LIVE BLOGGING — DIGITAL JOURNALISM'S PIVOTAL PLATFORM?
A case study of the production, consumption, and form of Live Blogs at Guardian.co.uk

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This article describes and analyses the production, consumption, and form of Live Blogs at a popular newspaper website and contributes to related debates in journalism studies. Qualitative research interviews with journalists and editors, a reader survey, content analysis, and web metrics were used to obtain data about production practices, product outcomes, and the consumption stage of the product lifecycle. The study finds that Live Blogs are a popular daily component of the news site, used increasingly to cover serious breaking news. Although rarely authored exclusively on location, they may utilise more original sources than traditional online hard news formats. Their frequent updates mean factual verification is cursory, but compensatory factors, including their attribution practices, contribute to a positive evaluation of their objectivity by readers. Live Blogs—with their timeliness, navigational simplicity, and bite-sized content units—suit readers' consumption of news in the workplace. Live Blogs may increase online news readers' interest in public-affairs content, and their inclination to participate. This study contradicts some existing scholarship on sourcing practices, content preferences, and immediacy in online news, while supporting the observation that news is increasingly consumed at work. It makes the novel suggestions that Live Blogging is uniquely suited to readers' at-work news consumption patterns and that the format provides journalists with a means to manage the competing demands of their elite and mass publics.

KEYWORDS   Content preferences; live blogs; news-at-work; objectivity; online journalism; sourcing practices; reader participation; verification

Introduction

Live Blogging is a synthesis of traditional journalism and contemporary digital technologies that is changing the way news is produced, presented, and consumed online. The format has been adopted by news publishers worldwide, including *The New York Times*, Al Jazeera, and the BBC. The Live Blogs that Britain's second most popular (Halliday 2011) newspaper website— Guardian.co.uk—publishes, receive more visitors for longer periods of time than conventional articles or picture galleries on the same subject.[1] It is increasingly the default format for covering major breaking news stories, sports events, and scheduled entertainment news. Guardian.co.uk alone publishes an average of 146 Live Blogs a month.[2] Despite the increasing prevalence of the format, the production, consumption, and material form of Live Blogs has been under researched.

Live Blogging combines conventional reporting with curation, where journalists sift and prioritise information from secondary sources and present it to the audience in close to real time, often incorporating their feedback. Beckett (2010) has suggested that the deployment of Live Blogging by mainstream news organisations demonstrates that news consumers have "an appetite

for a more complex form of coverage" during fast-moving, multidimensional news events, going as far as to call the format "the new online 'front page'" (3). At the same time, Live Blogging has been accused of being symptomatic of the "death of journalism" (Symes 2011). Commentators worry that the format is "causing information overload" (Anderson 2011) and lowering established standards of verification (Petrie 2011).

This study examines the production and form of Live Blogs at a single news website, Guardian.co.uk. The study also considers the consumption of the format, using a survey and web metrics to investigate readers' uses and perceptions of this emerging form of news presentation. The discussion situates the phenomenon in contemporary debates about journalism and analyses the opportunities and challenges it presents to the journalism profession.

Defining Live Blogging

Live Blogging differs fundamentally in style and substance from conventional news articles on the web. In Live Blogging, the emphasis is on the direct relaying of commentary and analysis as events are unfolding, rather than a written-through narrative constructed after the event using the conventional inverted pyramid structure. This study defines Live Blogging as:

> A single blog post on a specific topic to which time-stamped content is progressively added for a finite period—anywhere between half an hour and 24 hours.

While they are running, Live Blogs are usually presented in a reverse chronological order, with the latest update at the top. In common with conventional articles, Live Blogs often contain multimedia elements, such as audio and video, as well as still images and hypertext links. Live Blogs usually signpost third-party content transparently—citing sources and using block quotes—and flag corrections, explicitly highlighting mistakes (see figure 1). As this study will show, readers consume Live Blogs both live, as they are being updated, and post-hoc as an historical, archived account of how an event unfolded. A distinction should be made between Live and conventional blogging. Like a written-through article, a conventional blog post is composed and published in its entirety after the event, but, unlike a Live Blog, has no intrinsic mechanism for alerting the reader to changes as the story develops.

Live Blogging at Guardian.co.uk

Live Blogging has been used by Guardian.co.uk since 1999. However, for the first eight years its use was restricted mainly to live soccer and cricket coverage (Matthew Weaver, personal communication, 7 June 2011).[3] The London bombings of 7 July 2005 was one of the first news stories to be covered by Guardian.co.uk using the Live Blog format (McIntosh 2005). Since then the format has been used increasingly to cover serious and breaking news, political and cultural events, and TV programmes. The Live Blogs produced by Guardian.co.uk are not homogenous. Some are scheduled in advance to follow a planned and time-limited event, others are published quickly in reaction to breaking news and have no defined end-point. Taking account of their characteristics, rather than the audience they are aimed at, or the section of the site they appear in, this study found four distinct types of Live Blog at Guardian.co.uk: 'News', 'Sport', 'Series / Subject', and 'Other Scheduled Event' (see table 1).

Figure 1: A Live Blog at Guardian.co.uk, with some typical features highlighted (reproduced with permission of Guardian News & Media).

Summary headlines

Multimedia element

Informal tone

Transparent corrections

Date-stamped updates

Use of content from Twitter

Generous use of hyperlinks

3rd-party content signposted

Table 1: Typology of Live Blogs at Guardian.co.uk

Type	Characteristics
News	• Scheduled well in advance, semi-scheduled or completely unscheduled. • Major breaking news stories, generally with a more serious tone. • Examples include natural disasters, protests and riots, unfolding political scandals.
Sport	• Predictable • Casual in tone • High level of direct interaction with readers • Fewer multimedia elements • Links and multimedia elements often included for entertainment purposes, may not be directly relevant to story
Series / Subject	• Cover a subject, not a single story • Usually public affairs topics • Examples include: Politics Live, Middle East Live, and a Live Blog on planned reforms to Britain's National Health Service.
Other Scheduled Event	• Planned in advance and of finite duration. • Cover soft news, such as the Cannes film festival, the Eurovision Song Contest, and television series such as The Apprentice and X Factor, which are Live Blogged at the same time each week.

Figure 2: Aggregated hourly page view data for 10 Live Blogs at Guardian.co.uk, March-May 2011.
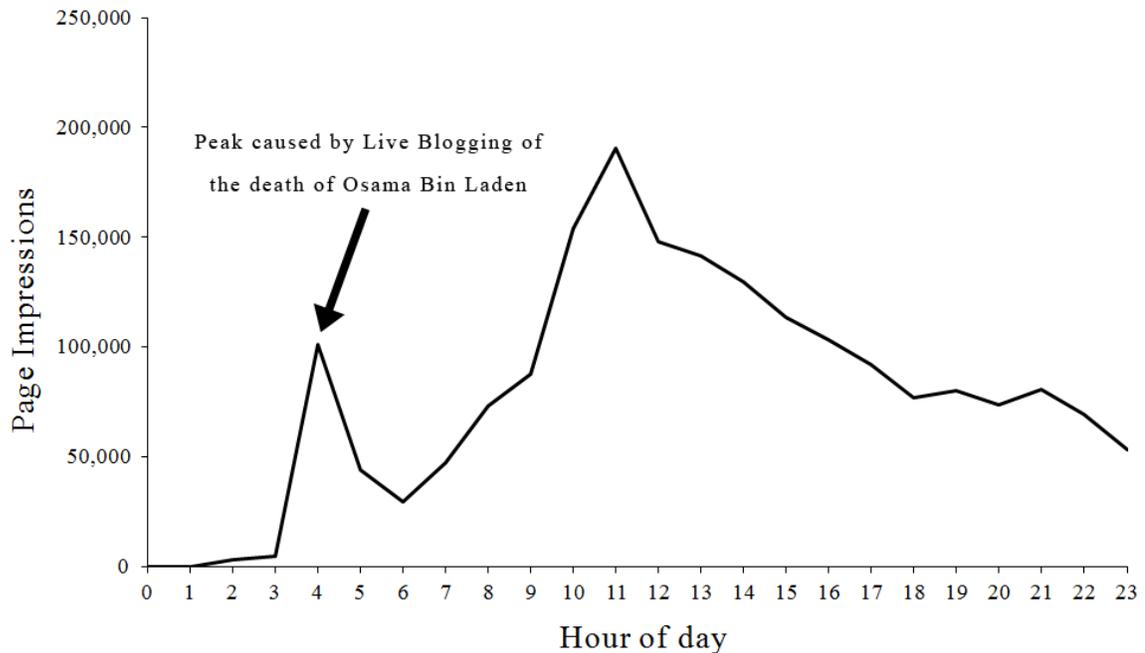
An analysis of Guardian.co.uk's web metrics reveals that Live Blogs are accessed primarily during office hours, their popularity peaking at 11a.m. (see figure 2). They often outperform other article types (such as picture galleries and written-through pieces) covering the same story. This study found that a sample of Live Blogs at Guardian.co.uk had median unique visitor numbers 233 per cent higher than conventional articles and 219 per cent higher than picture galleries on the same subject (see figure 3). They also outperformed articles in page view counts (by 300 per cent) and were only just behind picture galleries,[4] with 22 per cent fewer page views (see figure 4). This success suggests the Live Blogging format may become a more central aspect of online news production in the future, making it worthy of further investigation at this stage in its evolution.

Figure 3: Relative popularity—by unique visits and page views—of a selection of Live Blogs, articles, and picture galleries at Guardian.co.uk, March-May 2011.
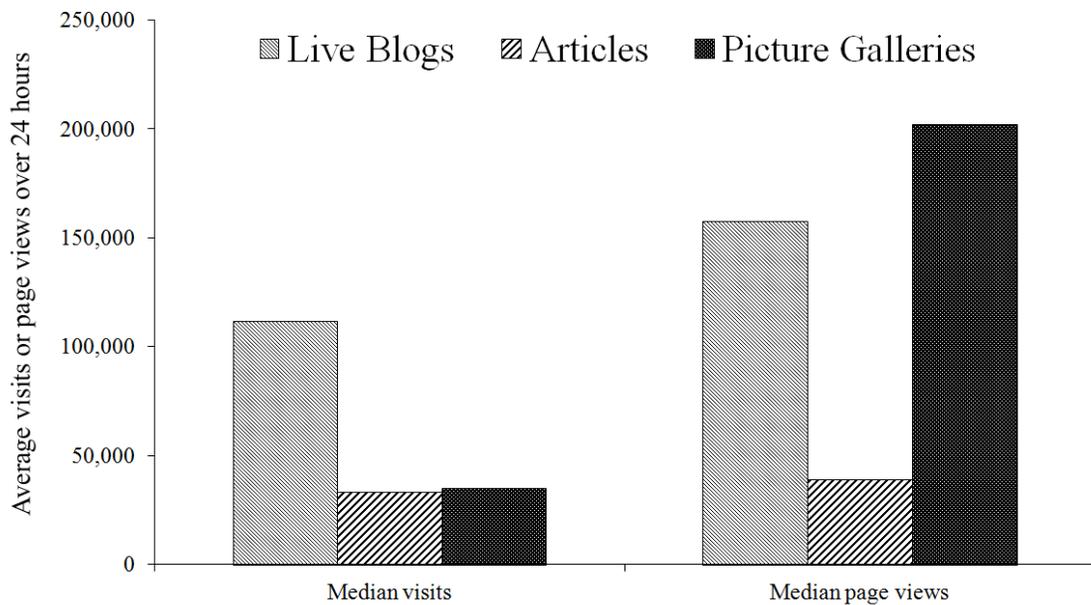
Note: Seven different news stories covered at Guardian.co.uk were analysed. For each, at least one Live Blog and at least one conventional article and / or picture gallery were selected at random, and usage tracked over a 24 hour period. A sample of 28 items (Live Blogs, picture galleries, and articles) was used to arrive at the averages presented in figures 3 and 4.

Figure 4: Comparison of time spent on a selection of Live Blogs, articles, and picture galleries at Guardian.co.uk, March-May 2011.
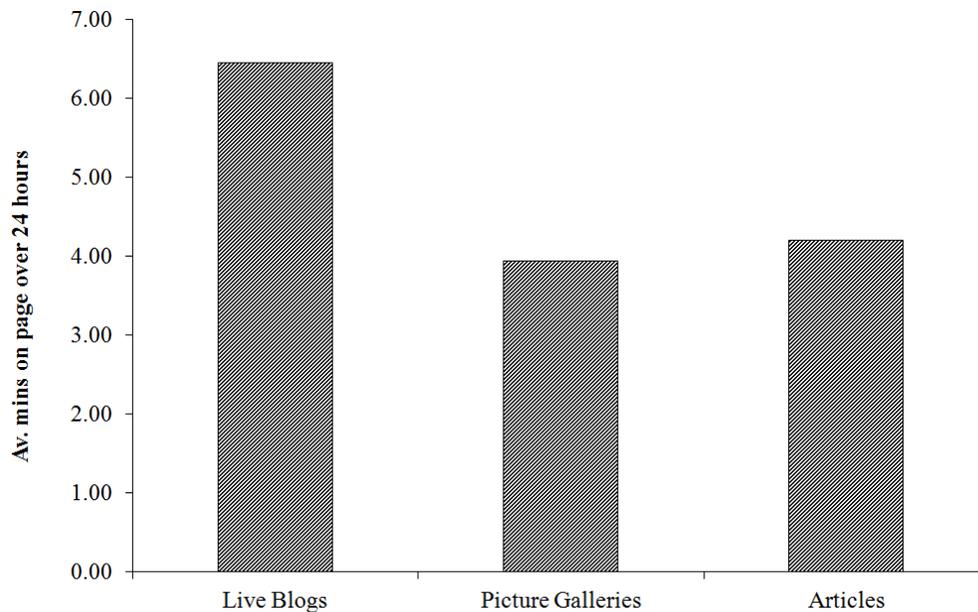
Although existing academic research into Live Blogging is virtually non-existent, this study contributes to a number of strands of research and debate within the field of journalism studies, in particular: our understanding of readers' news consumption behaviour, content preferences, levels of engagement and participation, and perceptions of media credibility; and journalists' production, selection, sourcing, and verification practices.

Consumption, Participation, Engagement, and Trust

The Live Blog is one of the few web-native news artefacts. Its growth, into a common format for online news, has happened in parallel with the displacement of news consumption from print to online, a trend that is altering where, when, how, and what news is accessed. As Boczkowski (2010 138) has shown, the office space has emerged "as a prime locus of news consumption for a significant proportion of those in the workforce". This news-at-work phenomenon is, Boczkowski (139) writes, "characterised by the emergence of novel features of online consumption". These can be summarised as:

- A comprehensive first visit to news sites, often early in the day.
- Subsequent visits, "often motivated by the need for a distraction or for more information after learning about an event" (123).
- A habit of monitoring news sites' homepages with readers often not "clicking on stories, especially during subsequent visits" (137).
- A preference for textual rather than aural, animated, or highly visual content due to the "privacy concerns" of readers who are "consuming news in the office ... when they are supposed to be [working]" (127).

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- A preference for "non public-affairs stories—in particular sports, crime, and celebrity subjects" (146), in part because they provide "better fodder for conversations with co-workers than the often more contentious topics presented in public affairs news" (153).

The emergence of the internet as a popular medium has not only changed news consumption patterns, it has also provided increasing opportunities for readers to contribute to news sites. The availability of such opportunities, as described by Thurman and Hermida (2010), has not, however, resulted in their widespread use by the public. A recent Pew (2010a) survey found that only 6.6 per cent of US adults had contributed an "to an online news site", and less than a fifth had ever commented on a news story or blog they had read online. Live Blogs offer a new context for participation, but there is little data on the extent to which readers participate with the format, or indeed how, and why.

Opinion surveys, at least in the US, show that about two thirds of the public express a consistent preference for "political news from sources that do not have a particular point of view" (Pew 2010b). Live Blogging, with its emphasis on curation rather than opinion, might meet such public preferences and help rebuild trust in newspapers, which lag behind radio, television, and the internet in public perceptions of reliability (Dutton and Blank 2011).

Journalists' Production, Selection, Sourcing, and Verification Practices

Production practices in online newsrooms have been changing in response to the news-at-work phenomenon for some time. For example, since 2004 the hard news division of Argentinian online newspaper Clarín.com has deliberately increased the "volume and frequency of publication", to the extent that 85 per cent of online stories are completed in less than 30 minutes and only 3 per cent take more than two hours (Boczkowski 2010, 37, 52, 169). There is evidence that the practice of journalism, in servicing such shortened publication cycles, is becoming more reliant on previously published sources. In their study of Finnish online-only newspaper, *Taloussanomat*, Thurman and Myllylahti (2009, 700) found that "80 per cent of the site's stories were based on news agency material or stories published in other newspapers or news sites", and that journalists were predominantly office-bound. Boczkowski's study of Clarín.com showed similar results, with only 4 per cent "of the story information used in hard news stories" (2010, 52) coming from sources other than previously published media reports. Studies have yet to investigate how very short publication cycles—every 10 minutes or so in the case of Live Blogs—affect online journalists' tendency to rely on previously published information, or their practices of verification.

Accuracy is a practice expected of, although not always delivered by, the press in most liberal democracies. The British press, for example, hold themselves to a code that stipulates that they will not "publish inaccurate ... information" (PCC 2011). Journalists' training emphasises this expectation, describing "the need ... for a habit ... of checking and rechecking to establish the accuracy of questionable information" (Lambeth 1992, 25). Live Blogging, with its emphasis on relaying information as events are unfolding, may make such a habit harder to develop and maintain. However, the wider concept of objectivity involves attribution as well as verification, and Live Blogging, with its relatively transparent signposting of source material, may help audiences better judge source credibility.

Journalists in online newsrooms are monitoring not only their competitors but also their readers, with web metrics providing information on content preferences at unprecedented speed and levels of detail. Access to such information can create tensions as journalists and editors seek to simultaneously "maximise visitor numbers, target certain types of user, and maintain notions

of journalistic quality" (Thurman and Myllylahti 2009, 698). The news editor of *Taloussanomat* explained these tensions to Thurman and Myllylahti (699): "we now have more stories that are closer to the consumer, but we have to cover the most important company and market news because of our target audience. We are fighting everyday to get this balance right". New news formats, such as Live Blogging, may provide journalists with the means to manage the competing demands of their elite and mass publics.

Research methods

This study sought to consider both production practices and the consequent product outcomes, two domains of inquiry that, as Boczkowski (2010, 7) points out, "are often kept separate", limiting the ability for connections between practice and product to be made. It also integrates the consumption stage of the product lifecycle to avoid another shortcoming of some of the existing scholarship (8). To do this an exploratory case study approach was selected. Primary data sources were semi-structured interviews with journalists and editors, a reader survey, content analysis, and quantitative internet audience measurement using the Guardian.co.uk's web metrics. *The Guardian* was an appropriate case study because of the organisation's long history with Live Blogging and the frequency with which they were deploying the format at the time the research for this article commenced.

Content Analysis

Using a sample of recent Guardian.co.uk Live Blogs, the content analysis examined the textual and hypertextual, multimedia, and stylistic elements the Live Blogs contained, as well as the degree of consistency or difference between these elements across the sample. The unit of analysis was a single Live Blog article. Other elements on the page, not part of the article itself, were also included, such as Twitter widgets and readers' comments 'below the line', the phrase used to denote the separation between the article text—above the line—and the readers' comments thread, below. Twenty individual Live Blogs were selected at random, five for each of the four types listed in Table 1. This sample allowed for comparisons to be made between the types, but did under-represent 'Sport' Live Blogs, the most frequently found type.

Interviews with Journalists and Editors

Participants were recruited from the population of *Guardian* employees who were directly involved in Live Blogging or had a professional interest in the strategic development of the format. The objectives of interviewing *Guardian* staff were to investigate the origins and evolution of the Live Blog format, and to examine how Live Blogs were produced. Participants were shortlisted if they had worked on recent Live Blogs on Guardian.co.uk, written articles on the subject, or were identified to the researchers by the *Guardian* user experience (UX) team. The final selection (see table 2) was made using purposive sampling (Schutt 2009, 173), with the aim of including journalists who Live Blogged across a range of subjects. All were interviewed in person or via telephone, with the exception of Heidi Stephens, who was interviewed by email. Semi-structured interview guides were used and the interviews recorded and transcribed verbatim.

Table 2: List of journalists and editors interviewed

Interviewee	Role at Guardian.co.uk (as on date of interview)
Martin Belam	Lead User Experience Architect
Matthew Weaver	Reporter (primary writer for Middle East Live)
Paul Lewis	Special Projects Editor (Live Blogged the Ian Tomlinson Inquest)
Paul Owen	Blogs Producer
Andrew Sparrow	Senior Political Correspondent (writes Politics Live)
Heidi Stephens	Freelance Journalist (Live Blogged *The Apprentice*)
Laura Oliver	Community Coordinator, News
Matt Wells	Blogs and Networks Editor
Sarah Lindon	Community Moderator
Rob Smyth	Freelance Sports Reporter

Reader Survey

Non-probability 'convenience' sampling was used by issuing an invitation to participate to readers via hyperlinks placed in a number of Guardian.co.uk Live Blogs. All 189 fully-completed surveys were included in the analysis. Most questions were about the Live Blog that the respondents had looked at most recently so they would not have to rely too much on memory. Questions were also included about their general attitudes towards Live Blogs in comparison with other news formats. Of the 24 substantive survey questions, three were open-ended, seeking readers' qualitative responses on what they liked or disliked about Live Blogs and any other comments they had.

Problems and Limitations

The study's main methodological limitation was the self-selecting nature of the survey respondents. They were more likely to be consumers of Live Blogs than the general readership of Guardian.co.uk, and they may have been more enthusiastic about the format than those that saw the invitation to participate and chose not to sign up. The sample was also biased by the locations in which the invitations were placed. Because an invitation could not be placed in a TV & Radio Live Blog, consumers of 'Other Scheduled Event' Live Blogs may have been underrepresented.

Results

Content Analysis

Of the 292 Live Blogs recorded at Guardian.co.uk between 11 April and 11 June 2011, this study classified 38 per cent as 'Sport', 33 per cent as 'Series / Subject', 22 per cent as 'News', and 7 per cent as 'Other Scheduled Event' (see table 3). On average, a Live Blog runs for 360 minutes, has a total of 40 updates, and a total word count of 4,031. There was some variation between the different types of Live Blog with 'Series / Subject' Live Blogs running 52 per cent longer than average (547 minutes) and having 41 per cent more words (5,710 words). There was little variation in the number of updates across the Live Blog types.

Table 3: Content analysis of Live Blogs at Guardian.co.uk, 11 April–11 June, 2011.

Category (number found)	Type of Live Blog				
	'News' (64)	**'Sport' (110)**	**'Series / Subject' (98)**	**'Other Scheduled Event' (20)**	**Average**
Av. duration (mins)	351	235	547	307	**360**
Av. number of updates	31	45	38	46	**40**
Av. total word count	3,530	3,826	5,710	3,058	**4,031**
% substantive quotes	29	2	36	2	**17.25**
No. main staff authors	Office: 1 In field: 0.4	Office: 1 In field: 0.4	Office: 1.4 In field: 0.2	Office: 1.2 In field: 0.2	**Office: 1.15 In field: 0.3**
No. staff contributors	Office: 0.8 In field: 1.2	Office: 0 In field: 0	Office: 0.8 In field: 1.2	Office: 1.6 In field: 0	**Office: 0.8 In field: 0.4**
No. reader contributors	0.6	12	0.6	0.4	**3.4**
Av. no. inline links per Blog	11	10	34	10	**16.25**
Av. no. reader tweets quoted	2	0	2	5	**2.25**
Reader comments below the line	28	64	46	109	**62**
Reader comments above the line	1	0	0	2	**0.75**
Other named media quoted	1.8	0.6	6.2	1.2	**2.45**

Note: Analysis made using 5 Live Blogs from each category. Figures are averages for a Live Blog in given category.

60 per cent of the Live Blogs were authored by a single journalist, and 40 per cent authored by two or more—15 per cent by Live Bloggers working in tandem, and 25 per cent by single journalists who swapped with one another during the Live Blog's duration. Only one of the twenty Live Blogs sampled appeared to have been produced entirely from the field. In addition to by-lined authors, other *Guardian* staff contributors, usually reporters on the ground or in an adjacent country, appeared regularly in the 'News', 'Other Scheduled Event' and 'Series / Subject' Live Blogs. These contributors were usually substantively and transparently quoted with occasional links to their Twitter feed or an individual tweet. 'Sport' Live Blogs included 20–30 times more reader contributors than the other types, probably via emails addressed directly to the Live Blogging journalist.[5]

There were marked differences in the extent to which the different categories of Live Blog included substantive quotes from sources other than the by-lined author or authors. 'News' and 'Series / Subject' Live Blogs contained, respectively, 29 and 36 per cent substantive quotes. 'Sport' and 'Other Scheduled Event' Blogs contained just 2 per cent.

35 per cent of Live Blogs directly quoted tweets, and half mentioned Twitter in the text, although only 'News' and 'Other Scheduled Event' Live Blogs featured tweets from members of the public, an average of 2 and 5 reader tweets per Live Blog, respectively. Compared to tweets, comments left by members of the public in the comments sections were far less likely to be incorporated 'above the line' in the main Live Blog area. 'Other Scheduled Event' Live Blogs had about 75 per cent more comments than the average, with 'News' Live Blogs having 2.2 times fewer. It should be noted that only 60 per cent of 'News' and 20 per cent of 'Sport' Live Blogs sampled had comments enabled. Most of the Live Blogs analysed contained around ten hypertext links. 'Series / Subject' Live Blogs were the exception, containing three times that number. Source material from other media outlets was used to varying degrees. 'Series / Subject' Live Blogs were the most reliant, quoting an average of 6.2 named media sources. The other three types quoted, on average, less than two.

Interviews with Journalists and Editors

Production and Process. The Guardian.co.uk's bespoke content management system (CMS) is used both to file conventional stories and create Live Blogs. The interface that Live Bloggers use is very similar to that used to file regular articles, but with some added functionality. It allows journalists to publish content a block at a time, and the chronology can be reversed once the Live Blog has finished running. Journalists are also able to add web markup and scripting code, making it possible to embed external tools and widgets (Martin Belam, personal communication, 6 June 2011). Most Live Blogging journalists interviewed said they wrote directly into the CMS themselves.

The *Guardian's* CMS imposes some limitations on how journalists can interact with the audience while Live Blogging, and on the ability the organisation has to sub-edit Live Blogs. Heidi Stephens notes that she feels "a bit disconnected from my audience" (personal communication, 14 June 2011) when working on a laptop at speed, because she cannot simultaneously monitor reader comments from within the CMS. She relies upon a reader contributor to pick out the best comments for inclusion above the line. And, because the CMS does not allow more than one computer at a time to edit an article, the subbing of Live Blogs— which are often being written continuously for several hours—is difficult. "The subs can't even correct stuff you did five hours ago, you've got to be out of the article to do that" (Weaver, personal communication, 7 June 2011). Where subbing does take place it is often as a result of

readers, or other journalists, emailing corrections to the original author (Andrew Sparrow, personal communication, 13 June 2011).

While all the journalists acknowledged the importance of reporting from the field, Live Blogging is predominantly conducted from the office. Although reporting from journalists in the field is often included, the author of the Live Blog, whose responsibility it is to pull everything together into a narrative, tends to be office-bound. Rob Smyth says he has never Live Blogged from the field, and said it was rare for sport writers to do so unless reporting on a big event: "like the Olympics" (personal communication, 6 July 2011). And even when the Live Blogger is close to the action, for example the Westminster-based political correspondent Andrew Sparrow, it is often easier to Live Blog from the office with "a 24 inch Apple Mac ... television ... and reference books" (personal communication, 13 June 2011) rather than from a laptop with an unreliable wi-fi connection.

Not all the journalists were entirely comfortable with the fact that most Live Blogging was conducted from the office. Paul Lewis cautioned that:

> Journalists will only really understand the story if they go ... and experience [it]. With Live Blogging ... you have this view that there are lots of other people out there who are your eyes and ears. They can be really useful ... but your vantage point is a computer screen in an office block in London, and as a journalist you always find out more when you're there. Always (personal communication, 8 June 2011).

Andrew Sparrow agreed, saying that "you can pick up atmosphere from actually being in the room that you can't from watching it", although, because it is easier to Live Blog from the office, he only tends to go to "hearings [that] aren't televised" (personal communication, 13 June 2011).

Verification and Transparency. Most of the journalists interviewed were comfortable with the Live Blogger's role as mediator rather than first hand reporter, with the attendant reliance on second hand testimony. Indeed, there was a sense—confirmed by the reader survey—that their curation role was part of the attraction of the format to readers. Andrew Sparrow talked about links and aggregation being "crucial", "what it's all about", because readers are "busy" and "you don't want to waste their time" (personal communication, 13 June 2011). The reliance on second hand testimony and the "very, very, fast" (Paul Owen, personal communication, 9 June 2011) speed at which Live Blogs operated necessitated certain strategies of verification. Andrew Sparrow said he worked "by and large ... with a relatively narrow patch of usual suspects and I know who they are" (personal communication, 13 June 2011), as did Matthew Weaver: "I'll be doing Syria or Yemen, and I won't be looking at generic search terms, I'll be looking at lists of people who we know are there" (personal communication, 7 June 2011). The reliance on known sources did not, however, exclude anonymous or unknown sources being used if they had said something that was "pert, or funny, or clever" (Sparrow, personal communication, 13 June 2011) or "startling" (Weaver, personal communication). In such cases, phone calls may be made to "check that Twitter feeds are genuine" (Sparrow, personal communication, 13 June 2011), although Matthew Weaver admitted "there's not a rigorous process that goes on of saying this is how I verify an individual tweet because the information is so small there's [usually] no point in going through a huge fact checking exercise" (personal communication, 7 June 2011).

In spite of such measures, some journalists do believe that Live Blogs have lowered the bar to publication in terms of verification:

You can say 'Look, this is out there, we can't verify it, but this is being talked about, this is part of the story'. We're letting you in on the workflow of the journalist in a way … saying 'Look this is out there, help us verify it'. And readers do jump in and say 'That's rubbish', 'That's not true' (Weaver, personal communication, 7 June 2011).

Matt Wells agreed, saying:

In the inverted pyramid news story you are saying we know everything in this story ... the whole format cries out 'All of this has been verified', whereas the Live Blog format is more freeform, and is more conversational so you can be very open about whether you have verified this or not (personal communication, 17 June 2011).

Not all the journalists interviewed were comfortable with this change. Paul Lewis, who described himself as "a bit of a purist", maintained that it was the journalist's role "to find out whether it's true, not to put it out and ask people to decide for us". He believed that the compressed and frequent deadlines imposed by Live Blogs, not just their tone, could encourage the—potentially dangerous—publication of unverified information:

Live Blogs need regular updates, but what if there is nothing newsworthy or reliable happening in that time? The danger is that in the rush to do regular updates, and in adopting this new view whereby we say we'll put information out and label it appropriately and allow people to determine how accurate it is, we will inadvertently make a really serious mistake of some kind (personal communication, 8 June 2011).

Although Live Blogs have a relatively loose culture of corroboration, they may also be more transparent than conventional articles in admitting error:

I think you are supposed to, where possible, show your workings, so if I've posted a wrong link to something I'll apologise. When I first started doing it I was much slyer about that—covering up—but I think it's much more helpful to hold your hands up and say 'we got that one wrong'. (Weaver, personal communication, 7 June 2011)

Andrew Sparrow described the method he has devised for correcting errors whilst maintaining transparency and preventing confusion:

If I've got something substantially wrong I will acknowledge that—within the [Live] Blog—as quickly as possible in the most recent post. What I will also do is go back to the original post. I won't do an invisible mend [rather] I will insert a correction within the original post. If you just correct it in the most recent post—the nature of these [Live] Blogs is that they get very long and people skim read them rather than read them in detail—it's quite possible someone will see the original erroneous post but not pick up the subsequent.

Participation. Twitter was frequently mentioned as a means used by Live Blogging journalists to connect to and organise sources. "Twitter becomes a prime source. If you're following the right people stuff crops up there very regularly", said Andrew Sparrow (personal communication, 13 June 2011). Matthew Weaver added that to try to produce a Live Blog without social media "wouldn't make any sense really" (personal communication, 7 June 2011). While journalists primarily followed known individuals on Twitter, the 'community coordinators' employed by Guardian.co.uk utilized social media tools more widely, feeding the results back to the journalists. As well as monitoring Twitter 'hashtags' to build up a picture of a developing situation, the community coordinators also delved more deeply into social networks, as Laura Oliver explained: "[Journalists] will have their own [Twitter] lists of correspondents

which is a great place to start and then what we do … is look at the secondary network. Who are the correspondents talking to? Who are they linking to?" (personal communication, 17 June 2011). Other social media tools monitored by more than one journalist were Tumblr, YouTube, Audioboo, Facebook, and Storify. Twitterfall, Flickr, and Flipboard were mentioned by individual journalists.

The degree to which Live Blog authors use material from readers depends on the field in which the Live Blog and the author operate. Whereas sport Live Blogs often incorporate reader contributions,[5] Andrew Sparrow rarely quotes readers' tweets on the Politics Live Blog: "I'm wary of prioritising one individual's reaction over anyone else's, and I think the evidential value of that is pretty meaningless" (personal communication, 13 June 2011). Two journalists mentioned concerns about the veracity of comments purportedly made by readers. "Lots of corporations [and] institutions", Paul Lewis said, "deliberately hire people to write below the line on articles to sway the public debate" (personal communication, 8 June 2011), implying that journalists needed to stay conscious of the danger of such "glove puppet operations" (Sparrow, personal communication, 13 June 2011) when deciding whether or not to include readers' comments above the line.

Reader Survey

The themes presented below draw on an analysis of responses to both the closed and open-ended questions the survey contained. Our analysis of the responses to the open-ended questions is summarised in figures 5 and 6.

Figure 5: Characteristics of Guardian.co.uk Live Blogs liked by readers, August 2011.
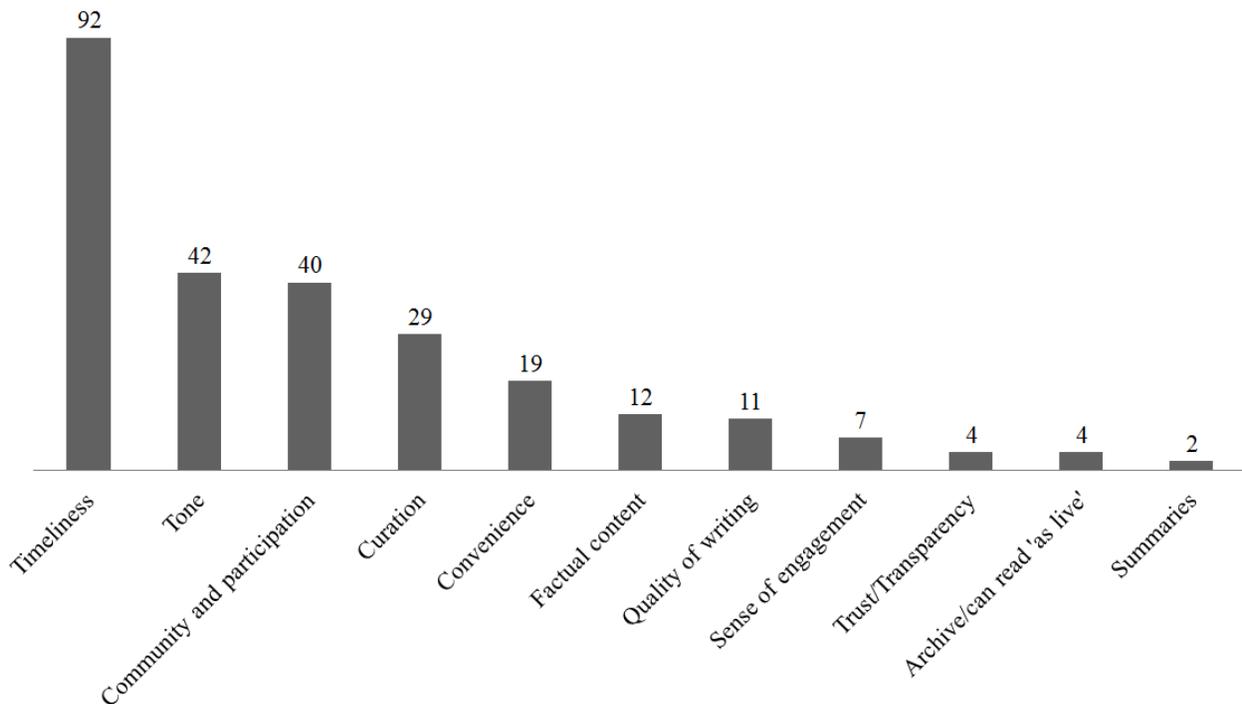
Sample size: 167. Multiple answers allowed.

Figure 6: Characteristics of Guardian.co.uk Live Blogs disliked by readers, August 2011.
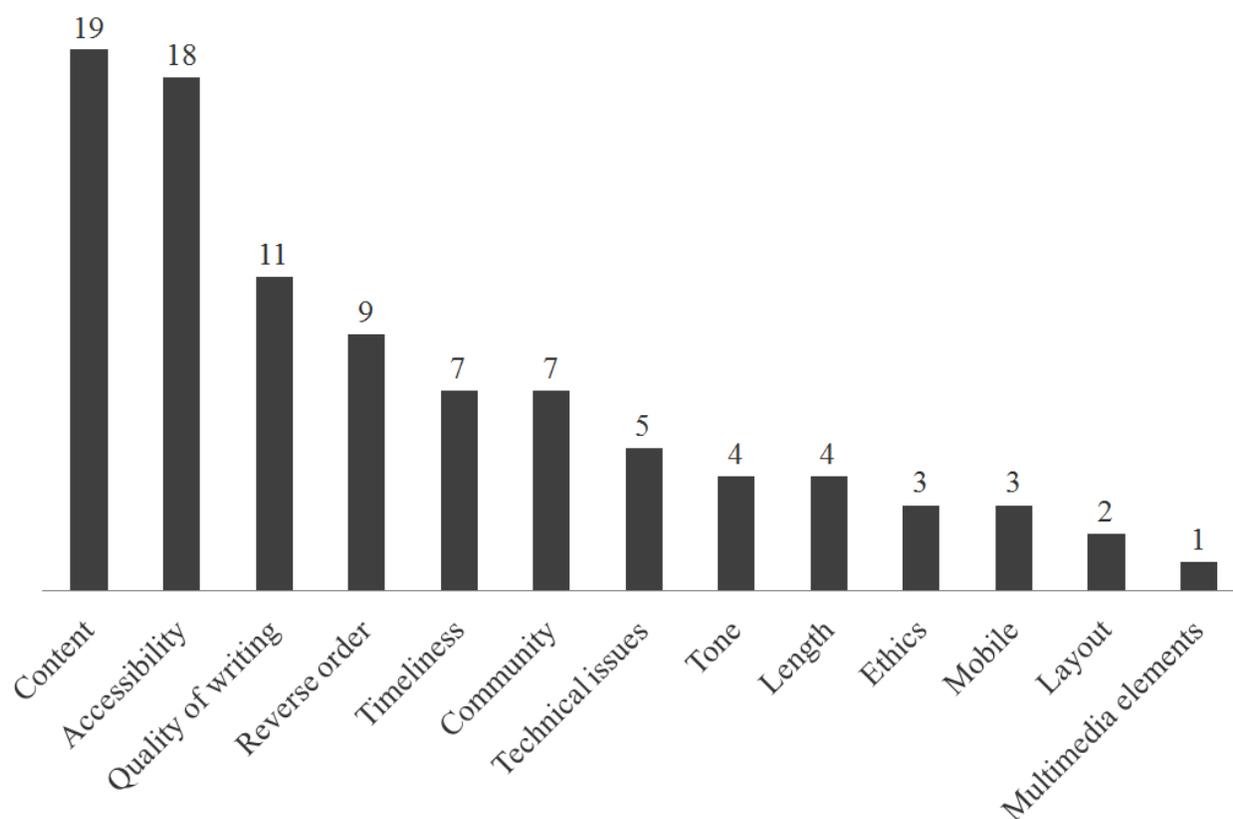
Sample size: 137. Multiple answers allowed (many respondents expressed no dislikes).

Reading Habits. 59 per cent of respondents said they read Live Blogs most days, 9 per cent once a week, and 31 per cent once a month.[6] Reading was fairly evenly split between home—49 per cent of respondents—and work—43 per cent of respondents. Only a small proportion of respondents—7 per cent—read Live Blogs away from the home or office.[7] A large majority of respondents—81 per cent—arrived at Live Blogs from the Guardian.co.uk homepage. Respondents had a high level of engagement with the format, with 35 per cent saying that they 'looked at it almost continuously during the time it was running', and 55 per cent saying that they looked at it more than three times. Readers commented on Live Blogs' "addictive ... nature", saying that they provided "the feeling that you are right on top of a fast moving issue." When asked which types of Live Blogs they usually read, 172 readers said 'News', 59 said 'Other Scheduled Event', 110 said 'Sport' and 104 said 'Series / Subject' (multiple answers were allowed). When asked about the last Live Blog they read at Guardian.co.uk, 57 per cent said it was a 'News' Live Blog, 37 per cent 'Sport', 7 per cent 'Series / Subject', and 0 per cent 'Other Scheduled Event'.

Timeliness. It is no surprise then that the most-liked feature of Live Blogs was their timeliness, with 49 per cent of survey respondents citing this as a positive feature. Readers liked the "sense of immediacy and urgency" they had when reading them, and said Live Blogs made them "feel more involved / affected / interested in the news story". Although Live Blogs at Guardian.co.uk update, on average, every 10 minutes, for several respondents that was not fast

enough. One said that "sometimes they don't update quick enough, and I become impatient waiting for information". Another complained that "you don't know when the next update is coming. Sometimes it's every few minutes, other times it could not be for an hour".

Accuracy and Balance. Although some readers were aware of the speed with which Guardian.co.uk journalists had to work to ensure Live Blogs' timeliness, the vast majority did not express concern about the effect of these compressed deadlines on Live Blogs' accuracy and balance. Of the 22 responses that related to the accuracy of material published on Live Blogs, the balance of views they presented, and whether their editorial tone was neutral, the majority—77 per cent—assessed the format positively. Readers liked the neutral tone, the fact that information was corrected quickly, and the balance that they believed the mix of sources provided. Conventional news articles were considered, by most readers who expressed an opinion, to be more "polemical" or "opinion based". In contrast, Live Blogs were seen as "more factual", as they provided "statements" readers could "draw [their] own conclusion from":

> I trust it more than I would some articles, in the sense that most of it is not opinion, it's more factual based and leaves you to make your own opinion, whereas a lot of articles [are the] opinions of journalists—their take on what's happening.

Six of the responses praised Live Blogs' balance, saying that they presented a "mix of views/sources" that gave "all sides of the issue", "more so than a traditional text article", one reader said. The minority of readers who were critical of Live Blogs' accuracy did, universally, blame the speed with which they were produced, which led, they believed, to "knee-jerk reactions", "speculation and mis-information", and "conjecture".

Participation. 19 per cent of respondents reported participating in Live Blogs either through comments or by contacting the journalist directly. Respondents were more than twice as likely to participate in Live Blogs compared with other article types. Two reasons were put forward, firstly the level and quality of "interaction between the [Live Blogging journalists] and readers who email them" and, secondly, the relatively high standard of reader participation with Live Blogs, in contrast, one reader said, to the 'depressing' quality of comments elsewhere online, which had led her to "loathe reader interaction with the media". One respondent suggested that their 'live' nature encouraged participation: "you know that other people are on at the same time so you get that sense that there might be some response to what you write".

Tone. The tone of Live Blogs was the second most 'liked' feature by survey respondents. Nine respondents praised the "humour" and "wit" found in Live Blogs, particularly those that covered sporting matches. Seven respondents appreciated their informality and lack of structure, which allowed the Live Blogging journalists to be "whimsical", "riffing" on "arcane" subjects. Live Blogs' "personal" and "human" touch was also complimented. Their tone was not, however, universally liked. One respondent found the informality "unprofessional" and another "abhorred them" as "self-indulgent" with no "hierarchy of information". Some respondents felt that the tone was occasionally not appropriate to the subject matter and used adjectives such as "ill-considered" and "ghoulish".

Curation. 15 per cent of respondents spontaneously praised the role of Live Blogging journalists as curators of information. The fact that journalists were "pulling information from other news sites", "blogs, Twitter feeds" and "press statements" made these respondents feel that Live Blogs were "informative" and provided a "depth of coverage".

Convenience. Convenience was the fifth most 'liked' characteristic of Live Blogs, with respondents valuing the "simple bite size nuggets of information" that were easy "to read while

getting on with other things". Five respondents specifically mentioned Live Blogs as "work friendly", providing "a good way to see what's happening in (almost) real time, while still 'working'". A number of readers also valued the ability to relive an event, "at leisure".

Discussion

This study of Live Blogs counters Lim's (2012) assertion that online news' immediacy is a "myth". On the contrary, it shows that in multiple locations at one popular news website, news is being updated minute-by-minute over the course of hours every day. The popularity and prevalence of Live Blogs is, this article argues, more a function of their format than of the content they carry. The medium is able to fulfil online news consumers' needs by providing distraction and follow-up information on known events, making minimal navigational demands, and—with its bite-sized content units—matching the brief, repeated visits readers make to news sites. This study confirmed the shift in readers' temporal preferences—at least in their consumption of Live Blogs—towards news during the working hours. This was clear both from the web metrics data (as shown in figure 2) and the survey responses, which highlighted Live Blogs as a format that allowed breaking news to be followed, as one respondent said, "at work ... [when I] need to look like I am working".

Live Blogging's mainstream adoption is indicative of changes taking place in the production, consumption, and material form of news. The faster, more informal, hypertextual, and networked journalism that results is doing more than engaging the public—it may also be making public-affairs content more palatable and going some way towards rebuilding faith in journalistic objectivity.

Live Blogs allow media organisations to respond to the increasing displacement of news consumption from print to online and from home to work, but they also give journalists a new way of dealing with the tension between their core values and market pressures. Because the format has developed uniquely for the web and matches so well with readers' consumption patterns, it seems to appeal to the mass public as much through its form as its content. In contrast to some earlier research into online news consumption patterns, this study's survey results show that public-affairs-orientated Live Blogs at Guardian.co.uk (classified as 'News' and 'Series / Subject') were at least 1.63 times more popular with respondents than Live Blogs that covered sport and soft news topics.[8] This is almost a reverse of the proportions found by Boczkowski (2010, 150) in his study of the top ten most clicked stories at three Argentinian online newspapers, where public affairs stories represented just 31 per cent of clicks and non-public affairs stories 69 per cent.

This study's analysis of Live Blogs shows they may also differ from traditional online hard news formats in their use, as source material, of previously published media reports. An average 'News' Live Blog at Guardian.co.uk quotes more primary sources than named media sources, by some margin. This is in contrast to previous research that has shown an overwhelming reliance on media sources (see, for example: Thurman and Myllylahti 2009; and Boczkowski 2010).

Sourcing practices are an important factor in any evaluation of Live Blogs' objectivity. The journalists interviewed for this study were well aware of the tensions between consumer demands to "see what's happening in (almost) real time" (survey respondent, 10 August 2011) and their professional duty of accuracy. In their use of known and trusted sources, and reluctance to incorporate anonymous reader comments or tweets, journalists were able to manage this

conflict to their satisfaction. Although there was some consensus that Live Blogs operated with a relatively loose culture of corroboration, Live Blogs have a number of compensatory features. In their sourcing practices, their provision of "supporting evidence" and "conflicting possibilities" from a relatively wide range of sources, and their transparent attribution practices, they fulfil most of the "rituals" of objectivity identified by Harrison (2006, 145). The majority of the news consumers surveyed for this study who expressed an opinion felt that, although their triangulation of facts was cursory, Live Blogs were, due to their other characteristics, a more objective form of journalism, describing them as "more factual", "less opinion based", and "more balanced".

Edward Dicey said that newspaper readers "like to have their mental food in minces and snippets, not in chops or joints" (quoted in Lee 1976, 194). The information diet provided by Live Blogs has characteristics of both mince and chops. Although, superficially, Live Blogs might be accused—with their short, frequent, and often unsubstantiated updates—of contributing to a decline in standards that some say began with the 'new journalism' of the late nineteenth- and early twentieth- centuries (Williams 2010, 49) and has continued with the 'tabloidisation' of newspapers in the twenty-first century (245), they also have characteristics—their intensity, level of reader participation, and engagement with public affairs—that recalls the early nineteenth-century radical press. At a time of economic and political upheaval, Live Blogging might not only be meeting readers' changing temporal and spatial preferences for news consumption, but also delivering levels of participation and transparency better suited to contemporary democratic demands.

There are indications that the format may spread,[9] perhaps replacing the "list of static news stories" (Belam, personal communication, 6 June 2011) on news sites' front pages.[10] If that happens, Live Blogging will have moved closer to fulfilling the potential some see for it as "the pivotal platform for newsrooms" (Beckett 2010, 4). We should, however, be cautious about implying that Live Blogging will consolidate into something permanent or usurp established news formats. Like the transient early nineteenth-century radical press (Williams 2010, 42), Live Blogging is a labour- rather than a capital- intensive form of journalism. It is flourishing thanks, in part, to an audience who are investing a considerable amount of their time into its consumption. Whether readers will continue to supply the attention required to sustain the format depends on their future assessments about whether its disadvantages—a lack of coherence, potential for inaccuracy, and informality—weigh heavier than its obvious advantages.

It would be particularly useful for further research to seek to replicate or contradict three of this study's findings. Firstly, whether Live Blogging is really shifting readers' online news consumption preferences away from non public affairs to public affairs orientated news. Secondly, whether readers are really twice as likely to participate in Live Blogs compared with other article types. And thirdly, whether the practice of Live Blogging is really reducing online journalism's reliance on previously-published media reports and increasing its utilization of primary sources. To answer these first two questions with a higher degree of certainty than was possible in this exploratory research project would require a wider sample of readers, truly representative of the whole population of online news consumers. To answer the third question would require content analysis of Live Blogs and conventional news articles from a broader range of news outlets than the case-study approach adopted here allowed.

Notes

1. See figures 3 and 4.
2. As measured by the authors between 11 April–11 June 2011.
3. An early example, from 17 February 1999, followed a Manchester United versus Arsenal match (Guardian.co.uk 1999). The Minute by Minute label is a hangover from these origins in sport (Cricket live blogs are often referred to as Over-by-Overs).
4. Picture galleries on news websites—including Guardian.co.uk—are notorious for inflating page view counts by causing a new webpage to load each time a new photo is displayed.
5. Reader contributions are, the authors assume, emailed directly to the journalists writing the 'Sport' Live Blogs. The five 'Sport' Live Blogs sampled in the content analysis did not quote any reader tweets or incorporate reader comments 'above the line'.
6. This data does not generalise to the whole population of Guardian.co.uk readers due to the self-selecting nature of the sample and the fact that invitations to participate were placed on Live Blogs.
7. These figures relate to the last Live Blog respondents remembered reading.
8. This result may be biased by the fact that an invitation to participate in the survey could not be placed on an 'Other Scheduled Event' Live Blog. It does, however, reveal the popularity of news Live Blogs over sport.
9. The BBC News website is planning a daily Live Blog on the top UK news story (Steve Schifferes, personal communication, 14 November 2011).
10. The Guardian.co.uk's lead User Experience Architect speculated that they might turn "the top half of our front page into our Live Blog" (Belam, personal communication, 6 June 2011).

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