Abbott, 1991) and erode professional control—it is merely to point out that interactions of organization and occupation are multifaceted. In the present study, therefore, news managers, who stand at the intersection of organization and occupation, and who are both news professionals and organizational decision-makers, serve as survey respondents.

A survey of US newspaper editors was conducted from January to March 2006. The sample consisted of 303 newspapers that had responded to a previous survey on newspaper–TV convergence, conducted from November 2003 to January 2004. For the 2003–4 survey, a sample of 700 daily newspapers was drawn randomly from a 2003 *Editor & Publisher Yearbook* list of all US dailies with weekday circulations of 10,000 and higher. The previous surveys' 303 respondents were chosen as the sample for the present study because some of the less time-sensitive data were deemed useful.

To gather data for the present survey, both executive editors and managing editors were sent e-mails that linked to brief online surveys. E-mails were sent twice, and non-respondents were phoned. A total of 142 surveys were completed for a response rate of 47 percent. No claims of generalizability are made from findings based on this non-representative sample, though responding papers are fairly evenly distributed by geography and by organizational size. All but eight US states are represented, and the

mean average weekday circulation size is 58,728, with a standard deviation of 69,275. Paper circulations range from 10,152 to 334,742.

Immediately following the survey, four coders analyzed the content of the responding papers' websites. Data collected on six variables were ratio-level, and so Pearson's product-moment correlation coefficient was used to assess intercoder reliability, as suggested by Riffe et al. (1998).[4]

Measures

The degree to which journalists perceive that local bloggers focus on their newspaper's content serves as the primary independent variable in this study. This variable, "perceived activeness of local bloggers," was measured by the survey question "Bloggers unaffiliated with our staff post commentary about our news content," with 3= Daily, 2=At least once a week, 1=Less often, and 0=Never (mean=1.59, SD=1.03).

A number of dependent variables are included in this study, all relating to changes journalists make in the professional process of diagnosis–inference–treatment. The degree to which journalists attempt to maintain control over diagnosis by strengthening weakened connections with the audience (from H1a) was measured by four statements. Each statement assessed change in the degree to which professional practice was accessible, or transparent, to readers, including accessibility of source information, response to readers, admission of errors, and use of non-official sources. For each statement, respondents were asked to compare practices today to a year ago (More likely =3, No change =2, Less likely =1).[5] These measures were summed to create an overall measure of the degree to which newspapers try to make coverage accessible to readers. However, these measures did not scale together reliably (a =0.58), and so the four measures were analyzed separately. The summed measure was also assessed, as each item seemed a conceptually valid measure of an aspect of accessibility.

Journalists also attempt to strengthen control over diagnosis by adjusting their notion of what types of content news audiences should consume. A shift by news organizations toward accommodating blogging (from H1b) was measured by whether or not websites contained space that had to be filled with blogging content and whether or not home pages contained permanent links to blogging content. These attributes were measured in the content analysis.[6]

The degree to which journalists attempt to strengthen control over the inference stage by incorporating blogging as a newsgathering tool (from H2) was assessed by how often survey respondents reported discussing blogs in news meetings and using blogs as sources.[7]

The degree to which journalists attempt to maintain control over the treatment stage by co-opting the blogging form (from H3) was assessed by counting the number of blogs on the site. Blogs were counted only if they were labeled as blogs, and if they linked from the site's home page, main sports page, and main opinion page. Discussion forums not labeled as "blogs" were not counted. About 61 percent of the websites had blogs.[8]

Professional orientation by the news organization manager (from H4) was measured by asking survey respondents how involved they were in professional organizations.[9]

The control variables of competition, market penetration and public ownerships were measured through data from *Audit Bureau of Circulation Reports* and the *Editor & Publisher Yearbook*.[10]

Findings

Descriptive Results

The percentage of news websites in the sample that host blogs has nearly doubled since last year, growing from 33 percent in April 2005 to 61 percent in March 2006 (data were gathered from these same sites in April 2005 for a separate study). The average number of blogs per site in 2006 was just over six. About 37 percent of the sites had pages specifically designated for blogs, and about 33 percent of the sites had a "blog" link button on the site's main navigation bar.

More than half of the editors said bloggers posted commentary about their publication at least once a week, and about a fourth said commentary was posted daily. About 16 percent said no local postings about the publication appeared on blogs.

Just under 20 percent reported they had formally designated a staff member to track blogs. Nearly three-quarters of editors said reporters had used blogs as news sources, but only about 16 percent said this happened at least once a week. Sixty percent said blog postings had been discussed in news meetings, and 17 percent said blogs were discussed in meetings at least once a week.

Results of Hypothesis Testing

Multiple regression was used to assess hypotheses.[11] Because the sample is not statistically representative of the population of all US daily newspapers, hypotheses were tested using strength of association rather than the significance testing used for inferential statistics. There is no generally accepted cut-off point for strength of association, but it was decided that a predictor must account for at least 4 percent of the variance to be considered significant. So a partial coefficient of 0.20 or higher would support hypotheses.

For each of the first four hypotheses, the predictor variable was entered into the analysis with the four control variables: level of local media competition, public/private ownership, organizational size, and market penetration (Table 1). Findings show no support for H1a, which proposed that local blogging activity would pressure news organizations to make their practices more accessible to audiences (to shore up weakened cultural connections with audiences). Local blogging activity did not substantially affect the summed index variable measuring transparency, and none of the individual transparency measures correlated significantly with the local blogging activity variable. Only the control variable "public ownership" was a significant predictor. Typically, publicly owned newspapers invest *less* in newsrooms than privately owned papers, and so increased efforts to reach audiences was not expected. It may be that corporate mandates on sourcing and corrections policies explain the finding.

Hypothesis 1b received moderate support, as local blogging activity corresponded fairly strongly with a greater likelihood that newspapers would have a main blogging page, and that they would have a permanent blogging link button on the site's navigation bar. Organizational size was also an important predictor here.

Hypothesis 2 received strong support. Greater local blogging activity correlated strongly with the frequency with which reporters were willing to use non-official sources, and with the frequency with which blog postings were discussed in news planning meetings. This finding suggests local blogging activity has an impact on journalists' inference process—i.e., the decision-making process by which journalists connect their

TABLE 1

Degree to which journalists repair professional vulnerabilities (across three stages) regressed on perception of local blogging activity and control variables ($N = 142$)

	H1a: Level of transparency with reader's index (diagnosis) $R^2 = 0.12$	H1b: Have main blog page (diagnosis) $R^2 = 0.21$	H1b: Have main link to blogs (diagnosis) $R^2 = 0.12$	H2: Use blogs as news sources (inference) $R^2 = 0.24$	H2: Discuss blogs in budget meetings (inference) $R^2 = 0.21$	H3: Number of blogs on site (treatment) $R^2 = 0.19$
Perceived activity of local bloggers	00.11 (0.11)	0.25* (0.24)	0.20* (0.20)	0.38* (0.37)	0.44* (0.45)	0.24* (0.23)
Level of media competition	0.01 (0.01)	−0.06 (−0.05)	−0.01 (−0.01)	0.13 (0.13)	0.05 (0.05)	0.14 (0.14)
Public ownership (0 =no, 1 =yes)	0.31* (0.31)	0.18 (0.17)	0.08 (0.08)	0.21* (0.20)	0.11 (0.10)	0.06 (0.06)
Organization size	−0.06 (−0.06)	0.29* (0.30)	0.24* (0.25)	0.16 (0.15)	0.03 (0.03)	0.34* (0.36)
Market penetration	−0.11 (−0.11)	0.03 (0.03)	0.01 (0.01)	−0.14 (−0.14)	0.07 (0.06)	−0.01 (−0.14)

Values are partial correlation coefficients, with standardized regression coefficients in parentheses.
*Coefficients that are at least 0.20 support hypotheses—significance testing not used because sample is not representative of the population.

definition of what is news with daily community happenings. Among control variables, only public ownership predicted use of blogs as news sources.

Hypothesis 3 received moderate support. The stronger the local blogging activity, the more news sites provide readers with blogs on their own sites, though the correlation is not strong. Size of the news organization was a strong predictor of number of blogs on newspaper websites.

Hypothesis 4 proposed that at newspapers with active bloggers in their communities, a higher level of professional involvement by managers would lead journalists to repair the professional process. To test H4, frequency of local blogging was split at the median, and bivariate correlation analyses were run to see if the two groups differed significantly for correlation between professional involvement and changes in the professional process. There were no such differences, and so H4 received no support.

Discussion

Findings suggest that, at least for this sample of US papers, awareness of local blogs has an impact on the way journalists practice their profession. This impact is evident in all three stages of the professional process, but particularly in the inference stage, which includes reporting and decisions about newsworthiness. At newspapers where journalists are more in tune to local blogging about the paper's content, reporters are much more likely to use blogs as news sources, and news planning meetings are more likely to include blog posting discussions. This is the case regardless of organizational size, and regardless of business factors such as level of media competition, public investment, and level of market penetration.

These findings provide moderate support for the proposed model. They provide evidence that a rival can spur an occupation to make changes in an attempt to gain more secure footing. Journalists working in a community with active bloggers are more likely to track blogging commentary as they work to determine what news to provide the community. This represents an effort by journalists to maintain control over the raw material of source information and to ensure they are not scooped by bloggers. It may even be a form of co-optation, whereby journalists begin to think of blogging as a "reporting tool."

However, bloggers may be weakening journalists' hold over inference by becoming a link in journalists' decision-making chain. Abbott gives the example of the architect's inference chain, which stretches between the diagnosis of the client's needs and the final design, crossing the paths of engineers, lawyers and accountants, each of which has input into inference and reduces the architect's control over the final design (Abbott, 1988). Some researchers have found limited evidence that bloggers influence the media's agenda (Delwiche, 2004; Dylko and Kosicki, 2006), and findings here provide evidence as well.

The questionable reliability of blogging makes this influence over inference an acute concern (which is not to suggest traditional journalism never errs). Though some blogging enthusiasts say the expansive "blogosphere" serves as a reliable fact-checking mechanism, the validity of this claim is not well-tested, and at any rate, the problem remains that unchecked information is routinely published, even if it is eventually corrected. Open-ended comments by editors suggest they are attuned to this issue. One responding editor said that "While blogs have good tips and interesting comments, they are highly

unreliable sources and must be checked thoroughly.'' Another said, ''We always go to the source of the news and do not quote the blog site.''

Findings also suggest that perceived blogging activity affects the degree to which newspapers themselves adopt the blogging form. Newspaper sites in this sample are incorporating the blogging form much more frequently than a year ago, and local blogging activity corresponds with the degree to which news organizations prioritize blogging on their sites. This is evidence of a shift in diagnosis. News organizations appear to be making a commitment to treat blogging as an ongoing content category that must be fed, as the establishment of a content area typically leads to commitment of staff and other resources, even if borrowed from other areas within the organization. Commitment to blogging content is especially strong at larger papers, which have more resources and are able to differentiate tasks more efficiently. It may also be that smaller papers are less likely to publish blogs because they are already relatively open to community voices, through letters, guest columns, etc.

Increased use of blogs suggests blogging activity in the community may spur journalists to ''co-opt'' the blogging form to maintain control over the treatment stage. Yet it could signal a gradual merging of traditional journalism and blogging. Time will tell.

The finding that blogger activity has no impact on journalists' transparency with readers suggests journalists do not equate the problem of reader disconnect with blogging. Though bloggers point out journalists' mistakes and decry journalists' inaccessibility, strong local blogging activity does not correspond to greater access to reporters' information and personal time. It may be that the way local blogging activity was measured—as editors' noticing blog postings on newspaper coverage—masked this effect, to some degree. In future research, it could be fruitful to widen the scope of this measure to include the frequency with which editors notice blogs covering stories missed by the news organization.

Interestingly, only public ownership was a significant predictor of increased transparency. This may suggest that greater transparency by newspapers reflects a corporate response to financial concerns. Though publicly owned corporations can be tight-fisted about investment in newsrooms, corporate chains have the resources to bring about change, and often the rules to mandate it. This finding should be interpreted cautiously, given the low reliability of this scale (though results from individual measures of accessibility also showed no relationship).

The finding that editors' professional involvement did not spur changes in response to local blogging undermines the model, but it also reveals the difference between journalism and professions like medicine and law. Doctors, lawyers, accountants, and engineers are more tied to their professional knowledge base than journalists. Intraprofessional discussion in these professions is likely more ongoing, powerful and constraining than it is in journalism. The fact that involvement in professional associations and conventions did not lead to greater professional change suggests that this aspect of the model may work better for professions with more powerful, cohesive knowledge bases. A variable like ''impact of profession's knowledge base'' may need to be added to the model. At any rate, this finding is cause for concern from the perspective of mainstream journalism, suggesting journalists are not drawing on professional knowledge when changing professional practice.

The nature of the sample is a limitation in this study, as it is less than representative of the population of all US papers. Also, it would have been helpful to have gathered

information from journalists at the staff level, as the theory used in this study operates at the occupational level. Finally, the study sheds light only on the practice of journalism in the United States—the nature of journalism as an occupation and industry varies across cultures, and the advent of blogging has been an issue of much concern by professionals in other press systems.

Research on other occupations challenging journalism may improve the model tested in this study. How is journalism repositioning itself in the face of a public relations industry with ever-growing resources? What impact do "infotainment" media have on journalism's professional practice? Theory from the sociology of occupations provides a helpful framework for answering these questions. It allows us to see that the principles, typifications and norms of occupations do not drop from the sky—rather, they are continually formed and reshaped within a larger social context.

NOTES

1. The model and the model's assumptions were described in greater detail in a previous study (Lowrey, 2006).
2. Abbott does not specifically delineate how the three-stage professional process applies to an occupation such as journalism in which professionals do not meet with clients on an individual basis. However, Abbott clearly says journalism holds jurisdiction over an area of expert work, and he calls diagnosis–inference–treatment the essential logic whereby professions lay claim to their jurisdiction. There is some precedence for using Abbott's model to explain the practice of journalism (see e.g. Dooley, 1999; Lowrey, 2006).
3. For example, the National Center for Complementary and Alternative Medicine was established in 1998 as one of the 27 centers and institutes of the National Institutes of Health (see http://nccam.nih.gov/).
4. Pairwise comparisons among all coders for these variables resulted in correlations ranging from 0.74 to 1.0. Two of the measures were ordinal-level, and Cohen's kappa and Scott's pi were used to test reliability, with coefficients ranging from 0.71 to 1.0 for one variable (existence of main blog page link) and with all coefficients equal to 1.0 for the other variable (existence of main blog page).
5. Survey items included: Staff is more likely or less likely to publish reporters' notes that did not appear in the published story (mean=2.26, SD=0.49), to respond to readers' questions and comments (mean=2.50, SD=0.50), to run corrections for news stories in a prominent way (mean=2.11, SD=0.32), and to use "everyday people"—i.e., non-official sources in news coverage (mean=2.24, SD=0.59).
6. (1) Did the website include a permanent area devoted to blogging content (Yes=37.1 percent), and (2) Did the site include a permanent link to blogging content on the main navigation bar (Yes =32.9 percent).
7. Survey items included: (1) Comments from blogs are discussed in budget meetings (3= Daily, 2=At least once a week, 1=Less often, and 0=Never; mean=0.82, SD=0.78), and (2) Reporters use blogs as news sources (3=Daily, 2=At least once a week, 1=Less often, and 0=Never; mean=0.99, SD=0.80).
8. An analysis of the variable revealed five significant outliers—these high values were recoded to "41," the closest value not determined to be an outlier by the box plot, and the new variable brought the skewness score to an acceptable range, within ± 2.

9. "How involved are you in professional news organizations (such as NAB, RTNDA for TV stations and SPJ, ASNE, SND for newspapers)?" (Not at all involved = 1, Highly involved = 5, mean = 3.38, SD = 1.11).

10. Competition was measured by summing penetration rates of rival newspapers in the media organization's home county (mean = 13.87, SD = 15.27). These data were obtained from *Audit Bureau of Circulation Reports*, as were data on market penetration (mean = 46.68, SD = 14.21), measured by the ratio of circulation to number of households in the designated market area. Data on public ownership was obtained from the *Editor & Publisher Yearbook* (48.50 percent of papers were publicly traded), as was average daily circulation, the measure for organizational size (mean = 58,130.94, SD = 68,958.95).

11. Assumption of normality for all variables was met, and there was no evidence of multicollinearity among independent variables. Several of the variables used in this analysis are ordinal-level data. Though data used in parametric statistics are typically interval-level, regression analysis is robust, and ordinal-level and even dichotomous variables are routinely used in these interval-level techniques. According to scholars who have summarized literature on this issue, "for many statistical tests, rather severe departures (from intervalness) do not seem to affect Type I and Type II errors dramatically" (Jaccard and Wan, 1996, p. 4).

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Wilson Lowrey (author to whom correspondence shoud be addressed), Department of Journalism, Box 870172, The University of Alabama, Tuscaloosa, AL 35487, USA. E-mail: wlowrey@ua.edu

Jenn Burleson Mackay, Department of Journalism, Box 870172, The University of Alabama, Tuscaloosa, AL 35487, USA. E-mail: macka001@bama.ua.edu