TWITTER AS A TECHNOLOGY FOR AUDIENCING AND FANDOM

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The #Eurovision phenomenon

Amongst the most prominent uses of Twitter is its role in the discussion of widely televised events: Twitter's own statistics for 2011, for example, list major entertainment spectacles (the MTV Music Awards and the BET Awards) and sports matches (the UEFA Champions League final and the FIFA Women's World Cup final) amongst the events generating the most tweets per second during the year. During such major media events, Twitter is used most predominantly as a technology of fandom: it serves as a backchannel to television and other streaming audiovisual media, enabling users offer their own running commentary on the universally shared media text of the event as it unfolds live. This article examines the use of Twitter as a technology for the expression of shared fandom in the context of a major, internationally televised annual media event: the Eurovision Song Contest. Our analysis draws on comprehensive data sets for the 'official' event hashtags, #eurovision, #esc, and #sbseurovision. Using innovative methods that combine qualitative and quantitative approaches to the analysis of Twitter data sets containing several hundreds of thousands, overall patterns of participation to discover how audiences express their fandom throughout the event are examined. Such analysis is able to provide a unique insight into the use of Twitter as a technology for fandom and for what in cultural studies research is called 'audiencing': the public performance of belonging to the distributed audience for a shared media event. The work points to Twitter as an important new medium facilitating the connection and communion of fans.

Keywords   television; Twitter; fandom; social media; audiencing; Eurovision

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Introduction: *Twitter* as a backchannel to live television

Twitter's rapid rise in popularity and growing presence as a well-established and highly visible part of the digital landscape have accompanied its adoption and co-option for a wide variety of purposes. This also means that research into the uses of *Twitter* must address the full range of these diverse genres by taking into account their specific cultural and communicative contexts. One particularly interesting phenomenon is the use of *Twitter* to connect and support conversations between audience members for live or mediated entertainment. Indeed, *Twitter*'s own statistics for 2011, for example, list major events such as awards ceremonies (the MTV Music Awards and the BET Awards) and sports matches (the UEFA Champions League final and the FIFA Women's World Cup final) as catalysts for the most significant peaks in the number of tweets per second during the year (*Twitter* 2011). Given the limited number of *Twitter* users who would have been able to experience each event *in situ*, these substantial peaks in live tweeting activity must have been driven in the main by members of national or world-wide television audiences, tweeting back at their TVs via a second (computer or mobile) screen.

Focusing specifically on television, Harrington *et al.* (2012) have suggested that there are a number of different, although overlapping, dimensions to the intersection of *Twitter* and live broadcasting. The most important of those dimensions is the way that *Twitter* allows users a space for 'live' (that is, real-time), relatively unmediated, *communal* discussion of television programmes. Users are able to offer their own commentary on the event broadcast as it unfolds, to engage with other viewers doing the same, and perhaps even to see those comments become part of the television broadcast itself, as is increasingly common in some TV genres and formats.

This new kind of reciprocity between producers and viewers has been facilitated to a large degree by the structural abilities of hashtags – unifying textual markers which are now often promoted to prospective audiences by the broadcasters well in advance of the live event itself. Ordinarily, a user's tweet is only ever seen by the people who 'follow' that user, and then only if the follower happens to be attentive at that particular moment (Marwick & boyd 2011, p. 117); therefore, a user's conversational reach is limited by the size of their social network. By including hashtags, however, users can mark their tweets as relating to a certain topic or TV programme, and address the entire community of users who are tracking the hashtagged discussion. Therefore, as Bruns and Burgess (2011a, p. 4) note,

> the network of *Twitter* users which is formed from this shared communicative practice must be understood as separate from follower/followee networks. At the same time, the two network layers overlap: tweets marked with a

specific hashtag will be visible *both* to the user's established followers, *and* to anyone else following the hashtag conversation.

While the adoption of such hashtags is not guaranteed (some users may prefer their comments to reach the more limited audience of their *Twitter* follower network only, for example), and rival hashtags may exist for major events (reflecting competition between different broadcasters or enabling the gathering of fans tweeting in specific languages, for instance), a handful of leading hashtags usually emerge for any one major event. Indeed, the frequent sight of television-related hashtags in *Twitter*'s list of 'trending topics' (see Deller 2011, p. 225) suggests that, whether by accident or by the deliberate intentions of the producers of these shows or events, *Twitter* has become an important part of the contemporary media 'audiencing' processes (Fiske 1992) – and, for producers, a useful means of assessing the 'quality of audience engagement', rather than just the sheer 'quantity of viewers' (Jenkins 2006, p. 63).

As a result, these distributed public conversations accompanying live broadcasts come to act as a kind of 'virtual loungeroom' (Harrington *et al.* 2012): a communal space where audience members can come together to discuss and debate, in real-time, their responses to what they are watching on the television screen. In turn, this raises questions about how such second-screen activity might change television viewing habits, how fans and producers inhabit and adapt to this new space of potential engagement, and whether the most intense and productive of such intersections between broadcast and social media may come to create entirely new media practices, texts, and genres.

Such questions are beginning to be addressed in several recent studies. Wood and Baughman (2012) closely examined the use of *Twitter* by the *Glee* fan community: they paid specific attention to the role-playing activity that some fans engage in by setting up and maintaining user accounts for the fictional characters on the show. These accounts enabled users to engage in a process of 'narrative augmentation' (extending, or giving greater detail to the plotlines as they aired); others portrayed entirely imaginary characters who would then 'play', and interact with other users, in this augmented narrative. This activity – which 'meticulously crafted a world outside of the television narrative' (Wood & Baughman 2012, p. 334) – included the creators of the fake accounts engaging in painstaking attendance to the fine details of their character, to maintain a true sense of authenticity. This involved a high degree of creativity, but did not stray very far off the character and formal narrative into which they are normally positioned by the show's writers.

Wood and Baughman – like Harrington *et al.* (2012) – believe that such activity can help in the reformation of the 'live' viewing audience, which had continued to shrink over past decades due to the increasing prominence of time-shifting or on-demand playback services. Users' ability to participate in

the real-time social media conversation around shared texts is crucially dependent on parallel, synchronized viewing by large audiences, thus providing a strong incentive for the live viewing even of pre-recorded programming. Because the televisual 'flow' (Williams 1975) is thereby given renewed emphasis, and the networks are given renewed power over the scheduling of this 'flow', Wood and Baughman also see a problematic side to this activity, then: social media-enhanced live viewing serves to rebalance the broadcaster/audience relationship back in favour of the broadcaster. The real consequences of this (either deliberate or, for TV networks, serendipitous) usurpation of audience sovereignty are yet to be known, and the extent of the power shift perhaps quite limited, but it is undeniable that the use of social media is having a real impact on a significant portion of viewers, which is, in turn, affecting the way that broadcasters operate. It highlights that, as Gray and Lotz (2012, p. 3) note, 'Television is neither "beating" nor "losing" to new media in some sort of cosmic clash of technology; rather, television is an intrinsic part of "new" media'. *Twitter* is not a *rival* technology at all, then, but supports a raft of supplementary or complementary activities.

Most other research on the intersection of new media and televised events relates to more formalized channels of delivery – such as multimedia engagement strategies with reality TV formats (Ytreberg 2009) – rather than to audience (and, to some extent, fan) communication channels which grow organically in the more 'neutral' spaces of third-party social media platforms. The research on *Glee*-inspired fan accounts, on the other hand, presents a 'close-up' view of what is perhaps an extreme case: it focuses only on the actions of a small, highly committed group within the *entire* fan community, rather than examining broader, meta-level patterns of social media user interaction with shared televisual texts. That activity is probably unique to fiction televisual genres, and the more engaged, attentive and youthful audience that the show attracts.

In this article, however, we examine the use of *Twitter* as a technology for the mass, trans-continental expression of shared fandom in the context of a major, annual, internationally televised media event: the Eurovision Song Contest. We demonstrate how *Twitter* becomes an unofficial extension of the event, through which audiences can engage in direct, many-to-many communion, conversing, and connecting with other fans throughout Europe and around the world. This provides significant new insights into the role that social media play in the conversations that occur between 'ordinary' fans and audience members, in real time, on an *ad hoc* basis. More specifically, it demonstrates how *Twitter* is used as a platform for a singular, transnational, live media event; in doing so, it provides evidence not only on how an *extremely broad* audience watch Eurovision (and comparable international live TV events), but also on how Internet-based social technologies mediate those events, acting variously as a completely separate sphere of dissemination, or a complementary channel to the TV broadcast.

Eurovision

The Eurovision Song Contest – known amongst fans simply as 'Eurovision' – has been held since 1956, and is one of the largest music competitions and the longest-running television shows in the world (Georgiou & Sandvoss 2008); held annually in May, the contest regularly attracts millions of viewers both from competing countries and from around the world, with estimates for the 2012 contest putting its television audience at over 100 million (Siim 2012). The contest itself follows a regular format. Competing countries select a contestant and specially written song to represent them. All of the songs are performed, one after the other, in a live show hosted by the previous year's winning country, and once all of the songs have been presented, the Europe-wide audience votes for their favourites. The participating countries have changed over the 52 years since the first contest, where only seven countries were involved. In 2012, 42 countries took part, covering a geographical area from Iceland in the west to Azerbaijan and Russia in the east and from Norway south to Israel. Membership of the European Union is not a requirement for competing in the Eurovision Song Contest; instead, countries need to be members of the European Broadcasting Union (EBU), which produces the show.

As the number of participating countries has increased, so the format of the contest has changed to accommodate this growth. Rather than producing one long show involving all of the competitors, contests from 2004 on have involved one or more qualifying events followed by a final. For the 2012 contest, six of the 42 countries automatically qualified for the final: the hosts (and 2011 winners) Azerbaijan, and the group collectively known as the 'Big Five' – France, Germany, Italy, Spain, and the UK, the main financial contributors to the EBU. The remaining 36 competing nations were divided into two semi-finals, from each of which 10 entries progressed to the final. This format provides three opportunities for the Eurovision audience to watch and interact with the show, as each semi-final is also internationally broadcast and voted upon during the week preceding the final. The results of the semi-finals and final are based on a combination of public televotes and national juries – for the final, each country participating in the contest, regardless of whether or not it qualified for the final, awards points to the top 10 entries (not including their own) from its own combined public and jury votes.

The Eurovision Song Contest already contains a degree of interactivity for its audience through public voting, therefore, even without the backchannel provided by social media. Over time, the contest has also developed a cult following, with viewers watching Eurovision not just for the multicultural showcase, the music and the performances, but also in some cases for the kitsch spectacle, enjoyed (but not always) with a degree of ironic detachment. In the United Kingdom, for example, the contest has been framed as an often embarrassing ordeal for the viewing public, which the United Kingdom has increasingly less

chance of winning due to the perceived presence of political or bloc voting among other Eurovision nations, regardless of the quality of the songs in question. (For instance, such voting for one another's entries has been seen for countries from Scandinavia, the former Soviet Union, or the Balkans, respectively, – for further examination of voting patterns in Eurovision, see Fenn *et al.* 2006; Gatherer 2006; Ginsburgh & Noury 2008.) This view of the contest was promoted by veteran BBC commentator Terry Wogan, whose remarks accompanied the United Kingdom broadcasts of Eurovision until 2008:

> On the surface, his task is to explain what's going on: the name of the next act, the name of the song's composer, and whether the nation in question has won past contests. This purports to be a pedestrian, background performance: a 'voice over' intended to illuminate the main event. But Wogan's other task is to become the main event: to provide a witty and sometimes acerbic account of the passing show, as if he had stumbled in to it by accident and cannot quite believe the exotic bricolage before him.
> (Coleman 2008, p. 133)

Although Wogan retired from Eurovision commentary following the 2008 contest, the ironic, backchannel-like nature of his comments were seen as a key component of the annual Eurovision experience (in a sense framing the contest not just for Eurovision fans, but for anti-fans and non-fans as well; see Gray 2003). This was not just the case in the United Kingdom, but also in Australia, where the public broadcaster SBS – whose remit is especially to cater for Australia's multicultural, multiethnic community – has shown the contest since 1986. Until 2008, the Australian broadcast was usually of the BBC coverage, complete with Wogan's commentary, and attempts to present a more domestically focused analysis of the show were not met with approval (Douglas 2001). Following Wogan's retirement, however, SBS chose to use in-house resources rather than the BBC coverage, sending its own commentators and production team to cover the contests from 2009 onwards. However, especially considering that Australia cannot be a participant in the contest itself, ironic engagement with Eurovision still forms an important, if not as central, part of the commentary for SBS's broadcasts – not just on air but also among the audience sharing their Eurovision-related thoughts on *Twitter*.

In this article, we examine the Eurovision audience on *Twitter* and its different approaches to discussing the event , based on the hashtags used, tweeting patterns during the contest, and the connections between accounts through @mentions, replies, and retweets. *Twitter* is not a Eurovision-specific forum, and in addition to dedicated fans of the contest itself, it would be expected that the data sets studied here also feature contributions from fans of the performers involved as well as from more casual viewers. This is in keeping not just with the different groups of Eurovision spectators discussed by Georgiou (2008), but also with other online,

interactive platforms where users participate for myriad reasons within groups which may have little, if anything, in common with each other (Baym 2010, p. 74). What the article does, then, is to evaluate how *Twitter* is used as a live back-channel by the Eurovision audience, what regional and topical differences and similarities may be present, especially in the comparison between Europe and Australia, and which events on screen lead to heightened tweeting activity.

Methods

For this study, we analyse *Twitter* data surrounding the 2012 edition of the Euro-vision Song Contest, held in Baku, Azerbaijan, between 22 and 26 May 2012; while we also collected data from the 2011 edition, held between 10 and 14 May 2011 in Düsseldorf, Germany, for reasons of space we focus only on the more recent case here. Our methods for gathering *Twitter* data have been developed through several previous studies, examining *Twitter* use around a range of contexts, including crises and election campaigns (see Bruns & Liang 2012; Bruns & Stieglitz 2012, for more detail). Our approach primarily focuses on tweets which contain specific topical hashtags: shared keywords or abbreviations preceded by the hash symbol '#' which enable the manual or automatic collation of all tweets containing the same hashtag, as well allowing users to subscribe to content feeds that contain only those tweets which feature specific hashtags. Such hashtags were used, for example, by users discussing the 2011 earthquakes in Christchurch, New Zealand (#eqnz; see Bruns & Burgess 2012) or the Arab spring uprisings in specific countries (#egypt, #libya; see Lotan *et al*. 2011; Bruns *et al*. 2012). For the 2012 Eurovision Song Contest, we focused on the hashtags #eurovision and #esc, both of which were prominent during the pan-European live telecasts, and #sbseurovision, which was the central hashtag during the delayed SBS broadcasts.

By tracking topical hashtags and capturing hashtagged tweets, we establish a data set of the most visible tweets relating to the event in question, since it is the purpose of topical hashtags to aid the visibility and discoverability of *Twitter* messages. In this, we distinguish *topical* hashtags such as #eqnz from other hashtag uses – e.g. from emotive hashtags such as #facepalm or #fail (cf. Bruns & Burgess 2011a). This does not mean that we are able to capture *all* messages relating to the event or topic, however; it is virtually guaranteed that some users tweeting about the topic will be unaware of the existence of the central hashtag, or even unfamiliar with the concept of hashtags altogether.

Additionally, anecdotal evidence also suggests that while hashtags may be used for the sharing of key information and opinion about the event, follow-on @reply conversations between participating users may well take place outside of the hash-tagged stream of tweets (unless users specifically choose to again hashtag their public responses to one another, in order to give these messages greater visibility

as well); further, of course, follow-on communication through private, direct *Twitter* messages or other communication media will also remain outside the scope of any research which can be conducted using the methods outlined here.

To track hashtags and keywords on *Twitter*, we use the open-source tool *yourTwapperkeeper* (2011; for a detailed overview of this tool, see Bruns & Liang 2012). For each archive set up for a specific hashtag, *yourTwapperkeeper* retrieves tweets containing the relevant term, recording key information such as the content and timestamp of the tweet, and the account name and ID of the user posting the tweet. There are some limits to this approach: for example, tracking *Twitter* data using *yourTwapperKeeper* does not capture retweets made using *Twitter*'s 'retweet button'. However, many manual retweets serve a significantly more conversational function than 'button' retweets, because they can be edited before sending; for example, users will often retweet part of an earlier message in order to add their own, original commentary. 'Button' retweets, on the other hand, constitute merely a verbatim passing-along of the original message, but do not enable retweeting users to include any additional comments with the retweeted message.

It should be noted here that no retrieval methods guarantee a comprehensive capture of *Twitter* data: outages on the side of server or client, or transmission problems between them, cannot be ruled out altogether, and may result in message loss. Further, there are very few reliable means of comprehensively cross-checking the data set for its veracity, since the *Twitter* API constitutes the only point of access to the *Twitter* stream which is available to external research-ers. No data set is captured by using the *Twitter* API is guaranteed to be entirely comprehensive, therefore; such research, nonetheless, remains valid and impor-tant, however, especially where research focuses on identifying broad patterns in *Twitter* activity from a large data set.

The calculation of statistics and metrics describing the *Twitter* activities captured in a given data set relies mainly on processing these data sets to count and compare specific communicative patterns; further filtering of datasets for specific timeframes, users, or keywords may also be necessary. Our work uses the open-source command-line tool *Gawk* (2011), which provides a simple but flexible scripting language that can be used to process files in comma-separated/tab-separated value formats (a package of common *Gawk* scripts for processing *Twitter* data sets is available at Bruns & Burgess 2011b). The overall results of such data processing may be visualized in common spreadsheet software. For the visualization of the networks formed through @men-tions, replies, and retweets, we use the tool *Gephi* (2011).

Eurovision through the eyes of *Twitter*

The total data collected provide a comprehensive overview of how the 2012 Eurovision Song Contest was seen by *Twitter* users. As the archiving processes

for the hashtags and keywords used for this study are ongoing, we are able to continue tracking mentions of Eurovision outside of the contest dates; however, in this article we focus on Twitter activity during the period of 22–28 May 2012, taking in the week of the semi-finals and final in Baku as well as the delayed Australian broadcast.

During this period, we collected 688,255 tweets containing the hashtag #eurovision (and its variants, such as #eurovision2012), posted by 271,826 unique users. For the hashtag #esc, the week's total output was 167,680 tweets from 48,546 users. While including #eurovision in tweets about the song contest is more widespread than the use of #esc, then, the average number of tweets per user is higher for #esc. Of course, neither of these hashtags represents the total discussion of the event; in comparison, the number of tweets featuring the keyword 'eurovision' (including hashtags and URLs containing the term) totals 1,224,875 tweets from 509,416 users during the same period. Finally, our #sbseurovision data cover a shorter period – the archive was created during the broadcast of the first semi-final – and contain 112,836 tweets, from 20,418 users, published between 25 and 28 May. For the Australian broadcasts, we focus solely on the #sbseurovision hashtag; while other related hashtags were occasionally included in tweets by Australian users watching the show, the promotion of the SBS hashtag and its visibility within the broadcast contributed to its substantially wider use than #eurovision or #esc during this period.

This activity includes not just the broadcasts from Baku, but also the build-up and aftermath of the contest. When we limit our analysis to the periods immediately surrounding each live broadcast in Europe (or the respective delayed broadcasts in Australia, for #sbseurovision), show-by-show patterns emerge (Table 1).

The activity shown in Table 1 includes tweets posted in the hours before and after each of the broadcasts, to include any pre- and post-show comments. Unexpectedly, for both #eurovision and #esc, the final broadcast did not attract the greatest amount of activity: while the total number of unique users is largest for the final broadcast, the smaller community of participants in #eurovision during semi-final 1, and in #esc for semi-final 2, generated a greater total number of tweets than the substantially larger participant base in the final. In Australia, on the other hand, the highest level of activity in #sbseurovision was recorded during the final broadcast – but here, too, semi-final 1 nearly reaches a comparable level.

These varying levels of tweeting activity during the broadcasts highlight possible distinctions between the Eurovision audiences, using these hashtags – for example, the relative population sizes and *per capita Twitter* adoption rates of the specific countries participating in each semi-final, and in the final contest. To further investigate which groups of users are discussing Eurovision and when, we examine two key aspects of *Twitter* activity during the broadcasts: first, minute-by-minute activity rates, in order to identify key spikes in the total

TABLE 1   Total tweets collected for Eurovision hashtags, May 2012.

Europe			Australia	
Broadcast and date	#eurovision	#esc	Broadcast and date	#sbseurovision
Semi-final 1 (22 May – 6 h)	214,579 tweets and 82,913 users	47,416 tweets and 13,715 users	Semi-final 1 (25 May)	39,950 tweets and 8,486 users
Semi-final 2 (24 May – 6 h)	157,745 tweets and 50,771 users	54,584 tweets and 15,215 users	Semi-final 2 (26 May)	25,500 tweets and 6,175 users
Final (26 May – 10 h)	214,837 tweets and 133,475 users	45,458 tweets and 21,994 users	Final (27 May)	45,213 tweets and 10,093 users
Entire week (22–28 May)	688,255 tweets and 271,826 users	167,680 tweets and 48,546 users	Wider period (25–28 May)	112,836 tweets and 20,418 users
Per cent tweets during broadcast periods	85.3	87.9	Per cent tweets during broadcast periods	98.1 (shorter period tracked)

number tweets published, and second, the connections between users created through @mentions, @replies, and retweets.

Minute-by-minute patterns

Analysing each Eurovision broadcast and hashtag on a minute-by-minute basis allows us to compare which events taking place on screen can generate an increased level of tweeting, and indeed which sections of the show correspond to lulls in activity. During the first semi-final, for example, users including the #eurovision hashtag in their tweets were regularly publishing over 1,000 tweets per minute, but a few performances caused spikes in the numbers of comments posted, as can be seen in Figure 1.

A sudden surge in tweets accompanied the start of the show and the first performance, from Montenegro, but the first genuine spike came during the
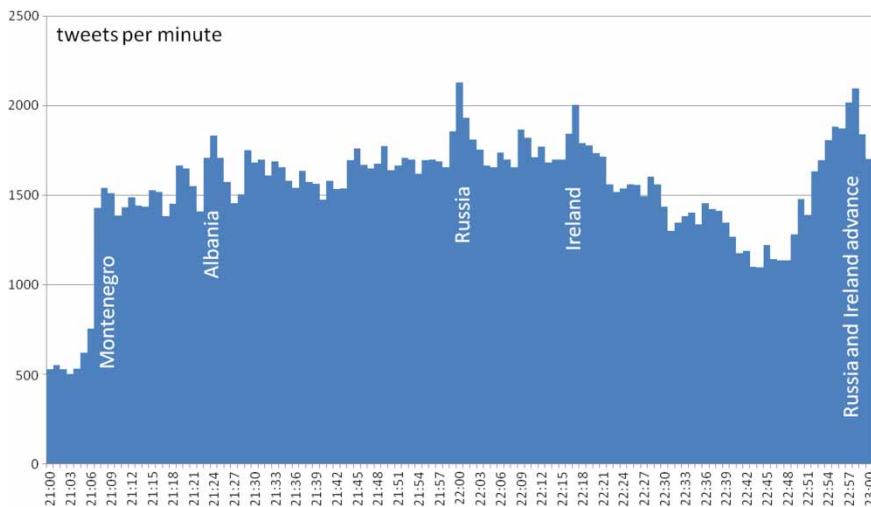
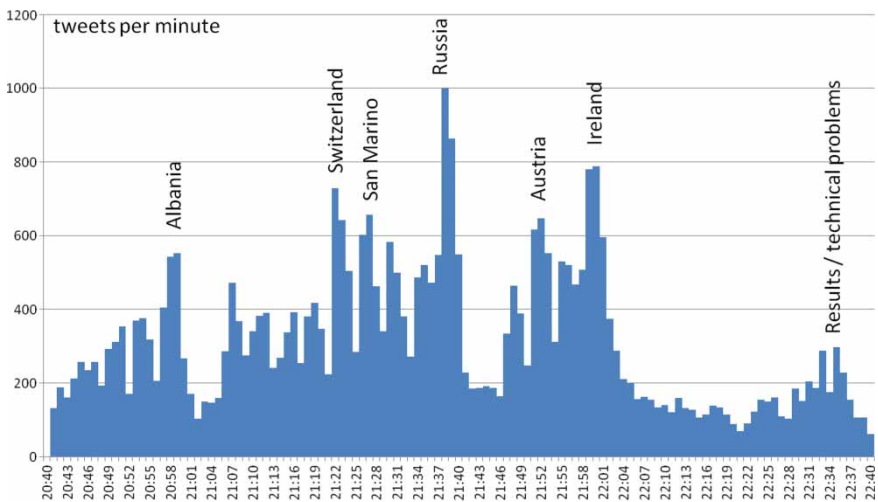**FIGURE 1**   #eurovision, minute-by-minute tweets, 21:00-23:00 (CET), Tuesday 22 May 2012.

fifth song: 'Suus' by Rona Nishliu, representing Albania. This entry was the first of the semi-final to be performed in a language other than English, and Nishliu's distinctive appearance and vocal performance were the subjects of many tweets, including many comparisons to the Icelandic musician Björk. While the subsequent songs were also commented upon by many *Twitter* users, the next genuine spike in activity did not occur until the 14th performance: 'Party for Everybody' by the Buranovskiye Babushki, representing Russia. The sight of six elderly women in traditional costume, with an oven on stage, singing in a mix of Udmurt and English to a dance beat, led #eurovision comments to peak at over 2,000 tweets per minute. Only with the final act of the semi-final, the Irish duo Jedward, did activity reach a similar level during a performance; in the interim between the last of the performances and the announcement of the first voting results, the rate of tweets gradually declined. Conversely, as voting results from the different countries are announced, user activity gradually builds up again, with the announcement of the last two of the 10 qualifiers for the final (the popular Russian and Irish entries) resulting in a final spike of activity as users expressed their excitement or disappointment about the semi-final results.

#esc tweets during the first semi-final follow a similar pattern of spikes, although at a lower level of activity than was seen for #eurovision; again, Albania, Russia, and Ireland are responsible for the primary spikes, with activity peaking during Russia's performance at just over 600 tweets per minute. Two additional entries – San Marino and Austria – also generated noticeable spikes.

Activity in the #sbseurovision hashtag demonstrates that – in spite of the fact that Australian audiences could already have received news of the results of the semi-final during the day – even this delayed telecast of the event was still

watched and commented upon as if live by Australian Eurovision fans; indeed, the separate #sbseurovision hashtag provides a means of distancing the Australian fan community from European viewers whose #eurovision tweets could have acted as spoilers for the pretend-live experience provided by SBS. In Australia, then, the spikes in live tweeting activity seen in Figure 2 largely match those for #eurovision: in addition to Albania, San Marino, Russia, Austria, and Ireland, however, Switzerland's entry also provoked a substantial increase in participation. Additionally, there was an increased level of tweets towards the end of the show, when the sound was temporarily lost from the broadcast. Overall, too, the necessarily lower level of overall activity generated by the much smaller Australian audience (the 8,486 unique users tweeting about semi-final one in Australia would account for just over one-tenth of the European *Twitter* audience for the same broadcast) allows the responses to each performer stand out more clearly, while the commercial breaks between acts are also clearly indicated by a sudden drop in volume. The SBS coverage was delayed across different Australian timezones, and Figure 2 shows only the period covered by the east coast broadcast – substantially lower Twitter activity, with an average of 30 tweets per minute, accompanied the later broadcasts in central and Western Australia.

During the second semi-final, by contrast, there were no significant spikes in #eurovision activity which would match those for the Irish or Russian entries during the first night; while activity exceeded 1,000 tweets per minute during multiple performances, no one song garnered exceptional attention. Instead, entries from countries such as the Netherlands, Ukraine, Sweden, Georgia, Turkey, Norway, and Lithuania were all commented upon at similar rates. For
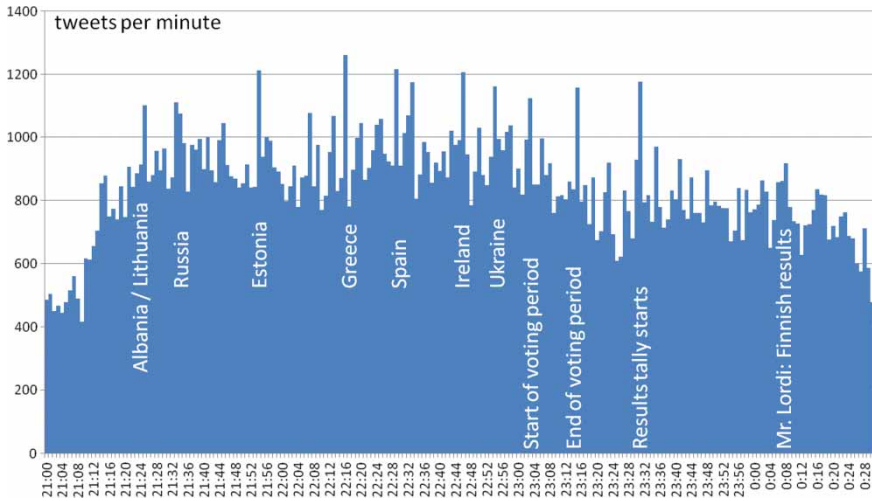

FIGURE 2 #sbseurovision minute-by-minute tweets, 20:41-22:40 (AEST), Friday 25 May 2012.

the smaller #esc userbase, though, five moments during the broadcast led to prominent spikes of more than 600 tweets per minute. The first three correspond to competing entries in the semi-final: the Netherlands, Sweden, and Turkey, with the peak activity (693 tweets per minute) coinciding with the Swedish performance. Two additional spikes take place during the voting interim, as *Twitter* users commented on the interval performance – a medley of four of the five previous winning songs, by their respective performers, culminating in a group performance of ABBA's 'Waterloo', which won the contest for Sweden in 1974. The final spike arrived during the results, as with the first semi-final; in this case, though, it relates not to the announcement of the last contestants to advance to the final, but to the popular Swedish entry, announced as the fifth successful qualifier.

During the final itself, the #eurovision, #esc, and #sbseurovision tweets largely followed the patterns established in the semi-finals; spikes again accompanied the Albanian, Russian, Swedish (#esc only), and Irish (#sbseurovision only) entries, for example. Some entries, however, received greater attention than they did during the semi-finals; in particular, Greece's performance caused a spike in both #eurovision and #esc tweets. #esc tweets per minute also increased during the German entry, which had not appeared in either semi-final as it had automatically qualified for the final. In addition, the tweeting patterns during the near-hour-long process of announcing the voting results are noticeably different between the three hashtags. The #eurovision discussion remained at a fairly consistent rate of tweets per minute during the entire period, comparable to the level of activity during some of the performances earlier in the evening (Figure 3). #sbseurovision, in contrast, saw a much lower rate of tweeting once the performances finished (Figure 4) – perhaps unsurprising, given that many Australian viewers may have been aware of the result before the broadcast – with only a brief spike when Mr Lordi, singer of the winning Finnish entry in 2005, announced his country's votes dressed in his customary horror monster mask. For #esc tweets, though, the results provide some of the largest spikes of the night, particularly as the probability of a Swedish victory increases; Sweden's win, for the song 'Euphoria' by Loreen, caused the second highest spike in #esc tweets during the final, behind only the Swedish performance itself. This may indicate differences in the adoption of specific hashtags in by different national *Twitter* user communities – for example, to a greater use of #esc over #eurovision in Scandinavian countries; we address this question below.

Mapping Eurovision's *Twitter* audiences

While some acts, such as Jedward and the Russian Babushki, were commented upon by *Twitter* users across each of the three hashtags studied here, there are a

FIGURE 3   #eurovision, minute-by-minute tweets, 21:00-23:30 (CET), Saturday 26 May 2012.
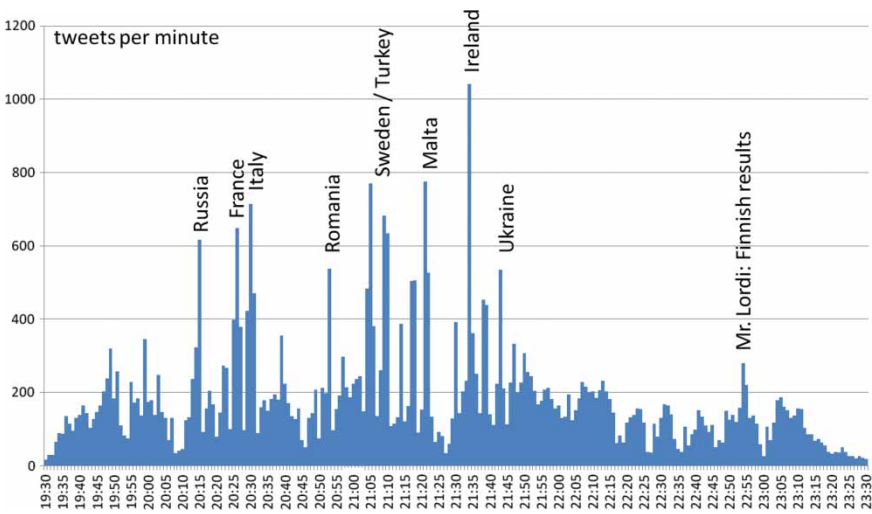
FIGURE 4   #sbseurovision, minute-by-minute tweets, 19:30-23:30 (AEST), Sunday 27 May 2012.

number of differences in the tweeting patterns which raise questions about the specific groups of *Twitter* users who are using these hashtags. Although the #eurovision hashtag attracts a greater number of tweets and users than #esc, the varying responses to different performances through these two hashtags suggest that some national audiences may prefer to use #esc rather than

#eurovision, and vice versa. To examine this further, we analyse the networks formed between *Twitter* users through @mentions, @replies, and (manual) retweets – where one user explicitly refers or responds to another in their tweets, or republishes another person's comments for their own followers.

Our initial analysis focuses on the network formed over the week of the contest, between 22 and 28 May 2012. We include only users who show considerable interactivity during this time – specifically, users who sent or received at total of at least 10 @mentions, @replies, or retweets. For #eurovision, this results in a network containing 4,087 users, connected by 16,954 interactions; the #esc network for the same period contains 1,238 users and 4,069 interactions. We visualize these networks using the Force Atlas 2 algorithm in *Gephi* (Jacomy *et al*. 2011); each node in the network represents one participating user, scaled in size according to the number of @mentions, @replies, and retweets they have received. The network is also coloured based on the connections each user makes to others; a user @mentioning, @replying, or retweeting no other accounts appears as white in the network, while the most active users are coloured black. Groups of users who interact strongly amongst themselves are tightly clustered together in the network graph, while users who are not specifically associated with any one group within the overall network are placed in between these clusters. This clustering enables us to identify any specific groups of users who are organized around shared interests, around shared language or ethnicity, or around highly visible celebrity and broadcaster accounts participating in the Eurovision audience. Figure 5 shows the #eurovision network, while Figure 6 depicts the #esc network.

The visualized #eurovision and #esc networks suggest that while the 2012 Eurovision Song Contest attracted widespread coverage on *Twitter* from an international audience, substantial stratifications along national and ethnic lines remain. In particular, the splintering of the Eurovision *Twitter* audience in Europe into two separate hashtags, #eurovision and #esc, appears to be have taken place largely along national lines – perhaps due to respective national broadcasters promoting one or the other of the hashtags as the 'official' hashtag to accompany the event. Most obviously, while #esc is not widely adopted across Europe, its prominence in Sweden, Germany, and several other countries has the effect of separating these national audiences from the wider #eurovision discussion (and in doing so explains the considerably greater activity around the Swedish entry on #esc than on #eurovision); while Swedish users are also featured in the #eurovision discussion, they do not form a similarly distinct cluster in the corresponding network. The Italian and Serbian *Twitter* communities, on the other hand, are distributed fairly evenly across both hashtags, for reasons which are not immediately obvious.

Within the more widely used #eurovision hashtag, on the other hand, we find both considerable pan-European activity – conducted in the present-day *lingua franca*, English, and thus resulting in the absence of an isolated cluster for British *Twitter* users – and several specific clusters. A number of such clusters
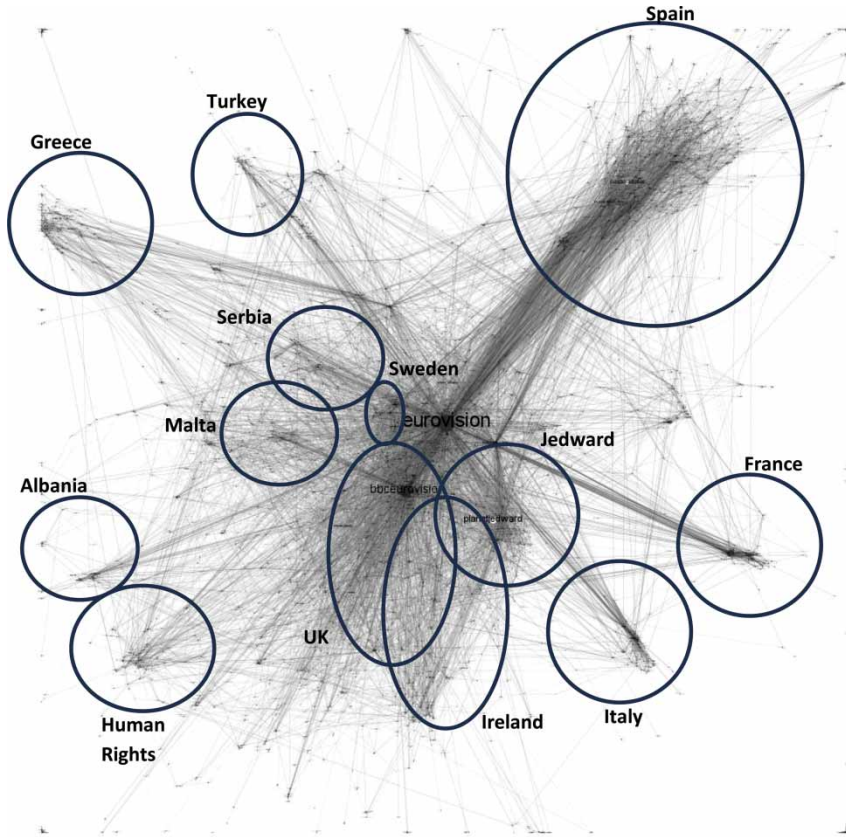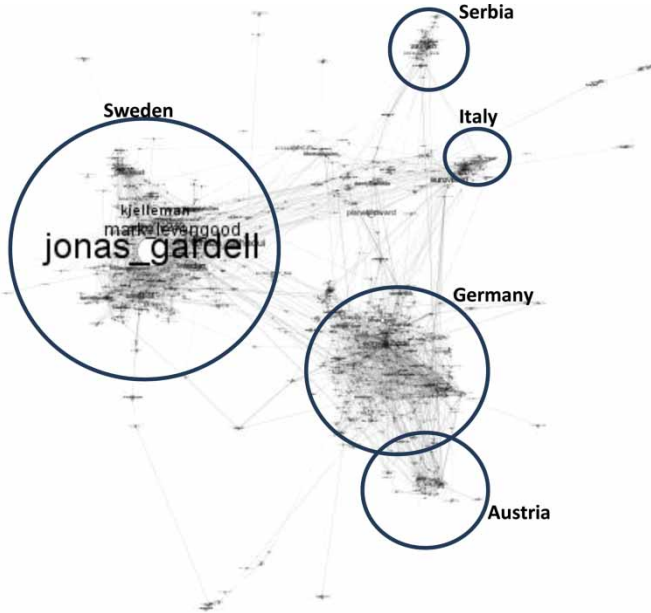
FIGURE 5   #eurovision network map, 22–28 May 2012, degree range of 10 or more, selected clusters highlighted.

are constituted by non-English language communities (of which the Spanish community is the largest); others, by contrast, represent celebrity- or issue-based interests – such as the cluster of users commenting on significant concerns about the human rights situation in 2012 Eurovision host country Azerbaijan, which may also reflect existing networks of users who regularly use *Twitter* to discuss human rights issues. Users addressing these issues may be intending to use the #eurovision hashtag as a vehicle to bring the Azeri human rights record to the attention of a wider audience.

Centrally, however, the #eurovision network is arranged around the official @eurovision account, as well as the @bbceurovision account. This reflects both substantial retweeting of the hashtagged tweets sent by these accounts, as well as other forms of @replying and @mentioning; these accounts act as animators and facilitators of *Twitter* interaction around the broadcasts, therefore. The same is true, at a lower level of activity, for the leading accounts in the various

FIGURE 6   #esc network map, 22–28 May 2012, degree range of 10 or more.

country- and issue-specific clusters: in each case, the central nodes within the clusters correspond to the accounts of national broadcasters, celebrities, and other noteworthy users, commenting on the contest or supporting particular acts.

In between the clusters, we find many of the official accounts of the performers in the contest, such as those of Loreen Talhaoui (Sweden), Eleftheria Eleftheriou (Greece), Ivi Adamou (Cyprus), Soluna Samay (Denmark), Pastora Soler (Spain), and Anggun Cipta Sasmi (France), who are as likely to be referred to by their home audiences as by Eurovision viewers elsewhere in Europe. One act, however, transcends the bridging role played by other Eurovision performers to instead form its own cluster: the Irish twins John and Edward Grimes, collectively known as Jedward. Their official *Twitter* account, @planetjedward, is not just mentioned by the Eurovision audience, but also by a large group of Jedward fans, many of whom use part of the duo's name in their *Twitter* handle (for example, @jedeurovision, @jedmaziing, and @jedicatedname). This points to the intersection of the #eurovision audience with an existing *Twitter* fan community around the group, and suggests a different form of participation in the #eurovision hashtag than can be observed for the majority of users: the fan community's tweets concern Jedward first and foremost, and Eurovision simply happens to be the context for their comments during this period.

Jedward are no strangers to heightened *Twitter* coverage, even outside of the Eurovision context: the duo came to public attention in 2009 as contestants on the United Kingdom talent programme *The X Factor*, where their performances and antics saw Jedward become a recurring trending topic on *Twitter* (Deller 2011), and their (primarily teenage) audience has continued to grow since then.

As with the #eurovision network, the #esc clusters are connected to each other through several common accounts, corresponding to competing artists and broadcasters. Such bridges include Jedward, Soluna Samay, and the BBC Eurovision *Twitter* account, although they are not as strongly connected to the #esc network as in #eurovision. This is to be expected, given the heavy interlinking within the two main clusters (Sweden and Germany) and the smaller number of distinct groups within the #esc discussion.

Despite the different sizes of the #eurovision and #esc networks, then, there are a number of common traits across these hashtags, and the clusters they contain, which provide some indication of how the various national audiences for the song contest tweeted about Eurovision. In particular, the central positions of broadcasters, performers, and celebrities are in keeping with previous observations around using *Twitter* as a backchannel for live television commentary; for example, Deller (2011) suggests that these public figures act 'in some capacity as "opinion leaders" ... because of the number of followers reading (and often recirculating) their tweets' (p. 230). While some of these accounts receive many @mentions because they are performing in the contest – or in some cases have performed in previous contests – the Eurovision patterns would suggest that, while there are many other interactions taking place between Twitter users, celebrities with large numbers of followers remain the focal points within the networks.

Eurovision and ironic distance

Among the celebrity accounts, the high numbers of @mentions and retweets received by comedians and parody accounts for public figures (such as @Queen_UK, satirising Queen Elizabeth II) suggests that ironic and sarcastic remarks, treating the contest with some degree of disdain or embarrassment and playing with the stereotypes established over decades of Eurovision broadcasts, find a large and welcoming audience on *Twitter*. This is perhaps most obviously borne out in the minute-by-minute analysis of each broadcast; many of the spikes in tweets during the semi-finals and final coincide with performances that either contained some unusual, exotic, or ridiculous element, or which suggested parallels with that country's cultural or political situation. During the second semi-final, for example, the first major #eurovision spike occurred during the performance by Joan Franka, representing the Netherlands – many of the tweets commented on the Native American-style costume worn

by Franka, rather than the song itself. For the first semi-final, the initial peaks took place during the Russian and Irish performances; while there were many fans of these performances – the Russian song finished second in the final, and the fandom surrounding Jedward has already been discussed in this article – aspects of these entries also endeared them to the Eurovision audience watching (and possibly also voting) from a position of ironic disdain.

Similar patterns can be seen within the #sbseurovision data set, to a more obvious degree – for example, the spikes in the first semi-final which related to San Marino's 'The Social Network Song', extolling the virtues of online communication (and thus actively courting a response from social media audiences), and to the Austrian rap of the group Trackshittaz, can both be attributed less to comments on the musical value of the songs themselves, and more the songs' subject matter and the staging, costumes, and names of the performers. While these songs did not qualify for the final, some of the more successful entries attracted similar attention, most obviously that from Albania. The song 'Suus' finished second in the first semi-final and fifth in the final, and was unusual among the rest of the entrants as it was performed entirely in Albanian rather than English: although the song itself and Rona Nishliu's performance attracted some comments, though, tweets also focused extensively on her striking hairstyle.

While in these examples, spikes in *Twitter* activity focused on the performances themselves, elsewhere substantial subsets of the discussion engaged in wider political or social commentary – again, in keeping with the stance of ironic distance popularized by Terry Wogan. This included references, in multiple languages, to the 2013 contest to be hosted by Sweden in an Ikea-constructed venue, for instance, while the most prominent spike in #eurovision tweets during the Greek entry represented tweets which commented on Greece's financial situation. At the time of the contest, there was widespread speculation that Greece would leave the Eurozone as a result of the nation's financial crisis and governmental instability; this became the focus of many comments during the final performance as well as during the voting period, as tweets linked Greek budget woes to the short length of performer Eleftheria Eleftheriou's dress or imagined how scaled-down the staging of the 2013 contest would have to be in case of a Greece win. The reactions of other European countries and politicians to a Greek victory (particularly of German Chancellor Angela Merkel, representing the largest creditor involved in bailing out the Greek economy) were also explored:

> RT @Queen_UK: Ok people, get voting for Greece. If only for the look on the faces of European central bankers. #eurovision
> RT @paullewismoney: Germany lent Greece 1 point – wants 12 back next year! #eurovision

> RT @frankieboyle: Everybody vote for Greece so that next year we can watch this contest being fought to the death in a Thunderdome #Eurovision

At the same time, not everyone watching Eurovision treats the contest as a ridiculous spectacle that can only be enjoyed ironically, or approves of the tone taken by commentators who do. Posting Eurovision-related comments on *Twitter* makes the sometimes snide, sarcastic, or even xenophobic remarks that are a part of viewers' responses to the contest (Georgiou 2008) visible to a wider audience than if these thoughts were shared in private at home – as a result, during all three Australian broadcasts, one tweet was consistently one of the two most retweeted comments containing the #sbseurovision hashtag, after being published during the first semi-final by @tweeveetv, an account tracking the relationship between social media and television: 'Do you enjoy casual racism? Join the Twitter conversation at #SBSeurovision'.

Conclusion: Twitter as a backchannel for televised events

Such comments about the hashtag itself address the integration of *Twitter*, and other social media, within televised events such as the Eurovision Song Contest. In order to enable the gathering of an Australia-wide audience for its delayed telecast of the finals series, separate from the live audience watching the European broadcast, SBS encouraged viewers to tweet using its own hashtag rather than the more generic #eurovision or #esc; selected comments were also chosen to appear on screen during the broadcast, thus turning pre-recorded programming into a second-order 'live' television event. Several European broadcasters used similar strategies to localize their audience, either by promoting specific hashtags or by suggesting that viewers mention specific accounts in their tweets – this accounts, for example, for the prominence of the @bbceurovision account (and those of other national broadcasters) within Figure 5, and for the distinctive and divergent features of the #eurovision and #esc maps.

Such initiatives demonstrate the growing interest of broadcasters in assembling, interacting with, and potentially also in tracking and analysing live audiences around their programming – not least also, as we noted in the introduction to this article, as a means of promoting live viewing and thus maximizing audience ratings and advertising returns. Similar initiatives may now be observed in the context of a wide range of televisual genres – from other live events in the fields of popular entertainment and sports to televised political debates and talkshows, but also extending to the premiere broadcasts of pre-recorded reality TV and drama programming. In some instances, the heightening of the live experience through the promotion of *Twitter*- and other social media-

based backchannels can be seen as a conscious attempt by broadcasters to combat the fragmentation of audiences for specific programming across a range of plat- forms and viewing modes (from conventional television through legitimate catch-up and on-demand viewing to the circulation of unauthorized recordings in filesharing networks); in other cases, the emergence of such backchannels is driven by established fan communities who would use social media to discuss the live coverage of relevant culture, sporting, and political events at any rate, even without being prompted to do so by a media organization.

In either case, however, the emergence of social media backchannels such as the hashtag communities around Eurovision provides broadcasters, organizers, and other stakeholders with an unprecedented opportunity to track and analyse the resonance of specific developments during the broadcast amongst its social media audience; this has been used for a variety of purposes, from the fine-tuning of new drama series following social media reactions to their pilot episodes to the evaluation of political talking points using the response of social media audiences over the course of televised debates. The immediacy and accessibility of hashtagged activities on *Twitter*, in particular, makes it possible to track such responses at a resolution of minutes and seconds (rather than the 15- or 30-minute blocks used by most television ratings systems), resulting in much more fine-grained data. At the same time, however, the fact that *Twitter* audiences are usually not immediately representative for the wider population must also be taken into account in such analyses.

In this context, it also becomes especially important to distinguish between general audiences and specific fan communities on *Twitter* itself, and to consider the intersections between them. Especially in the prominent case of Jedward (but at a smaller scale probably also for many of the other acts performing in Eurovision 2012), as well as to the extent that local support for each act rep- resents a form of 'national fandom', we see in the #eurovision hashtag an intersection between an *ad hoc*, transient audience gathered for the three tele- casts of the finals, and loyal, longer-term fan communities around specific per- formers (and perhaps even around some of the most prominent comedians making snide comments about the performances). Given their superior com- mitment to a common goal, such fan communities have the ability to gain sub- stantially greater visibility, perhaps even to essentially take over a hashtag, thus undermining its utility as a general backchannel for the live event; alterna- tively, they may establish alternative, fandom-specific hashtags alongside the main backchannel.

Further analysis of patterns of activity, interaction, and interconnection on *Twitter* may reveal the extent to which users operate as audiences or fans in each case – fan communities, for example, may exhibit considerably tighter pat- terns of followership, may tweet at and retweet one another more frequently, or use specific markers of their community membership more often in their tweets than 'mere' audience members. The evaluation of such divergent patterns is also

important in the context of practical uses of *Twitter* analytics in programming and other contexts, of course: the fact that a vocal fan group is taking to *Twitter* to demand more screen time for an actor in a drama pilot, or expresses their support for a specific political initiative, does not mean that such choices will be popular with the wider audience.

In turn, however, where such dedicated fan activities – beyond general audiencing – can be identified, they also provide us with further insight into the self-awareness and self-determination of fans *as* fans. They show the extent to which *Twitter* and other social media are used to establish and maintain communities of fandom, to exchange fan knowledge, and to plan fan activities; where such activities are directed at other stakeholders in fandom, such as broadcasters and programmers, they also point to an understanding of, and an attempt to realize, opportunities to 'game' the systems of the media industries to generate conditions which support and favour the object of the fans' interests. Especially in the context of competitive events such as Eurovision, which feature multiple performers in competition with one another, such attempts by fans to use social media to bring about favourable outcomes for their idols may in turn also place them in competition with other fan groups, of course.

Our analysis of *Twitter* activity around Eurovision in Europe and Australia, then, points to the complex positioning of *Twitter* both as a technology of long-term fandom and as a tool for what in cultural studies research is called 'audiencing': the public performance of belonging to the distributed audience for a shared media event. Where the delayed SBS telecast to a nation which does not itself participate in the contest mainly represents a clear example of the latter, the live broadcast of the event throughout Europe shows evidence of both aspects. In combination, it demonstrates *Twitter*'s role as an important new medium facilitating the connection and communion of fans and audiences.

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