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Networked Communication & the Arab Spring:
Linking broadcast and social media[1]

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Abstract

A plethora of media platforms were involved in communicating recent protests across the MENA, though it remains unclear exactly how these interacted. This qualitative paper, based primarily on interviews with BBC newsworkers, explores the networked linkages between social and broadcast media, asking how social media content moved into broadcast news, which standards shaped the interface between the two and how these standards were defined. It finds that a set of normative and practical standards caused significant friction at the interface, which is reduced as content assimilates these standards. Standards are shaped mainly in response to broadcast imperatives, but also through the mainstreaming of social media and more efficacious and practicable networked communicative practices, indicating how power may shift in the networked age. Responding to the optimistic view that networked multimedia environments enable unencumbered communication, it argues that the scope and limits of communicative affordances depend on these standards.

Keywords: affordances, Arab Spring, broadcast media, MENA, multimedia, networked communication, newswork, participatory journalism, social media, standards

At 11:30 am on 17 December 2010 the 26 year old Mohammed Bouazizi stepped in front of the local municipality building in Sidi Bouzid, a provincial Tunisian town, doused himself in petrol and set himself alight. He was protesting ill treatment received for ostensibly trading fruit and vegetables from a street cart without a licence. On the same day a video of Bouasizi's mother leading a peaceful protests was uploaded to the Internet. Al Jazeera picked up this video and broadcasted it on the evening news. Protests erupted across the country. Recognizing that Bouazizi' self-immolation had been important in catalysing protests, President Ben Ali arranged a well-publicised hospital visit on December 28th. In less than a month Ben Ali's fate, a man who had ruled Tunisia for more than two decades, had become inextricably entangled with that of a vegetable vendor from the province. On 4 January 2011 Bouazizi died, 10 days later Ben Ali fled into Saudi exile.

Exercising our counterfactual imagination, could these events and subsequent political changes have occurred in the sequence they did had there been no video, had it not been uploaded, and had it not been picked up by broadcasters? Perhaps not in the same timeframe or quite the same way. The linkages between different media platforms seem important to understanding how, what has come to be called the Arab Spring, was communicated and enkindled.

Indeed, the role of different media platforms interacting with one another, what shall here be referred to as networked multimedia communication, in the context of recent protest movements across the Middle East and North Africa (MENA) has attracted ample attention. Many have emphasised the potential of unencumbered communication to precipitate socio-political change (Cottle, 2011; Howard and Hussain, 2011; Shirky, 2011), particularly in closed and illiberal regimes (Kaldor and Kostovicova, 2007; Howard and Parks, 2012), though others caution that confidence in social change driven by new communication technologies is often overstated (Gladwell, 2010; Morozov, 2009). This paper is only indirectly about communication technology and social change. It examines the interface between social and broadcast media in the context of the Arab Spring, asking how the choices and practices of social actors came to shape this interface and conversely how the nature of the interface comes to circumscribe the action possibilities multimedia networked environments afford social actors.

The Interface Between Social & Broadcast Media

The mainstreaming of the Internet, digitisation of all kind of content, technological convergences and increased interoperability between platforms, provide the technological foundation for the 'networking of mass and interpersonal media and consequently, networked mediation' (Cardoso, 2008: 588). Networked linkages between broadcast and Internet based social media enabled the smartphone video of Buoazizi to travel to broadcast news almost instantaneously—it was not one platform or technology alone that was key, but the interaction between them. As Castells writes, 'the three forms of communication (interpersonal, mass communication, and mass self-communication) coexist, interact, and complement each other rather than substituting for one another' (Castells, 2009: 55). He continues, 'from the technological point of view, telecommunication networks, computer networks, and broadcasting networks converged' (p. 58) blurring the boundaries between broadcast and Internet mediated communication. Thus one important consequence of technological convergence is that broadcast media is increasingly linked 'to the horizontal network of communication and to their users, so becoming less one-

directional in their communication flows' (Castells, 2007: 252). Crucially it is at the interface between converging platforms that power is leveraged, through the ability, as Castells argues, to draw on multiple networks and platforms to achieve a wider diffusion of (and accessibility to) information; sometimes referred to as the power of connectivity (Slaughter, 2009).

As Mansell (2012) cautions, it is important not to equate multimedia networked communication with a flattening of social hierarchies and greater individual empowerment through expanded action possibilities. Firstly, social and broadcast media utilise different technologies with different affordances.[2] The affordance of social media enable social organisation/action in networked structures, and are frequently associated with the empowerment of individuals because they supposedly enable friction-less and unencumbered communication (boyd, 2011). The affordances of broadcast media can be conceptualised as enabling more hierarchically integrated, and broad based forms of social organisation, empowering those who occupy gatekeeping positions within a hierarchy. Networked multimedia communication is conceptualised as sharing attributes of both: Enabling horizontal networked forms of communication (distributed production and self-selected reception) that are multi-platform or multimodal (and usually medium- or narrow-cast) while also including hierarchical, vertically integrated elements of production and broadcast distribution. It is by definition not single-platform (and purely broadcast). How are we to understand manifest and latent action possibilities when these different affordances interact?

Secondly, assumptions of empowerment often overlook that the social uses of multimedia networked communication are appropriate to, but not determined by technological affordances. The optimism that positive social change will follow from greater connectivity neglects the contextual nature of multimedia networked communication, and the nature of networked linkages as emerging through specific practices and choices of social actors (Mansell, 2010). Here the interface between social and broadcast media (with their attendant affordances) is also the interface between networked social media content creators who are themselves often embedded in social movements (hereafter content creators) and networked newsworkers[3]—social media is the platform of content creators, while broadcast media is the preferred platform of newsworkers. The movement of content across platforms is subject to a set of choices and decisions by these groups of actors, each pursuing their own imperatives. The optimistic viewpoint of empowerment can serve to cover up unequal power relations between these groups (Couldry and Langer, 2005) that come to shape the interface. Therefore contextual knowledge of choices and practices can help to understand how the (limits and scope of) action possibilities that multimedia networked environments (particularly the interfaces between platforms) afford different actors are circumscribed, and thus to understand how communication is encumbered.

The concept of a standard (Grewal, 2008) or protocol (Castells, 2009) of communication offers a useful means of conceptualising the role of contextual practices and affordances in shaping the interface. Standards are a kind of regulatory rule or norm. By a standard I do not mean a codified rule, but a heuristic that helps us

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[2] Affordances refer to the action possibilities manifest (and possibly latent) in a technology. Affordances have scope, which interacts closely with their limits.
[3] Newswork is broadly defined as the work that journalists do, it is used to highlight changes in the nature of journalistic work: Deuze M and Marjoribanks T. (2009) Newswork. *Journalism* 10(5): 555-561.

to understand how different platforms and actors interconnect in multimedia networked environments by harmonizing choices and practices around the interface, how power is leveraged by defining appropriate choices and practices, and consequentially how the limits and scope of afforded action possibilities is shaped.[4] Content (a message), and thus practices of communication, must assimilate to prevailing standards in order to be relayed across the interface between platforms— from a smartphone on the streets of Damascus to the evening news on Al Jazeera. Here Grewal's concept of membership standards that govern access to a network, broadcasting platforms in this case, is of particular relevance.[5]

The extent to which standards make it possible to interface effectively depends on whether they are practicable (their commensurability with the affordances of both broadcast and social media platforms) and the extent to which actors on both side of the interface make similar choices about ideals and goals (whether choices and practices of both newsworkers and content creators converge around common standards that enable, as Grewal calls it, 'beneficial cooperation'). Standards are not static, but subject to change. It is through the ability of actors to define and shape standards, to suite their own imperatives, that networked power is exercised (Grewal, 2008; Castells, 2009; Castells, 2011). Indeed, 'access to networks and power to determine what flows over them is a significant marker of systemic advantage and disadvantage' (Barney, 2004: 178). Thus standards offer a useful way of conceptualising how the interface works. They allow us to examine how workable standards are shaped as the choices and practices of different actors harmonize around the interface, to ask who's choices and practices are dominant in shaping standards, and consequently how action possibilities are circumscribed.

This paper distinguishes between normative and practical standards of the interface. Normative standards define the end, purpose or goal of an interface. Actors are empowered to the extent that they can shape or influence normative standards, and thus the purpose of an interface between social and broadcast media. Practical standards establish practicable and efficient practices. *Practicability* refers to the appropriateness of practices to the affordances of both broadcast and social media platforms, and *efficiency* refers to their effectiveness in fulfilling normative standards.

To understand the dynamics that shaped standards of the interface in the context of the Arab Spring requires brief reflection on the relationship between relevant groups of actors and their preferred platforms. The interface between social and broadcast media is, in this case, also the interface between networks of newsworkers and networks of content creators on the ground. Assuming content creators are frequently embedded in social movements (much of the evidence reviewed suggests they frequently are), we require an understanding of the imperatives and needs of social movements and news media vis-à-vis one another. Most extant research holds that

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[4] The term standard refers only in an indirect and permissive way to the expansive technological innovation literature on technical compatibility standards.

[5] Grewal (2008) distinguishes between the overlapping concepts of *mediating standards*, which are inherent to a network, facilitate beneficial cooperation and do not require enforcement (he offers the example of English language as a mediating standard for communicating with people who speak only English), and *membership standards* which establish the ideal or goal of a network, regulate access to an in-group, require enforcement, and are not inherent to a network or platform (he offers the example of the minimal threshold to which EU law must be implemented as a prerequisite for accession to the EU). Here standards governing the interface (and access to broadcast platforms) can be expected to embody some ideal or goal likely deriving from imperatives of newswork, but possibly also deriving from imperatives of content creators.

social movements need the media more than vice-versa (Anderson, 2003; Wolfsfeld, 1984; Wolfsfeld, 1991; Gitlin, 1980; Kielbowicz and Scherer, 1986). Gamson and Wolfsfeld (1993) conceptualise their relationship on a structural level (their inter-dependence) and on a cultural level (their ability to define the meaning of events). They argue that social movements are more dependent on media than the contrary because they rely on broadcast media to communicate and vindicate their cause, and because their communicative capacity is amplified through access to broadcast media. Broadcast media are not reliant on social movements to the same extent.

However much of this literature predates the mainstreaming of the Internet and networked means of communication. Today social movements increasingly 'reach their constituencies and target audiences through the decisive switch to multimedia communication networks' (Castells, 2011: 79; see also: Christensen, 2011)—practices such as video activism expand their capacity to organise and negotiate with the state. Nevertheless, some argue that mass media remain crucial to social movements in general (McCurdy, 2012; Cottle, 2008; Uldam and Askanius, 2013) and to those of the Arab Spring in particular (Rane and Salem, 2012). For instance, Internet platforms are used to inflect the agenda of broadcast media (Castells, 2007), and plausibly to influence the representation (the meaning and interpretation) of events. An important dimension of any protest is the effort to shape its representations (Gamson and Stuart, 1992). Therefore, some of these efforts are likely to be directed at shaping standards that favour social movements and the social web.

With the mainstreaming of the Internet newswork has also changed 'from a linear to a networked process' (Beckett and Mansell, 2008: 93), in which newsworkers draw ever more on connections across the social web to gather information and report otherwise inaccessible events with otherwise unavailable footage (Harrison, 2010; Williams et al., 2010; Paulussen and Ugille, 2008). Nevertheless, newsworkers generally want to limit the involvement of non-professionals in the news process so as to maintain editorial control (Reese and Ballinger, 2001; Peters, 1999), even when they draw heavily on user created content (Wahl-Jorgensen et al., 2010). However, on a structural level the social movement-news media relationship has shifted because news organisations lacked sufficient access to report protests across MENA, rendering their reporting reliant on the social web (Hänska-Ahy and Shapour, 2013). This increased importance of social media in the context of the Arab Spring is crucial to the observed development of interfaces between social-broadcast platforms.

To some extent each group of actors will leverage their relative power to shape standards that better server their imperatives, and thus try to define the scope and limits of afforded action possibilities. Given the changing interdependencies outlined above, which standards regulated the interface in the context of recent protests across MENA, and how did these standards take shape? Contextualising these questions within particular social relationships allows this paper to shed light on the interface between social and broadcast media, as well as the relational power of different social actors to shape standards of the interface and thus influence which representations of protests are diffused across the interfaces of multimedia communication networks.

Method

The focus of this paper is on the interfaces between social and broadcast media in the context of the Arab Spring. It presents findings based on the author's doctoral research, supplemented with research conducted specifically for this paper. Based on an exploratory design that aims to describe this interface the focus was limited to

newsworkers, working (mainly) at the BBC, and their accounts of the interface. The limited scope seemed appropriate to the goals of this research that did not aim to establish broadly generalisable results. Interviewing newsworkers, elite-interviewees who's daily work involved the interface and who had a sophisticated understanding of how the interface worked, offered a suitable means of gaining relevant data while avoiding access and security issues that would emerge in field research.

This paper is based on two rounds of semi-structured in-depth research interviews, the first conducted in 2010 for the authors' doctoral research. The second round was conducted in 2011-12 to capture changes in the use of social media during and after the Arab Spring. A semi-structured approach was particularly apt for elite interviews, as it allowed interviewees to apply their own framings to open-ended questions about their practices. To draw a purposive sample existing contacts and a web search were used to identify newsworkers at the BBC with a direct involvement in covering events in the Persian and Arab speaking world (and thus also the protests in question). The BBC was chosen because of its Persian and Arabic services, which means that its coverage of the events in question are broadcast back to the regions that social media content originated in. Fifteen newsworkers were contacted initially, out of which five agreed to an interview. The remaining interviewees were recruited using a snowball approach, always applying the same criteria of relevance. Several interviewees from the Associate Press and Storyful (a social media news agency) were added through snowball sampling. Table one details the roles and affiliations of interviewees using pseudonyms.

Table 1: Interviewees (pseudonyms) by role and period with affiliation.

	2010	2011-12
Editorial Management	Betsy (BBC), Julia (BBC)	Michael (Storyful), Oli (BBC)
Editorial Staff – Journalists	Anna (BBC), Bob (BBC), Elizabeth (BBC), Frank (BBC), Joe (BBC), Ken (BBC), Paul (BBC)	Mary (BBC), Olaf (BBC), Paul (BBC)
Editorial Staff – Social media intake & processing	Carla (BBC), Nick (BBC), George (BBC)	Alex (BBC), Liam (AP), Lisa (Storyful), Nick (BBC), Nora (BBC)

Initial email requests fully disclosed the purpose of interviews, particulars about the researcher, the fact that interviews would be anonymous (because most interviewees had contacts, collaborators and family in the MENA which, in the context of the Arab Spring, could constitute a vulnerability) and emphasised that participation was entirely voluntary. Those who agreed to be interviewed were reminded of the purpose and nature of the interview before it commenced. All interviews were anonymised. 22 interviews were conducted in total (12 in 2010 and 10 in 2011-12), in each round interviews were deemed complete when a point of saturation was reached (e.g. when several interviewees recounted different examples illustrating the same kind of use and attitude towards social media, indicating the emergence of a robust theme across interviews). The non-random selection of interviewees, the resultant limited variation, and the somewhat limited number is in line with guidelines for depth interviews, and appropriate to this exploratory design where generalisation is expressly not the main research goal.

The first round of interviews focused on protests following the Iranian election of 2009, while the latter round focused on the protests of the Arab spring (including the various movements erupting in 2011 from Tunisia, Egypt to Bahrain, and including protests in Syria in 2012). Interviewees were asked open-ended questions about how and why they used social media content and follow up questions—about the details of processes, their attitude to the introduction of social media content, the criteria they apply to this content, and their interaction with content creators—to probe the deeper meaning of responses (McCracken, 1988). Most interviews were conducted face-to-face, with one interview being conducted via Skype. With the exception of the Skype interview, were notes were taken (it seemed more appropriate in a non face-to-face setting), all interviews were recorded and fully transcribed.

A thematic analysis was used to mine the textual data gained from interviews utilising *NVivo*, a software package for qualitative analysis. A thematic analysis offers flexibility, allowing the researcher to identify both explicit and latent themes, pre-defined as well as emergent ones (Braunand and Clarke, 2006; Boyatzis, 1998). Coding proceeded in four rounds. In the first two rounds themes were identified, in the third themes were clustered into overarching meta-themes. In the final round of coding a negative case search—the systematic search for evidence contradicting emerging findings—was conducted to increase the internal validity of research findings. The analysis presented below is divided into three sub-sections. The first examines the context of reporting protests across the MENA. Sections two and three explore, what have been dubbed, normative and practical standards of the interface.

Networked Linkages Between Social and Broadcast Media

There is nothing unprecedented about the use of amateur content in the news (many videos of the London 7/7 bombings or the videos of the planes flown into the World Trade Centre were filmed by non-professionals). However the development of networked linkages between social and broadcast media platforms is novel. Such linkages were central to the communication and reporting of popular uprisings across the MENA. The protests that followed Iran's 2009 election catalysed the development of interfaces between social and broadcast media. Interviewees reported that prior to the election a general reluctance existed around the use social media content; they did not regard it as a source, let alone a primary source or definer of news, nor were there routines or processes in place for ingesting social media content. This made it difficult for such content to travel from the social web to broadcast news.

Two important developments coalesced in the aftermath of Iran's 2009 election that made social media a desideratum of broadcast news. Firstly, the MENA became increasingly connected, illustrate by significant increases in Internet bandwidth available across the region between 2002 and 2012 (Seo and Thorson, 2012). The rapid expansion of blogging in Iran (Khiabany and Sreberny, 2007; Kelly and Etling, 2008), and the increasing availability of smartphones and cellular networks (which allow a more direct connection between the online and the offline) (Duffy, 2011) are also good illustrations. Given the ubiquity of smartphones and Internet connectivity, the social web was awash with videos, stills and reports of on-going events as soon as the post-election protests erupted. Secondly, the attempt to create a news blackout by revoking press passes, sending foreign correspondents home or confining them to their hotel rooms made conventional reporting of the post-election protests impossible (Fathi, 2009; Reporters Without Borders, 2011). At the same time people were sharing content and stories from the ground across the MENA that would otherwise

not have been seen or heard, and news organisations responded by drawing on this social media content without which reporting would have become impossible. The explanation offered by one interviewee was illustrative:

> [I]n 2009 there was a great reluctance to use [social media content]. […] what happened in the past two years has completely changed the picture, because UGC (user generated content) forced itself onto the mass media, and made itself inevitable. (Paul)

The movement of content from the social web to broadcast news was, and is, not without friction. Social media content is not easily commensurable with the requirements and values of broadcast news. As one interviewee remarked, 'traditional newsrooms struggle to move into the digital age, they struggle with these new sources of information, there is much paranoia and distrust' (Lisa). Initially newsrooms did not have working processes in place to make use of social media content. As it became difficulty or impossible to carry out traditional reporting from the ground processes and routines (e.g. specially designed workflows) for taking a signal from, processing and integrating social media more fully into news processes were established. These changes were accompanied by the introduction of systems (e.g. software to process social media content and training courses for newsworkers) that institutionalised the interface between social and broadcast media (Hänska-Ahy and Shapour, 2013). Even news agencies (e.g. the AP) have begun to send social media content to their subscribers. While social media first became central to news processes in Iran, interviewees reported that its integration became progressively formalised through the Arab Spring. Changes in process are also reflected in changing attitudes. Interviewees explained that they were more reluctant to use social media content in 2009 than in 2011/12, when they felt far more comfortable drawing on it in their reporting.

The inchoate interface between social and broadcast media started to become institutionalised with the apparent effect that content could travel more easily from the social web to broadcast media. In the process of institutionalising the interface a set of standards emerged that help to explain how the interface works. These can broadly be divided into normative and practical standards that content needs to assimilate in order to travel across the interface, from the social web to broadcast news. While normative standards broadly derive from the imperatives of different actors and formulate a goal, purpose or end to which the interface should be used, practical standards relate to questions of practicability (commensurability with the affordances of social and broadcast platforms) and efficacy (ability to fulfil normative goals).

Normative Standards of the Interface

Networked content creators (e.g. social movement actors) and networked newsworkers respond to different imperatives. While technological convergence makes networked linkages between social and broadcast media possible, the analysis of interviews suggested that divergent imperatives, and resultant difficulties of establishing common standards, create frictions at the interface. Broadly two types of normative standards were identified relating to epistemic values (that relate to questions of truth, accuracy and veracity of information amidst all that is shared through social media) and news values (that relate to the question who defines newsworthiness and how events are to be defined and represented).

Most newsworkers interviewed said that they did not consider social media content to be particularly reliable, expressing a sense of unease even if they had become more comfortable using it. They viewed it as lacking transparency, veracity, and precision—as jarring with their epistemic values. As George lamented with reference to the increasing reliance on social media content: 'in terms of what is accurate, now it's difficult.' Using social media as a tool for reporting means using YouTube or twitter, for instance, as a signal. The problem is that this introduces a dimension of verification and authentication into the news process that is not needed when a news organisation has a team on the ground (e.g. is the report accurate, do images and videos in fact show the claimed place and time).

Epistemic values are also reflected in workflows and systems that were put in place to integrate social media with newswork. These processes emerged and were refined over the years (and will be discussed in greater detail below). Broadly they involve triangulating reports from different sources, digging into the digital footprint of originating accounts, and establishing a timeline of events—essentially applying traditional journalism values. Liam explained that you want to 'figure out how long it would take for content to be uploaded in order for it to be authentic and usable. […] how long would it take them to do it, depending on where they are, [and] how good the connection is'. In short, many interviewees thought that those sharing content on various social streams were not necessarily motivated by the kind of *epistemic values* that are the imperative of newswork.

Related to this perceived divergence over epistemic values, are differences in the conceptualisation of *news value*. While epistemic values relate to the veracity of reports, news values relate to the question who gets to define what is newsworthy, who sets the agenda, who gets to define the meaning of events? The editorial question that newsworkers ask when searching for, receiving, or processing social media content is whether it fits into the broadcaster's news agenda. There appears to be a tendency for newsworkers to return to their primary definers of news–that stories are pre-defined even before social media content is surveyed. This was affirmed by interviewees who described social media content as a repository from which stories first need to be constructed—rather than a source of stories in its own right. As Elizabeth noted, 'now you have more information but you can't control what information you have, and sometimes you would like to have information on something but don't have it.' To make sure that social media content is useful some interviewees actively attempt to solicit content on specific stories. Social media content might be a desideratum of newswork, but, to the extent possible, it is treated as a means of covering pre-defined stories, rather than as an agenda-setting source of stories itself.

This kind of stance can be attributed to the divergence that newsworkers perceive between their own imperatives and the imperatives of content creators. Just as interviewees were sceptical about the reliability of social media content, they were also suspicious about the motives of content creators. Anna noted that broadcasters had become platforms on which 'people would spread the news, people would tell about what was going on in the streets that day.' However, many interviewees considered social media content to be motivated by the imperatives of activism. It is not easy to distinguish a simple act of sharing from an act of activism: 'I'm not sure what comes first. Maybe sharing material makes them an activist', noted Liam.

In Syria the activists on the ground obviously have an agenda. They are

> trying to bypass censorship and propaganda on state side and so social media has been their means of getting their side of the story out. So they also deliberately want to get their stories into Western mainstream media. I think the best way to describe these people is as video activists (Lisa).

For content creators the challenge is to communicate their own stories widely by accessing broadcast platforms, rather than merely furnishing journalists with images to illustrate their news agenda. This leads to the view that the values of social media and broadcast journalism are at odds, that newsworkers need to be vigilant because much content available across the social web is either accidentally or wilfully inaccurate or untruthful. The perceived risk of ingesting such content into broadcast news appears to be an important point of friction at the interface. Thus, it is to be expected that social media content that does not assimilate dominant news values will not travel from the social web to the evening news.

However, it would be inaccurate to argue that stories that emerge or develop on the social web only ever make it to the news if they fully assimilate the normative requirements of broadcast journalism. Sometimes social media can set the agenda. Several developments appear to have precipitated a re-interpretation of news values in this direction. As noted above, newsworkers grew accustomed to and comfortable working with social media and in the process realised that working with stories which emerge through the social web did not threaten their professional integrity. The Arab Spring 'has changed the way that we [use social media …], if we can verify material from there we can verify material from anywhere. […] People have seen that you can still be a journalist, and apply journalistic storytelling to this stuff' (Liam). As these developments took hold newsworkers also became more comfortable allowing stories emergent across the social web to shape the news agenda.

The mainstreaming of social media generated an involuntary re-interpretation of *news value*. As social media are adopted more widely, audiences survey the same raw material in real-time that newsworkers use in their reporting. The synchronous nature of this means that audiences are increasingly judging news reports based on what they see on their social streams. Particularly on big stories, one interviewee explained 'there is no room to hide anymore' (Michael). Other interviewees offered examples of evens that were reported 24-62 hours late because of difficulties in verifying reports. These delays were invariably met by a stream of audience comments asking why the event in question, which they were aware of from social streams, was not being reported. This networked accessibility and synchronous availability of social media content makes the news process more transparent to audiences as it becomes ever more important for newsworkers to keep abreast of stories developing across the social web. Trending issues on twitter, or stories that get many likes on Facebook are now important topics in editorial meetings, noted some interviewees. Thus news values appear to be reinterpreted to take account of the vast amount of stories discussed across the social web at any given time. The power to define news seems to be shifting slightly, as broadcasters pay closer attention to trending stories across social media.

In summary, a set of normative standards (deriving primarily from the imperatives of newswork), related to the epistemic quality of content and the ability to define newsworthiness, influence the ease with which social media content moves into broadcast news. These standards generate friction at the interface between social and broadcast media. While the news agenda is typically defined by broadcasters, the

introduction of aforementioned systems, combined with the networked synchronous accessibility of social media content appears to be driving a (involuntary) reinterpretation of *news values*, so that social media content can sometimes come to define stories.

Practical Standards of the Interface

Content creators can increase the chances of her content migrating into broadcast news by understanding and working towards (assimilating) the normative standards of the interface (i.e. truthfulness and newsworthiness). This involves a set of practical challenges directly related to the outlined normative standards—one may be tempted to assume that norms always guide practices, yet, as will be argued in the conclusion, their relationship is more complex. As both newsworkers and content creators had an ostensible interest in the efficacy of the interface, both were incentivised to make normative standards practicable.

Verification is important for meeting epistemic standards outlined above; it is an important part of the process that brings social media content into broadcast news. It was indicated above that prior to the 2009 Iranian election systems dedicated to the processing of social media content were nascent at best, but have steadily developed since. An important element of systems established to institutionalise the interface at the BBC, was the wider adoption of a software platform used for managing social media content. It acts as a repository to which audiences could upload content, and to which harvested content could be added. Within the software platform content can be verified, tagged and made available to program producers. Significantly verification workflows reportedly improved across the board, with specific processes being institutionalised as standard practice in newsrooms with training programs designed to build necessary skills. Verification processes are now more structured, and may start by matching images and videos to topographical details, such as a very distinct minaret, using Google satellite imagery or Panoramio. Verification will proceed by searching Facebook or twitter to see what others based in the same location are saying. With social media content newsworkers can examine the digital footprint of content creators: Does their social history make it plausible that they were in the location they report to be? Lisa offered a good illustration:

> The morning that Marie Colvin and Remi Ochlik were blown up in Syria we got that information through our twitter list. […] Video started to emerge very quickly from an activist based there. So we knew that it was probably legitimate. Then a second activists that we knew was based there uploaded a video of the same building, same angles similar quality. More to the point, there were people talking about it in Arabic […] We saw a journalist in Egypt asking about his cousin Omar who worked in that media centre, "did he survive, I did not hear from him". […] We found a twitter account that was talking about Omar, and we could see from his activity that he was reporting from that area.

The introduction of verification workflows at news organisations made using social media content in reporting the Arab Spring much easier. The fact that Storyful and the AP (both news agencies) send social media content, verified and ready for use, to their subscribers also reduces the practical burden broadcasters face when using social media content. Thus, effective and practicable practices for working with social media content reduce friction at the interface, increasing the ease with which social media content can move into broadcast news.

It is not only newsworkers who have improved their process for working with social media content. Some interviewees remarked how sharing practices and content quality have improved. For instance, when protests first erupted in Syria uploads of content were less targeted, and the content produced was more *ad hoc*. They report how content became increasingly targeted, and how it was tagged or signposted in ways that facilitate efficient verification. More videos now use end-boards and take establishing shots to help date the video and verify its location. The adoption of Bambuser by some content creators, a service for streaming live video from smart phones that was blocked by Egypt's government alongside Twitter, also facilitated verification. At the same time best practice information on capturing and sharing content is increasingly being shared with people on the ground. Some organisations were even said to offer social media training to activists across the MENA, occasionally even providing cameras and satellite phones. As interviewees noted that such practices have become more common, they also suggest that content creators in the MENA have picked up on some of the standards news organisations require of content. Content creators are aware that signposting and tagging their content properly will increase its chances of getting into broadcast news. Thus, content creators appeared to be working towards these standards. They now

> understand the verification process that news organisations go through. So at the beginning you'd get something random undated, then you'd get people showing signs to show what was happening in that video so that couldn't be removed if it was scraped by someone else. Then you get others curating this stuff putting captions, narrating the audio to say this is right now what we are seeing. So that information will always travel with the images (Liam).

In summary, a set of practical standards (related to systems and practices) commensurable with both social and broadcast platforms and effective at fulfilling the normative standards discussed above appear to decrease friction at the interface. While more structured processes inside newsrooms made it easier to verify and process content, content creators picked up on editorial requirements, improved their practices, and increasingly produce content that is easier for newsrooms to process. For instance someone sharing content from Syria will increase the chance of getting it into the news by uploading it to the right sites and signposting it to facilitate verification. With newsworkers working towards the requirements of social media, and content creators working towards the requirements of newsrooms, frictions at the interface are reduced, and shared standards (norms and related practices) are beginning to emerge.

Discussion & Conclusion

It was argued that understanding the action possibilities multimedia networked environments afford different social actors requires an understanding of how the affordances of social and broadcast platforms interact at the interface, and an understanding of contextual practices and choices involved in the diffusion of content across the interface. It was proposed that standards offered a useful way of conceptualising how the interface worked. Standards must be compatible with the affordances of interfacing platforms. They stipulate rules that function by harmonizing choices and practices around the interface so that content assimilating these standards will pass across the interface with greater ease. In doing so they shape the scope and limits of action possibilities that multimedia networked environments

afford social actors. They are not formally agreed or codified; they are heuristics that describe a kind of bottleneck that creates friction at the interface between social and broadcast media. Broadly, using standards to conceptualise the interface has proved productive.

The present analysis indicates both normative standards (which define the goal or purpose of the interface and derive from the imperatives of different actors) and related practical standards which make the interface workable (practices which effectively fulfil normative standards and are commensurable with the affordances of different platforms)—this distinction emerged as more useful to the examined case than Grewal's (2008) distinction between mediating and membership standards.

Normative standards centred around *epistemic values* and the ability to define *news values*. Epistemic values relate particularly to practices and processes designed for verification and the reported reluctance on the part of newsworkers to use social media content because it is considered unreliable. Here the journalistic imperative to ascertain veracity is preeminent in shaping the interface. News values relate to the ability to define the news and determine how protests are conceptualised. They define salience. The way content was used to cover pre-defined stories suggests that news organisations (rather than content creators and audiences for example) define news values (see: O'Neill and Harcup, 2009; Gamson and Wolfsfeld, 1993). Both epistemic and news values appear to be derivative of journalism values.

Practical standards are practices and processes that render the movement of content across the interface *effective* because they fulfil normative standards, and *practicable* because they are commensurable with the affordances of both social and broadcast media platforms. Initially practical standards (i.e. practices and processes) were nascent, but became progressively established and even institutionalised over time (e.g. through training programs and technical infrastructure). The development of new processes in newsrooms appeared to be paralleled by changing practices of content creation on the ground (e.g. better practices of signposting and sharing social media content).

Taken together practical and normative standards shed some light on the working of the interface: The diffusion of content, say a video, across the interface requires someone to capture, create or curate content, and to upload and share it. This content then needs to be found by newsworkers, processed and verified, it needs to fit into prevailing perceptions about news value, and finally be broadcast on the news. If all practices involved in this process (and hence the video itself) assimilate predominant standards, friction at the interface will be minimised.

  Although it generally seems that practical standards emerge in an effort to meet normative standards, the relationship between them does not appear to be purely unidirectional (e.g. normative standards do not necessarily always cause practical standards). While core normative standards mostly derived from journalism values, hence constraining the action possibilities afforded content creators, content creators may be most empowered in shaping nascent practical standards precisely because practicable and efficacious ways of managing the interface are emergent. Specifically, more efficacious practices can come to direct changes in the normative standards of the interface. Those who develop and understand such practices will also be empowered. Some of the reviewed evidence suggests this conclusion:

Communicating protests across the MENA through multimedia networked communication depended on the ability to develop practices that minimise friction at the interface between social and broadcast media. Contextually it is relevant that social media became a desideratum of newswork in covering the MENA, yet suitable practical standards were only starting to take shape. At the same time social media's synchronous real-time nature meant that audiences surveyed the same social streams that broadcasters rely on for their reporting, forcing social media into the heart of newsrooms. Developing more efficient practices involved mutual knowledge about normative standards (e.g. content creators understood what newsworkers needed, thus their videos were often carefully considered for broadcast). As more practicable and effective practices emerged (e.g. tagging and signposting) that satisfied some normative standards (e.g. epistemic values)—thus facilitating workflows within newsrooms and reducing frictions at the interface—content creators increased the chances of their content influencing the news agenda. Simultaneously newsworkers, who used to see social media mainly as content repository to cover a pre-defined news agenda (Harrison, 2010; Haas and Steiner, 2006), appeared to have changed their attitude so that social media can even play a role in editorial processes of setting the news agenda. By adopting and developing practicable and effective practices content creators were arguably empowered, increasing their capacity to shape the news agenda (e.g. define news values) and therefore expanding their action possibilities.

Figure 1 illustrates the interface between social and broadcast media, the standards of the interface and how standards shape each other.
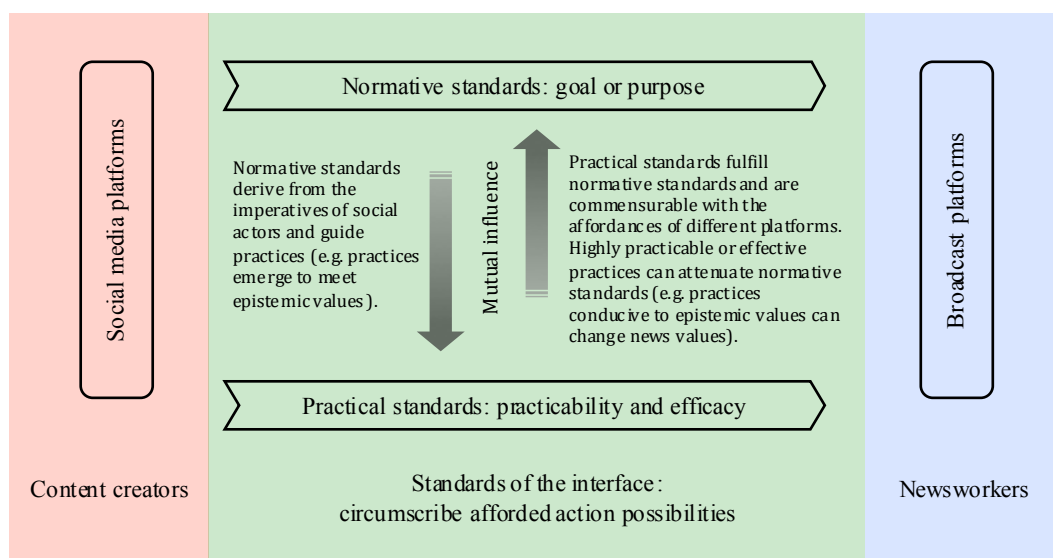
Thus practical and normative standards of the interface appear to shape each other dialectically, as illustrated in Figure 1. Power derives not only from the top-down ability to specify normative standards, but also from the ability to shape more practicable and efficacious practices that, over time, become practical standards of the interface (e.g. signposting content to facilitate verification now appears to be a

routine). Efficacy and practicability can, so to speak, upstage the unilateral power to stipulate normative standards, and may thus even come to shape the purposes of the interface—and thus the scope and limits of action possibilities that multimedia networked environments afford social actors.

This paper has argued that understanding how protests across the MENA were communicated, how the video of the self-immolated Bouazizi travelled to the evening news, we need to understand the interface between broadcast and social media. This interface is shaped by a set of normative and practical standards that are dialectically related, and which together shape the affordances of multimedia networked environments. In the course of the Arab Spring some of these standards seem to have been revised, arguably extending the scope of affordances, suggesting a shift in the way power is exercised at the interface between social and broadcast media.

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