

IMPACT OF WEB METRICS  
ON NEWS DECISIONS

by

TOM ARENBERG

WILSON LOWREY, COMMITTEE CHAIR

MATT BUNKER  
CHRIS J. VARGO

A THESIS

Submitted in partial fulfillment of the requirements  
for the degree of Master of Arts  
in the Department of Journalism  
in the Graduate School of  
The University of Alabama

TUSCALOOSA, ALABAMA

2017

Copyright Tom Arenberg 2017  
ALL RIGHTS RESERVED

## ABSTRACT

Many news organizations are trying to maximize their online audience in an attempt to bring greater exposure to their work and attract advertising. Grounded in Resource Dependency Theory and System of Professions theory, this comparative case study of two divergent news organizations sought to identify how degree of pursuit of audience metrics affects the nature of an organization's journalism. The study showed that differences in degree of pursuit led to differences in the nature of news content and in the nature of determinations of newsworthiness. A greater emphasis on metrics led one organization toward a lower percentage of civic issue stories, less story depth, a better understanding of online traffic creation, greater use of text and ideas from public relations professionals, and less use of traditional journalistic abstract knowledge to determine newsworthiness. Crucially, however, in the newsroom of greater metric use, a commitment to the traditional journalistic norm of civic duty served to reduce the differences between the organizations. The implications for journalism are discussed.

*Keywords:* Web metrics, web analytics, quantification, journalism

## ACKNOWLEDGMENTS

I am much obliged to my thesis committee, Dr. Matt Bunker of the University of Alabama, Dr. Chris J. Vargo of the University of Colorado, and especially chairman Dr. Wilson Lowrey of the University of Alabama for their encouragement, vital ideas and wise suggestions from start to finish of this project. My gratitude goes also to the many journalists of the two study organizations who gave me generous amounts of time, insight and candor.

## CONTENTS

ABSTRACT .....	ii
ACKNOWLEDGMENTS .....	iii
INTRODUCTION .....	1
LITERATURE REVIEW .....	3
System of Professions .....	3
Resource Dependency Theory .....	6
Demise of abstract knowledge .....	9
Need for information subsidies .....	20
Reduction of uncertainty .....	23
RESEARCH QUESTIONS .....	26
METHOD .....	30
FINDINGS .....	41
Research question 1 (Civic and public issues) .....	41
Research question 2 (Story depth) .....	49
Research question 3 (Conceptions of traffic generation) .....	55
Research question 4 (Use of public relations) .....	57
Research question 5 (Abstract knowledge) .....	63
CONCLUSION AND DISCUSSION .....	81
Implications for theory .....	85
Limitations .....	87
Implications for journalism .....	88
REFERENCES .....	92
APPENDICES .....	98

## INTRODUCTION

The technological revolution in information platforms from print to digital in the past two decades has accelerated and magnified the involvement of quantification in journalism. New, digital-native news organizations and traditional print organizations that are now emphasizing their digital platforms are trying to find a successful economic model, often by trying to maximize their digital audience, which they then count – or quantify – and use to entice advertisers that wish to reach a large audience (Vu, 2014; Lowrey, 2009). Anderson (2011a) describes quantification as an “increasingly common institutional reduction of the audience to a quantifiable, rationalizable, largely consumptive aggregate” (p. 550).

Just as audiences can be quantified, so can the value of digital content, when a news organization assesses the worth of a news story based on the measurements of digital audience it creates (called “metrics”). Applying the practice of quantification, therefore, commodifies both news and audience. *A Dictionary of Journalism* (2014) captures both manifestations of quantification in its definition of commodification. It defines commodification, in the context of journalism, as “the process of turning journalism and journalistic products into commodities that can be bought and sold in a marketplace, or as ways of creating an audience that can be sold to advertisers, rather than as something produced primarily for the benefit of a society and its citizens.”

Organizations that commodify news and audience may gravitate toward content that generates the audience metrics they seek: content of mass appeal. The question is, what kind of

content is that, and is it content that fosters journalism's customary and necessary role as the information source and watchdog for effective democracies on the national and local levels?

Different news outlets may commodify news and audience to different degrees. Jackson (2009), speaking about markets of all kinds, sees commodification as having a "continuum reflecting degrees of commodification" (p. 148). Applied to journalism, quantification/commodification may be conceptualized as an independent variable that potentially influences various dependent variables related to the nature of digital-platform news content and processes. This study seeks, through a comparative case study, to identify how degree of quantification – meaning degree of pursuit of audience metrics – affects the nature of a news organization's journalism content and practice.

The study is grounded in two theories from the sociology of work: System of Professions theory and Resource Dependency Theory (RDT). It examines for content impacts that might be expected based on RDT, and it discusses potential consequences for the field of journalism as posited by System of Professions theory. The next section explains and applies System of Professions theory and RDT, as well as discussing what past research has found about real-world manifestations of quantification in journalism. Potentially, these manifestations work to the detriment of civic mission.

## LITERATURE REVIEW

### **System of Professions**

System of Professions theory seeks to explain: the traits that distinguish a profession from an occupation; the control that professions hold over knowledge and service delivery in a claimed field of work; and, most relevant to the present topic, how rival professions compete to claim control in a work area. The seminal work in this area is Abbott's 1988 book, *The System of Professions: An Essay on the Division of Expert Labor*.

Abbott (1988) defines professions as “exclusive occupational groups applying somewhat abstract knowledge to particular cases” (p. 8). A profession becomes exclusive through various entry requirements such as formalized training and licensing to practice, which also give the profession added legitimacy in the minds of clients and the public as a whole. But it is the abstract knowledge that is most fundamental to a profession's ability to control a field of work because it takes advantage of public uncertainty by bringing needed expertise to a work area and filling the vacuum created by that uncertainty about a complex work area (Nilson, 1979). Prominent examples include the legal and medical professions. Consider also the difference between accountants and clerical workers. As noted by Tolbert (1990), both occupations involve record-keeping responsibilities, but accountants have created an abstract knowledge base on which they claim professional status and a special ability to address uncertainties and changes in society in the field of finance, and thus better sustain themselves.

Some scholars, such as Nilson (1979), argue that professions taking advantage of public uncertainties hold too much unquestioned control, squash service delivery alternatives, and avoid blame for failures. But it is possible for professional control over a work area to weaken. Transparency into a profession's work process and alternative sources of the profession's abstract knowledge can diminish control. Abbott (1988) refers to it as "vulnerability of jurisdiction" (p. 428). Lowrey and Anderson (2006), for instance, conclude that the presence of medical information on the Internet poses a challenge to the authority of physicians, supporting the general idea that the spread of professional knowledge on the Internet "erodes the ability of professionals to control their knowledge (p. 125)."

Weakening influences on a particular profession exacerbate "interprofessional competition" (Abbott, 1988, p. 2). The outcome of interprofessional competition, including actions taken by individual, rival professions over the years to improve their positions and differentiate themselves, largely determines a profession's ability to claim exclusive jurisdiction over a field of work.

Before applying this theory to journalism, it is necessary to note that journalism (and public relations) does not carry the formalized entry requirements of some professions, but it traditionally has involved sufficiently advanced skills and enough abstract knowledge to constitute a profession for purposes of the discussion at hand. It is also worth keeping in mind a qualifier by Abbott (1988): Whether journalism (or any line of work) is or isn't a classically defined profession is not crucially relevant; what's relevant is how an occupation uses specialization of any kind to control a work area – to some degree, at least – and how it deals with threats to that control. "What matters is that interprofessional competition in fact shaped it (journalism) decisively," Abbott writes (p. 225), because it was the rise of competition from

publicity agents that drove reporters “towards a formal conception of their jurisdiction” (p. 225) in the 1920s.

Writing about System of Professions theory, Abbott (1988) describes factors that can alter a profession’s degree of control over a field of work, including internal changes in a profession, societal-level changes in technology, and creation or destruction of new activities over which professions can fight. All of this has happened, in a negative way, to journalism. The massive shift of audience and revenue to new, digital forms of communication has caused legacy news media to drastically reduce products, personnel and therefore, to at least some degree, performance (Hindman, 2011; Mitchell, 2014; Meyer, 2009; Picard, 2011; Reinardy, 2010). Nilson (1979) writes: “To be marketable at all, an occupation must be able to deliver some desired outcomes reliably on demand. ... If more reliable alternatives for a product or service are available and socially acceptable, consumers will patronize the competition” (p. 572). Legacy news media, which generally lacked the innovative spirit needed to adapt to and succeed at digital journalism in a timely fashion (Meyer, 2009; MacGregor, 2013), have learned the truth of Nilson’s statement.

Not only has technological change weakened journalism’s capabilities and jurisdiction, the new digital platforms give public relations practitioners more-accessible and more-powerful public communication methods of their own. For instance, in Alabama, the public relations department of the state’s dominant electric utility has created the company’s own news website that publishes an array of business and economic news beyond news pertaining to the company itself and, significantly, the company employs as staff or contractors several former journalists from the state’s largest newspaper to create the content.

Anderson (2014), writing about the need to redefine the jurisdiction and mission of journalism schools, makes a relevant point when he says this about the field as a whole:

Why has journalism's 'professional project,' its attempt to establish what Andrew Abbott calls 'professional jurisdiction' over a particular set of occupational tasks, largely failed? (p. 63) ... Despite its position as one of the most important occupations engaged in the collection and dissemination of publicly relevant information, journalism has failed to achieve what Abbott calls 'a claim of jurisdiction ... (in which) a profession asks society to recognize its cognitive structure through exclusive rights (p. 64).

As explained within System of Professions theory, journalism has ceded some of its control over public messages to the rival public relations profession (Reich, 2010; Macnamara, 2008). The contribution of quantification to this dynamic will be explored shortly.

### **Resource Dependency Theory**

Resource Dependency Theory (RDT) is defined primarily by Pfeffer and Salancik's 1978 book, *The External Control of Organizations: A Resource Dependence Perspective*. While System of Professions theory first and foremost explains phenomena at the inter-professional level of analysis, RDT explains at the inter-organizational level of analysis. The theory states that an organization depends on receiving external resources – financial, physical or informational in nature – that are controlled by other organizations, which gives those external organizations power over the needy organization (Pfeffer, 2003). RDT's emphasis on power is primarily what distinguishes it from other, similar approaches (Davis & Cobb, 2009).

Even when two organizations share an interdependency, an imbalance in the respective degrees of need gives the less needy organization power over the other. An example from the media world: College athletics departments benefit from media attention, and smaller ones indirectly depend on it for financial success. But media are significantly more dependent on college athletics departments to provide an external resource that the media deem crucial: access to coaches and athletes who provide high-readership, traditionally expected interviews. Thus, college athletics departments hold significant power over media, and their degree of power relates directly to the fervor of consumer demand for the information they control.

RDT further states that a dependent organization will seek to lessen its dependence through various means, such as renegotiation with external sources, redundancy of source options, or internal organizational changes. The latter include mergers, joint ventures, and alterations to boards of directors. Such efforts may merely create a different kind of dependency or interdependency (Pfeffer, 2003), but presumably one that is more favorable.

Another example from the media world: Simmons (2012) states that media corporations use appointments to their boards of directors “to gain access to a number of important resources, including financial capital, knowledge, skill, and access to important players in the marketplace, including suppliers, buyers and regulators” (p. 57).

The possible responses to dependency that RDT identifies run along a continuum from least to most constraining. Davis and Cobb (2009) encapsulate the theory in a bit of advice to organization managers: “Choose the least-constraining device to govern relations with your exchange partners that will allow you to minimize uncertainty and dependence and maximize your autonomy” (p. 24).

In 2005, Casciaro and Piskorski offered a “reformulation” of RDT, saying two of its theoretical dimensions, power imbalance and mutual dependence, should not be combined into the single concept of interdependency but rather separated, because they can have opposite effects on an organization’s ability to reduce dependence. Looking at corporate mergers, which were one of the dependence-reduction tactics suggested by Pfeffer and Salancik, they concluded that mutual dependence is a driver of convergence while power imbalance is an obstacle. In another challenge to part of RDT, or at least a modernization of it, Davis and Cobb (2009) say some of the suggested tactics, such as diversifying or co-opting suppliers by putting them on the board of directors, likely would do more harm than good to a firm.

However dependent organizations seek to lessen dependency, that is only one side of RDT. Organizations with the upper hand in a power relationship seek ways to maintain or expand the dependency (Hillman, Withers & Collins, 2009). One keen manifestation of this in the dynamic between journalism and public relations is the rising use by government agencies, schools and corporations of public relations specialists to serve as the sole conduit for heavily vetted information sought by news media. Another reflection of this – public relations jobs going to former journalists – will be explored later.

To further apply RDT to journalism, the surrender of authority explained by System of Professions theory can be further accelerated by one of the concepts within RDT: journalism’s decision about whether and how to internally redefine what constitutes a valued resource.

The broadly defined resource that journalism needs is information. If the news media reconfigure or expand the definition of acceptable information to include so-called “clickbait” and other journalistically lightweight content, then they have reduced their resource scarcity because such material is relatively easy to self-produce. But in quite a contrary manner, they

likely increase their resource dependency on external organizations such as public relations by shedding reporting staff that collected information (American Society of News Editors, 2015), saddling remaining reporting staff with unrealistically expansive coverage beats (Reinardy, 2010), and embracing content aggregation from external organizations (Agarwal & Barthel, 2015; Anderson, 2011a; Picard, 2014). Plus, free information from public relations representatives serves the appealing purpose of reducing newsgathering costs (Lewis, Williams & Franklin, 2008).

RDT helps to explain the above behaviors. It also helps to explain quantification in news work, and both it and System of Professions theory help to explain why quantification in strong and pervasive forms can potentially have negative consequences for a news organization and for the field as a whole. Past studies have indeed found such consequences, which will be discussed in the next three subsections.

### **Demise of abstract knowledge**

According to the System of Professions approach, the hallmark of a profession with control over its area of work is development of abstract knowledge about that area, usually born from required, specialized training that feeds qualified workers to the profession. The knowledge is sufficiently developed and specialized that other professions cannot provide that service to society. It is sufficiently expert that the public accords legitimacy to that profession as the best or even sole source for reducing uncertainty and fulfilling its needs in that area.

In the case of journalism, that abstract knowledge traditionally has been news organizations' ability to identify important information for society: i.e., information that the public needs to know for effective self-government. Tuchman (1972) described the news

judgments of journalism as “the sacred knowledge, the secret ability of the newsman which differentiates him from other people” (p. 672). News organizations then attempted to demonstrate their abstract knowledge by reporting, analyzing, contextualizing and widely distributing accurate and objective information on important civic affairs. The distinctive reason for the public to seek out journalistic reports, as opposed to information from, for instance, public relations and marketing practitioners, has been the abundant presence of civic-related information prepared with unique journalistic capabilities.

This foundation of special expertise in identifying and executing newsworthy reportage went hand in hand with the fiercely held professional norm of journalist autonomy (Gans, 2004). Journalists believed they knew best about the nature of publication-worthy news (Anderson, 2011b), and resisted paying close attention to, much less catering to, the preferences of the mass audience. Gans (2004), whose seminal study of national television networks and magazines was first published in 1979, found that journalists knew little about their audience and mostly ignored feedback from it, preferring instead to choose topics that interested themselves, colleagues and superiors. One reason journalists reject audience research is that “they are reluctant to accept any procedure which casts doubt on their news judgment and their professional autonomy” (Gans, 2004, p. 232).

This is not to say that media managers never tried to assess the audience. They engaged from time to time in readership or viewership surveys and citizen advisory boards (Gans, 2004; Meyer, 2009). But the pervasive view of the audience from reporters and editors who made decisions was one of disdain (Gans, 2004; Gladney, 2013).

News organizations once could get away with minimal attention to the audience. Before the digital revolution, when news media organizations usually enjoyed a market monopoly in

their communities and unprecedented profits, especially in the 1980s and 1990s (Picard, 2015), they could more easily afford to minimize their catering to audience and instead focus more on a mission of civic service. But today, with newspaper revenue plummeting endlessly, and with intense competition on digital platforms, news organizations, many of which are now publicly owned by profit-minded investors, can no longer afford to ignore the audience (Lowrey & Woo, 2010; Bright & Nicholls, 2014; Tandoc, 2014a).

The technological changes of the past 20 years that have forced media organizations to more closely consider the audience also have provided the tools they need to do it. The emergence of digital platforms – belonging to both new, digital-native news organizations and to legacy organizations that added digitalized news to their printed news – now allows measurement of audience preferences in unprecedented forms and quantities (Napoli, 2012). Unlike old-fashioned reader surveys that provided only broad, time-lagged assessments of preferences, today's feedback, provided by automated software programs recording consumer behavior on a digital platform, is numerical, immediate, constant, diverse, and specific for individual pieces of content. For instance, the Alabama Media Group (AMG), which is part of the Advance Publications print, television and digital communications company and publishes the website al.com, compiles numbers on page views, total visitors, unique visitors, visits, social media shares, email shares, reader comments, time on site, time per headline, engagement behavior (i.e. scroll depth, seconds of video played, etc.), routes taken to content and types of devices used, among other measurements (R. Sims, personal communication, March 19, 2015). AMG always knows most the popular stories, web headlines, social media headlines, photo galleries and videos. The knowledge is shared with everyone. A newsroom monitor displays up-to-the-minute numbers of page views, visitors and social media shares for individual stories, and

all content staff has access to live metrics that are not on the monitor. Audience metrics are also used to assess reporter performance on a monthly basis and are a formal part of annual performance reviews that help to determine pay raises. Elsewhere, *The Washington Post* shows detailed metrics on a newsroom television screen, and the editorial staff receives daily emails with web traffic reports (Vu, 2014). These are examples of news operations becoming less qualitative and more quantitative.

Collection of audience metrics, analysis of them (called “analytics”) and management attention to the aggregated results occur to some degree at virtually every new and old news outlet, and in many places this process is translating into an impact on the selection of news content (Tandoc, 2014a; Tandoc, 2014b; Anderson, 2011a; MacGregor, 2013; Agarwal & Barthel, 2015; Schlesinger & Doyle, 2015). Lee et al. (2014) found that audience clicks played an “intricate and dynamic role” in encouraging popular online stories and related updates to gain more display prominence as the day went along on three major news websites in New York City (p. 519). Jacobson (2013) found a positive correlation between extensive discussion of a topic on the Facebook page of the Rachel Maddow Show and the subsequent airing of similar topics on that show. Vu (2014) surveyed 318 editors at large U.S. newspapers with websites and found that they “are willing to adjust their editorial decision-making based on web metrics” (p. 1104). These adjustments included changing online display, adding visual elements, more aggressive updating, assigning follow-ups and more coverage of similar topics. Analytics have led to similar adjustments at the Alabama Media Group (Sims, 2015). Looking at 14 legacy news organizations, Zamith (2015) concluded that an article’s popularity, measured by page views, affected its placement prominence on website homepages, though not as much as suggested by previous research. Impact of popularity was greater on an article’s placement shelf life. A 2012

non-generalizable survey of 114 members of the American Society of News Editors found that 72 percent said they used web metrics to determine display prominence of online stories (Jenner & Tandoc, 2013). But beyond presentation, metrics affect content, as the survey found 73 percent said they used numbers to determine whether a topic deserves follow-up stories. Also, one-fifth reported that they use metrics as part of employee performance evaluations. Anderson (2011a) determined that web producers at the Philly.com website affiliated with the *Philadelphia Inquirer* and the *Philadelphia Daily News* were basing an increasing number of news judgments on raw data because of “a deliberate management emphasis on the widespread diffusion of metric data along with a fairly desperate need for greater traffic numbers that could boost online ad revenues” (p. 563). Usher (2013) found that journalists for the website of Al Jazeera English mostly ignored metric information. Her primary explanation was telling: Because of financial support from the Qatari royal family, AJE news staff believed the organization did not have to worry about economic concerns.

Analytics are increasingly shaping not only day-to-day content decisions, but long-term ones, as preferences for certain kinds of content begin to emerge and get explicitly or implicitly socialized in newsrooms (MacGregor, 2007).

The rapidly emerging influence of audience on news decisions has brought resistance from journalists who still embrace the notion of journalist autonomy (Tandoc, 2014b; MacGregor, 2007; Singer, 2011). The resistance often is greater at the reporter level than at the management level (Anderson, 2011a; Lowrey, 2012.)

The negativity may stem also from a feeling of diminished identity. Journalists who draw a sense of mission and self-worth from producing impactful articles of civic importance may be feeling the pain of quantification in some newsrooms as they see the value of their work

redefined only in terms of numbers and they see their control over work slip away. Espeland and Stevens (1998), speaking in general, note that many workers “see their identities jeopardized by the commodification of their work and the quantification of their investments” (p. 315).

Discord between news workers and audience has another root, one that also carries implications for the kind of content that newsrooms produce. Audience-preferred content, when expressed as a broad and generalized view of the numbers, differs from the kind of content that journalists customarily prefer to provide as part of their specialized professional mission. In fact, Boczkowski and Peer (2011) found a major gap, with editors preferring news related to public affairs and readers preferring news that is not about public affairs. More specifically, they found that journalists selected more news about politics, economics, business and international news than readers did, while readers were more interested in sports, weather, entertainment and crime than journalists were. The authors offer the troubling suggestion that consumers’ strong preference for “nonpublic affairs” stories means scholarly praise for greater audience influence on media content may be misguided because the citizenry is not as well informed as those scholars believe. Further, Boczkowski and Peer raise the concern that increasing audience influence on media content, in view of audience preference for news unrelated to public affairs, will lead journalists away from the watchdog function that serves democracy. Singer (2011) reached a conclusion that was slightly different from Boczkowski and Peer’s: That there is not a great divergence between the preferences of journalists and those of audience members in regard to their preferred broad categories of news, because journalists welcome “warm and fuzzy” stories, as well (p. 635). But she did find significant divergence when looking at preferences regarding specific topic areas within broad categories.

Lee and Chyi (2014) also found divergence. Respondents to a survey among U.S. internet users deemed, on average, that only 36 percent of news content produced by mainstream media was “noteworthy”; half of the respondents deemed less than a quarter of all news to be noteworthy. Lee and Chyi defined “noteworthy” not by topic area but along the dimensions of “relevance” and “interestingness.” Their dimensions and results do not necessarily paint a journalist-audience divergence based on degrees of interest in important civic matters, but they do compellingly show continued differences in the mindsets of journalists and audience. Further, the study suggests that reflexive, metrics-driven catering to audiences is not yet pervasive among journalists.

Still, as more digital news reports seek the goal of popularity, the question of what audiences want rises in importance. As was the case with Boczkowski and Peer (2011) and Singer (2011), scholarly assessments of audience preference often get expressed in terms of hard news or soft news. Yet, those concepts do not have a consensus meaning in academic literature (Reinemann et al., 2012). Definition by application of specific topic areas has been tried, such as reports about government, politics, economy and science constituting hard news and reports about celebrities, entertainment and sports constituting soft news. But as Reinemann et al. (2012) point out, each of these topics can encompass a wide range of story frames, from significant connection to a public or civic issue (a sports story about the dangers of football concussions, for instance) to no connection at all (a politics story about candidates’ favorite foods). The presence or absence of such a connection can contradict a story’s customary topical categorization as hard or soft. Crime and disasters are especially difficult to categorize as hard or soft based solely on topic. Instead of classification by topic, Reinemann et al. (2012) suggest that classification as hard or soft news should be based on a combination of topic, the particular frame or focus

chosen, and the style of presentation, and that classification should utilize a hard/soft continuum rather than a strictly binary choice:

The more a news item is politically relevant, the more it reports in a thematic way, focuses on the societal consequences of events, is impersonal and unemotional in its style, the more it can be regarded as hard news. The more a news item is not politically relevant, the more it reports in an episodic way, focuses on individual consequences of events, is personal and emotional in style, the more it can be regarded as soft news (p. 233).

By this definition or any other, producing an effective, high-quality soft news story requires significant journalistic talent. But in general, soft news – requiring little or no political relevance, little or no thematic development, little or no examination of societal consequences – does not require the same high level of expert, abstract knowledge that hard news does. Hard news – especially the enterprise and investigative public-affairs reporting that would fall in the upper reaches of a hard/soft continuum – mandates both sophisticated journalistic abilities, such as records work, data analysis, depth of reporting and identification of topics worthy of public attention, and sophisticated knowledge of the often complex fields from which such stories arise, such as government, politics, economics, health, science and international matters. This is a work jurisdiction that is not easily entered, because of the expertise, time and money required.

The subsequent and most pressing question for journalism is what kinds of news appeal to the digital audience – or at least to the largest segments of the audience – because that is a burgeoning influence on the kind of journalism produced. Although journalism has always, to one degree or another, involved a mix of hard news and soft news, media scholars increasingly

agree the direction of content is trending toward softness (Boczkowski and Peer, 2011). Reinemann et al. (2012) cite studies that support that view and other studies that do not. Anderson (2011a), in his ethnographic study of three newsrooms in Philadelphia, reported multiple anecdotes of journalists frustrated by the lack of web traffic generated by enterprise work that they considered interesting and important. Similar anecdotes were reported by MacGregor (2013) in his study of a German multi-platform news organization. Audience numbers tilted the organization's content toward "tabloid" values (p. 4) with more emphasis on leisure and gossip and, in general, "a softer news agenda" (p. 4). Prior (2007) reported that less than one-fifth of the U.S. population is keenly interested in hard news, while Picard (2015) estimated that group at 20 to 25 percent of the population. Nguyen (2012) offered the view, in disagreement with some other scholars and assessments within the industry, that a majority of the generalized news audience is interested in hard news, not soft. But many news media deliver a disproportionate amount of soft news, he wrote, because they are trying to cater to the 18 to 34 age bracket, especially females. Berger (2013) is one who does not use the parameters of hard and soft. Content of mass appeal, he wrote, is content that elicits certain emotions or arouses a desire for action. Both hard and soft news can do that. Another of Berger's attributes of popularity – positive topics rather than negative – is more reflective of soft news than hard.

The key conclusion here is that the material to which digital audience numbers gravitate – and to which journalists might gravitate depending on their organization's degree of market orientation – requires relatively less of journalism's traditional and distinctive specialties. Abstract knowledge may still be involved in producing such material, but it is abstraction of greater simplicity, more easily achieved, aided by numerical guideposts, and applied to dimensions less related to the customary civic purpose of journalism. In this circumstance,

System of Professions theory predicts that journalism's control over its work jurisdiction will weaken. The messages of non-journalists such as public relations practitioners, marketers and non-journalist citizens will be more able to compete for public attention, enabled by easy-access digital platforms and by the growing lack of distinctiveness to, and expertness in, journalism's messages. Further, if journalism's basic exercise is the mostly non-abstract function of creating online traffic, that is a skill set that can easily become routinized, shared and copied by other professions and non-journalists. Finally, when it comes to creating mass audience appeal, marketers have customarily been more thoroughly trained and have more helpful connections within their field for growing further knowledge than do journalists.

The resource redefinition discussed in this subsection so far applies to the resource that is outgoing from a news organization to its audience – its content. A similar, related redefinition is taking place for the incoming resource that news outlets hope to attract: audience traffic numbers that can be used to attract digital advertising revenue. The audience is being quantified so it can be sold, which is not a new practice, but is being pursued with more exactness and fervor. Although advertiser-sponsored content offers a revenue source, the chief economic hope – digital advertising – is sold primarily on the basis of ad impressions, the number of times an online ad is displayed. The number of ad impressions is determined by audience traffic. Lowrey (2009) writes that news organizations' greater attention to the audience is not really about more diversity of voices and better public discourse in the media; it is about increasing "the number of eyes on the product" (p. 59). That view is supported by Vu (2014), who writes: "Now, more than ever, being able to keep and engage audiences is seen as an important way to salvage the in-peril news industry" (p. 1097).

Any news outlet today would take satisfaction in knowing that a piece of its work contributed to civic enlightenment, and many still try to accomplish that – either as the primary mission or as one mission among many. But if audience content preferences mean time-consuming enterprise on civic topics brings less reader volume than easier kinds of work, that is a disincentive to do the former. Cost-benefit analyses – one of Espeland and Stevens’ prime examples of society’s commensuration – are shrinking the civic component of journalism’s mix of priorities (Hindman, 2011; Mitchell, 2014; Meyer, 2009), especially as “benefit” becomes more defined as broad audience appeal. Jackson (2009) states that the likelihood of an issue becoming news is inversely related to the cost of covering it and directly related to the expected appeal of a story to audiences. She sees broad civic implications:

Commodification of news threatens to undermine democracy when journalism’s market-driven aspects are contentious with its nonmarket obligations (p. 147). ...

The commodification of news threatens the quality of our political life. Our ability to make educated political choices that can improve our own quality of life and the greater social good is compromised by news commodification (p. 150).

News is moving from what Habermas (1987) called “lifeworld,” where information enhances public discussion and benefits society, to his “system,” where information becomes a product to benefit the monetary gains of an individual or commercial enterprise. Significantly, according to Habermas, the enlargement of one sphere means the diminishment of the other. Many professions operate in the system world; journalism would seem to be more protected from boundary encroachment if it stayed more in the lifeworld, where fewer competing professions reside.

## **Need for information subsidies**

Another facet of news production that has become more heavily quantified with the advent of digital platforms is the rate of content production demanded by management from staff (Agarwal & Barthel, 2015). As Picard (2011) notes, news reports on digital platforms are “continuous-creation” products requiring new content at a rapid pace around the clock in order to convince readers that they should return to the platform often, thus hiking audience traffic numbers. To ensure this rapid rate of new material, it is common for digital-only outlets and print outlets that now emphasize their affiliated digital news report to set minimum production quotas for reporters and other creative staff. In February 2014, for instance, managers of the Advance-owned Oregonian Media Group of Portland, Oregon, which publishes *The Oregonian* newspaper and the Oregonlive.com website, told their reporters that management would begin expecting each individual to produce a minimum of three online posts per day and to increase the average number of monthly posts by a minimum of 40 percent by year’s end. Additionally, according to the *Willamette Week*, which obtained internal documents, each reporter and photographer would be expected to increase online photo galleries and videos by 25 percent (Mesh, 2014).

At the same time that staff are being asked to produce more, there are fewer staff to do so. The loss of full-time newspaper newsroom jobs has accelerated in the past seven years. According to the American Society of News Editors (2015), there were 52,600 full-time jobs in newspaper newsrooms in the U.S. as of 2007. A mere two years later, 20 percent of them were gone. By 2014, ASNE’s count was 32,900, a seven-year loss of 19,700 jobs, a decrease of 37 percent. The 32,900 is the lowest number since ASNE began counting in 1978.

The convergence of these two trends potentially increases the news production staff’s need for information from external sources. Such sources can include other media through

aggregation and syndication, professional freelance journalists, non-professional citizen journalists and, most significantly, public relations representatives, who can offer information subsidies in forms ranging from story tips to fully prepared articles.

Furthermore, improvement in the quality, or perceived quality, of the information resource being offered by public relations makes it more attractive to news workers. Picard (2015) notes that many former journalists are entering the public relations profession. This is partly explained by newsroom shrinkage. An additional explanation: Public relations specialists earned an annual mean wage of \$64,050 in 2014 while reporters earned \$45,800 (U.S. Bureau of Labor Statistics, 2015).

The significance of this migration of professionals is that they are creating information subsidies that are qualitatively and tactically suited for journalistic use, in addition to carrying a perception of credibility because of the former journalists' credentials. They are "producing content that doesn't need to be cleaned up," Picard (2015) said, "or at least it is perceived that way. Maybe it does" need to be cleaned up, a suggestion that a closer look at such content would show that it has journalistic failings. That is not surprising because such material is, after all, intended to serve the needs of the commercial or government client for whom the public relations writer works (Sallot and Johnson, 2006).

Influential personal connections matter, too, and those between journalists and public relations workers are multiplying constantly as the former become the latter. Established personal relationships between the two professions serve to reduce uncertainty and wasted time in their transactions.

Public relations is also enlarging its capabilities in relation to the journalism profession. There are now 4.6 public relations specialists for every one reporter in the United States; the ratio was 3.2 to 1 in 2004 (Alterman, 2015).

The influence of public relations practitioners on journalists' story selection and the content of those stories was substantial even before the developments of the past few years (Reich, 2010; Macnamara, 2008). Such influence raises potential problems not only in the pursuit of truth and objectivity, but in achieving a demographically diverse representation of the community. Usually, the clients and institutions affluent enough to employ public relations and media relations practitioners represent the political or economic elites of a community (Macnamara 2008).

The chain of events triggered by formally quantifying expected news volume at high levels, paired with newsroom size reductions, is predictable, according to Resource Dependency Theory. News organizations that increase the amount of the resource they need while at the same time rendering themselves less capable of producing that resource themselves, will create a greater dependency on external sources. In keeping with RDT, news organizations respond by then trying to decrease dependency or stabilize resource access, an effort that could include, among other approaches, establishing reliable connections with public relations sources from which valued information in various forms will flow.

RDT also predicts that the external resource provider that enjoys the preponderance of power in the relationship – in this case public relations – will seek to maximize that power. And so, public relations units expand, hire ex-journalists and create their own, new dissemination channels and methods.

System of Professions theory proposes that internal changes, such as those within the profession of journalism described in this subsection and the preceding one, are among the factors that can trigger one profession's assault on the traditional work boundaries of another. In a community where news media scrambling for production volume are matched with strong public relations operations, System of Professions theory forecasts an erosion of professional boundaries.

### **Reduction of uncertainty**

The concept of uncertainty reduction is important in understanding the appeal of quantification. Quantifying the audience for sale is an understandable strategy for combating the economic uncertainty in the news industry. But in addition, quantification can help deal with the many sub-questions that must be answered in order for the strategy to become fully formed and effective. Those corollary questions include how to define ideal content, how to create or obtain it, and how to assess its success rate. In all of these questions, quantification is an emerging, critical tool.

Some seminal scholarship argues that quantification is a natural and vital part of a capitalist system. Weber (1927) writes that any "rational capitalistic establishment is one with capital accounting, that is, an establishment which determines its income yielding power by calculation according to the methods of modern bookkeeping" (p. 275). It is a way to manage uncertainty.

March and Simon (1958) express the usefulness of numbers in "the absorption of uncertainty." This takes place within an organization when "inferences are drawn from a body of evidence and the inferences, instead of the evidence itself, are then communicated" and acted

upon (p. 186). To fit this to the discussion at hand, analyses of audience metrics serve as the inferences. (It might even be argued that the metrics themselves are inferences because there is no guarantee that robotically recorded numbers of selected digital reader behavior truly reflect the needs and interests of all of a mixed-platform medium's readers or all of the medium's community members.) While this process of uncertainty absorption brings efficiency and manageability to decision making, there are pitfalls. March and Simon (1958) write: "Through the process of uncertainty absorption, the recipient of a communication is severely limited in his (sic) ability to judge its correctness (p. 186). ... The recipient must, by and large, repose his confidence in the editing process that has taken place, and, if he accepts the communication at all, accept it pretty much as it stands" (p. 187). Virtually all outlets that produce digital-platform news reports have specialized staff designated to select, interpret and communicate audience analytics within newsrooms, and March and Simon's point helps to explain why that staff is highly influential in news decision making, a point underscored by Robinson (2011).

The acceptance of quantification within organizations is well explained by these classic works by Weber and March and Simon. But it is crucial to remember that because of multiple missions, journalistic organizations do not always conform to classic economic principles (Picard, 2011; Lowrey, 2009). Many embrace the idea of moderating economic motives, to some degree along Jackson's commodification continuum, to pursue civic-minded journalism that they deem an inherent obligation of operating a community's primary information source. They may even believe it's an approach to journalism that boosts organizational reputation and therefore carries economic value (Picard, 2011; Meyer, 2009). But wherever an organization chooses to place itself on the quantification continuum, it is a choice that must be consciously made. Today in journalism, organizations operate all along the spectrum, with the line tilting increasingly

toward heavy use of quantification. The question then becomes: How, for better or for worse, is the nature of an organization's journalism affected by its chosen degree of attention to metrics?

A comparative case study can shed some light.

## RESEARCH QUESTIONS

A newsroom that has prioritized generation of audience metrics has in essence quantified its definition of success. Desired results are no longer abstract notions but are countable groups of numbers that can be used to entice advertisers. But receiving the desired inbound numbers from the audience requires a newsroom to identify and secure the kind of outbound information resources that will bring back the desired audience measurements. In other words, as Resource Dependency Theory posits, an organization needs to create certainty about the nature of the resource that it most needs for success. In a newsroom that concentrates on generation of metrics as its measure of success, identifying the optimal outbound content that can bring such success can be accomplished through yet more quantification: an analysis of the past metric performances of different kinds of content. Metrics allow for easy and quantified comparison – “commensuration,” as Espeland and Stevens (1998) call it – between disparate kinds of content. Assessment is no longer a matter only of journalistic instinct or of anecdotal insight. Rather, countable past trends, which can be easily understood and accessed by both management and staff, can lead to the resource certainty that RDT says organizations must seek.

After a newsroom identifies its preferred kind of content comes the question of how to create that content internally or secure it externally. RDT posits that an organization will seek ways to make the needed resource easier and faster to produce or obtain, thereby making its availability more certain and predictable. On the newsroom scales of time required and difficulty, investigative and in-depth journalism related to civic and public issues resides on the

upper end. It is unpredictable, and it is neither easy nor fast to produce, and while most news organizations still see value in such work, it represents significant blocks of time during the reporting and writing phases in which no audience metrics are produced, and payoff is uncertain. Further, a news organization that emphasizes metrics and that has studied audience patterns likely recognizes what several scholarly studies have found: That audiences have less interest in hard news and public affairs than journalists do.

**RQ1a:** Will a newsroom that is more aggressive in using audience metrics be less likely to emphasize stories about civic and public issues than a newsroom that is less aggressive in using audience metrics?

**RQ1b:** By what processes does attention to metrics influence the number of stories about civic and public issues?

**RQ2a:** Will a newsroom that is more aggressive in using audience metrics be less likely to prioritize in-depth stories than a newsroom that is less aggressive in using audience metrics?

**RQ2b:** By what processes does attention to metrics influence the depth of stories?

Degree of metrics use may influence how respondents at each organization conceptualize or define the kind of content that generates online traffic. The organization with the more aggressive use of metrics may go to greater lengths to determine the most popular content, and to conceptualize the characteristics and preferences of their readers, and then go to greater lengths to disseminate and socialize a particular content strategy among the staff.

**RQ3a:** Will a newsroom that is more aggressive in using audience metrics conceptualize traffic-generating content differently than a newsroom that is less aggressive in using audience metrics?

**RQ3b:** By what processes does attention to metrics influence an organization's conceptualization of traffic-generating content?

A news organization's intense pursuit of audience traffic numbers portends not only easier and faster production of content, but more of it. Quantification has appeared in many such organizations in yet another form: Management instructions to generate more volume of material (Agarwal & Barthel, 2015). More stories mean more opportunities to build audience traffic, especially when, despite an abundance of numerical indicators, audience reactions to particular reports can often be unpredictable. The management expectation of more volume produced, combined with industry-wide reductions in newsroom size, triggers a key component of RDT: that in addition to internal changes, an organization seeking an adequate, predictable inflow of resources will want close and reliable relationships with external organizations that can help provide the needed resources. Sensing a heightened resource dependency among the news media, few external organizations are as well suited to address the dependency – and to take the upper hand in the power imbalance outlined by RDT – than the ever-enlarging public relations profession and industry. Increasingly, it has the ability to provide publishable material in a systematic way, an ability that may manifest itself most vividly in relationships with metrics-driven newsrooms that have simplified and commodified their standard for news value.

**RQ4a:** Will story content in a newsroom that is more aggressive in using audience metrics be more influenced by public relations offerings than in a newsroom that is less aggressive in using audience metrics?

**RQ4b:** By what processes does attention to metrics determine the influence of public relations offerings?

RDT helps to explain the increasing role of audience analytics in determining newsworthiness in metrics-heavy newsrooms. Analytics are a new, standardized, commensurated influence that is starkly different from, and a challenge to, the more abstract judgments of journalists that traditionally defined news value. The ability to render such judgments, and the specialized skills that journalists have used to produce high-end reportage, represent two cornerstones of professional journalistic identity. System of Professions theory offers that abstract knowledge is a basis upon which a profession claims and maintains jurisdiction over a field of work in the face of rival professions. In a quantified system, there is less need for abstract judgments of newsworthiness, and the long-held norm of journalist control over story decision making begins to erode as the audience and data analysts in the news organization grab a greater share of influence.

**RQ5a:** Will determinations of topic newsworthiness in a newsroom that is more aggressive in using audience metrics involve less abstract knowledge than in a newsroom that is less aggressive in using audience metrics?

**RQ5b:** By what processes does attention to metrics influence the extent of abstract knowledge used in determinations of topic newsworthiness?

## METHOD

This study seeks to answer the above research questions using the methodology of a comparative case study involving two contrasting news organizations with digital platforms.

A case study method is the preferred research approach, according to Yin (2009), when “‘how’ or ‘why’ questions are being posed, the investigator has little control over events, and the focus is on a contemporary phenomenon within a real-life context” (p. 2). That is the case here, as the focus is explaining how the presence or absence of an organizational priority on web analytics affects certain journalistic practices in a contemporary newsroom.

Paterson (2008) offers numerous benefits to ethnographic research, of which case study is a common type. The prime advantages are the wealth of data collected and that collection is first hand, which allows an investigator to witness context, nuance, evolution and even contradiction. Wimmer and Dominick (2011) cite case studies’ greater opportunity to find explanations for phenomenon compared to surveys, for example. They also urge maximizing the usefulness of case studies by underlying them with theory. Resource Dependency Theory and System of Professions theory serve that purpose here. It was noted earlier that System of Professions theory operates primarily at the inter-professional level of analysis. Nonetheless, it is appropriate to watch for effects at the organizational level as well, as is the case here. Factors that affect news decisions operate at multiple levels of analysis. A news organization’s norms and rules are crucial factors, but typically they reflect, to varying degrees, the norms and rules of the occupation of journalism. Expansion (or diminution) of control over expert work typically brings

benefits (or harm) to both the occupation and the organization. In effect, journalism is a profession that is still largely organizationally bound (Lowrey & Mackay, 2008), though this has changed somewhat with the advent of the digital online era (bloggers, entrepreneurial efforts, etc.). Further, potential effects explained by System of Professions theory, such as professional encroachment, are enhanced or squelched by the many individual decisions and routines that take place within a news organization every day. Such effects will likely vary from organization to organization based on their differing degrees of vulnerability, thus reinforcing the applicability of examination at the organizational level.

In addition to strengths in the case-study approach, scholars also cite weaknesses, including inability to generalize, challenges in ensuring scientific rigor, and the length of time required. Tuten (2009) warns about the interpretative nature of findings, potential influence of researcher bias, and subject behavior changes caused by the mere presence of a researcher.

Case studies are generally stronger when using multiple cases rather than a single one (Yin, 2009). A comparative case study is a specific kind of multiple-case study. Rather than using redundancy of cases to build findings, a comparative case study uses contrast among cases, based on one or more selected variables, in order to build theory.

This study's independent variable – a news organization's degree of aggressiveness in using audience metrics – was assessed for possible relationships with multiple dependent variables related to content itself or to the decision-making process. The two case-study organizations were sorted on the study's independent variable: They were selected to represent divergent degrees of focus on metrics, though not necessarily to represent either extreme of the continuum. (Complete ignorance of metrics is rare in the news industry today, and even though this study is not generalizable, choosing such an unusual organization to study would have

limited potential insights into today's profession.) The researcher began with a pool of 20 candidate organizations located within reasonable driving distance. Some were selected based on researcher contacts inside an organization; many were selected at random. The researcher judged a candidate organization's aggressiveness in using metrics by way of trade press readings, discussions with industry contacts, and an emailed questionnaire completed by each candidate organization's editor. Attributes for this judgment were based on previous scholarly case studies of the role of metrics in newsrooms: extent of dissemination of numerical results within the organization (Anderson, 2011a), frequency of monitoring (MacGregor, 2013), degree of management emphasis on the importance of good performance on audience measurements (Anderson, 2011a; Usher, 2013), whether audience metrics are used in judging employee performance (Usher, 2013), and whether they are used in post-publication assessment of individual story worth (Tandoc, 2014b; Anderson, 2011a). The particular metrics referenced include not only those measured on website servers such as page views and unique visitors, but social media metrics such as number of Facebook shares.

This process led to selection of two news organizations with differing approaches to web metrics. The researcher granted anonymity to each organization and to their staff members to encourage candidness in behavior and interview answers. The study focuses on these organizations as types rather than on the organizations' precise identities, so anonymity did not undermine study objectives. One organization, which will be called *The Heavy Metrics Herald*, freely incorporates metrics into its operations, both in creating content and in assessing results after publication. The other organization, which will be called *The Light Metrics Ledger*, has an analytics software program that would allow it to aggressively use numbers if it so chooses, but *The Ledger* makes numbers a secondary consideration in generating and evaluating stories. *The*

*Heavy Metrics Herald's* website received 3.2 million page views in June 2016; *The Light Metrics Ledger's* received 1.6 million that month. Other characteristics of the two newsrooms are intentionally similar, so as to hold constant other factors that could affect outcome variables – e.g., organizational and community size, publication schedule, region. Both organizations are located in the southeastern United States in cities with an estimated population between 50,000 and 55,000 as of July 1, 2015, according to the U.S. Census Bureau. Each publishes a daily newspaper along with its website. *The Herald's* daily print circulation as of mid-2016 was about 24,000; *The Ledger's* was about 14,000. This study focused on the actions and viewpoints of newsroom workers who are reporters, front-line editors, managing/policy editors and digital specialists. *The Herald* has 18 such workers while *The Ledger* has 15. *The Herald* is owned by a public, national media company with many other holdings. *The Ledger* is family owned. The difference in ownership was not considered a major confounding variable because this study's focus is the journalistic *effect* of differing approaches to metrics, not the *causes* of differing approaches (of which variations in nature of ownership would certainly be one).

As reflected in their daily print circulation numbers, the two outlets are relatively small within the industry. But Lauterer (2000) notes that small, community-based media “dominate the U.S. newspaper landscape” (p. xx). Seventy-eight percent of the 1,344 daily newspapers listed in the database of the Alliance for Audited Media as of November 2016 report a weekday circulation of under 50,000; 66 percent report a figure under 25,000. The salient point is that the patterns and practices of relatively small media such as the two in this case study carry implications for a substantial majority of all news consumers, especially on matters of local and state affairs, for which fewer alternative information sources exist in a smaller market. Further, Zamith (2015) offers that “the vast majority of (research) attention has been devoted to digital-

native news organizations and those far ahead of the digital curve, with few studies incorporating mid-size and community news organizations” (p. 53).

In addition to the significant numerical difference in website traffic already mentioned, other factors demonstrate differentiation on the independent variable. *The Heavy Metrics Herald* has purchased Adobe Analytics software to provide cumulative and comparative metrics and Chartbeat software to provide real-time data. *The Light Metrics Ledger* relies on the free Google Analytics software for cumulative and comparative numbers and operates without real-time information. It once considered purchasing the Chartbeat service but declined due to the expense and the belief that much of the detailed, segmented information the company would be paying for would have limited value because it could not make a dramatic difference for a site with generally low traffic and infrequent stories of mass popularity. The *Herald* newsroom displays an electronic monitor showing, among other metrics, most popular articles and their directional trend at the moment. *Herald* reporters have a personal metrics “dashboard” accessible at their desks. *The Ledger* has neither a newsroom monitor nor reporter dashboards. A report of the latest cumulative numbers, such as page views and visits for stories and photos broken down by desktop, mobile and social media, is emailed twice a day to *Herald* editors and reporters. Editors there also receive a more in-depth daily report that additionally offers time period comparisons, traffic referral sources, unique visitors, number of pages visited and time on site. At *The Ledger*, managers receive most of these same key metrics in highly condensed form, weekly and monthly. No report goes to the staff on a daily, weekly or monthly basis, although there is talk of sharing the managers’ reports with everyone. Printed story budgets for daily planning meetings at *The Herald* include a half-dozen pages of itemized metrics for the day so far and the previous day. At *Ledger* planning meetings, a digital specialist verbally shares the three articles that

received the most page views so far that day. Metrics generation is not part of reporters' annual written performance reviews at *The Ledger*. The annual written performance evaluation for *Herald* reporters includes metrics among multiple measurements, but the stated criterion does not include meeting any specific numerical goals, only that the employee uses metric information to make coverage decisions and build audience.

While degree of organizational use of metrics represents the independent variable, the multiple dependent variables reflect journalistic practice. Each of the selected research question pairings depicts a particular practice related to content or to the decision making process, with the first research question in each pairing designed to assess a particular journalistic outcome and the second research question in each pairing designed to assess the “hows” and “whys” of the processes within the organizations that led to the outcome.

Data collection involved multiple methods that are common in case-study procedures (Yin, 2009; Wimmer & Dominick, 2011; Tuten, 2009), and methods were triangulated to try to increase trustworthiness. “Any case study finding or conclusion is likely to be more convincing and accurate if it is based on several different sources of information, following a corroboratory mode” (Yin, 2009, p. 116). Methods were: newsroom observation; interviews with selected newsroom staff; written questionnaires; assessment of news content posted online during the study period; and documents.

The first method entailed non-participant observation, with the researcher on site at each organization for five consecutive business days, Monday to Friday, for eight to 10 hours a day. The observer watched the work of individual reporters, assignment editors, policy editors and digital specialists. He also attended newsroom meetings related to story budgeting, story placement and metrics analysis, and was present at random small-group discussions, usually

between an editor and a reporter. The visit to *The Heavy Metrics Herald* occurred in June 2016 and the visit to *The Light Metrics Ledger* occurred in July 2016.

The second data collection method entailed 29 confidential, non-intensive, semistructured interviews with individual reporters, assignment editors, policy editors and digital specialists who work at the two study organizations (*see Appendix A*). The 15 interviews of *Herald* personnel, all done in person, represented all but three of the individuals holding the newsroom job descriptions deemed relevant to this research. The 14 interviews of *Ledger* personnel, done in person except for one done by telephone after the study period, represented all but one of the relevant personnel. Each interview lasted between 30 and 60 minutes.

The third method was distribution of a printed questionnaire that measured newsroom staff perceptions of topics raised in the research questions (*see Appendix B*). The questionnaire, which contained multiple 5-point Likert Scale items pertaining to each research question, brought a quantitative element to this mostly qualitative study. Fifteen surveys were completed at each study organization – by all of the 29 individuals who were interviewed along with one additional *Ledger* journalist who was not interviewed.

The fourth method for gathering data was also quantitative in nature – an assessment of content published on each outlet’s website during the study period. The assessment examined the nature of topics, story length, and the number and nature of cited sources. Findings from this review were supplemental to survey, interview and observation findings, serving to add validity to these findings more than serve as primary data points. The fifth source of data was examination of provided documents such as metrics generation reports, daily story budgets and compilations of reporters’ digital traffic numbers.

With multiple methods and multiple research questions, it will be useful to briefly explain some additional details of collection methodology for each research question.

For RQ1a, which focuses on the extent of stories about civic and public issues, the dependent variable was assessed through observation, interviews and especially by reviewing the nature of stories placed in selected high-profile locations on the organization's digital homepage during the study period. Civic and public issues were defined in a somewhat different manner than some useful but perhaps oversimplified previous methods that categorized articles by broad topic area, such as government subjects inherently reflecting a public-issue article and entertainment subjects inherently considered as not about a public issue. That is not always the case, such as an entertainment-related article that raises the issue of violence on television. The operational definition in the present study considered – in the vein of Reinemann et al. (2012) – whether an article presented information related to: 1) a matter of government performance; or 2) a social concern. An article that reported routine facts about government actions was counted as a civic/public issue article, even if the article was not developed beyond the routine facts and no issue was explicitly explored. That is because such articles, often generated by reporters attending regular government meetings, can serve as the starting point for later reporting that is more in depth and explicitly probing of government actions. Citizens are well served by media reporting of even routine facts related to government. Once posted articles were categorized, the researcher calculated the proportional representation of civic and public issue articles in relation to other kinds of content on the organization's digital homepage.

The written survey contributed insight into staff perceptions regarding coverage of civic and public issues. For RQ1a, the survey asked for agreement or disagreement (or neither) on three statements:

- *“Watchdog reporting is emphasized in this news organization.”*
- *“Reporting on public issues is emphasized in this news organization.”*
- *“Producing stories that gain reader clicks is emphasized in this news organization.”*

For RQ2a, which focuses on depth of stories, the variable was assessed by measuring the length of stories placed in selected high-profile locations on the organization’s digital homepage during the study period, as well as counting the number of information sources in those stories. Time required to produce is also a relevant attribute but could not be discerned merely by examining a posted story. This attribute was assessed based on surveys, interviews and observations. The three quantitative survey statements for this research question were:

- *“Management prefers longer stories over shorter ones.”*
- *“Too many of our stories have too few sources in them.”*
- *“I usually have time to fully develop my stories and write them well.”*

RQ3a, which focuses on how journalists themselves define and describe the kind of content that they believe generates web traffic most effectively, lends itself well to the ability of qualitative research to identify how people interpret their environment and translate that into daily practices. This variable was assessed through observation, interviews and the survey. The survey questions for RQ3a – the only open-ended questions in the survey – were:

- *Describe the kind(s) of content that generates the highest audience metrics on your website and social media.*
- *What is the single most important audience metric (website or social) that you hope to generate for a piece of your content?*

For RQ4a, pertaining to influence of public relations offerings, the variable was assessed through observation and especially journalist interviews, because the source of all text and the

original story idea often cannot be determined from reading the final product. The interviews probed the frequency that story text or story ideas originate from external public relations or media relations practitioners who represent either public-sector or private-sector clients. Also, journalists were asked about their workloads. The three quantitative survey statements presented for agreement or disagreement (or neither) were:

- *“The volume of content I must produce is increasing.”*
- *“I rarely use news releases or other copy from public relations or media relations professionals.”*
- *“I rarely use story ideas or tips from public relations or media relations professionals.”*

For RQ5a, which examines degree of use of journalist abstract knowledge in determining topic newsworthiness, the variable was judged by observing and asking about the factors that led to decisions of whether a potential story topic is newsworthy enough to pursue and publish. More specifically, the assessment compared the degree to which journalists’ discussions of newsworthiness touched on the civic/social worth of a story (thus deriving from the “sacred knowledge” of journalism that Tuchman [1972] mentions), or on the numerical potential of the story. Evaluating numerical potential could be a predictive exercise based on the surface appeal of the story topic at hand. Or it could be an assessment based on the past metric performances of similar stories, be they about the same subject or in the same broad content genre. Journalists were asked in interviews and in the survey about their degree of awareness of the metrics history of story subjects and content genres. The three quantitative survey statements posed to respondents for this research question were:

- *“I am usually aware of story topics and coverage areas that have a history of generating high web traffic numbers.”*

- *“Expected low web traffic numbers will not stop me from pursuing a story that has community benefit.”*
- *“I am not inclined to pursue a story if I think it will generate low web traffic numbers.”*

For the companion “processes” question that is paired with each of the above, insight derived from observation and interviews.

In sum, these multiple methods were intended to establish credibility and dependability, and therefore a rise in trustworthiness, the qualitative analogs to validity and reliability (Lincoln & Guba, 1985).

Data collection involving documents, meetings and some observation took place at the organizational level of analysis. Collection involving interviews, the survey and other observation took place at the individual level of analysis. Both levels are relevant to case studies of organizational behavior. Analysis of online posted content used the individual article as the unit of analysis.

## FINDINGS

### **Research question 1a (Civic and public issues)**

*Will a newsroom that is more aggressive in using audience metrics be less likely to emphasize stories about civic and public issues than a newsroom that is less aggressive in using audience metrics?*

Such stories generally earn lower audience metrics than many other kinds of stories. This pattern was described multiple times in interviews at both organizations. One manager at *The Heavy Metrics Herald* stated that many issue topics, such as education, “don’t move the needle at all.” Disappointing number counts for issue stories “happen all the time,” a *Herald* reporter said. “...It gets so-so readership – not nothing but not a whole lot.” A manager at *The Light Metrics Ledger* said issue topics get “routine” online traffic: “Even the best enterprise doesn’t explode ... which is disappointing,” he said. This view of relatively low metrics for issue stories was supported, but also countered, by observation. At a weekday afternoon editors’ meeting, *The Ledger’s* chief digital specialist shares the top three traffic stories of the day to that point. During the study period, four of those 15 stories were classified as issue stories. One of the four, about a racial unity rally, occupied the top spot of the day, with the highest traffic count of any of the 15 articles. The particular issue topic makes a difference. Recent coverage of one particular environmental issue by *The Herald* “flatlined” metrically, a manager said, but recent stories on child welfare were metrically “fantastic.” A *Ledger* reporter working on an article about population decline anticipated “average” numbers. “It’s not a restaurant opening,” he said,

referring to a non-issue topic that has shown a pattern of popularity. Yet *The Ledger* was pleased with audience volume for a recent issue story on a land deal to make way for a new economic development.

Individual successes aside, production of stories on civic and public issues conflicts with maximization of metrics. This suggests that *The Herald*, with its higher prioritization of metrics compared to *The Ledger*, would want to do fewer such stories than *The Ledger*. The content review of articles posted in the most high-profile locations of the website homepages during the study period showed that *The Ledger* and *The Herald* produced the same number of staff-generated stories classified as about civic and public issues (25). Viewed by percentage of total staff output, *The Ledger* produced more such stories (25 of 75, or 33.3 percent of all staff-generated stories) than *The Herald* did (25 of 98, or 25.5 percent of all staff-generated stories). As noted earlier, an article that reported routine facts about government actions was counted as a civic/public issue article, even if the article was not developed beyond the routine facts and no issue was explicitly explored. Assessing stories that sought to go beyond routine facts and explicitly explore an issue, *The Ledger* had more such stories in its planning “pipeline” than did *The Herald*, though most of those did not reach publication during the study period. Interview questions about issue reporting done prior to the study period indicated that *The Herald* has a more pronounced track record of occasional “megaprojects” involving multiple journalists producing multimedia packages that spanned multiple days of publication, such as the series on child welfare.

In support of the content review that identified the same number of civic/public issue stories generated by each news operation during the study period, interviews and observation showed cases of both organizations pursuing issue stories anticipated producing relatively low

audience traffic. These anticipations were based primarily on the metric track records of previous stories about the same issue or within the same broad topic area. While such low numerical histories would seem more alarming to *Herald* staff than *Ledger* staff, *The Herald* constantly intermingles civic and public issue stories with other types of articles. For instance, despite the past low metrics recorded by education stories (as noted by a *Herald* manager earlier in this section), *The Herald* was working during the study period on an enterprise story about sex education in schools. It also was continuing to follow developments concerning a community health story, even though a manager already knew “it doesn’t do well on numbers.”

This is not to say that a desire to accrue audience never steers *The Herald* away from civic and public issue subjects. Several staff members said disappointing numbers from an initial issue story disincline them to pursue subsequent reporting on that topic in some cases. Interviews produced more statements in this vein from *Herald* news workers than from *Ledger* news workers. “It will discourage me from following up if people aren’t reading,” one *Herald* staff member said. Another wrote a story about safety measures to protect young athletes. Its first-day audience was low. “That was the end of reporting on that issue,” he said.

The level of audience attracted by an issue story sometimes depends on its geography as well as its topic. A *Herald* reporter cited the low-income nature of a community as a key reason that an issue involving that community received low traffic and therefore fewer stories from him than it otherwise would have. At one story planning meeting, *Herald* staff discussed a follow-up to a natural disaster that had struck a local community earlier in the year, with one manager predicting the story would register few metrics. That contrasted with the higher metrics registered by coverage of an identical kind of natural disaster that had struck another local community, also earlier in the year. The difference: The first community was economically

impoverished; the second community was upper-middle class. The manager acknowledged the likely metric fate of the proposed follow-up: “That’s sad, but we’re going to do (the story) anyway.”

Based on results from the written survey, the staff of *The Herald* believes its outlet is pursuing issue stories as much as *The Ledger* staff believes it is also doing so. Almost all of the respondents at both organizations agreed or strongly agreed with the statements that their outlet emphasizes watchdog reporting and reporting on public issues. A notable difference arose, however, in responses to the statement about emphasis on stories that gain reader clicks. *Herald* respondents, including managers and subordinates, all agreed or strongly agreed (n=15) that their outlet does so; only six members of the *Ledger* staff agreed or strongly agreed that their outlet does so. These perceptions, along with evidence from interviews and observation, suggest that *The Herald* operates with more of a dual emphasis – gain readers clicks and produce civic and public issue stories – than does *The Ledger*. Such duality can exist in a single news operation. But, some notable exceptions aside, any story production serving one mission is generally not serving the other mission. At *The Ledger*, despite its less divided priorities, interviews with staff revealed more disappointment in the adequacy of their outlet’s coverage of civic and public issues compared to staff of *The Herald*. It is possible that *Herald* news workers, knowing they must juggle and balance two usually competing objectives, accept that there may be a practical limit on production of issue stories, whereas *Ledger* news workers, believing they have essentially one objective, may adopt higher expectations for issue coverage in order to consider their performance in that area adequate.

## Research question 1b

*By what processes does attention to metrics influence the number of stories about civic and public issues?*

Several factors led to *The Ledger* producing a somewhat higher percentage of civic and public issue stories among its total news content. But an equally if not more important question is why, in view of the stark contrast in degree of pursuit of metrics between the organizations, the degree of difference in production of such stories was not greater. Again, evidence showed several reasons.

To explain *The Ledger's* higher percentage, interviews and observation pointed to the influence of the print product. Although significant consideration was found at both organizations, *The Ledger* puts a greater emphasis on creating content that it believes suits the newspaper. That practice is grounded in the belief that the print audience is different from the online audience, meaning older, with more time and more interest in issue stories. One *Ledger* manager described the print audience as interested in more “thoughtful” articles while the online audience reacts more to “sensational” content. “Do we base our story assignments on what we think will do well online? No. We base it on what we think will do well online and in print,” he said. Even if the conceptions of print and online audiences were the same, in the minds of several *Ledger* staff members the mere existence of purely print consumers diminishes metrics as a valid measure of total audience interest in an issue story. At *The Herald* too, newsroom leaders believe a different kind of content, such as city hall stories, is needed for Page 1A of the newspaper than is needed for the website, because that page “sets the tone for the community,” as one manager put it. If website popularity dictated the Page 1A lineup, “crime would be all over it,” the manager said.

Another reason for the higher percentage of issue stories generated by *The Ledger* during the study period is its more traditional beat structure compared to *The Herald*, which inevitably exposes the former's reporters to more issue story ideas. Several of *The Ledger's* beats are structured around government entities such as city hall and state government institutions. It has several beats based on geography, such as a particular county, and on topics, such as education and business. But it was clear from Monday story conferences between the editor and each individual reporter that the predominant sources of news on these beats were government entities within these geographies and topics, such as county commissions, planning commissions, sheriff's departments and school boards. *Herald* beats include several that are similar, but it mixes in less conventional beats, such as one based on an age demographic and one based on a local natural feature.

*The Ledger's* interest in issues gets reinforced by different kinds of communication processes. It is conveyed to staff through multiple active means, such as direct communication in weekly reporter-manager story planning conferences and the stated expectation of weekly Sunday enterprise centerpieces. It is conveyed also through multiple passive means, such as significantly less dissemination and discussion of metric results compared to *The Herald*. As a result, numerous *Ledger* reporters stated that they feel free and even encouraged to pursue issue topics with little regard to their metric outcomes. In addition to management's emphasis, they cite as motive their own belief that such coverage is an inherent part of fulfilling a journalist's obligations to the community. "It's part of our job," one said. "It's still a responsibility." Another reporter working on an in-depth story about systematic policies for mentally ill individuals who might be dangerous to others was asked why time should be devoted to that issue rather than one

more likely to get attention from a broader audience. The reason, the reporter said, is that “I have a responsibility” to past and potential future victims.

As is the case with *The Ledger*, throughout the newsroom hierarchy of *The Herald* there exists a belief in and commitment to the traditional journalistic norm of civic duty, expressed in interviews multiple times with references to community “obligation” and “responsibility.” This is the crucial reason that degree of focus on civic and public issues was not more divergent between the study organizations. One *Herald* writer said he chooses topics based on anticipated page views “a lot,” because “we write to be read.” Yet he periodically writes low-traffic stories on issues of community importance because “you feel like it’s your duty.” Another offered an old saw of journalism: That journalists have an obligation to at least sometimes give readers “vegetables” that they might not like but nonetheless need. “There’s broccoli or Brussels sprouts that we know are important and have to cover even if they’re not burning up the charts,” he said. A manager agreed: “Sometimes you have to throw the numbers out when you do the right thing for the community.” Interviews indicated that community service is a professional value that these journalists brought to the job, but the leadership and culture of this newsroom, despite its emphasis on quantified results, gives room to turn the value into action. “It’s why we exist,” *The Herald’s* top newsroom manager said. This is reflected in daily operations. Story discussions during newsroom budget meetings focus mostly on journalistic, not numerical, merits, and story ideas offered by reporters are usually accepted, with little or no evaluation of probable traffic. “Our boss trusts us,” one reporter said.

There must be limits, though. That same reporter said repeated metric disappointments would become a problem. Indeed, this notion of civic duty co-exists with the usually conflicting mission of pursuit of metrics at *The Herald*. Yet, in an unexpected manner, *The Herald’s* past

metrics emphasis and success have opened opportunities for low-metrics issue reporting and exercise of civic duty. Because metric results in most major categories are trending upward at *The Herald*, and top local and corporate management have expressed general satisfaction and are not straining to reach any specific and extreme numerical targets, mixing in low-metrics issue stories does not greatly hinder quantified company objectives. This happens at the individual reporter level, too. Most *Herald* reporters have adapted to the newsroom's metrics focus and have built track records of metrics production, so mixing in low-metrics issue stories does not thwart achievement of quantified personal or newsroom goals. (*Herald* reporters have a goal of at least 30,000 page views per month, but that expectation is being so sufficiently met by everyone that little attention gets paid to it anymore.) One reporter has a strategy that he employs occasionally: "If I can get a base of page views under me for a month, then I know I have more freedom to work on something that's a little more of a risk." The implied meaning of "risk" is a story that draws relatively low page views.

There are other ways that an emphasis on metrics can at least indirectly increase the prevalence of civic and public issue stories. The *Herald*, with its considerable degree of metrics savvy, believes that even "important but dull" issue stories can be reported, written and presented in manners that draw audience metrics, and if they do not, the fault lies not with the concept of producing issue stories, but in a failure to enticingly present or promote those stories. A common reaction to issue stories that earn disappointing metrics is to assess what might have been done wrong, with an eye toward a different approach next time. Sometimes that assessment involves multiple managers who look at different metric measurements as part of the inquiry. Decreased page views late in the week suggested, for instance, that one otherwise metrically successful enterprise series published prior to the study period may have had too many installments. Other

times, the assessment is an individual journalist doing his own retrospective. A lukewarm numerical showing on an issue piece may mean “I did a bad job on it,” one *Herald* reporter said.

*The Herald's* faith in its ability to generate metrics, along with its desire to serve the community, may combine to explain one other finding: Both *The Ledger* and *The Herald* journalistically elevate their issue centerpieces above their more typical issue stories, but *The Herald* more frequently publishes occasional reporting megaprojects on issues. These are showcase enterprise efforts that serve in part to convey internally and externally that the organization is determined not to be branded as a constant numbers chaser.

### **Research question 2a (Story depth)**

*Will a newsroom that is more aggressive in using audience metrics be less likely to prioritize in-depth stories than a newsroom that is less aggressive in using audience metrics?*

The assessment of posted content showed that the average length of staff-written *Herald* stories was greater than that of staff-written *Ledger* stories, 461 words to 417 words, a difference of 11 percent. But isolating stories classified as related to a civic or public issue – a kind of story that lends itself to in-depth treatment – showed that *Ledger* stories were slightly longer, 469 words on average to 451 words, a difference of 4 percent. *Herald* articles overall were longer because of longer treatment given to stories not classified as related to a civic or public issue: Those staff-generated articles on *The Herald's* homepage averaged 465 words compared to 391 words for *The Ledger*, a difference of 18.9 percent. Story depth is not just a matter of word count. A count of sources contained in staff-written reports – human sources, documents, attributions to other media, and citations to social media – showed that *Ledger* posts contained 2.23 sources per story while *Herald* posts contained 1.49 sources per story, a difference of 50

percent. Isolating topics that counted as about civic and public issues increased the source tally for both organizations – *The Ledger* from 2.23 to 3.04 and *The Herald* from 1.49 to 2.08. The difference between the two organizations for this kind of story was 46 percent. (The source assessment showed little difference in the kinds of sources relied on by each organization – human sources accounted for 92 percent of *The Ledger*'s total sources and 85 percent of *The Herald*'s.)

Survey answers showed little divergence between the two outlets regarding the statement that reporters have time to fully develop and write stories: Only three out of 15 *Ledger* respondents agreed or strongly agreed and only three out of 15 *Herald* respondents agreed or strongly agreed. But the statement that too many stories have too few sources brought contrasting responses: At *The Ledger*, which had the higher number of sources per story, nine of 15 respondents disagreed or strongly disagreed with the statement and four agreed or strongly agreed. At *The Herald*, there appeared to be more concern about lack of sources, with four of 15 individuals disagreeing or strongly disagreeing and six agreeing or strongly agreeing.

### **Research question 2b**

*By what processes does attention to metrics influence the depth of stories?*

Neither organization has rules about story length, leaving writers to apply professional judgment to story length based, according to interviews, on the news merits and complexity of each particular story. This helps account for similar comparative story lengths. Audience analytics has provided *The Herald* with evidence that online readers do not read deeply into stories – an average of two paragraphs for posts of typical length, one digital specialist said – and this is understood by most of the staff. Still, professional judgment primarily determines story length.

At both study sites, several journalists said they add length to their stories because of the presence of a print product and their belief that print readers are more tolerant of longer stories. This notion was strongest at *The Ledger*. One reporter there said she would write shorter stories if she were writing versions for online, but she essentially writes print stories that get posted online.

Contributing to the shortening of stories, most notably at *The Herald*, is the handling of story topics that carry only marginal public service value and the prospect of limited digital traffic. In a manner that journalists have followed for years, the topic is often published as a news brief. It is a compromise between newsroom missions. Saved time and space can go toward topics with more audience appeal, and the medium cannot be criticized for completely neglecting a topic that may be important to some of the public.

A greater difference between the organizations was found in regard to number of sources than number of words. One cause of this difference is the *Ledger* editor's rule that print stories, which eventually end up posted on the website, must have at least two sources; *The Herald* has no equivalent rule. Neither outlet has such a rule for online-only articles.

Another notable cause lies in the volume demands that each staff faces. A discussion of the bigger picture is warranted first. Availability of time to create story depth – measurable by number of sources, story length, and time and personnel invested – is mainly a factor of the ratio between available staff and the volume expectations placed on that staff, along with the willingness of newsroom management to grant temporary exemptions to volume expectations to allow work on selected high-value topics. For economic reasons, the staffs of both *The Ledger* and *The Herald* have shrunk in recent years, a fact noted in a negative manner in multiple interviews with workers at both sites. This, combined with the need to fill print pages and

regularly provide new posts for the websites, makes it difficult for either newsroom to produce significant story depth on a frequent basis. Members of both staffs complained in interviews and the survey about not having enough time to sufficiently develop stories. A *Ledger* reporter said an in-depth issue idea was approved two months prior; since then, the reporter found only two days on which to work on it. The problem has been the need to “get another daily, get another daily,” as the reporter put it, adding that eventually “you lose the fight to say ‘give me time to do this.’” A *Herald* reporter was asked about the possibility of having two weeks to work on a story worth substantial depth. “I can’t even imagine it. Maybe two days.” A colleague said: “You don’t really get the full (understanding) of the story, to sit and think about it, polish it. You get the info, you write it, you send it, and then go on to the next thing.”

Neither newsroom has formal volume quotas for print or online. Rather, there is a generally understood expectation of production level. Print volume expectations at each location are similar: at least one finished story per day and perhaps a weekend piece as well. This gets implicitly underscored at *The Ledger* when editors individually ask reporters what finished stories they have coming for the day. It gets indirectly underscored at *The Herald* when reporters attending a daily budget meeting are each publicly asked the same question. Regarding online volume expectations, *The Herald* seeks new posts from its staff more frequently than does *The Ledger* in a more aggressive effort to habituate online consumers to frequent website visitations in search of new material. This helps to explain why *Ledger* staff aimed complaints more at volume expectations for the newspaper while *Herald* staff aimed complaints more at volume expectations for the website. Several *Herald* news workers talked about the need to “feed the beast.” One talked about pressure to “churn, churn, churn.” During the study period, *The Herald* posted 31 percent more stories (98 to 75) to the studied webpage locations. But “feeding the

beast” means not only more text posts compared to *The Ledger*, but also a greater emphasis on supplemental elements such as photos and videos (management a few months prior changed its informal production expectation of two stories a day to one story a day plus a video if possible). Further, *The Herald* lets a shorter time pass without new website material before digital staff take steps to address the void. *The Herald* also, unlike *The Ledger*, has an early-afternoon story deadline intended to help ensure a spaced-out flow of new website material during afternoons and evenings. All told, the differences in demands related to the quest for digital metrics help to explain the greater prevalence of story sources in *Ledger* articles than in *Herald* articles.

In any work situation where volume expectations are not formalized, workers may understand informal expectations differently. One *Herald* news supervisor said some writers may feel print and website production pressure from management that actually does not exist. Some reporters, the supervisor said, believe “the heavens will explode” if they do not offer a finished story daily, but they can forgo that burden “for the right reasons,” a reference to pursuit of an in-depth, high-value, multi-day reporting effort. Such an effort does put pressure on others to fill print space and to “lift the (page view) numbers in other areas to make up for that,” this person said. But grounded in experience at generating page views, *Herald* staff are able to identify and execute stories that the supervisor characterized as “low-hanging fruit” – stories of somewhat greater ease and lowered quality but that make it more possible for enterprise work to continue elsewhere on the staff. “There are two-hour stories,” the supervisor said. One *Herald* reporter, for instance, was able to quickly generate some metrics by re-posting a news-related video that a government agency had posted on the agency’s Facebook page.

At *The Light Metrics Ledger*, interviewees reported occasional management pushes for more web posts, and an emphasis on frequent posting of a few traffic-friendly subjects such as

crime. For the most part, though, the digital production standard is an informal, unenforced goal (so informal, in fact, that interviewees gave differing answers on what the standard is). *The Ledger's* top newsroom manager talked of the need to “populate” the website, preferably all day long, but the lack of an official quota for posts reflects his belief that volume works against his conception of good journalism: “I want them to do their best. ... They have a tough enough job as it is.” His experience working in a previous, more metrics-focused, more volume-oriented newsroom informs his view. “All we were doing was beating up people,” he said. “... We were just throwing crap on the website.” Even at the more relaxed *Ledger*, sometimes the staff “tries to snow me” with shallowly reported posts or rewritten press releases for the site, he said.

When print and digital volume requirements and staff size limitations are overcome or put aside, the metrical reward for a deep reporting effort, though dependent on topic, often does not match the resource investment, as discussed in RQ1 in relation to civic and public issue stories. “You’re not going to get those kinds of numbers on something that (readers) have to spend a lot of time with,” one *Herald* journalist said. Another offered the wish that enterprise efforts would cease because of the relatively low metric payback. But this journalist added a notable caveat: Unless significant public service is involved. Despite frustration from members of both staffs regarding inadequate time for story development, a belief in the norm of civic duty – echoing the discussion in RQ1 – motivates *The Herald* and *The Ledger* to find opportunities for significant story depth.

### **Research question 3a (Conceptions of traffic generation)**

*Will a newsroom that is more aggressive in using audience metrics conceptualize traffic-generating content differently than a newsroom that is less aggressive in using audience metrics?*

Regardless of the difference in degree of incorporation of metrics into procedures and mindsets, the same topic emerged at each organization as the one that generates the highest audience metrics: Crime. That topic received the most mentions in interviews – 12 times at *The Ledger* and 10 at *The Herald* – and in the written survey – 11 times at *The Ledger* and 12 at *The Herald*. Some of the other topics mentioned several times – city government conflict and new businesses, for examples – were also the same between both groups of journalists.

Beyond that, however, some divergence emerged between the two organizations. In interviews, *Herald* journalists offered a longer list of topics that they consider most effective in generating digital audience traffic. Also, *Herald* journalists more frequently mentioned story themes rather than topics, such as controversy, tragedy and scandal. Lastly, some *Herald* workers cited the importance of journalistic techniques in the traffic equation, such as good photography and enticing headlines. The overall suggestion of the more multi-faceted answers from *The Herald* is that, although *Ledger* workers were quite familiar with popular topics, *Herald* workers, through more institutionalized exposure and discussion over time, had developed a somewhat broader understanding of traffic creation. This sophistication allows *Herald* staff to more easily meet quantified expectations and perhaps open up opportunities for journalism done without regard to numbers.

As with the topic that creates the most traffic, the predominant interview and survey answer for the most important single digital metric was the same at each organization: Page

views. An appreciation for creating activity on social media was found among both groups of journalists, as well. Beyond that, however, *Ledger* staff showed greater differences among themselves in knowledge of different metrics. One *Ledger* manager said some members of the staff likely do not know the definitions of some kinds of metrics, and interview and survey answers suggested that some *Ledger* staff members had not thought much about different kinds of metrics. Some declined to cite a single most important metric, saying that such numbers do not matter.

### **Research question 3b**

*By what processes does attention to metrics influence an organization's conceptualization of traffic-generating content?*

According to interviews and observation, concepts of most-popular content arise from individual assessment over time based on experiences and quantified information available to staff. Analytics reports usually do not identify and rank general subject matters (although such research could be compiled if desired). Rather, they focus on individual stories or on aggregated numbers.

In forming concepts, *Herald* journalists have a constant flow of information from which to draw. Real-time monitor displays, twice-daily email reports, daily printed reports and their own metrics dashboards give data on all staff-generated digital content. Conversations about metric performances at budget meetings and individually with digital specialists add to knowledge.

This happens, too, at *The Ledger*, but to a far lesser degree. There, journalists' concepts of popular material stem also from knowledge collected by means that are not formalized internal dissemination. Several pay attention to the "Most Popular" stories list that appears on the

website's homepage, and several reported that they often happen to overhear the digital specialist's daily report on highest page views during the afternoon budget meeting in the middle of the open newsroom.

Of course, management could identify its interpretation of the most effective traffic-generating content – perhaps identified by general subject matter or perhaps identified by story themes and traits – and circulate it to staff, with orders or encouragement to pursue such content. But interviews and observation indicated that this does not happen, not even at *The Herald*. “No one has said that to me,” a reporter there stated. “They always want us to focus on content that is engaging, but not a certain kind.” Any encouragement to pursue particular content primarily for the sake of traffic gets applied not to broad subject areas or story themes, but on the lower level of an individual story or a particular hot current event. RQ5 will explore the degree to which story assignments and determinations of news worth at each study site are driven by audience analytics.

#### **Research question 4a (Use of public relations)**

*Will story content in a newsroom that is more aggressive in using audience metrics be more influenced by public relations offerings than in a newsroom that is less aggressive in using audience metrics?*

Evidence indicates that use of text and ideas from public relations professionals is greater at *The Herald* than at *The Ledger*. The survey statements that news workers rarely use text or story ideas from public relations professionals brought disagreement or strong disagreement from 13 of 15 *Herald* questionnaire takers (87 percent) regarding rare use of text and 11 of 15 (73 percent) regarding rare use of story ideas. Only two agreed or strongly agreed and that was in

regard to use of story ideas. Among the 15 respondents at *The Ledger*, five (33 percent) disagreed or strongly disagreed with the statement about rare use of text and five agreed or strongly agreed. Six (40 percent) disagreed or strongly disagreed with the statement about infrequent use of story ideas and five agreed or strongly agreed. In interviews, five *Herald* content creators said they publish at least one public relations news release every day, compared to two at *The Ledger* who said that. (The more common interview answers at both study sites were a few times per week or per month. It is possible, but uncertain, that a conventional journalistic stigma attached to use of public relations material prompted understated answers in interviews. Some previous research provides comparison. Sallot & Johnson analyzed 413 U.S. journalist interviews between 1991 and 2004 and reported that, on average, journalists estimate 44 percent of news stories were the result of public relations contacts. Commenting on this 2006 article, Macnamara wrote in 2016 (p. 122) that “journalists’ estimates could be expected to be conservative, given frequent denials of PR influence and negative attitudes toward PR.”)

At both locations in the current research, when text from news releases is used in print or online, it generally gets used as news briefs. The topics are similar at both locations: selected business announcements, leisure events, college student achievements, sports results, road closings, and announcements of arrests and trial outcomes, among others. In rarer circumstances, a public relations news release or a story suggestion from a public relations representative becomes the basis for a full-fledged story that receives further development by a reporter. At *The Herald*, for instance, one reporter was asked the origin of the five stories he was working on at that moment. One of the five was inspired by a press release.

#### **Research question 4b**

*By what processes does attention to metrics determine the influence of public relations offerings?*

The greater (though still minority) use of public relations offerings at *The Herald* than at *The Ledger* stems largely from *The Herald's* higher prioritization of its website and its desire for a more rapid rate of new online content compared to *The Ledger*. At times when no self-generated story is ready for publication, content creators may decide to avail themselves of other, quick avenues to fulfill the need, including prepared text or an easily developed story idea from a public relations interest.

This effect can occur due to the need for digital volume or print volume. The overall volume of required content, regardless of the platform, is rising in the substantial majority view of questionnaire takers at both locations. Ten people at *The Herald* and 13 people at *The Ledger* agreed or strongly agreed with this statement. Only one, at *The Herald*, disagreed or strongly disagreed. Even though print and digital production level is a matter of generally understood expectations rather than a formalized mandate in each newsroom, some reporters in both places said they feel stress and pressure to match expectations, and cited difficulties in doing so. "At the end of the week you're exhausted and can't think straight," a *Herald* reporter said. A *Ledger* reporter offered that "everyone needs to be producing a lot of content right now" because, even though management has never so indicated, he speculates that could be a job security consideration if the company ever were to decide that it needs to further reduce staff. Additionally, this reporter said, writers face competing pressures: the need for frequency for online, the need for depth for print, and the requirement to limit hours worked. "You're between a rock and a hard place. You don't want to be the person reporting a lot of overtime, but every

editor has their thing that they want.” There is some degree of disconnect in both newsrooms. Newsroom culture and processes – primarily managers inquiring at meetings or in emails about what story each reporter can deliver for the next day’s newspaper or for a website update in the next few hours – lead reporters to perceive pressure and to adopt, as one *Herald* reporter put it, “a general feeling that you have failed and not contributed” if a day passes without a finished story. Yet, the top newsroom leaders both stated in interviews that they see valid reasons why a daily story sometimes would not get completed. *The Herald’s* said it is acceptable not to produce a publishable story daily if the reason is time devoted to more significant, longer term work. *The Ledger’s* said much the same. “If I know they need more time with something or they are working on a Sunday centerpiece, I’ll say, ‘Don’t worry about a daily (story). Go ahead and work on this. I need some depth.’” The editor added, “I figure if they don’t have something for me they’ll make up for it the next day.”

As discussed in RQ2, the informal volume expectations for print are similar for each organization – typically a finished story daily and sometimes a weekend enterprise piece as well – but based on interviews and observation *Herald* journalists feel a greater burden to supply the website on a more frequent basis with breaking news, updates and other kinds of fresh material. There is no formal volume requirement for online, but multiple *Herald* journalists talked of a need to “feed the beast,” a perception fostered by newsroom operations in various ways, including an early-afternoon story deadline intended to give digital specialists a pool of stories from which to create a gapless flow of new items, occasional requests (not orders) from digital specialists to reporters’ editors, and even handwritten reminders on a prominent pane of a glass wall of the peak posting times for mobile traffic. Still, in keeping with the top editor’s view that production pressure is not necessarily relentless, it was clear from observation and interviews

that the early-afternoon deadline is not rigidly enforced and that longer-than-desired time gaps between posts do occur. And when faced with a gap, reporters are sometimes spared the burden of an immediate response, as digital specialists find content to post on their own. In general, though, everyone feels the pressure, and several staff members, including reporters and digital specialists, stated that prepared copy from outside sources can help to address that pressure. (In circumstances in which quick production is the priority, prepared text is more useful than a story idea that would still require time and reporting by a journalist.) One *Herald* reporter tellingly described news releases as providing “filler content.” A colleague sees use of news releases as a way to help accomplish multiple purposes: “Some weeks I’ll be trying to do an enterprise story so while I work on that, to meet that daily requirement I’ll go for the low-hanging fruit that comes from press releases.” The benefit of prepared releases for a website is recognized at *The Ledger* too. One supervisor said, “We push the reporters to give us numerous web updates during the day to keep the website fresh and that becomes an easy way to do it.” Another supervisor there is familiar with that practice because “sometimes they (reporters) are scrambling” to find and generate the desired number of stories. He said he sometimes tells them, “Go get me some original stuff. I don’t want these news releases.”

Outside copy that is placed online usually ends up also serving a need to fill print space for both publications. Most often that takes the form of a print brief rather than a full story with a large headline. Journalists interviewed at both sites said they are more willing to use outside copy, without further development, as briefs than as full stories. Even though release-based briefs have a regular presence in print at both outlets, they are not as effective as full stories in meeting the volume demands of print. They are far more valuable for online, where, according to

digital specialists in this study, total number and frequency of posts matter more than post length, and where stories generally are written shorter.

While some reporters stated that they would never post a press release or develop a story tip that they did not consider newsworthy, some other reporters suggested that a subtle lowering of news standards occurs when there is stress to produce desired quantity. One *Ledger* reporter said some stories get produced for the sole sake of website “copy flow,” and another from *The Ledger* said publication standards informally loosen on weekends when there is less news. This potentially creates an enhanced publication opportunity for public relations interests, as well as for journalistically marginal topics that did not spring from a publicity professional.

The presence of digital platforms is not the only reason that journalists sometimes avail themselves of text from publicity professionals. Dwindling staff sizes, as have happened at *The Ledger* and *The Herald*, make it more difficult not only to generate volume, but also to cover all the events that a newsroom wishes to cover, several interviewees said. A *Herald* manager said staffing situations often lie at the heart of the decision to rely on a release: “We don’t have a reporter to cover that particular beat or the reporter that does is not available.” Another *Herald* manager believes that that newsroom should use media releases more often to reduce coverage stress. “That’s why those (public relations) departments exist – to take the strain off of us,” the manager said. Although staff size plays a role, the fact that *The Ledger* and *The Herald* have a similar number of news personnel and are located in communities of similar size likely means that this influence is not a major factor in explaining the difference between the organizations in their degree of use of public relations material.

Another influence on degree of use of public relations copy is the level of journalistic quality of that copy. Numerous journalists in both newsrooms criticized the quality of much of

the publicity copy they see, but some of it was praised for being well done and for providing all the information that the particular topic at hand required. A *Herald* sports writer, for instance, noted the large size of the communications staff of a local professional sports team; they write polished game stories replete with athlete quotes. Further, some public relations specialists are aggressive and knowledgeable in disseminating information and ideas to journalists. “We’re lucky here that we have some long-established public information officers,” one veteran *Herald* journalist said. “They know the kinds of stories we’re looking at.” But suggesting stories that *The Herald* might find reasonable does not change the fact that such officers “are pressured by their bosses to get positive news in,” the journalist added. One particular *Ledger* reporter frequently uses tips from a publicity contact on that reporter’s beat. The tips are newsworthy and not intended to promote the contact’s agency, so much so that the reporter believes the contact should not serve in that role. While it seems clear that the activity and quality levels of public relations professionals in the communities served by the two case study outlets do affect degree of use of public relations offerings, it was beyond the scope of this study to try to compare those levels between the two communities to determine how much they might explain the difference in the outlets’ use of publicity text and ideas.

#### **Research question 5a (Abstract knowledge)**

*Will determinations of topic newsworthiness in a newsroom that is more aggressive in using audience metrics involve less abstract knowledge than in a newsroom that is less aggressive in using audience metrics?*

Despite less dissemination and discussion of audience metric results at *The Light Metrics Ledger* than at *The Heavy Metrics Herald*, 14 survey respondents at each venue agreed or

strongly agreed with the statement that they are aware of story topics and coverage areas that have a history of generating high web traffic numbers. This was echoed in interviews. This indicates that for each news organization, knowledge of past metrics is sufficient enough that it could, if journalists at either organization wished to do so, supplement or to some degree replace the use of professional abstract judgment in determining topic newsworthiness. But equal knowledge does not necessarily entail equal application. Web metrics play a greater role in determining story newsworthiness at *The Herald* than at *The Ledger*, based on interviews and observations. But significantly, the weight of metrics in *The Herald's* decisions about news worth diminishes if the deciding journalists believe a topic carries public service value.

The survey offered evidence of this. Twelve at *The Herald* and 13 at *The Ledger* agreed or strongly agreed with the statement that expected low traffic numbers would not stop them from pursuing a story that has community benefit. But a related statement with no reference to community benefit – “I am not inclined to pursue a story if I think it will generate low web traffic numbers” – earned disagreement or strong disagreement from 12 *Ledger* news workers (and no one there agreed or strongly agreed) while only five at *The Herald* disagreed or strongly disagreed (three at *The Herald* agreed or strongly agreed, four neither agreed nor disagreed, and three did not answer). At *The Herald*, therefore, removal of the community benefit cue in the question increases the perception that metrics influence story selection.

Interviews and observation provided further evidence that degree of abstract knowledge in story decisions is less at *The Herald* than at *The Ledger*, but also that *Herald* journalists frequently apply abstract knowledge to assess a story's potential community benefit, and in those cases where they identify such benefit, their professional judgment supersedes any companion predictions of low audience traffic. This section will first look at evidence showing the

significant role of web metrics in certain news decisions, primarily at *The Herald*. It then will explore evidence of situations in which metrics are rendered subservient or even ignored.

Metric results for past stories on a matching subject or even within the same general topic area can provide a basis for predicting metric results for a story idea under consideration for pursuit and publication online. Page views are the primary currency, but other measurements such as social media shares and other forms of audience engagement matter, too. The predictions may be no more specific than high or low in relation to a typical online article. Similarly broad predictions are possible even for story ideas that have no published precedents, because past results can give journalists a general, instinctive feeling of what an audience will like.

Examples of metrics-influenced news decisions at *The Herald* have included not only small-scope decisions such as the fate of an individual story idea or the extent of coverage of a particular news development, but also large-scope decisions such as degree of commitment to particular coverage beats or redefinition of desired kinds of stories sought on a particular beat. The motive in these cases was to achieve higher numbers in return for the resource investment. Several *Herald* journalists tied news decisions directly to numbers in certain circumstances. “(If) nobody’s reading (particular coverage), why should we pursue it?” one said. Said another, “If people aren’t following the Chamber of Commerce, in a year or two we won’t cover them.” No *Ledger* personnel offered a parallel statement. Metrics-influenced decisions at *The Herald*, either observed during the study period or instances from outside the study period that were described in interviews or documents, included:

- Seeking follow-ups to popular stories. Significantly, several *Herald* reporters said managers usually inquire whether a legitimately newsworthy follow-up can be found rather than demanding a follow-up regardless of news merits. That scenario was witnessed several times

during the study period. That is not to say, though, that there are never concerns about publishing excessive follow-ups. Two staff members cited what they deem to be too much continuing coverage of the same news development: A local celebrity opening a retail business. “I know why we keep doing these because every time we do one the traffic goes crazy,” one of them said. “It’s something that we’ve paid way, way, way too much attention to but the traffic numbers justify it.” Some *Ledger* staff also cited numbers-inspired follow-ups. “If we have a story that is generating a lot of hits, we’ll look a little harder for a follow-up,” one manager said. “We’ll stretch (legitimacy) occasionally, but if we’re stretching too much we won’t do the story.” A reporter said a restaurant-related post that drew a large digital audience led him to produce a second story that he otherwise would not have done, and it has prompted him to check more often for other possible restaurant-related developments. This evidence notwithstanding, observation of *Ledger* editors’ daily story budget meetings showed that the routinized review of top traffic stories did not produce any orders for or inquiries about additional stories on those leading topics.

■ Reducing follow-ups to numerically disappointing stories. “We base whether we are going to write about a topic based on whether anybody has read about it before or not with page views,” a *Herald* news worker said. “If we’ve written about it before and it didn’t get good page views, it’s going to drop to the bottom of the totem pole as far as priorities go.” Additionally, one manager said, coverage of a continuing current event will decline as day-to-day audience declines: “As we see traffic starting to wane a little bit, we pull back.” When a story’s disappointing online audience measurements do prompt *The Herald* to plan to diminish coverage going forward, it takes pains to draw only a narrow conclusion rather than a broad one about the unpopular material. Did, in an example explained by one interviewee there, a metrically

“flatlined” high school renovation story mean that online audiences are not interested in any construction stories, or just high school construction stories, or just the high school construction in that one community? Or, perhaps, it is not interested in any stories from that community. *The Herald* appears aware of the journalistic danger of consigning overbroad demerits to topics based on past flatlining of particular articles. Further, when a specific story or a broader subject area elicits disappointing measurements, *The Herald* does not automatically assume that the topic is the problem. In one discussion between supervisors about continually low measurements for periodic stories about a particular topic, they focused on whether the approach to the topic needed to change, whether the stories were sufficiently promoted on social media and whether they were being posted at the optimal times. They did not discuss abandoning the topic. At *The Ledger*, although popularity sometimes encourages follow-ups as discussed earlier, lack of popularity did not create reluctance or diminishment of coverage of subjects during the study period.

- Choosing from among story ideas without civic or social importance. Past or expected metrics help to make decisions about, for instance, certain soft feature ideas or which high school football game to cover. Quantified success is the main reason stories get written about a locally prevalent wildlife species. A *Herald* manager cited a role in deciding between “borderline” possibilities. When civic impact is not a consideration, “metrics help us say, ‘You’re wasting your time on that story,’” the manager said.

- De-emphasizing a coverage beat or a particular institution on a beat. An analytics report compiled specifically to assess the situation was the basis for deciding that a reporter needed to become more selective in choosing story opportunities about a quasi-governmental regulatory authority, according to documents and interviews. Reportage on the authority was not

abandoned. Much the same happened with a local professional sports team. As other sports seasons began, coverage was reduced, a move that a *Herald* manager said was justified by parallel shrinking audience metrics. Numbers can work the other way, too. After a manager expressed doubt about public interest in repeated articles about a park board, a specifically compiled analytics report showed that the articles' numbers generally were good.

- Changing the nature of stories sought on a beat. According to documents and interviews, consistently low-ranking figures prompted supervisors to show those figures to a beat reporter and to counsel the reporter to place less emphasis on meeting coverage and more focus on beat feature stories. Similarly, metrics have prompted *Herald* editors to preach the need for reporters to focus on the reader impact of government decisions rather than merely quoting government officials, one editor said. At the time of the site visit, a pattern of low numbers in one particular department had prompted a pending inquiry into possible reasons and remedies. Metrics have also served the opposite purpose: To maintain a particular approach to a beat. When one editor questioned whether a particular coverage area was “getting stale,” analytics reports showed a pattern of good results and no changes resulted.

- Assessing the cost/benefit ratio of regular freelance columnists. After *Herald* management raised questions about whether each specialty writer provided sufficient worth for the expense, a targeted analytics report showed the total quantified outcome for each writer for the previous year. The result was reduced pay for one columnist whose total ranked near the bottom but no other changes in the lineup, an interviewee said. One writer whose copy quality was poor was retained because of high numbers, the interviewee said.

- Content efforts to improve analytics reports. One *Herald* supervisor said management occasionally – usually near the end of a month – will seek content to try to boost a particular

kind of metric, such as mobile traffic or video views, that is headed for a relatively down month. The reason for the downturn might be reporters on vacation or too much time devoted to certain previous stories that suffered from reader “fatigue.” “We talk about presenting a story to recapture that audience,” the supervisor said. *Herald* managers hope to have good analytics reports on a variety of metrics, but some are more important than others because they relate to future trends and corporate objectives. Managers are emphasizing creation of videos and therefore video views. Prior to the study period managers called a staff meeting for the purpose of announcing and explaining a new video push. During the study week, managers asked several times during story planning sessions whether videos could accompany particular stories. Managers are also trying to increase mobile activity, as they see news consumers moving to that platform and away from desktop websites. Page views, unique visitors and various forms of reader engagement will remain important, as well.

For all these manifestations of quantification in story decisions at *The Herald*, the influence of past or predicted metric results diminishes at *The Herald* when judging stories that carry some degree of civic importance, a judgment made by application of traditional journalistic abstract knowledge. Multiple *Herald* interviewees stated that they have written stories for reasons unrelated to metrics, especially to report news pertaining to civic and public issues. In this way, journalistic goals and the thought processes that assess whether specific stories fulfill those goals are similar between *The Herald* and *The Ledger*. *The Herald's* top newsroom manager said: “If it’s a story we need to do, we will do it regardless of what the metrics are.” Others at *The Herald* echoed this view. Talking about typically low-registering education stories, one manager said: “I don’t care because the public needs to know about it.” Another manager, who believes poor metrics are a sound basis for not pursuing a non-impact story, views impact

stories differently: “If it’s an issue we know has to get out, we don’t care what the numbers are.” This view was found at the reporter level, as well. *Herald* journalists’ conceptions of news that is important enough to disregard probable audience size spring from a few recurring themes, according to interviews: impact on readers’ lives, or exposure of civic or social issues. The top manager said the newsroom strives to produce journalism that will “save lives, change laws, change policy.” *The Herald* tries to maximize metrics for such work, but such work will be produced – either by occasional self-initiated enterprise or by the daily dictates of news events – even if numerical prospects are not good.

Determining whether news events and story ideas carry civic importance and community relevance requires application of traditional journalistic abstract knowledge. “Sometimes we have to trust our own instincts,” a *Herald* reporter said. *Herald* news decisions based primarily on professional judgment usually involve pursuing a past or anticipated low-traffic topic deemed important, as opposed to declining a likely high-traffic topic due to a journalistic concern. Examples of the former at *The Herald*, either observed during the study period or instances from outside the study period that were described in interviews, included: coverage of two environmental controversies, a natural disaster that struck a low-income community, and a high school renovation. The high school renovation story, mentioned earlier in this section, was especially instructive. This construction project was cited by one manager as an example of a continuing story that had recorded low audience response. Yet during the study period, a reporter filling in for another learned of an update and produced another story on the subject. The reporter said he did not check past metrics; he used his judgment that the story “might be of public interest.” He noted that he informed editors of his pending story at a budget meeting and it was not shot down. Neither he nor anyone else regretted the story, although the reporter said that if he

had known the numerical history, he would not have done it. There were other examples of judgment-driven stories. A different reporter was asked about the metric prospects of four self-assigned stories he was developing at that moment. All of them, he said, would likely produce in the “murky middle ground” of traffic rankings. But he said he felt no need or pressure to have a guaranteed audience grabber in the works. Another reporter’s education-related story was not expected to grab audience, either. “The numbers don’t match up to spending as much time writing about (education) ... but (the editors) value education so they’re going to continue to write about it and push it out there,” a *Herald* journalist said.

There was further evidence of *Herald* news decisions founded more on judgment than on numbers. Although reporters in some instances may have self-selected story ideas with good numerical prospects, their story pitches to editors at daily budget meetings – some with civic importance and some without – were almost universally accepted with little or no discussion or research of metric potential. The situation was the same during weekly one-on-one editor/reporter budget conferences at *The Ledger*. During *The Ledger*’s editors-only budget meetings, the digital specialist’s report of the top website traffic items never produced assignment or even discussion of prospective follow-ups. One *Ledger* staff writer remarked during the research week that a story of his “broke the internet,” yet no subsequent story was written because the reporter did not see new angles to justify it.

Judging and taking on stories with little or no regard to web traffic happens constantly at *The Ledger*, according to interviews and observations there. Evidence points to this occurring more frequently at *The Ledger* than at *The Herald*, though the difference lessens when isolating stories of civic importance.

It is important to point out that determining topic newsworthiness is not necessarily based on only abstract knowledge or only numbers; journalists can consider the two influences at the same time. In fact, in describing System of Professions, Abbott (1988) states that a profession with a sufficiently strong base of abstract knowledge can incorporate new forms of knowledge – in this case, metrics – without eroding control over its field of work. Multiple interview subjects, most of whom work for *The Herald*, said they often take a combination approach, though the nature of the particular story under consideration at the moment dictates which kind of knowledge will carry the greatest weight. Numbers can also serve as a post-publication affirmation process for abstract story judgments. Several interview subjects from both news organizations stated that after publishing a story chosen strictly for news value or because the reporter personally found the story interesting, they would check metric performance, seeking quantified verification that the audience endorsed their judgment. If a story generates big numbers, “we feel validated,” a *Herald* reporter said. Following publication of *The Herald’s* child welfare project, managers checked out the resulting web activity, not to second guess the resource investment but to seek further validation for doing major enterprise journalism, according to an interviewee. The numbers, indeed, provided it.

Finally, it is necessary to note that the basis for selecting or rejecting story possibilities is not limited to journalists’ news judgment or digital quantification of audience interests. Another method is audience interests assessed through more traditional feedback such as reader phone calls, emails or in-person comments in the community. *Ledger* news employees mentioned this method more often than *Herald* news employees did. One lunch excursion with two *Ledger* managers showed they are known in the community and that opportunities for conversation exist. One *Ledger* journalist said he considers that type of feedback more accurate because many

consumers do not read online and because he believes clicking on a story does not necessarily equate to liking it and wanting more, similar stories.

### **Research question 5b**

*By what processes does attention to metrics influence the extent of abstract knowledge used in determinations of topic newsworthiness?*

Multiple processes explain why *Herald* news decisions, overall, entail a greater degree of numerical considerations and a lesser degree of abstract knowledge than overall news decisions at *The Ledger*. But it is equally essential to explain why traditional journalistic abstract knowledge often becomes the determining factor in *Herald* news decisions, especially related to civic and public issues. Certain aspects of *The Herald's* newsroom operations and culture push journalists toward a metrics emphasis but simultaneously allow room for them to make metrics secondary to professional news judgment. The following factors help to explain the dynamic within the *Herald* newsroom, as well as the larger difference between the newsrooms in their extent of abstract knowledge to evaluate stories:

- Job performance reviews. Use of audience analytics in news decisions is among the criteria listed on job performance reviews at *The Herald*. However, it is only one of 11 criteria and, according to the document, the criterion definition calls for acceptance and use of analytics as a way to shape coverage and build audience. It does not require achieving any quantified goals. Months prior to the research week, a reporter was fired, in part, because of refusal to use analytics as a journalistic tool. “We didn’t fire anyone (because he) wasn’t getting good numbers,” the top editor said. “...The point of the metrics is for (a reporter) to look at them and say ‘Am I covering the right topics? Am I covering them in the right way?’ Not ‘I have to hit a number.’ ... We can’t let metrics be the decision maker” regarding job evaluations. Metrics are

not part of job reviews at *The Ledger*, and its editor stated that a reporter's low metrics would not be cause for concern. Nonetheless, a reporter there linked high metrics and job security. "We all know the paper hasn't made money in a long time. You don't want to be at the bottom of the list."

■ Page view goals. Though not part of job performance reviews, *The Herald* once set monthly, beat by beat page view goals for its reporters based primarily on a desired percentage increase from previous time frames (minimum was 30,000 per month) and discussed those goals with each reporter. But after achieving what it considered to be successful buy-in to the value and use of metrics by a significant majority of its staff, management discontinued that process (except for the easily achieved minimum) and relies mainly on individual internalization to incorporate metrics into news decisions. "It was never, ever meant to be 'you're at risk of losing your job,'" the top editor stated. "It was a way to force them into trying out (analytics and audience-building techniques). ... It was needed then to kick start their thinking. It's not needed now because they are thinking that way. ... Once we saw their thinking, the goals will come." Nonetheless, management still tallies individual reporter page views, and the staff is aware of that. Despite the discontinuation of individual page view goals, one reporter said: "I know they're looking at it so I need to keep up somehow." This raises the question of whether reporters for *The Herald* use metrics in their decisions and pay attention to quantified results because they have embraced metrics as a tool toward better journalism or because of a worry that job security might be at stake. The answer may be some combination, and dependent on the particular individual. Previous layoffs here and elsewhere in the industry could serve as a basis for the latter reason. But the greater evidence points to acceptance – perhaps enthusiastic or perhaps not – of the potential usefulness of audience measurements. Several talked of how analytics can lead

to more relevant story selections, a greater effort to report, write and present content so that it connects with readers, and wider exposure of good work. And the embrace becomes easier as the knowledge and skills of metrics generation increase. Absence of a perceived direct link between numeric production and job safety is supported by the omission of specified numbers in job performance reviews. One reporter said he never worries about reviews and did not even know the latest reviews were about to be finished. Further, the fact that a few *Herald* reporters still have not incorporated metrics into their news work as much as management wishes indicates that fear of job loss is not a gripping, pervasive motive in the newsroom. When the minimum monthly page view requirement was in its early stages, “there was a sense that the first couple of people to not hit that 30,000, it was not going to be good for them,” a reporter said. “I don’t think that was ever really the case, because (they are) still here.”

The situations at *The Herald* and *The Ledger* are clearly different in that *Herald* workers must attain a generally rising level of success and *Ledger* workers face no metric requirements. But they are similar in that, aside from *The Herald’s* page-view minimum, there are no enumerated upper targets to reach, and thus there could be a feeling of uncertainty among workers at both sites as to whether they are doing enough to meet unspoken management expectations. Resource Dependency Theory points to an organization’s need for predictability of incoming resources – in this case, a preset number of page views. Enumerated page-view goals serve to reduce uncertainty over manager/corporate expectations and allow predictable estimates of the amount of time and effort that staff must expend to meet the goals. If experience and savvy allow the goals to be reached more quickly, then opportunities arise to tackle low-metric public service reporting with a sense of safety, knowing that business-oriented goals are satisfied and not wondering anxiously whether supervisors might object. Lowrey and Gade (2011) write

that “formal rules can actually allow creativity and autonomy within the rules’ boundaries,” and that absence of well-known routines and rules can cause “confusion and frustration over unclear rules and tasks. . . . Staffers become unnerved, controlled by hidden landmines rather than visible fences” (p. 14). It is a counterintuitive notion that creating a numerical constraint could actually solidify space for civically beneficial journalism. As noted earlier in this bullet point, *The Herald* once operated with numerical constraints, as each reporter was told to try to reach a page-view number that was tailored to each individual’s beat and past tallies. The process was recently discontinued when management concluded that a sufficient percentage of the newsroom had bought in to the metrics-infused culture it sought. Although this may have caused some perceived vagueness as to management’s upper expectations, the notion remained that general metric use and success, even if no longer specifically quantified, would create time and acceptance for potentially low-audience community service work. Based on evidence collected during the study period, the current absence of rigid, quantified, upper goals helps *Herald* reporters to pursue stories they value regardless of expected numerical results. Yet reporters understand they cannot stray too far or for too long from numerical considerations.

■ Availability of metric results. At *The Herald*, the constant availability of real-time and recent analytics – newsroom monitors, twice-daily email reports to all staff, sheets of numbers attached to daily story budgets, personal reporter dashboards – not only provides the information a reporter would need to make a metrics-based decision about a potential story, but it also sends the visual message that management attaches great importance to accrual of audience. Some *Herald* writers reported checking their metric dashboards several times a day; others do so once daily. Some make a practice of checking the display monitors. On a couple of occasions reporters were seen asking a digital specialist for the latest tallies on particular stories of theirs.

*The Ledger* has no real-time analytics program, no monitors, and written analytics reports are much more sporadic. Detailed information is available, but based on interviews and observation, fewer reporters seek it out at *The Ledger* than at *The Herald*. The chief digital specialist estimated that reporters seek analytics information from him once or twice a week. Some *Ledger* reporters said they have no time or desire to seek out their metrics results.

- Role of digital specialists. Some other aspects of daily operational structure and custom also help to account for differences in how determinations of newsworthiness occur at each news outlet. Neither outlet's chief digital specialist assigns stories, but *The Herald's* more frequently makes content recommendations than *The Ledger's*, who focuses on offering insight into quantified results. Communications between the chief digital specialist and other staff can take place at any time, but *The Herald's* specialist has more structured opportunities to influence news decisions. By choice, *The Ledger's* chief digital specialist is not present at the Monday one-on-one reporter/editor story planning conferences; he is present at the daily editors' budget meeting, but reporters do not attend that meeting. *The Herald's* chief digital specialist attends both daily planning meetings, including the morning session that reporters also attend.

- Internal competition. The frequent presence of quantified rankings of published story performance leads some *Herald* reporters to feel a sense of ego and friendly competition with fellow reporters, according to several interviews. "If I write a story and it is not the most-read thing on the website at some point of its life, then I might consider that story to have underperformed," one said. Despite some occasional bragging at *The Ledger*, that sense is far more muted there, with one staff member saying that a spot on Page 1A of the newspaper is more coveted by most of the writers than the top spot on the list of most-read online stories. This offers another probable reason that metrics play a larger role in story selection at *The Herald*.

■ The presence of print. Another reason that *The Ledger*, and to a lesser degree *The Herald*, believes that digital measurements should not exclusively dictate newsworthiness is the existence of a print-consuming audience that is not represented in those measurements. Although *The Herald* makes different display decisions for its newspaper than for its website, *The Herald* is more willing than *The Ledger* to conceive of the online audience as reasonably representative of its whole audience, or at least sufficiently so to assign certain stories based on the perceived interests of online audience. While several *Herald* interviewees cited some low-metrics topics that continue to be produced to cater to the print audience, such as a specialty column on local fine arts, it was clear from interviews and observation that *The Ledger's* print audience constantly gets as much consideration as, if not more than, its online audience in story decisions. "I do everything here primarily for the print audience," one reporter said. Underlying *The Ledger's* attention to its newspaper is its widely shared view that its print audience differs in nature from its online audience. *Ledger* staff offered varying conceptions of how the print audience differs from the one online: older, more free time, more thoughtful and less interested in sensationalism, and less affluent. This audience, they generally believe, has less desire or more limited ability to obtain news online. "Clicks reflect how many people are reading a story online," one reporter said. "But I don't think it reflects how many people in the community are reading the story." A manager added: "We're not quite to the point of being willing to assume hits are a conclusive gauge to reader interest."

The factors noted to this point seek to explain differences between the news organizations in their evaluations of publication possibilities. But other factors create similarity, especially in situations where *Herald* journalists de-emphasize numbers. These factors take shape as management-driven and journalist-driven norms. Despite the clearly different degrees of value

and usage attached to audience metrics, the top editors at both news organizations said they intend to establish a system and a climate that do not lead to staff obsession with numbers. *The Ledger's* said he tries to convey to staff that good journalism is the top priority and he believes that too much emphasis on views and on volume might lead to "turning them into robots." Even *The Ledger's* primary digital specialist offered: "I don't want people getting all worked up over the numbers." *The Herald's* top editor said: "Metrics are not the be-all, end-all and I will tell you that sometimes there are some reporters who don't get that and they become too obsessed with the metrics. But I see that and just like I can coach them to pay attention to it, I can coach them and say, 'You're paying attention to the wrong thing. You need to stop worrying about the fact that you had 30,000 page views and (another reporter) had 80,000.' ... It's not meant to judge a reporter's value. Shame on me if reporters feel more pressure than they should." The top editors may be drawing the line of balance in different spots, and indeed some *Herald* reporters expressed some distress over where that outlet has drawn its line. "I get frustrated with the focus on metrics sometimes," one said. "I'm pretty cynical. ... It gets under my skin sometimes the focus (among reporters) on metrics rather than more conversations about the craft." Another said, "I've seen some (past) reporters look at (metric results) and get depressed. ... It would affect their mood." Nonetheless, the top editors seek to leave space to pursue important stories regardless of numerical consequences. Data collection indeed showed, at both locations, the application of abstract news judgment to assess the civic importance of topics, and the freedom to then pursue meritorious topics.

Fueling the desire to do so was a belief in and commitment to the traditional professional norm of civic duty throughout the newsroom hierarchy of both organizations. News workers in both organizations referred to an obligation to serve their community and to provide information

that their community needs to know. A *Herald* journalist, talking about spending time on stories that draw a small audience, offered a frequent theme: “It’s our responsibility as a community source. There’s a balance between doing what’s right and what gets you numbers.” There is less balancing at *The Ledger*. A reporter there, asked about a pending government story of predictably low metrics, said he was pursuing it because “it’s what people need to know.” Another journalist there downplayed the value of popularity: “I don’t want to be BuzzFeed. That’s not our job.”

## CONCLUSION AND DISCUSSION

This qualitative, comparative case study of two news organizations with digital platforms, using data collected through observation, interviews, questionnaires, documents and content assessment, showed that differences in degree of use of audience metrics – in content creation and as a desired post-publication outcome – led to differences in the nature of news content and in the nature of determinations of newsworthiness. A greater emphasis on metrics led one organization (*The Heavy Metrics Herald*) toward a lower percentage of civic issue stories, less story depth, a better understanding of online traffic creation, greater use of text and ideas from public relations professionals, and less use of traditional journalistic abstract knowledge to determine newsworthiness. Numerous processes and influences contribute to this. They begin with choice of platform emphasis, with *The Light Metrics Ledger* oriented more toward print and *The Herald* oriented more toward digital. *Ledger* planning sessions focus primarily on working toward strong print lineups, with key centerpiece spots filled daily and extra depth for Sunday. Reporters there write with print in mind, conceptualizing an audience separate and different from digital consumers. *The Herald's* print-oriented planning is prevalent but not as consistently dominant, with more concern for frequency and flow of new, effective content to post and attract a web audience. This choice requires *The Herald*, usually, to focus more than *The Ledger* on content of mass appeal and on digital volume.

The focus on mass appeal is enabled and encouraged by the wealth of past and current metric results made available to *Herald* staff, such as personal dashboards and daily reports, and

by public displays of priorities, such as newsroom monitors and discussions at group story meetings. One indication of those results over time is that, despite significant exceptions, a focus on civic and public issue topics does not maximize audience. Further, the presence of so much analytic information implicitly carries the management expectation that such information should be used in decision making. This is understood by staff, and underscored more explicitly by criteria for written job evaluations. With the expectation of use comes the expectation of at least some degree of productive results. *Herald* reporters have minimum page-view goals and also know that management tracks their numbers. Even though management has since discontinued this, veteran reporters are not far removed from a process of management meetings to set escalating page-view targets. In sum, availability of data, combined with manager expectations of use and results, and aided by a significant advisory role of the chief digital specialist, cause quantification to often work in tandem with – and thus to some degree reduce the weight of – professional news judgment in determining subjects for pursuit and publication at *The Herald*, especially in deciding follow-up articles. This is the case far less frequently at *The Ledger*, where analytics information is displayed and disseminated more sparsely, neither page-view quotas nor targets exist, metric performance is absent from written job reviews, and the chief digital specialist plays a more informational role.

In addition to content of broad appeal, the other key focus more prevalent at *The Herald* than at *The Ledger* – post volume – helps lead to relatively less story depth (measured by number of sources per story) and more (though still rare) gravitation toward public relations offerings. No formal volume requirement for posts (or for print stories) exists at either news organization, but an expectation of a higher post rate emerges at *The Herald*, reflected in staff comments about a need to “feed the beast.” This expectation arises in several ways, including a more proactive

digital desk, an online-oriented story deadline, and a general understanding born from knowledge and experience that establishing a noticeable pattern of freshly posted material is vital to attracting repeat visits. This situation, at times, causes *Herald* staff to post stories with fewer sources compared to *The Ledger* and to consider use of public relations material to help fill voids in their own generation – voids that may be caused by difficulties with pending stories or a desire to work on more time-consuming, long-range pieces. The informal expectation of post rate is less at *The Ledger*. Supervisor emails and verbal requests for new, quick content are more occasional, there's much less demand for video, and there's more understanding that time gaps, including throughout weekends, will happen. Another fundamental reason for the finding of more sources in *Ledger* articles than in *Herald* articles relates again to the platform of focus for each. Despite *The Ledger's* desire to feed its website, its online stories are mainly stories written for print that follow the editor's print rule of at least two sources.

*The Herald's* greater emphasis on metrics also has the effect of making its staff more expert than most of *The Ledger's* at knowing topics and methods that draw audience. This comes from attention to past results and guidance from the digital desk. The incentives to develop expertise are a mix of desiring widely consumed journalism and seeking to meet company expectations to incorporate analytics into newsroom practices and produce results. This expertise carries significant implications, because it enables an overall track record of escalating metric success. With audience at a generally sufficient level and directional trend to satisfy corporate and local manager objectives – notwithstanding some metric categories targeted for improvement as well as a need to continue upward trends – *Herald* journalists are more easily able to tackle important, issue-related subjects that make less contribution to audience gain.

Pursuing such stories reflects, crucially, a commitment to the traditional journalistic norm of civic duty, which was found among journalists throughout the hierarchy of the *Herald* newsroom, serving to reduce the differences between the two study organizations in prevalence of civic issue stories, story depth, and use of abstract knowledge to determine newsworthiness. It lessened or even eliminated the influence of metrics on stories deemed by journalists' abstract knowledge to carry civic importance. The exercise of this norm was allowed, in part, by success in meeting metric goals, which created time and acceptance for pursuing low-metrics topics as part of the content mix. *Herald* reporters, operating without oppressive upper numerical targets, feel the freedom to propose such stories. They can see from metrics made available to them how they stand at a particular moment in cumulative page views (or another category) in comparison to other time periods, and so they can assess their pace toward achieving their typical (or higher than typical) measurements. They can therefore judge the remaining available time for potentially low-metrics work. If their pace toward satisfactory metric results appears too slow, and the remaining available time for issue work forecasts as too little, the developed skill of finding quick yet enticing content can help to ease those problems. (Some reporters feel no need to repeatedly check their cumulative numbers; they have confidence that the nature of their beat or the quality of their topic choices will assuredly produce good totals over time.) When reporters propose potentially low-audience stories (and editors propose them, too), the touchstone opportunities for editors to approve, reject or amend reporters' ideas are individual story conferences and group budget meetings. Editors, believing that attention to metrics is part of newsroom culture and supported by a general upward trend of numbers, feel safe in allowing and even encouraging such work to happen. At witnessed budget meetings and conferences, editor-reporter discussions focused on story merits and approaches, not anticipated traffic. Most

commonly, execution of approved, issue-oriented journalism is juggled with other kinds of work. Reporters usually carve this space within the work hours of a day or week. For the highest-priority topics, editors seek to grant blocks of time, leaving other staff members to supply the desired metrics. In sum, *Herald* journalists value and seek to practice the traditional norm of civic duty to report on important community issues; journalists' ability to achieve metric success is a key mechanism that helps journalists sustain the practice of "civic duty" journalism.

### **Implications for theory**

Several of the findings are consistent with what one of the study's underlying theories, Resource Dependency Theory, would predict. RDT says that an organization faced with environmental uncertainty due to an unpredictable inflow of a needed resource will take steps to make availability of that resource more certain. With its choice to emphasize web metrics, *The Heavy Metrics Herald* has developed the know-how to generate inflow of a needed resource – namely, a growing digital audience. This entails creating a certain kind of outgoing resource – namely, a volume of appealing online stories. This is consistent with the findings that, at least compared to *The Ledger*, *The Herald* produced more stories, with less representation of civic and public issues, and less story depth. Easier internal production of a needed outgoing resource is another tenet of RDT.

With these steps, *The Herald* has achieved metric success that reduces its environmental uncertainty about its needed incoming resource of traffic and other digital activity. In a more certain and predictable environment, it becomes possible to eliminate potentially stressful page view goals and still feel resource secure, as was the case with *The Herald*. Further, although this actually may be easier with specific page view goals or quotas in place, it becomes possible in a

predictable environment to gauge the time and personnel commitment necessary to ensure adequate inflow. Then, it becomes possible to devote other time to important enterprise work that, with some exceptions, does not contribute to audience growth as much as some other kinds of content would.

*The Ledger*, meanwhile, is also trying to ensure the incoming resource of an expanding digital audience, but has had less success than *The Herald*. If economic uncertainty for *The Ledger* mounts to a certain point, it may find, as posited by RDT, that it must make more changes to reduce that uncertainty.

Applying this study's other underlying theory, System of Professions, the findings of *The Herald's* relatively greater use of public relations offerings and its relatively lesser degree of professional judgment in assessing the news worth of stories suggest a potential eroding of distinctive journalistic roles. But that interpretation gets overwhelmed by the evidence of *The Herald's* regular use of professional judgment to identify and then produce stories about civic and public issues, with little concern for mass appeal. Even in its pursuit of audience, *The Herald* does not abandon its abstract knowledge base. News decisions, though, are not necessarily based on a binary choice of numbers or abstract knowledge. System of Professions suggests that a profession can co-opt a new kind of knowledge base to use along with its abstract thinking. Indeed, news workers at *The Herald* and, to a lesser degree, at *The Ledger* use analytics and professional news judgment in tandem. Where the preponderance of weight falls depends on the organization and circumstances of particular stories. A tandem approach has the potential to strengthen journalism by making its chosen subjects not only important to community but relevant to audience, and by aiding in impactful presentation. Even if decision makers apply reduced traditional news judgment to make way for a role of quantification, the resulting

journalism remains professionally distinctive, and erosion of control over customary work is mitigated. Even as *The Herald* embraces metric knowledge as a basis for news decisions, it appears that in its community, the organization is not yielding its specialized and distinctive civic role to other professions.

## **Limitations**

This study has limitations, some that are inherent in qualitative case studies and some that are particular to this study. A study period of longer than five days, and selection of different case study organizations possibly would alter findings. There would be value to similar studies involving larger newsrooms and in different geographies. Ownership matters, too. This study's selection of non-matching generic ownership types – one a public, national chain; the other family owned – may have helped to create the essential disparity in the independent variable of degree of emphasis on metrics. But it is presumably possible to find a similar disparity between organizations even while holding generic ownership type constant. Controlling for ownership type would benefit future studies. The potential influence of ownership on content results, however, goes beyond its generic type. More directly relevant to content results are more-specific factors such as the degree to which ownership connects financial success to achievement of rising metric measurements, the attainability of such measurements, and the degree of tolerance for falling short. A publicly owned news organization, with shareholders to consider, likely would be more demanding in this area than one that is privately owned. Nonetheless, degrees of difference in the extent of such demands can exist even within the same generic category of ownership structure. Managers at *The Herald* stated that, although their public

corporation expects upward trends in major categories of metrics, it has not given them specific numbers that they must meet. Other public corporations do circulate numbers to meet.

Other limitations to recognize are the inherently interpretative nature of much of the gathered evidence – primarily by observation and interviews – and the potential that the subjects who were observed and interviewed altered their behavior and answers because of the presence of a researcher. The chances that behavior and answers were altered toward traditional and conventional professional ideals may have been raised by the respondents’ knowledge that the researcher was previously a veteran professional journalist, a fact shared with respondents to gain research access and to help establish rapport. It should be noted, though, that two subjects at each site were asked in the confidential interviews whether behavior during the research week differed from daily norms; all said no.

Finally, the results of this qualitative case study cannot be generalized beyond these two news outlets. Nonetheless, the hope is that the findings here at least point to important questions and possible consequences that journalism organizations and individual journalists can and should assess on their own.

### **Implications for journalism**

Many news organizations see a need for a large digital audience as both a financial imperative and an opportunity to more widely showcase their good work. In pursuing numbers, it is necessary to recognize potential impact on content.

Important, issue-oriented journalism can bring audience, especially if relevant to lives, rivetingly reported and written, and compellingly presented using the creative tools of digital platforms. Web metrics can play a guiding role in achieving this. But research literature and

evidence from this study indicate that such efforts do not maximize audience, especially in relation to the resource investment and the opportunity cost of not doing other, more popular kinds of stories that would not have required the same investment. This saddles organizations that value metrics and civic-minded journalism with a dilemma of often competing missions.

The more an organization decides to value its metrics mission over its civic mission, the more it must be aware of, and consider the ramifications of, possible effects on content, such as lowered representation of civic and public issue stories, less story depth, more concentration on volume, a wider avenue for the influence of public relations, and deference of professional news judgment to analytics reports. If the metrics mission overwhelms the other, there could be other content consequences, as well. Evidence from this study indicates that news and issues that touch non-affluent communities register more faintly than those affecting affluent areas. The news outlet in this study, *The Heavy Metrics Herald*, decided not to care about the difference. Would every organization make that same decision? It gives pause if even a few do not.

A journalism of speed, ease, softness and volume, and that bypasses socially important but narrow-interest topics, is likely unable to meet its civic obligations. But forces exist that push journalists, such as those in this study, toward the civic mission.

At *The Light Metrics Ledger* especially, the presence of a print product means longer, deeper sourced, more civic-focused stories that, to the minds of these writers and editors, better serve the entire community to which they feel obligated. But recently emerged news organizations have no print product, and someday, perhaps, neither will many legacy media.

The force not tied to any product is the traditional, deeply held journalistic value of civic duty, as was found at all levels of both newsrooms in this study. Practicing civic-mindedness is, to a degree, a matter of organizational will, or perhaps even of individual journalist will, though

that is challenging in the face of organizational obstacles. It is easier to practice if, somehow, the organization finds ways to meet its necessary business considerations at the same time. Page view goals and other metric requirements have the benefit of defining those business needs and allowing news organizations to divide their journalistic resources in the necessary proportion toward their two missions. The division is possible in different ways: Civic work by a designated subset of staff or by portions of time from all staff. The potential problem, though, is that it would be possible to snuff out the civic component entirely if numerical targets are onerous or if the reward for attainment is not civic opportunity but rather a demand for even higher numerical achievement next year. Production volume quotas can have this effect, too. At *The Herald*, managers set ascending metric goals long enough to break some mindsets, achieve some numerical success and ingrain a pattern of metric use. Then the goals faded away, creating time and tolerance, to some degree, for stories that they and reporters believe need to be done. Managers in some news organizations may not have the corporate freedom or financial health to ease up. This could leave reporters straining for opportunities to pursue small-audience stories in which they see value, or not even trying. One reporter in this study said that in a previous newsroom where he worked, he would not even consider any story that he thought would receive fewer than 10,000 page views.

For journalists who continue to juggle the metrics and civic missions, some practices observed in this study may seem uncomfortable, but enticing, in the quest to write meaningful stories irrespective of numerical results. Are one-source stories, standards-stretching clickbait and public relations releases tolerable if they help meet volume and metric expectations and free up time for enterprise? As one reporter in this study remarked, most any story, even ones like these, will carry at least some value for someone somewhere.

At *The Herald* and *The Ledger*, reporters and editors make civic service reporting a regular, even if minority, part of their story lineups. The content review of selected posted stories during the study period showed each produced the same number of stories classified as about civic and public issues. By this measure alone, each is serving its community equally well. (The additional measure of prevalence of sources in civic and public issue stories, which showed a disparity, tempers that conclusion of equal service.) As a percentage of all stories that were assessed, civic and public issue stories comprised 25 percent of *The Herald's* work and 33 percent of *The Ledger's* work. For newsrooms of this size, that is not a great difference. But such a difference, if applied to larger operations and compounded over time, would become a notable divergence in civic service reporting, and even more so if paired with the disparity in source representation that was found in this study. Further, how far might the percentage of this type of story fall at metrics-focused news organizations that lack *The Herald's* degree of commitment to the professional norm of civic duty?

As quantification in journalism continues to spread, as new journalists enter the field, and as financial troubles remain unresolved, the fair question is how strong the commitment to civic duty will remain. Each news outlet will draw its own line between the missions of civic service and acquisition of web metrics. The point here is not to claim that any particular demarcation is best, although a balance that slides to near either extreme seems unwise. The point here is that an organization's choice of balance affects its content in certain ways. Journalists must be aware of the effects, assess them, and decide whether they can live with them, and take action if they cannot.

## REFERENCES

- Abbott, A. (1988). *The system of professions: An essay on the division of expert labor*. Chicago: University of Chicago Press.
- Agarwal, S. D., & Barthel, M. L. (2015). The friendly barbarians: Professional norms and work routines of online journalists in the United States. *Journalism*, 16(3), 376-391.  
doi:10.1177/1464884913511565
- Alliance for Audited Media. (2016, November 22). Daily newspaper circulation database. Retrieved from [auditedmedia.com](http://auditedmedia.com).
- American Society of News Editors. (2015, July 28). Retrieved from <http://www.asne.org>.
- Anderson, C. W. (2011a). Between creative and quantified audiences: Web metrics and changing patterns of newswork in local US newsrooms. *Journalism*, 12(5), 550-566.  
doi:10.1177/1464884911402451
- Anderson, C. W. (2011b). Deliberative, agonistic, and algorithmic audiences: Journalism's vision of its public in an age of audience transparency. *International Journal Of Communication*, (5), 529-547.
- Anderson, C. W. (2014). The sociology of the professions and the problem of journalism education. *Radical Teacher*, (99), 62-68.
- Berger, J. (2013). *Contagious: Why things catch on*. New York: Simon & Schuster.
- Boczkowski, P. J., & Peer, L. (2011). The choice gap: The divergent online news preferences of journalists and consumers. *Journal Of Communication*, 61(5), 857-876.  
doi:10.1111/j.1460-2466.2011.01582.x
- Bright, J., & Nicholls, T. (2014). The life and death of political news: Measuring the impact of the audience agenda using online data. *Social Science Computer Review*, 32(2), 170-181.
- Bureau of Labor Statistics. (2015, March 25). National occupational employment and wage estimates. Retrieved from <http://www.bls.gov>.
- Casciaro, T., & Piskorski, M. J. (2005). Power imbalance, mutual dependence, and constraint absorption: A closer look at resource dependence theory. *Administrative Science Quarterly*, 50(2), 167-199.

- Davis, G., & Cobb, J.A. (2009). Resource dependency theory: Past and future. In *Stanford's Organization Theory Renaissance, 1970-2000 (Research in the Sociology of Organizations, Vol. 28)*. Published online: March 9, 2015; 21-42.
- Espeland, W. N., & Stevens, M. L. (1998). Commensuration as a social process. *Annual Review of Sociology*, 313-343.
- Gans, H. (2004). *Deciding what's news: A study of CBS Evening News, NBC Nightly News, Newsweek, and Time* (25th anniversary edition ed.). Evanston, ILL.: Northwestern University Press.
- Gladney, G. (2013). Giving Readers What They Want or Need? In *Media Issues: Point/Counterpoint* (pp. 207-224). Northport, AL: Vision Press.
- Habermas, J., & McCarthy, T. (1987). Intermediate reflections: System and lifeworld. In *The theory of communicative action* (Vol. 2). Boston: Beacon Press.
- Harcup, T. (2014). *A dictionary of journalism*. Oxford University Press.  
doi:10.1093/acref/9780199646241.013.0272
- Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource dependence theory: A review. *Journal Of Management*, 35(6), 1404-1427. doi:10.1177/0149206309343469
- Hindman, M. (2011). Less of the same: Local news on the Internet. Federal Communications Commission report, Washington, D.C.: U.S. Government Printing Office.
- Jackson, P. T. (2009). News as a contested commodity: A clash of capitalist and journalistic imperatives. *Journal Of Mass Media Ethics*, 24(2/3), 146-163.  
doi:10.1080/08900520902905349
- Jacobson, S. (2013). Does audience participation on Facebook influence the news agenda? A case study of The Rachel Maddow Show. *Journal Of Broadcasting & Electronic Media*, 57(3), 338-355. doi:10.1080/08838151.2013.816706
- Jenner, M. & Tandoc Jr., E.C. (2013, November 14). Newsroom using web metrics to evaluate staff, guide editorial decisions. *Reynolds Journalism Institute*. Retrieved from <http://www.rjionline.org>.
- Lauterer, J. (2000). *Community journalism: The personal approach* (2<sup>nd</sup> ed.). Iowa City, IA.: Iowa State University Press.
- Lee, A. M., Lewis, S. C., & Powers, M. (2014). Audience clicks and news placement: A study of time-lagged influence in online journalism. *Communication Research*, 41(4), 505-530.  
doi:10.1177/0093650212467031

- Lee, A. M. & Chyi, H. I. (2014). When newsworthy is not noteworthy: Examining the value of news from the audience's perspective. *Journalism Studies*, 15(6), 807–820. doi: 10.1080/1461670X.2013.841369
- Lewis, J., Williams, A., & Franklin, B. (2008). Four rumours and an explanation: A political economic account of journalists' changing newsgathering and reporting practices. *Journalism Practice*, 2(1), 27-45. doi:10.1080/17512780701768493
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA.: Sage Publications.
- Lowrey, W., & Anderson, W. B. (2006). The impact of Internet use on the public perception of physicians: A perspective from the sociology of professions literature. *Health Communication*, 19(2), 125-131. doi:10.1207/s15327027hc1902\_4
- Lowrey, W., & Mackay, J. (2008). Journalism and blogging: A test of a model of occupational competition. *Journalism Practice*, 2(1), 64-81.
- Lowrey, W. (2009). Institutional roadblocks: Assessing journalism's response to changing audiences. In Z. Papacharissi (Ed.), *Journalism and citizenship: New agendas* (pp. 44-67). Mahwah, NJ: Lawrence Erlbaum.
- Lowrey, W., & Wan Woo, C. (2010). The news organization in uncertain times: Business or institution?. *Journalism And Mass Communication Quarterly*, 87(1), 41-61.
- Lowrey, W., & Gade, P. J. (2011). Complexity, uncertainty, and journalistic change. In *Changing the news: The forces shaping journalism in uncertain times* (pp. 3-21). New York, NY: Routledge.
- Lowrey, W. (2012). Journalism innovation and the ecology of news production: institutional tendencies. *Journalism & Communication Monographs*, (4), 214-287.
- Macnamara, J., (2008). *Journalism and PR: Beyond myths and stereotypes to transparency and management in the public interest*. Speech presented to the Public Relations Institute of Australia, Sydney, Australia.
- Macnamara, J., (2016). The Continuing Convergence of Journalism and PR: New Insights for Ethical Practice From a Three-County Study of Senior Practitioners. *Journalism & Mass Communication Quarterly*, 93(1), 118-141.
- March, J., & Simon, H. (1958). *Organizations*. New York: Wiley.
- MacGregor, P. (2007). Tracking the online audience. *Journalism Studies*, 8(2), 280-298. doi:10.1080/146167006011488

- MacGregor, P. (2013). Rational reflections: An illustrative examination of news Web sites in two countries as workers reach towards digitally mediated changes. *First Monday*, 18(9). doi:10.5210/fm.v18i9.4621
- Mesh, A. (2014, March 23). With quotas and incentive pay, *The Oregonian* is again reshaping its experience for readers. *Willamette Week*. Retrieved from <http://www.wweek.com>.
- Meyer, P. (2009). *The vanishing newspaper: Saving journalism in the information age* (2nd ed.). Columbia, MO.: University of Missouri Press.
- Mitchell, A. (2014, March 26). State of the news media. *Pew Research Center*. Retrieved from <http://www.journalism.org>.
- Napoli, P. M. (2012). Audience evolution and the future of audience research. *The International Journal on Media Management*, 14(2), 79-97. doi: 10.1080/14241277.2012.675753
- Nguyen, A. (2012). The effect of soft news on public attachment to the news. *Journalism Studies*, 13(5/6), 706-717. doi:10.1080/1461670X.2012.664318
- Nilson, L. B. (1979). An application of the occupational 'uncertainty principle' to the professions. *Social Problems*, 26(5), 570-579.
- Paterson, C. (2008). Why ethnography? In *Making online news: The ethnography of new media production* (pp. 1-10). New York: Peter Lang.
- Pfeffer, J., & Salancik, G. R. (2003). Preface. *The external control of organizations: A resource dependence perspective*. Redwood City, Calif.: Stanford University Press.
- Picard, R. (2011). *The economics and financing of media companies* (2nd ed.). New York, N.Y.: Fordham University Press.
- Picard, R. (March, 2015). Remarks to Media Sociology students, University of Alabama, Tuscaloosa, AL.
- Picard, R. (March, 2015). Remarks to Contemporary Issues students, University of Alabama, Tuscaloosa, AL.
- Prior, M. (2007, July 16). The real media divide. [www.washingtonpost.com](http://www.washingtonpost.com)
- Reich, Z. (2010). Measuring the impact of PR on published news in increasingly fragmented news environments. *Journalism Studies*, 11(6), 799-816. doi:10.1080/14616701003760550
- Reinardy, S. (2010). Downsizing effects on personnel: The case of layoff survivors in U.S. newspapers. *Journal Of Media Business Studies (Journal Of Media Business Studies)*, 7(4), 1-19.

- Reinemann, C., Stanyer, J., Scherr, S., & Legnante, G. (2012). Hard and soft news: A review of concepts, operationalizations and key findings. *Journalism*, *13*(2), 221-239. doi:10.1177/1464884911427803
- Robinson, S. (2011). Convergence crises: News work and news space in the digitally transforming newsroom. *Journal of Communication* *61*(6): 1122–1141.
- Sallot, L. M., & Johnson, E. A. (2006). Investigating relationships between journalists and public relations practitioners: Working together to set, frame and build the public agenda, 1991–2004. *Public Relations Review*, *32*, 151-159. doi:10.1016/j.pubrev.2006.02.008
- Schlesinger, P., & Doyle, G. (2015). From organizational crisis to multi-platform salvation? Creative destruction and the recomposition of news media. *Journalism*, *16*(3), 305-323. doi:10.1177/1464884914530223
- Simmons, C. (2012). Will you be on our board of directors? We need help: media corporations, environmental change, and resource dependency theory. *Journalism & Mass Communication Quarterly*, (1), 55-72.
- Singer, J. B. (2011). Community service: Editor pride and user preference on local newspaper websites. *Journalism Practice*, *5*(6), 623-642. doi:10.1080/17512786.2011.601938
- Tandoc, E. C., (2014a). Why web analytics click. *Journalism Studies*. doi:10.1080/1461670X.2014.946309
- Tandoc, E. C. (2014b). Journalism is twerking? How web analytics is changing the process of gatekeeping. *New Media & Society*, *16*(4), 559-575. doi:10.1177/1461444814530541
- Tolbert, P. S. (1990). The system of professions: An essay on the division of expert labor (Review of book by same name). *Administrative Science Quarterly*, *35*(2), 410-413.
- Tuchman, G. (1972). Objectivity as strategic ritual: An examination of newsmen's notions of objectivity. *American Journal of Sociology*, *77*(4), 660-679.
- Tuten, T. (2009). Case studies and field observations. In *Research methods in communication* (pp. 265-271). Northport AL: Vision Press.
- Usher, N. (2013). Al Jazeera English Online. *Digital Journalism*, (1)3, 335-351.
- Vu, H. T. (2014). The online audience as gatekeeper: The influence of reader metrics on news editorial selection. *Journalism*, *15*(8), 1094-1110. doi:10.1177/1464884913504259
- Weber, M., & Knight, F. (1927). *General economic history*. Glencoe, ILL: The Free Press.
- Wimmer, R., & Dominick, J. (2011). *Mass media research: An introduction* (9th ed.). Boston, Mass.: Wadsworth Pub.

Yin, R. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, Calif.: Sage Publications.

Zamith, R. (2015). *Editorial judgment in an age of data: How audience analytics and metrics are influencing the placement of news products* (Ph.D. dissertation). Retrieved from [conservancy.umn.edu](http://conservancy.umn.edu).

## APPENDICES

### **Appendix A: Questions for semi-structured interviews**

#### **For non-policy personnel**

##### **General**

1. What is your role in the newsroom?
2. How long have you been a professional journalist here or elsewhere?
3. (For reporters) What stories are you working on right now?
4. (For reporters) Where did the story idea(s) originate?
5. (For reporters) Why are you doing this story (these stories)?

##### **RQ1: Civic and public issues**

6. How would you describe the adequacy of coverage of important civic and public issues by your organization?
7. What factors determine how much coverage goes to important civic and public issues?
8. What influence, if any, does the organization's desire for online audience traffic have on coverage of civic and public issues? Can you describe how this influence works?
9. In general, what level of metrics do civic and public issue stories receive?
10. Post-publication, how do you judge if an issue story was worth the time?
11. How does management judge this?

## **RQ2: Story depth**

12. Do reporters have sufficient time to develop stories as fully as you believe they should be?

Why or why not?

13. What factors determine the length of a digital story?

14. What expectations, if any, does management convey regarding digital story length, and if so how are those expectations conveyed?

15. What influence, if any, does the organization's desire for online audience traffic have on story depth? Can you describe how this influence works?

## **RQ3: Concept of best content to draw web traffic**

16. What kind or kinds of content generate the highest audience metrics on your website and social media? What is your evidence of that?

17. Has management identified a kind of content that it believes best generates web and social traffic and if so how is that message conveyed to you?

18. What is the single most important audience metric (website or social) that you hope to generate for a piece of content, and why is it most important?

19. Has management identified its most sought-after metric and if so how is that message conveyed to you?

## **RQ4: Influence of public relations**

20. How would you describe your organization's expectations regarding the volume of content that must be produced? How are those expectations conveyed to you?

21. Is it easy or difficult to meet those expectations? Why?

22. Where and how do you get story ideas?

23. How often do you pursue story ideas or tips from public relations or media relations professionals, and in those instances what were the reasons you chose to do so?

24. How often do you use news releases and other copy from public relations or media relations professionals? In those instances what were the reasons you chose to do so?

**RQ5: Use of abstract knowledge (professional news judgment)**

25. What factors determine whether you will choose to pursue a story or not?

26. Are you aware of story topics and coverage areas that have a history of generating high digital traffic?

27. From where and how often do you get this metric information?

28. How often, if ever, do you write (or assign) a story solely or primarily for page views? Why?

29. How often, if ever, do you write (or assign) a story that you know will get low traffic? Why?

**For policy personnel**

**RQ1: Civic issues**

1. What are your organization's most important coverage priorities?

2. How does upper management convey those priorities to staff?

3. How would you describe the adequacy of coverage of important civic and public issues by your organization?

4. What influence, if any, does the organization's desire for online audience traffic have on coverage of civic and public issues? Can you describe how this influence works?

5. What issue enterprise stories, if any, does the newsroom have in the works now?
6. Post-publication, how do you judge if an issue story was worth the time?

**RQ2: Story depth**

7. What kinds of story topics are worth long-term time investments by your reporters?
8. What, if any, examples of this can you offer?
9. Does upper management have any rules or expectations about story lengths on digital platforms?
10. What influence, if any, does the organization's desire for online audience traffic have on story depth? Can you describe how this influence works?

**RQ3: Concept of best content to draw web traffic**

11. What kind or kinds of content generate the highest audience metrics on your website and social media? What is your evidence of that?
12. In what ways, if any, has upper management conveyed to the staff the importance of producing this kind of metrics-generating content?
13. What is the single most important audience metric (website or social) that you hope to generate with your staff's digital content, and why is it most important?
14. In what ways, if any, has upper management conveyed the importance of this metric to staff?

**RQ4: Influence of public relations**

15. Does upper management have any rules or expectations regarding how much volume of content particular staff members must produce?

16. If so, how are those expectations conveyed to staff?
17. Does upper management have any rules or expectations regarding how frequently new content must appear on digital platforms? If so, what are they?
18. To what degree, if any, has your organization had to reduce its content-producing staff in the past several years?

**RQ5: Use of abstract knowledge (professional news judgment)**

19. What factors determine whether your newsroom deems a story worth pursuing or not?
20. More specifically, what role, if any, do past digital metrics and/or predicted metrics play in deciding whether your organization will pursue a particular story?
21. How much attention do you pay to past digital metric results and patterns?
22. To what extent do you expect staff to also pay attention to these?
23. How often, if ever, do reporters pursue a story solely or primarily for page views? Why?
24. How often, if ever, do reporters pursue a story that you know will get low traffic? Why?
25. What role, if any, do metrics play in evaluating reporter job performance?

## Appendix B: Written questionnaire for newsroom

Your job role (please check the most appropriate role):

- Reporter  
 Frontline/assigning editor or producer  
 Managing/policy editor or director  
 Digital analyst or specialist  
 Other \_\_\_\_\_

PLEASE CAREFULLY READ EACH OF THE FOLLOWING STATEMENTS AND CIRCLE YOUR AGREEMENT OR DISAGREEMENT WITH EACH:

1. *I am usually aware of story topics and coverage areas that have a history of generating high web traffic numbers.*

Strongly disagree    Disagree    Neither agree nor disagree    Agree    Strongly agree

2. *Expected low web traffic numbers will not stop me from pursuing a story that has community benefit.*

Strongly disagree    Disagree    Neither agree nor disagree    Agree    Strongly agree

3. *I am not inclined to pursue a story if I think it will generate low web traffic numbers.*

Strongly disagree    Disagree    Neither agree nor disagree    Agree    Strongly agree

4. *Watchdog reporting is emphasized in this news organization.*

Strongly disagree    Disagree    Neither agree nor disagree    Agree    Strongly agree

5. *Reporting on public issues is emphasized in this news organization.*

Strongly disagree    Disagree    Neither agree nor disagree    Agree    Strongly agree

6. *Producing stories that gain reader clicks is emphasized in this news organization.*

Strongly disagree    Disagree    Neither agree nor disagree    Agree    Strongly agree

7. *Management prefers longer stories over shorter ones.*

Strongly disagree    Disagree    Neither agree  
nor disagree    Agree    Strongly agree

8. *Too many of our stories have too few sources in them.*

Strongly disagree    Disagree    Neither agree  
nor disagree    Agree    Strongly agree

9. *I usually have time to fully develop my stories and write them well.*

Strongly disagree    Disagree    Neither agree  
nor disagree    Agree    Strongly agree

10. *The volume of content I must produce is increasing.*

Strongly disagree    Disagree    Neither agree  
nor disagree    Agree    Strongly agree

11. *I rarely use news releases or other copy from public relations or media relations professionals.*

Strongly disagree    Disagree    Neither agree  
nor disagree    Agree    Strongly agree

12. *I rarely use story ideas or tips from public relations or media relations professionals.*

Strongly disagree    Disagree    Neither agree  
nor disagree    Agree    Strongly agree

PLEASE WRITE ANSWERS OF ANY LENGTH

13. Describe the kind(s) of content that generates the highest audience metrics on your website and social media.

14. What is the single most important audience metric (website or social) that you hope to generate for a piece of your content?

## Appendix C: Institutional Review Board approval

April 13, 2016

Tom Arenberg  
Dept. of Journalism  
CCIS  
Box 870172

Re: IRB#: 16-OR-155 "Impact of Web Metrics on News Decisions"

Dear Mr. Arenberg:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

Your application will expire on April 11, 2017. If your research will continue beyond this date, complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, complete the appropriate portions of the IRB Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent forms to provide to your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

Carpantato T. Miles, MSM, CIM, CIP  
Director & Research Compliance Officer