Automating judgment?  
Algorithmic judgment, news knowledge, and journalistic professionalism

Matt Carlson  
Saint Louis University, USA

Abstract  
Journalistic judgment is both a central and fraught function of journalism. The privileging of objectivity norms and the externalization of newsworthiness in discourses about journalism leave little room for the legitimation of journalists’ subjective judgment. This tension has become more apparent in the digital news era due to the growing use of algorithms in automated news distribution and production. This article argues that algorithmic judgment should be considered distinct from journalists’ professional judgment. Algorithmic judgment presents a fundamental challenge to news judgment based on the twin beliefs that human subjectivity is inherently suspect and in need of replacement, while algorithms are inherently objective and in need of implementation. The supplanting of human judgment with algorithmic judgment has significant consequences for both the shape of news and its legitimating discourses.

Keywords  
Algorithms, authority, automated journalism, journalism, judgment, knowledge, news, professionalism

Introduction  
The three terms contained in the title of this article—judgment, knowledge, and professionalism—each cover considerable scholarly ground such that explaining their meanings and interrelationships is no easy feat. One strategy is not to begin with a frontal
assault on their conceptual properties but to enter through the side door of a particular artifact—a computer science journal article titled “A front-page news-selection algorithm based on topic modelling using raw text” (Toraman and Can, 2015). The authors, both computer scientists, devise an algorithm that selects and orders news articles for the front page of a Web site based on article content instead of article meta-data or user information. Their algorithm culls through a set of texts, identifies recurrent topics to determine importance, and delivers a finite list of stories ranked by importance.

This algorithmic intervention may be lauded for its inventiveness from a computer science standpoint, but what does it offer journalism? Toraman and Can address this question in the opening paragraph:

The front page of a news aggregator, like Google News or Yahoo! News, is the showcase where readers expect to see significant news articles. With human-editor-based news aggregators, the burden of reading several news articles and selecting important ones is a challenging task. Editors may select worthless news unintentionally, or even according to their own points of view. As a result, intelligent algorithms that allow news aggregators to process news and select significant ones, need to be developed. (p. 676)

The problem here is presented explicitly: human editors, faced with the daunting task of news selection, may err either in picking news stories of a “worthless” character or by purposely manipulating news selection through subjective preferences. News selection practices relying on human choices are deficient, and the lack of further explication suggests the argument’s prima facie correctness. Once clearly articulated, the problem of human selection becomes a warrant supporting the ceding of news selection to algorithmic selection.

It may be obscure, but the importance of this example lies in its embedded assumptions about human and algorithmic qualities. The Toraman and Can article offers a glimpse into contemporary understandings of journalism through an extremely distilled argument supporting the development of news algorithms and their implementation by news organizations. Looked at from a broader perspective, such discourse lauding the benefits of news selection algorithms presents a technological solution to what has long been considered a professional problem: the organization of the messy world into a coherent, meaningful, and legitimated array of news texts (Carlson, 2017a; Barnhurst and Nerone, 2001; Schudson, 1995). For journalists, such judgment has always been both a central and fraught function that exposes them to criticism for the choices they make. Yet the development of news algorithms places new pressures on journalistic judgment due to assumptions about the limits of human subjectivity.

This article draws from the growing scrutiny of algorithmic practices in informational contexts (Gillespie, 2014) to look holistically at how algorithms affect core understandings of journalism as a social practice (Anderson, 2013). The focus is not on individual journalistic practices but how practices are embedded within shifting discourses concerning the thorny issue of journalistic judgment. Borrowing from the dictum James W. Carey (2009) applied to the telegraph, the growing role of algorithms within news production and distribution will be considered “a thing to think with, an agency for the alteration of ideas” (p. 157). Carey had the benefit of hindsight in his historical inquiry,
but we have no such luxury given the rapidly changing technological environment. This makes critical inquiry not only difficult but also urgent given the impact of algorithmic practices on the epistemic premises that legitimate journalism.

This article proceeds by first examining existing systemic constraints that render subjective judgment a difficult topic for journalism. Judgment here refers primarily to the decisions affecting story selection and placement (as distinct from judgments within the initial newsgathering stage). It then shifts to how algorithmic practices affect understandings of journalistic judgment and the implications these developments hold for journalism. Next, a brief example of fake news popping up in Facebook’s Trending Topics demonstrates the fallibility of algorithmic judgment. The conclusion considers social consequences accompanying changing knowledge practices and conceptions of newsworthiness.

**Constraints on journalistic judgment**

Everyday newwork is fundamentally about making judgments. Journalists decide what information is useful or irrelevant, what stories should be included or excluded, what framing should be implemented or avoided, and how stories should be emphasized or deemphasized. These judgments produce news texts that, as a form of knowledge, represent the world to audiences. Yet even as judgment is inextricable from newwork, journalistic judgment proves problematic when moving outward to the normative discourses that legitimate journalistic knowledge and the context in which the news is made and circulated. This section examines three constraints on journalistic judgment. First, journalists espousing tenets of professionalism to legitimate their work are simultaneously hindered by weak boundaries. Second, journalistic judgment is made manifest in the creation of news texts as knowledge, but journalists’ non-esoteric knowledge practices invite scrutiny. Third, a realist bias and commitments to objectivity undercut the subjective intentionality of story selection and ordering.

**The boundaries of professional journalism**

Professionalism entails the control of specific domains of knowledge by a demarcated community. Professional knowledge combines the esoteric with the inherently practical in allowing those in the profession to utilize their knowledge to act on the world. Professionals draw on knowledge, and the reputational authority they accrue, to make judgments. They combine the objective and the subjective by applying learned knowledge to professionally valid interpretations. This is highly contextual as professional authority can only sustain judgment within particular situations under particular conditions (Lincoln, 1994: 11). The legitimation of professional judgment requires what Audi (1998: 298) calls an institutionalized “epistemic promise” of societal benefit and not merely the aggrandizement of the professional.

It is tempting to place the professional judgment of journalists alongside other professions. Journalists possess distinct role conceptions, shared codes of ethics, and a sense of which practices are appropriate or not (Hanitzsch, 2007). In doing so, they differentiate themselves as a particular group with an epistemic responsibility to generate knowledge
for others. This argument for professional status is normative. As Kovach and Rosenstiel (2001) write in their influential *The Elements of Journalism*, “Journalism provides something unique to a culture: independent, reliable, accurate, and comprehensive information that citizens require to be free” (p. 3). Journalistic work becomes essential to civil society. Yet discourses of professionalism place journalistic judgment on uneasy ground. Journalism has never attained the clear-cut boundaries associated with professional status. Journalists, in the United States and many other nations, lack the mandatory educational requirements, credentialing practices, interpersonal encounters, legal protections, and esoteric knowledge that mark off the classic professions. The lack of boundary-patrolling apparatuses problematizes journalistic professionalism (Lewis, 2012; Schudson and Anderson, 2009; Waisbord, 2013) and even suggests alternative collective formations, such as a craft (Kimball, 1965). Definitional ambiguities and porous boundaries render “journalism” a slippery term indicating many things, including an activity, a narrative form, and a set of epistemological beliefs (Waisbord, 2013). The journalistic field, if such a thing coherently exists (Ryfe, 2013:140), contains both variety and competition. As a category of labor, the occupation of journalist has both a well-defined center of full-time, compensated employees—the reporter, most iconically—and an amorphous boundary of actors whose status as journalists engenders partial or contested recognition. Journalism is at once competitively selective and open to all-comers. This ambiguity arises through uncertain roles and disagreement over nontraditional news forms.

The heterogenization of news forms and practices arising with digital media further strains claims to professionalism (Robinson, 2007; Singer, 2003). Previously, the expense of mass communication infrastructures acted as a boundary mechanism restricting access to who could speak publicly through media. Relatively inexpensive digital media technologies alter this barrier and usher in new dynamics of participation. Lewis (2012) goes beyond surface change to usefully posit a divide between the professional logic informing traditional journalism and the participatory logic informing a collection of practices regularly labeled “citizen journalism.” While these two logics co-exist, they offer fundamentally incommensurate arguments for their authority (p. 838). This is not to denigrate the expansion of mediated voices, but instead to question how these dynamics shape arguments legitimating news as a veridical discourse.

What this ambiguity indicates is that professionalism alone cannot validate journalistic judgment and protect journalists’ jurisdictional claims (Abbott, 1988). With the boundaries of journalism remaining porous and malleable in the digital news era, closing ranks to draw on the protection afforded by professionalism seems less likely. This situation affects how journalists form themselves into groups as well as the news texts they create.

**Journalistic knowledge practices**

A second constraint on journalistic judgment involves journalism’s knowledge practices. When professions became powerful social grouping at the end of the 19th century, their authority derived not from coercive power but from what Weber (2009) calls “the exercise of control on the basis of knowledge” (p. 339). Control over knowledge—who may produce it, what forms it may take, and who may consume it—is paramount for
constructing boundaries and establishing legitimacy. Professionals possess “epistemic authority” (Gieryn, 1999: 1) by virtue of their command and control over the specific knowledge associated with a profession and their ability to separate themselves from outsiders (Marvin, 1988) to ensure “cognitive exclusivity” (Macdonald, 1995: 184). Professional judgment converts specialized knowledge into actionable discourse (Abbott, 1988). While journalists possess special skills to create news, the emphasis on creating prosaic forms of mediated expression accessible to a wide audience differs from the specialized knowledge of other professions (Carlson, 2017a).

Although writing in an era of newspaper domination, Park’s (1940) argument that news is a distinct form of knowledge from formal knowledge-producing disciplines retains its insightfulness. Park emphasizes its social function as something akin to “acquaintance with” the world, “[performing] somewhat the same functions for the public that perception does for the individual man; that is to say, it does not so much inform as orient the public, giving each and all notice as to what is going on” (p. 677). The key to Park’s definition is the opposition between individual perception and news as a form of public perception. News knowledge is intended for wide consumption; it is an inherently shared discourse comprising “a public document” (p. 679). This view of knowledge diverges from the restricted knowledge discourses of other professions. News is a form of knowledge not because it is a tightly controlled discourse, at least textually, but because it informs the public what has occurred and why this matters. News knowledge succeeds in being understood and unifying. While journalistic knowledge cannot be assumed to be homogeneous in the digital era (Nielsen, 2017) and a more conversational paradigm has emerged (Marchionni, 2013), the stress on news as mundane knowledge endures.

Judgments involved in journalistic knowledge practices do get noticed, as evidenced by the regular public scrutiny journalists encounter. Journalism’s lack of a restricted discourse coupled with assertions about its social importance opens up news stories to criticism. Certainly other professions attract criticism in aggregate ways, but the restrictiveness of professional knowledge to outside scrutiny limits such critiques to intentions (e.g. lawyers or doctors as greedy). Journalists too receive scrutiny regarding their intentions (e.g. journalists as political biased or status-seeking), but they are also routinely attacked for decisions concerning framing choices, story placement, and omissions. Put differently, the judgments required to create journalistic knowledge—news—forever expose journalism to critique. Schudson’s (1978: 9) observation that journalism is “an uninsulated profession” is nowhere more evident than the copious criticism heaped upon news coverage and journalists (Carlson, 2009). Moreover, journalists’ defense of their judgments is undermined by an emphasis on the external qualities of newsworthiness rather than subjective choices.

The externalization of newsworthiness

A third constraint focuses more narrowly on justifications of newsworthiness or how journalists select, craft, and order individual stories into the finite arrangement of texts constituting “the news.” At an operational level, the institutionalized and systematic application of journalistic judgment has been most fully explored through the literature
on gatekeeping. This research predominantly conceptualizes institutional, cultural, and psychological factors affecting journalistic decision-making (Shoemaker and Vos, 2009). Yet news values are difficult to systematize or universalize (O’Neill and Harcup, 2009). Past decisions provide guidance (Tuchman, 1978), but news selection often falls to a “gut feeling” that, while ambiguous, is the product of learned orthodoxy (Schultz, 2007). The production of news knowledge combines tacit elements of professional judgment with an acknowledgment of the importance of this judgment to journalistic authority.

The prominence of objectivity within journalism’s legitimating discourse further constrains professional judgment (Maras, 2013). As an ideal, objectivity removes the subjectivity of the journalist from her selection and depiction of events. Normatively, the journalist responds to external events, follows professional training to cover it, and represents it as faithfully as possible to the audience. Putting aside critiques, objectivity has become the marker of professional news and inscribed within the standardization of journalistic conventions (Schudson, 1978; Schudson and Anderson, 2009). As a discourse, objectivity externalizes newsworthiness by emphasizing the quality of an event over the journalist’s judgment. Journalists make decisions, but they lack a normative defense of decision-making as a subjective act (the exception would be analysts, columnists, and editorial-writers tasked with rendering judgments, but the degree to which they are contrasted with standard news only exacerbates this divide).

Fink and Schudson (2014) demonstrate the lack of a professional defense of judgment in research showing the transformation of newspaper reporting from primarily descriptive accounts to more interpretive ones they label “contextual reporting.” The journalist increasingly moves beyond factual recitation to evaluate these facts. As widespread as this change has been, Fink and Schudson argue that this has occurred without significant attention within journalism and without a concomitant shift in journalism’s normative language. This is not to argue that other normative alternatives are absent, as journalists recognize the need to innovate ethically and normatively (see McBride and Rosenstiel, 2013). But it does suggest the lasting power of objectivity at the center of the journalistic imagination—its “occupational ideology” (Deuze, 2015)—and the normative arguments supporting journalism.

Newsworthiness as a particular form of professional journalistic judgment faces new constraints with digital news platforms. The “gut feeling” mode of journalistic judgment now coexists with audience metrics as another set of inputs for making decisions about news inclusion and placement (Lee et al., 2014). Journalists balance competing interests (Karlsson and Clerwall, 2013) and risk autonomy (Anderson, 2011). Discrepancies between the news decisions of journalists and the appetites of audiences are now demonstrable through analyzing consumption data (Boczkowski and Mitchelstein, 2013). Journalists are learning to labor in an environment where reporters’ work can be individually quantified or editors’ selections checked against traffic patterns (see Anderson, 2011; Tandoc, 2015; Usher, 2013). Given the difficulty of generating revenue through digital news, these metrics take on added importance.

Despite a lack of normative support for professional judgment, journalists’ decisions shape the social world for their audiences. Journalists’ internalized models of social importance have become so ingrained as to render routine the micro-decisions leading to the assembly of news. Newsroom disagreements occur, but they remain constrained
within a commonly accepted paradigm. When crystallized into the mass circulated news product, news selection decisions presume a singular, universal ranking of relative importance. For Schudson (1995), journalists are “moral amplifiers and organizers” who adhere to a “hierarchy of moral salience” (p. 21). Similarly, Barnhurst and Nerone (2001) equate the purposive ordering of newspaper stories with creating a social map that communicates not just what happened but the relevant importance of any happening vis-à-vis others. This language may seem alien or antithetical within the journalistic normative discourse that governs journalists’ understandings of their professional responsibility to the public. Nonetheless, it is important to recognize the ways in which judgment persists across newswork, particularly as algorithms take on these decisions.

### The growth of algorithmic judgment

Algorithms can also be analyzed for their judgment-rendering capacity. They respond to an inquiry by following a preprogrammed set of procedures to generate a specific result. As decision-making, output-based technologies, algorithms are increasingly deployed in every domain of the modern knowledge economy and are often lauded for efficiently taming the tide of information and making mass personalization possible (Steiner, 2012). Yet the increasing use of algorithms to order information raises critical questions about the underlying assumptions of this technology and its effect on information distribution (Gillespie, 2014). Critics call for algorithmic accountability to increase awareness and counter the proprietary opacity that hides algorithmic influence (Diakopoulos, 2015; Pasquale, 2015; Sandvig et al., 2014). Taken together, a mix of optimism and apprehension surrounds the rapidly changing sociotechnical conditions that enable algorithmic judgment.

At the outset, the agency of algorithms must be carefully situated. Materially, algorithms are bits of code that only have meaning when deployed within a specific context. They are not isolated deterministic actors but an inextricable component within a network of communicative practices that includes economic, institutional, and increasingly legal and ethical issues. Ananny (2016) captures this complexity:

> Algorithms do not simply accelerate commerce, journalism, finance, or other domains—they are a discourse and culture of knowledge that is simultaneously social and technological, structuring how information is produced, surfaced, made sense of, seen as legitimate, and ascribed public significance. (p. 98)

This emphasis on the cultural and institutional embeddedness of algorithms dispels treating them either as mere tools that further already entrenched practices and existing power structures or as possessing an agency that is independent or a priori of the forces governing their creation and use. Instead, we should follow Ananny’s call to locate algorithms within the sociotechnical assemblages in which they exist in practice. These assemblages include institutional workings, but, more to the point of this article, they also indicate justificatory rhetoric to legitimate their knowledge structures vis-à-vis existing knowledge structures.

This section follows Anderson’s (2013) call to interrogate the cultural and social consequences of news algorithms by asking what it means when judgments once reserved
for professional journalists become the product of algorithms. It begins by exploring the growing usage of algorithms to select, distribute, and author news texts. The transference of human journalistic judgment to algorithms is driven by organizational needs for speed, efficiency, and cost-effectiveness and also entails a normative reimagining of judgment. The second part disentangles algorithmic judgment from journalistic judgment associated with the professional logic of journalism. Algorithmic judgment is not merely an extension of existing journalistic logic but distinct and transformative in its own way.

**Algorithmic news practices**

Algorithms make possible journalistic practices that would not be feasible based on human labor alone. Algorithmic systems help news sites determine quality reader comments (Park et al., 2016), find important stories on social media platforms (Thurman et al., 2016), and use data sets to generate stories (Gray et al., 2012; Karlsen and Stavelin, 2014). This technological change has been accompanied by institutional change, such as the collaboration between journalists and technologists (Usher, 2016). In these examples, the melding of human and algorithmic labor is one of mutuality as the assets of both are brought to bear on the production of news. However, this article attends to algorithmic applications within domains of journalistic practice previously residing in the sphere of deliberate human activity.

The launch of Google News in 2002 marked a visible incursion of algorithmic judgment in the space of human editorial judgment. An engineer’s side project morphed into a standalone service that assembled a hierarchical list of stories from across a wide array of news organizations. Google News made headlines for pages that arranged news stories from a variety of topics without human editors. Top stories became the product of the search algorithm instead of human judgment. The site quickly drew concern, condemnation, and occasional ridicule from journalists (Carlson, 2007), but Google steadfastly argued its algorithmically ordered and personally customized news pages served users.

The shift from professional decisions of newsworthiness to algorithmic ones is uneven, becoming most visible in digital spaces lacking an older, curated model of mass communication. Twitter and Facebook provide good examples. Both social media platforms confront a tension between providing an unfiltered flow of content and adding systems to corral, contain, and order this flow to make it manageable—and increase user engagement. Neither are inherently news sites, although both are increasingly important to news consumption, particularly among younger news consumers (Barthel et al., 2015). They both use algorithms to prioritize content—trending topics on Twitter or personalized news feeds for Facebook.

Algorithmic judgment also appears within news sites. Most prominently, recommendation engines analyzed past behaviors and demonstrated preferences to construct lists of potentially relevant stories on digital news sites (Hindman, 2012; Thorson, 2008; Thurman, 2011). These recommendations aim to keep users active to increase page views and advertisement impressions. The *Washington Post* has aggressively built recommendations into its mobile platform to keep users active (Wang, 2016). Personalized lists of stories rendered by a recommendation engine directly diverge from hierarchical home pages determined by journalists.
Beyond ordering and recommendation functions, algorithms increasingly produce news stories through automated journalism that eschews human authors beyond the initial programming (Carlson, 2015; Graefe, 2016; Lokot and Diakopoulos, 2015). Advances in artificial intelligence and natural language processing have produced commercially available services that convert data into publishable stories. This shift threatens already precarious journalistic labor (Van Dalen, 2012), but the technology’s creators argue that it only extends the total universe of available news stories by reducing the cost of producing a unique story to near-zero. But it also reconfigures how journalism is conceived. News has always been finite due to labor constraints (journalists can only produce so many stories) and space constraints (news products, whether print or broadcast, could only contain so much news). The economic constraints of journalism have always doubled as a means of supporting its professional logic of selecting only what is deemed important. News selection is a meaningful interpretive act guided by constraints on resources more so than on a limit of actual happenings. Automated journalism upends these conventions by multiplying the number of available stories well beyond present limits. This expansion of stories necessarily reduces the odds that any single story will be read. They cannot all claim our attention (which, of course, requires ordering algorithms to promote stories that may be individually interesting). This is a markedly different idea of what news is than what has been expressed in the professional logic discussed above.

This is just a snapshot of the growing use of algorithms to produce and distribute news. Each mode has its own intricacies that deserve attention, and together they indicate the growth of algorithmic judgment within journalism. These developments are heralded for personalizing news consumption, and automation promises a larger overall pool of news. Economically, they increase online traffic and create loyalty while pushing journalism beyond a pre-digital mass communication model. It is also clear that algorithmic practices spawn new potentialities that extend how news can be imagined. Algorithmic news judgment alters how existing modes of judgment are understood.

Untangling algorithmic judgment from journalistic judgment

Theorizing how the particularity of news algorithms affects journalistic judgment begins with returning to the constraints professionalism, knowledge, and newsworthiness place on journalistic judgment. At first glance, algorithmic news distribution and production practices may seem to be an outgrowth or extension of professional journalistic logic and knowledge practices. Both algorithms and professionalism support their claims to authority through the language of rationality and objectivity. These values take on meaning when activated by practitioners as normative assumptions that guide informational practices. For example, the normative commitments of professional journalism rely on broader democratic norms privileging a rational actor model that portray news as a form of information provision allowing for self-governance and good citizenship (Schudson, 1998). Information algorithms are connected to a similar logic. Just as proponents support the social utility of search engines through discourses of democratizing access to information (Halavais, 2009), news selection algorithms are encased in beliefs that algorithms aid news consumers by providing easy—and often automated—access to relevant news. Furthermore, journalists use algorithms in purposive ways; decisions of how to
program and utilize algorithms inscribe the technology with existing professional logic. Indeed, creators of news algorithms, such as Toraman and Can (2015) in the introductory anecdote, suggest a strong allegiance with the decision-making processes of journalists.

However much they overlap, it would be a mistake to assume that algorithmic judgment is only the extension or mechanical instantiation of professionalized journalistic decision-making. News selection algorithms are not simply the handmaidens of existing journalistic thinking. They possess their own logics and are used with different purposes to order and distribute information. These differences matter for what they indicate about journalistic judgment. Grouping news algorithms with professional journalism avoids confronting journalism as a practice of human judgment that creates a particular kind of social knowledge about the world through interactions with a variety of actors. This argument requires careful attention to how algorithmic judgment transforms news knowledge and newsworthiness.

The first step in recognizing how news algorithms affect the judgments that create journalistic knowledge is to untangle overlapping discourses concerning objectivity. Journalism is a knowledge-producing activity that follows a set of procedures to produce news based on an internalized understanding of what news knowledge ought to look like, how it ought to be produced, and who ought to produce it (Schudson and Anderson, 2009). In this view, objectivity’s place in journalism is both paradigmatic and fraught. It can be described as an epistemic strategy to legitimate news texts, a stance journalists adopt to create distance from sources, and a mode of representation that offloads journalists’ responsibility to others (Hackett, 1984; Tuchman, 1972). As an ideal, objectivity positions journalists to be unsituated and detached observers, made possible through a devotion to the mechanics of professional journalism. In practice, journalists are always situated within a socially stratified society (Eason, 1986). Moreover, objectivity encounters pushback from postmodern and poststructural conceptions of the contingency of knowledge (Zelizer, 2004). In the end, the suppression of human subjectivity in journalism’s legitimating discourses renders understandings of judgment incomplete.

By contrast, algorithms have their own knowledge logic with their own “specific presumptions about what knowledge is and how one should identify its most relevant components” (Gillespie, 2014: 168). Applying Gillespie’s question of “why algorithms are being looked to as a credible knowledge logic” (p. 191) to journalism requires careful attention to the emphasis on objectivity within discourses of algorithmic judgment. Because algorithms follow preselected procedures rather than in-the-moment judgments, they are bound up in what Gillespie calls the presumption of “algorithmic objectivity”—algorithms are neutral because they subject all input to the same procedures. This discourse of algorithmic objectivity connects to a larger cultural discourse that contrasts inherent human subjectivity with the unthinking automated objectivity of computer programs.

This contrast in knowledge production destabilizes arguments for journalistic authority when automated processes replace human processes closely linked to the professional identity of journalists. The opening argument presented by Toraman and Can (2015)—that journalists “may select worthless news unintentionally, or even according to their own points of view”—epitomizes this destabilization by suggesting that algorithms are superior at news selection because they overcome inherent biases and limitations. This same discourse accompanies Google’s lauding of Google News (Carlson, 2007) as well
as arguments supporting automated journalism (Carlson, 2015). If the ideal of journalistic knowledge production is objectivity, then news algorithms are positioned as its apotheosis.

A second area of journalistic judgment affected by news algorithms involves newsworthiness—chiefly in terms of story placement but increasingly also with story creation. The selection of news texts and their hierarchical placement relates back to the professional logic of journalists. An emphasis on public service aligns journalism with the autonomy and social status afforded to professions (Schudson, 1978) and also portrays journalism as an interpretive act bringing order to the chaotic world (Barnhurst and Nerone, 2001). While newsworthiness entails judgment, journalism’s norms proscribe subjectivity so that the external attributes of a story are held up as determining newsworthiness. Nonetheless, journalists’ judgments determine a universal (or at least geographically bound) array of stories—ideally, the authoritative accounting of society, distributed from the center outward according to the entrenched logic of mass communication (Hallin, 1992).

The knowledge logic underpinning algorithms shifts from one of shared importance to an individualized emphasis on personalized or segmented news based on users’ specific attributes and queries. The speed and customizability of algorithms allow this environment to flourish. Algorithmic judgment is scalable, down to the individual, while journalistic judgment is not. In this sense, algorithmically personalization is indifferent to the communal character that previously defined professional journalism (Thurman and Schifferes, 2012). This shift moves understandings of news audiences from an aggregate to individualized members (Anderson, 2011: 542). As a result, the question of “what deserves attention?” at the heart of the professional judgment of journalism shifts to a different, personalized query of “what does this person want?” This shift has both been long anticipated (Negroponte, 1996) and long a subject of concern (Sunstein, 2001). From traditional media effects’ questions of selective exposure to popular critiques of “filter bubbles” (Pariser, 2011), the segmentation or personalization of news generates new concerns (Thurman, 2011). News personalization should also be understood as a response to economic imperatives rather than normative ones, as the advertising industry pivots toward target marketing. While personalized content and advertisements make economic sense, this combination further hampers the collectivizing force of news (Couldry and Turow, 2014). In total, this shift represents a core departure from how journalism has been understood and cannot be contained as an extension of journalism’s professional logic.

These transformations in knowledge production and newsworthiness are not totalizing but mark the establishment of a hybrid news environment (Chadwick, 2013). The shift to digital platforms creates more spaces for algorithmic judgment to flourish. And whatever benefits algorithmic news practices provide, they are moving into spaces that were once the purposive interpretive labor of humans. At the same time, the professional logic of journalism, while legitimating news through normative commitments and concomitant procedures (Waisbord, 2013), constrains journalists through its lack of strong normative support for journalistic judgment as an active, subjective process—the work of humans. Given the discourses of objectivity surrounding automated computer processes, journalists must reevaluate how they legitimate judgment rather than suppress its centrality to news.
Algorithmic judgment and the problem of fake news

A public example of the contrast between human journalistic judgment and algorithmic judgment occurred in August 2016 with Facebook’s Trending Topics feature—a list of news topics being talked about across Facebook. Months earlier, the technology news site *Gizmodo* exposed the human–algorithmic hybrid practices behind Trending Topics (see Carlson, 2017b for more on this controversy). Accusations that human news curators intentionally suppressed conservative topics led to a backlash against Facebook for perceived liberal bias, prompting the site to apologize and investigate its own practices (which turned up no systematic bias). Facebook went a step further and eliminated its curation team after fully automating Trending Topics. The site justified this move in its newsroom blog (26 August 2016): “making these changes to the product allows our team to make fewer individual decisions about topics.” These actions reiterated two positions held by Facebook: first, news should be customized based on a variety of inputs to best engage its users. By heralding personalization, Facebook implies that newsworthiness is a personal preference realizable through algorithmic judgment rather than a collective attribute identified by human journalistic judgment. This leads into the second position that human subjectivity is inherently problematic both in terms of its prejudices and its inability to scale, which demands as a solution increased automation through putatively objective algorithms.

However, just days after automating Trending Topics, Fox News host Megyn Kelly became the top news topic with a link to a story titled “BREAKING: Fox News Exposes Traitor Megyn Kelly, Kicks Her Out For Backing Hillary,” from the Web site endingthedef.com (Ohlheiser, 2016a). The story was a baseless fabrication from a Web site that aggregates such outrageous stories from other sites. Yet it received over 200,000 likes, no doubt aided by its prominent position atop Trending Topics. It became a very visible example of the variety of “fake news” that Wardle (2017) labels “fabricated content”—news stories fabricated without any verifiable claims for the purposes of deception in order to do harm and/or to generate traffic.

The Megyn Kelly fake news story was met with derision by journalists. The *Atlantic*’s Robinson Meyer (2016) targeted the timing of the gaffe so soon after Facebook had eliminated its staff of human curators charged with preventing just such stories:

> [I]t’s a negative story because the company has primed users to expect—and also told them outright, just last week—that the stories that trend should be accurate. For an inaccurate story to trend so soon after all the experienced workers were fired? It prompts anyone who’s been on the wrong side of a corporate consultant’s Excel-driven downsizing to go: har, har, sob.

This comment returns to the political economy of social media and the imperative of keeping users engaged in order to sell advertising (which is also the imperative of sites that peddle fake news). But it also indicates the clumsiness of algorithmic judgment. On *Quartz*, Mike Murphy (2016) pointed to the timing of the story: “Just two days after Facebook laid off the entire editorial staff of its Trending news team, it seems the robots left in charge of making decisions have already been fooled.” This quote indicates that algorithmic judgment, in attempting to standardize selection criteria, leaves open the embarrassing possibility of savvy programmers gaming the system to spread false stories.
Shortly after the Megyn Kelly story, Facebook again drew condemnation for censoring the use of Nick Ut’s famous Vietnam picture known as “Napalm Girl.” The site had flagged the picture, which contains a naked girl escaping a napalm attack, as violating its standards (Levin, 2016). Another story purported to prove that the Twin Towers were felled by a controlled demolition by the government (Ohlheiser, 2016b). This contrast of allowing a fake story to spread while suppressing a newsworthy item raised concern over the power of Facebook’s algorithms to restrict and shape the circulation of news and ideas. The Guardian’s Sam Levin (2016) summed up Facebook’s power: “Facebook’s control over the news has become so vast that it could censor stories in ways that deeply threaten the free press.” This speaks to the power of Facebook to shape the informational diet of its billion and a half users.

In the face of algorithmic shortfalls, journalists and others called for a return to a human-influenced model. Fortune’s Mathew Ingram (2016) wrote, “maybe rather than pretending that the algorithm can do everything, the social network should try hiring some human editors again to help it spot a fake more quickly.” This was echoed by the University of Minnesota’s Jane Kirtley: “We surely need something more than just algorithms. We need people who are sentient beings who will actually stop and analyze these things” (quoted in Levin, 2016). Human judgment was lauded for its ability to sort out fake stories or undue censorship. There is an irony then in the failures of automated judgment being used to justify the virtues of human judgment. The pitfalls of automation encourage greater human involvement.

While a PR headache for Facebook, the Trending Topics controversy further indicates the social consequences of algorithmic judgment. Facebook’s rush to provide a customizable media space allows for the proliferation of untrue news stories. Yet they circulate in the same space as traditional news stories, leading to blurring of content that can be difficult to untangle. This is not to hold up human judgment as infallible, as the long history of erroneous news stories clearly demonstrates. Instead, this case situates different logics being deployed in the news ecosystem and raises questions about how they affect the distribution of factual information in a complex democracy.

Conclusion

One may question the degree to which news algorithms only crystallize the entrenched professional logic of journalism versus the extent to which they create a new logic. Is this a mythologized difference or a qualitative break from the past? This article has argued that algorithmic judgment is not merely an extension of journalism’s existing professional logic, but a novel assemblage comprising networks of actors, sets of practices to produce news, arguments for why this is a legitimate form of judgment, and assumptions about the types of knowledge that can be legitimated (Ananny, 2016).

The epistemic shift from journalistic judgment to algorithmic judgment is fraught with social consequences. Journalists legitimate their role as cultural producers of knowledge about the world through the authority relations they co-construct with others (Carlson, 2017a). As algorithmic applications increase, this whole system will adjust, altering modes of journalistic legitimacy, the shape of news knowledge, and societal expectations of journalism. Assumptions about the utility of algorithmic judgment are
already forming within discourses about algorithmic practices in journalism, particularly through discussions of algorithmic objectivity and the desirability of mass personalization. These developments raise questions about what news knowledge ought to look like and, therefore, how journalistic authority ought to function. Most visible is the shift in newsworthiness toward personalization. On an individual level, algorithmically derived personalization creates the necessary conditions for filter bubbles (Pariser, 2011) that limit access to diverse topics or disconfirming opinions. On a social level, this inhibits collective public outrage (Pettman, 2016), which makes difficult Park’s (1940: 678) definition of news knowledge as “the stuff which makes political action, as distinguished from other forms of collective behavior, possible.”

The social consequences of both journalistic and algorithmic judgment require reevaluation, but such rethinking is made more difficult by the excising of subjective judgment from journalism’s legitimating discourse. Algorithmic judgment further problematizes this omission through promises of the superiority of computational objectivity. Despite flaws in this assertion (Gillespie, 2014), belief in computational objectivity further conceals journalistic judgment as avoidable through the intervention of algorithms or it perpetuates a crisis of journalistic authority by foreclosing on the value of human subjectivity for journalistic accounts.

Developing a defense of journalistic judgment begins with acknowledging already occurring shifts. Newswriting has steadily moved from descriptive to interpretive (Fink and Schudson, 2014), which should reconfigure the arguments journalists make for their authority to not only represent the world but also make sense of it. This does not entail abandoning objectivity norms altogether, but recognizes and champions the intermeshing of objectivity and subjectivity inherent in professional judgment. For example, “transparency” is increasingly invoked as a normative underpinning for legitimating news (Vos and Craft, 2016). Transparency reveals to audiences how news stories come to be by opening up the processes behind their creation. This perspective reconfigures the journalist–audience relationship and supports an acknowledgment of subjective journalistic judgment while also allowing for its scrutiny. Transparency also provides a valuable check on the power of news algorithms within the information environment. Enhanced transparency confronts the authorial confusion of automated news processes (Montal and Reich, 2016) and reluctance over the disclosure of algorithmic processes (Diakopoulos and Koliska, 2016). It also increases sensitivity to effects of algorithms on ethics (Ananny, 2016), culture (Striphas, 2015), and epistemology (Parasie, 2015), among other topics.

Developing a critique and a response to ways in which discourses of algorithmic judgment affect thinking about journalism requires new perspectives. For journalists, technologists, and news audiences, this compels greater sensitivity to the distinctiveness of professional journalistic judgment and algorithmic decision-making. Most expressly, journalists need to forge new arguments for their cultural authority based on their active suitability to render thoughtful judgments. This may be anathema given the deep commitment to objectivity, but it is also increasingly necessary. For scholars, attention needs to focus on how algorithmic judgment alters news production, the institutional arrangements that govern algorithmic processes and their outputs, and the discursive legitimization of algorithmic judgment.
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**Author biography**

**Matt Carlson** is associate professor of communication at Saint Louis University, USA. His research examines the discursive struggles through which journalism comes to be defined and legitimated as a cultural practice, with a particular focus on the digital news environment.