

Understanding Engagement and Willingness to Speak Up in Social Television: A Full-Season, Cross-Genre Analysis of TV Audience Participation on Twitter

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The widespread use of digital platforms has changed the way people watch television. Despite an abundance of empirical studies, full-season, cross-genre analyses of different TV formats are rare. Based on a data set of 1,383,414 tweets, this study aims to close this gap by comparing Twitter commentaries around the 2012–2013 seasons of the Italian edition of *The X Factor* and the political talk show *Servizio Pubblico*. For each episode, we identify peaks of Twitter engagement and analyze the corresponding TV scene, revealing the role played by suspense and surprise in catalyzing the engagement of online audiences. A content analysis of 12,640 tweets created during peaks of engagement reveals how willingness to speak up varies when the topic is politics rather than entertainment.

Keywords: audience studies, Twitter, TV, second screen, social TV

The widespread use of digital platforms such as Facebook, Twitter, and YouTube has brought about many changes in the ways people consume television content. Contents aired by TV networks are constantly watched, shared, remixed, and commented on by viewers. The behavior of TV audiences, especially when consuming contents via digital platforms, is carefully scrutinized to gain insights into the approval rate of characters, actors, and storylines (Carr, 2013). The viewing data and online reactions to Amazon's series pilots (the first episode of a TV series) are used to determine which shows are eligible to be produced (Sharma, 2013). A recent study conducted by Nielsen (2015) pointed out that the scope of the analysis of Twitter TV conversations goes beyond the behavior of the restricted elite (Smith & Boyles, 2012) of online users who live-comment a TV show. According to this study, the increase in the conversation on Twitter during live programming is closely correlated with high cognitive engagement with programming among the general viewing audience (Nielsen, 2015).

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Not surprisingly, scholars from different fields have shown a growing interest in an approach that promises to revolutionize audience studies (Bredl, Ketzer, Hunninger, & Fleischer, 2013; D'Heer & Verdegem, 2015; Highfield, Harrington, & Bruns, 2013). Despite a rapidly increasing number of empirical case studies, full-season, cross-genre analyses of different TV formats are still rare. On the one hand, a full-season analysis minimizes the impact of biases and confounding factors that are introduced by a focus on specific episodes or events. On the other hand, the comparative perspective opens up a wide range of possibilities enabling a fuller understanding of both genre-dependent and genre-independent audience behaviors.

This study aims to close this gap by comparing TV-based participatory consumption practices performed on Twitter during the 2012–2013 seasons of the Italian edition of the talent show *The X Factor* and the popular Italian political talk show *Servizio Pubblico* (Public Service).

The X Factor is a television music competition franchise. Aspiring singers, drawn from public auditions, are divided into groups, each led by a mentor/judge. During the episodes, singers perform the songs chosen by their judge. The performances are assessed by a panel of judges and are sometimes voted on by the TV audience. The worst performers are eliminated from the competitions. Episodes tend to follow a clear and somewhat predictable structure and sequence: singer's performance, judges' assessments, and elimination. In Italy, *The X Factor* is broadcast weekly by Sky Italia.

Servizio Pubblico is a political talk show broadcast weekly by the Italian free-to-air channel La7 and hosted by left-leaning journalist Michele Santoro. The show contains two permanent features: the editorials of journalist Marco Travaglio and the political satire of cartoonist Vauro. True to a stylistic hallmark of Santoro's shows, *Servizio Pubblico* frequently features contributions from preselected members of the studio audience concerning specific issues such as unemployment and the rights of workers and minorities.

Although they belong to different genres, *The X Factor* and *Servizio Pubblico* are both live and unscripted programs, and both focus on entertainment. Following the shift from paleo to neo TV (Eco, 1983), Italian television is clearly characterized by the hybridizations of traditional genres and by the pervasiveness of infotainment. Moreover, Italian political communication, as noted by many authors (Altheide, 2004; Delli Carpini & Williams, 2001; Jones, 2005; Moy, Xenos, & Hess, 2005; van Zoonen, 2005), is highly spectacularized and heavily based on the centrality of party leaders. Italian political talk shows are therefore a perfect example of politainment (Nieland, 2008).

The structure and intent of both shows potentially foster participatory-inclined online viewership by actively using their official Twitter and Facebook profiles to engage and poll audiences. During 2012, in an attempt to stimulate active online audience engagement, *Servizio Pubblico* deliberately mimicked talent shows by holding an experimental mock poll, inviting viewers to reject online the candidate for prime minister they wanted to eliminate. According to the Italian research firm BlogMeter, *The X Factor* and *Servizio Pubblico* were the most engaging Italian television programs on Twitter and among the top social TV shows on Facebook (Cosenza, 2013). During the 2012–2013 season, both shows were aired, on their respective channels, at the same time and day of the week (Thursday, 9:00 p.m.).

The aim of this study is to investigate the participatory dynamics of Twitter online audiences during live and unscripted TV shows. By identifying peaks of online audience engagement in both shows and studying the corresponding TV scene, we address issues of common interest to both social media scholars and media practitioners. What kinds of TV scenes catalyze online audience engagement? Do these catalyzing drivers play the same role in both formats?

Previous studies (Giglietto & Selva, 2014; Wohn & Na, 2011) have found that most online comments about TV content contain personal opinions. However, as highlighted by a recent study, the willingness to express personal opinions online may vary depending on the context and perceived sensitivity of the topic (Hampton et al., 2014). Furthermore, opinions are expressed on Twitter in different forms that range from a direct and original statement to a retweet of a message containing a shared viewpoint. Thus, we compared Twitter commentaries in two formats to find out whether people tend to delegate or cover up the expression of opinions when the show deals with politics rather than entertainment.

Literature Review

The rise of the so-called network society (Castells, 1996) has led to a significant redefinition of both social and media systems (Chadwick, 2013; Jenkins, 2008). While the active role of the audience has long been acknowledged in media and communication studies (Hall, 1973; Katz & Lazarsfeld, 1955; Morley, 1993), we are undoubtedly witnessing a profound transformation of the whole process once called "reception." Imbalances of power persist (Carpentier, 2011; Couldry, 2005), but the boundaries that were once clearly discernible are now blurred (Ritzer, Dean, & Jurgenson, 2012). Contents generated by users are increasingly featured on mainstream media, while contents produced by professionals are constantly shared, remixed, and modified by users. From this perspective, analysis of the digital content produced by the audience of a TV show constitutes a promising framework for making sense of these ongoing mutations (Bredl et al., 2013; D'Heer & Verdegem, 2015).

Not surprisingly, these kinds of studies, often filed under the labels *social TV* or *second screen*, have flourished in recent years. Although the genre of analyzed shows may vary from politics or current affairs to entertainment and media events, the focus of these studies is often on "participation" and "public opinion" (Anstead & O'Loughlin, 2011; Bennett, 2012; Gil de Zúñiga, Garcia-Perdomo, & McGregor, 2015; Sauter & Bruns, 2014; Vaccari, Chadwick, & O'Loughlin, 2015). However, both participation and public opinion are redefined in a way that transcends their traditional definitions. On the one hand, participation is not strictly political. The focus is on power struggles, and this includes the effort of the audience to influence, control, and poach the media (Carpentier, Dahlgren, & Pasquali, 2013; Jenkins, 2013). On the other hand, a broader contemporary definition of public opinion emphasizes the role of everyday, mundane conversations (Dahlgren, 2009).

These studies often examine online conversations around media events (Dayan & Katz, 1992; Katz, 1980). Online commentaries around *contest* media events (from presidential debates to the Eurovision song contest) are extensively studied (Freelon & Karpf, 2015; Highfield et al., 2013; Park, Park, Lim, & Park, 2014; Shamma, Kennedy, & Churchill, 2009). A recent study by Trilling (2015)

analyzed the relationships between topics addressed in a TV debate among the candidates running for chancellor during the 2013 election campaign in Germany and the related topics in live tweeting. While influenced by the issues debated by the candidates on TV, the topics addressed in the conversation on Twitter were only partially related to those issues. However, as the author himself points out, there is a need for "long-term studies in a comparative perspective."

An exploratory study by Wohn and Na (2011) compared the Twitter messages posted by audiences during Barack Obama's Nobel Peace Prize acceptance speech and during an episode of *So You Think You Can Dance*, a talent show for dancers. More than 2,000 tweets were content-analyzed for the study, using a matrix of four categories: attention, emotion, information, and opinion (AEIO). The authors found that the frequencies of the message types correlate with the content of the program for both shows. Furthermore, opinion tweets were, in both cases, the most frequent. More recently, an adapted version of the AEIO matrix was employed to analyze the tweets produced during an entire season of political talk shows aired during the 2012–2013 season by Italian free-to-air television (Giglietto & Selva, 2014; Iannelli & Giglietto, 2015). While tweets containing viewers' personal opinions on the show were confirmed as the most frequent type of comment, the study identified a relationship between different forms of expressing an opinion and the respective form of audience or political participation. Opinions were often accompanied by information when dealing with political issues as a means of consolidating a personal viewpoint and to avoid expressing opinions in a more direct and risky way.

Starting from these premises and taking into consideration the open issues pinpointed by previous research in the field, we envisioned a study that examines a full-season comparison of Twitter commentaries around two different TV genres: a political talk show (*Servizio Pubblico*) and a talent show (the sixth Italian edition of *The X Factor*).

Our content analysis examines publicly available Twitter conversations around a season consisting of 28 episodes of a political talk show and 9 episodes of a talent show, both broadcast during the 2012–2013 season. We focus on peaks of Twitter engagement during the entire season to clarify the relationship between volume of activity in social media commentaries and contemporary broadcast scenes in two different TV formats. Therefore, we asked the following research questions:

RQ1: What are the specific moments in the political talk show Servizio Pubblico and in the entertainment TV format The X Factor that catalyze audience engagement?

RQ2: What are the most significant similarities and differences in content and communicative style between the active audiences of these TV shows? More specifically:

RQ2a: Do people tend to delegate or cover up the expression of opinions when the show deals with politics rather than entertainment?

RQ2b: Is there a significant difference in the number of Twitter expressions combined with information when looking at peaks with high or low percentages of original tweets?

Method

To answer these questions, from August 30, 2012, to June 30, 2013, we collected more than 1 million observations by querying the Twitter Firehose for tweets containing the official hashtag related to *Servizio Pubblico* (#serviziopubblico) and to the sixth Italian edition of *The X Factor* (#xf6). The data set was acquired via DiscoverText GNIP Powertrack importer. This data set is a complete collection of all the tweets related to the two shows during the entire season (Table 1).

Table 1. Overview of the Data Set.

	Official hashtag	Number of episodes	Number of tweets	Number of unique contributors
<i>The X Factor</i>	#xf6	9	772,018	83,989
<i>Servizio Pubblico</i>	#serviziopubblico	28	611,396	96,911

Using the date and air time of each episode, we segmented the data set to calculate the volume of on-air Twitter activity per episode for the two shows. As shown in Table 2, the online audience of *The X Factor* was considerably more active than the audience of *Servizio Pubblico*, both in terms of volume and average rate of tweets per minute.

Table 2. Average Twitter Activity Per Episode.

	Number of episodes	Average number of tweets per episode (SD)	Average number of tweets per minute per episode (SD)
<i>The X Factor</i>	9	62,489.33 (9,820.23)	337.78 (53.08)
<i>Servizio Pubblico</i>	28	16,934.54 (26,698.25)	99.61 (158.76)

From the two initial data sets, we generated two time series by calculating, for each minute of the season, the following metrics (Bruns & Stieglitz, 2013): tweets, replies, retweets, original tweets, and average number of tweets per minute (see Table 3).

Table 3. Overview of the Twitter Activity by Minute During the Season.

	Minutes	Number of tweets	Retweets (%)	Replies (%)	Original tweets (%)	Average number of tweets per minute
<i>The X Factor</i>	221,780	772,018	31	6	62	3.48
<i>Servizio Pubblico</i>	439,201	611,396	41	4	55	1.39

Although the percentage of dialogic conversations captured by @replies represents only a tiny fraction of the data set, it is important to emphasize that the methodology employed, based on the analysis of a data set gathered via the presence of a hashtag in the tweet, is unable to capture full chains of conversations due to the fact that most replies do not include the original hashtag.

Peak Detection

Time and financial constraints often impose limits to projects that are based on content analysis of large data sets. This problem is often addressed by sampling the observations. However, the collections of tweets, as shown by previous studies (Java, Song, Finin, & Tseng, 2007; Wu, Hofman, Mason, & Watts, 2011), are not normally distributed. To overcome this limitation, we developed a strategy based on the analysis of activity per minute and peak detection.

Algorithms for peak detection applied to streams of tweets have already proven to be useful in effectively segmenting a TV program (Nakazawa, Erdmann, Hoashi, & Ono, 2012; Shamma, Kennedy, & Churchill, 2009, 2010; Shamma, Yew, Kennedy, & Churchill, 2011). On this basis, we applied the peak detection algorithm described by Adam Marcus and colleagues (2011) to the stream of original tweets created during the on-air time of the 9 episodes of *The X Factor* and 28 episodes of *Servizio Pubblico*. Following the same procedure and using the same parameters for each episode, we identified 16 seasonal peaks for *The X Factor* and 39 for *Servizio Pubblico* with their respective windows (span of n minutes around the peak).

Marcus et al.'s algorithm was selected among other available options because the source code was available, because it features two parameters aimed at customizing what the algorithm recognizes as a significant increase and balancing local and global peak detection, and, finally, because it returns a list of peak windows and not simply the peak itself.

When a significant increase is detected (the value at minute n is more than x mean deviations from a regularly updated local mean), a peak window is opened and the algorithm starts a hill-climbing procedure to find the peak. The top of the hill is reached when the value at minute n is smaller than the one detected at the previous minute. The window is closed either when the minute counts are back at the level where they started or another significant increase is found.

We opted to use the stream of original tweets only (therefore excluding retweets and @replies) because the act of creating original content (versus retweeting someone else's content) implies a higher level of individual user engagement toward the TV content. Furthermore, unlike retweets, original tweets are less influenced by the social dynamics of online communities (e.g., organized efforts to raise a topic or make a point and retweet storms aimed at criticizing a guest or a contestant). From this viewpoint, a peak of engagement is intimately related to the willingness to participate and the agency of the online viewer.

Scene Analysis

For each peak, we identified the corresponding scene on air during the same period of time using the online archive available from the official website of *Servizio Pubblico* and downloading from an online archive the episodes of *The X Factor*. To arrive at a more thorough understanding of the relationship between TV contents and Twitter conversations, we analyzed each scene. To do so, we developed a code set for the peaks/scenes consisting of the following nodes: a short summary of the TV event; the position of the peak within the routine of the show; Luhmann's media systems selector criteria (Luhmann, 2000);

and the number of tweets, retweets, replies, original tweets, and average tweets per minute. Scenes ($N = 55$) were coded by two authors after extensive training that resulted in an acceptable level of intercoder agreement (Krippendorff's $\alpha = 0.68$).

Sampling Strategy and Content Analysis

To answer RQ2a and RQ2b, we further analyzed the content (tweets) of a sample of peaks. Guided by the hypothesis that the percentage of original tweets within the peak might be linked to diverging audience communicative behavior, we sampled, for each show, the two peaks with the highest and lowest shares of original tweets, for a total of four peaks per show (Tables 4 and 5).

Table 4. Sampled Peaks for Servizio Pubblico.

Peak ID	Number of tweets	Number of original tweets	Original tweets/tweets (%)	Low original tweets %
9	466	232	50	True
7	1,253	642	51	True
29	519	380	73	False
25	1,090	833	76	False

Table 5. Sampled Peaks for The X Factor.

Peak ID	Number of tweets	Number of original tweets	Original tweets/tweets (%)	Low original tweets %
15	2,281	2,281	61	True
16	4,823	4,823	63	True
1	2,854	2,161	76	False
10	1,665	1,279	77	False

The original tweets within the eight sampled peaks (a total of more than 12,000 tweets), were coded—after extensive training, resulting in an acceptable level of intercoder agreement (Krippendorff's $\alpha = 0.71$)—independently by the authors.

We initially adopted an existing code matrix based on two variables: (a) content, which distinguishes tweets in two categories—inbound and outbound—depending on the object of the message; and (b) form—objective or subjective (Giglietto & Selva, 2014; Iannelli & Giglietto, 2015; Wohn & Na, 2011). This code matrix is framed in traditional media studies and specifically within the uses and gratifications theory (Blumler, 1979; Katz, Blumler, & Gurevitch, 1973). In our adaptation, leveraging Carpentier's (2011) definition of participation, each code also roughly corresponds to a different degree of formal participation ranging from interaction (where the request for a change is formally expressed) to opinion (potentially containing implicit requests for a change) and information (where no explicit request for change is recognizable).

Although it is based on the initial code matrix, our codebook both extends and modifies the original one. Thus, it results in the codebook described in Table 6.

Table 6. Codebook.

Node	Description	#XF6	#ServizioPubblico
Information	Tweets containing quotes or announcements about what is happening or what is going to happen next	the one knocked out tonight was Nice #XF6	"We want to work but also to live" #ilva #serviziopubblico
Opinion	Concerns the expression of personal points of view containing individual judgments, thoughts, or ideas	#XF6 Ics smashes guys!!!	good speeches up to now at #serviziopubblico
Opinion (as joke)	Calls into question only those tweets in which the opinion is expressed as a joke	Ics blends with the stage floor #sapevatelo #XF6	#serviziopubblico #Cacciari is spoiling for a fight, great!!!
Attention seeking	Indicates self-centered messages explicitly formulated as questions or concerning the everyday life of the spectator	#XF6 ok, I'm going to turn off the PC and enjoy the voice of #Chiara...	I wonder what sort of programme has #serviziopubblico turned into?
Emotion	Tweets in which the author talks about her/his feelings	#Chiara AAAAAAAAAAAAAAAAAAAA AA #XF6 ❤️👍❤️👍❤️👍❤️👍 ❤️👍❤️👍❤️👍❤️👍❤️👍	Fuck off Cacciari!!! #serviziopubblico
Interaction	Explicitly contains the aim of the spectator to influence the show or the behavior of guests, contestants, judges, host	Please, take away the microphone from #Chiara #XF6 #xfactor6	#Madia go away. You learned the speech by heart!! #serviziopubblico

All categories except for opinion and opinion as joke were not mutually exclusive.

Data Analysis and Findings

Surprise and Suspense as Strategies to Catalyze Audience Engagement

As mentioned earlier, RQ1 concerns the specific moments of two different TV formats—a political talk show (*Servizio Pubblico*) and an entertainment TV show (*The X Factor*)—that catalyzed audience engagement. We thus analyzed each scene of the show aired during a peak of Twitter engagement ($N = 55$).

Using the so-called typical selectors identified by Niklas Luhmann in his book *The Reality of Mass Media* (2000), we observed two main strategies for activating online audience engagement (Table 7). The

first selector is *surprise*, defined as a break with existing expectations; the second is *suspense*, described as a space of limited possibilities kept open.

Table 7. Peaks of Engagement and the Occurrence of Surprise and Suspense as Typical Selectors.

	Peaks (N)	Surprise—break with existing expectations (%)	Suspense—space of limited possibilities kept open (%)
<i>The X Factor</i>	16	50	56.2
<i>Servizio Pubblico</i>	39	48.7	5.1

As shown in Table 7, *The X Factor* combines both the strategies of surprise and suspense (the surprise of an unexpected squabble among the judges or the suspense preceding the elimination of a competitor). In contrast, *Servizio Pubblico* mainly relies on surprise—for example, by a guest openly contesting the host or prematurely leaving the show or someone acting unexpectedly.

Linking the peaks to the routine of the show, we additionally identified the most engaging moments for each show. Analyzing the data for *Servizio Pubblico* (Table 8), we observed that the moments with the highest levels of engagement were talk show—meaning those parts of the program based on conversation and debate among the politicians, other guests (scholars, experts, journalists, trade union representatives, etc.), and the presenter—and the editorial by Marco Travaglio. The debate among guests is interspersed with prerecorded videos (journalistic investigations, recorded interviews, etc.) and contributions from selected members of the in-studio audience, presenting their experiences and points of view on the topic discussed during the episode. As a news program, *Servizio Pubblico* also presents the results of opinion polls carried out by a partner research firm and discussed by its experts. On specific occasions, the talk also features one-to-one interviews (as in the case of former prime minister and right-wing candidate Silvio Berlusconi during the campaign for the 2013 general election). At the same time, we noted that during scenes presenting a character perceived by the audience as a *peer* (for example, a member of the studio audience), original tweets were more frequent.

Table 8. Tweets per Minute, Retweets, and Original Tweets Within Recurrent Moments of Servizio Pubblico.

Routine structure	Peaks (N)	%	Average tweets per minute	% Retweets	% Original tweets
Talk show	31	79	231.65	33	63
Editorial by Marco Travaglio	5	13	397.2	39	59
Prerecorded video	4	10	103.65	40	57
Member of the studio audience speaking	3	8	168.37	31	64
Poll results	2	5	118.69	39	56
Interview	1	2	68.43	41	56

With regard to *The X Factor* (Table 9), the most tweets per minute were observed during a contestant's performance (when aspiring professional singers perform the songs that have been assigned to them by their judges), judge's comment (when the judges and the mentor criticize the contestant's performance), and elimination, when the presenter reveals the result of the audience televote, culminating in one or more participants being eliminated.

Table 9. Tweets per Minute, Retweets, and Original Tweets Within Recurrent Moments of The X Factor.

	Peaks (N)	%	Average tweets per minute	% Retweets	% Original tweets
Contestant's performance	4	25	707.94	20	74
Judge's comment	2	12	695.38	31	75
Results part 1	3	18	602.76	31	70
Results part 2	1	6	325.75	24	71
"Tilt"	2	12	403.98	25	69
Favorite song performance	1	6	352.75	31	71
A cappella performance	1	6	416	34	61
Elimination	6	37	612.19	26	70

During each episode, contestants are divided in two groups (parts 1 and 2). Following the performances of the contestants in the first and second groups, the judges or the audience choose (through televoting) the candidate for final elimination. The two singers who are selected perform their favorite song plus an a cappella song. Occasionally, when the judges' vote produces a tie, the final call is made by the audience's televote in what is called the "tilt." In line with what was observed for the scenes of *Servizio Pubblico* when a member of the studio audience was speaking, during the moments of contestant's performance and judge's comment, the average percentage of original tweets was relatively higher.

***Entertainment and Politics Beyond the Volume of Opinions:
What Is Behind the Practice of Retweet?***

Despite the fact that the *X Factor* audience produced significantly more tweets per minute (Table 10), the audience of *Servizio Pubblico* created relatively fewer original tweets (63% vs. 70%) and more retweets (33% vs. 25%).

Table 10. Distribution of Tweets per Minute, Original Tweets, Retweets, and Replies Within Selected Peaks of Engagement.

	Peaks (N)	Average number of tweets per minute	Average original tweets (%)	Average retweets (%)	Average replies (%)
<i>The X Factor</i>	16	590.2	70	25	5
<i>Servizio Pubblico</i>	39	248.31	63	33	4

In-depth analysis carried out to address RQ2 attempts to clarify whether this difference simply reflects dissimilar ways of propagating information or whether it points to a strategy for expressing political opinions via sharing contents produced by others (retweets) instead of expressing direct opinions through original tweets.

***Most of the Tweets Contain Opinions,
but These Are Expressed With Many Different Nuances***

In a broad sense, RQ2 aims to identify the similarities and differences in the live-tweeting practices during *Servizio Pubblico* and *The X Factor*. More specifically, RQ2a asks about whether people tend to delegate or conceal their opinions when discussing more sensitive matters such as politics. Results from content analysis (Table 11) show that, although tweets expressing opinions are the most frequent for both shows, when dealing with politics, the tweets are more frequently formulated as jokes:

Rally against poverty this Saturday, cashmere is mandatory #pd #serviziopubblico" (SP Peak 29)

#serviziopubblico Sgarbi¹ makes no sense. For him the ideal candidate for prime minister would be Mozart. But he is dead. In his absence: Riccardo Muti² (SP Peak 25)

Think about the average minister in the last Berlusconi government and Crosetto seems like Eisenhower #serviziopubblico (SP Peak 7)

#serviziopubblico Clini³ arrives. The enlightened minister. Almost radioactive (SP Peak 7)

Is there the Godfather on # La7? Oh no, there's Dell'Utri #serviziopubblico (SP Peak 9).

At the same time, tweets that merge opinion with information are significantly more frequent in comments dealing with politics than entertainment:

"we want to work, but we also want to live" . . . this is the courage of the workers, the true courage of Italy #serviziopubblico (SP Peak 25)

@fattoquotidiano: "We were afraid to be a serious country, then we relaxed" #travaglio #serviziopubblico bitter truth (SP Peak 9)

¹ Vittorio Sgarbi is an art critic, art historian, columnist, writer, television personality, and Italian politician famous for his excesses.

² Riccardo Muti, the famous Italian orchestra conductor, is an eminent figure in the country's cultural and political debate.

³ Corrado Clini was minister of the environment in the Monti government (2011–2013).

#Travaglio says "we are the usual assholes", and all the studio applauds. Strange country. #serviziopubblico (SP Peak 9)

Great Busi⁴ "what is Crosetto doing in the Pdl after what he said?" #serviziopubblico (SP Peak 7)

#serviziopubblico Oh Madonna Madia⁵ "waiting for the Hill victor" and let's see who wins this Hill . . . we're sure to be the losers . . . (SP Peak 29)

#ServizioPubblico in a mock survey (1000 total population) proposes the couple Bonino⁶-Veronesi⁷ for the Hill. Between those two I'd choose the noose! (SP Peak 29)

Table 11. Percentages of Tweets Coded in the Different Categories.

	% of all coded tweets (N = 13,189)	% in #serviziopubblico (n = 1,977)	% in #xf6 (n = 11,212)
Information	21	27	15
Opinion	44	39	47
Opinion (as joke)	18	25	11
Emotion	3	3	33
Attention seeking	5	9	7
Interaction	11	12	15
Not coded	7	4	6
Total opinion	62	64	58
Information + opinion	7	10	4

Note. Chi-square calculated for tweets belonging to #serviziopubblico and #xf6. The association between formats and all the categories is statistically significant (two-tailed p values < .001).

Another striking, albeit unsurprising, difference is the frequency of emotional tweets in the comments related to *The X Factor*:

THIS TIME IS CAUSING A LOT OF ANXIETY! # XF6 (XF6 Peak 15)

Chills, goose bumps, emotion chiara I loooooooveeee yoooouuuu #XF6 (XF6 Peak 1)

OMYGOOOOOOOOOOD! DANIELE IS STILL IN!!!! HE'S IN!!!! HE IS IN!!!! #xf6 (XF6 Peak 10)

⁴ Aldo Busi is a famous Italian writer; Guido Crosetto was, at the time, a member of parliament.

⁵ Marianna Madia is a minister in the Renzi government.

⁶ Emma Bonino is an Italian politician, one of the most important figures in the Italian Radical Party.

⁷ Umberto Veronesi is an eminent Italian oncologist and was minister of health in the Amato government (2000–2001).

The percentage of tweets containing formal requests for a change (interaction) is slightly lower when discussing politics than entertainment and accounts for 11% of all coded tweets. However, it is possible that more nuanced and less explicit attempts to affect the show are also expressed as opinions.

By looking at the differences between tweets coded both as information and opinion in peaks with low and high original tweets (see Tables 12 and 13), we observed a statistically significant difference for conversations about politics but not for those related to entertainment.

Table 12. Tweets (%) Referring to Information+Opinion in Servizio Pubblico Peaks With Low and High Numbers of Original Tweets.

	Tweets in peaks with low original tweets ($N = 909$)	Tweets in peaks with high original tweets ($N = 1,068$)
Information + opinion (%)	13*	7*

Note. Chi-square were calculated for tweets in low and high original tweets.

* $p < .05$.

Table 13. Tweets (%) Referring to Information+Opinion in The X Factor Peaks With Low and High Numbers of Original Tweets.

	Tweets in peaks with low original tweets ($N = 3,699$)	Tweets in peaks with high original tweets ($N = 7,513$)
Information + opinion (%)	5	4

Note. Chi-square were calculated for tweets in low and high original tweets.

When discussing politics, the strategy of accompanying opinions with information is more frequent in peaks with low original tweets, thus suggesting a common goal of bolstering credibility and/or avoiding expressing opinion in a more direct, open, and therefore risky way.

Conclusion and Discussion

The main results of this study can be summarized under three distinct headings that concern innovation in methodology, a better understanding of social TV dynamics of engagement, and willingness to speak up on Twitter.

To identify the features of a TV format that catalyzed audience engagement, we employed a strategy based on an algorithm for peak detection. The approach proved to be particularly fruitful in allowing us to analyze a large data set spanning an entire season of two shows and to perform a hybrid analysis of tweets produced during peaks and the corresponding TV scenes. This approach also enabled us to overcome the limits of sampling techniques applied to heavily skewed distributions. Twitter itself recently open-sourced two tools (James, Kejariwal, & Matteson, 2014) to detect breakouts and anomalies

in time series that will prove useful in fine-tuning approaches based on hybrid analysis and peaks of engagement.

Once the peaks had been obtained, we analyzed the corresponding TV scenes using a codebook that included the “significant criteria for the selection of information” as described by the German sociologist Niklas Luhmann (2000). Two of those criteria (surprise and suspense) were particularly useful in identifying the different drivers behind online audience engagement around the two TV formats. Surprise and suspense are played differently by political and talent shows. While *The X Factor* supported engagement by using both, *Servizio Pubblico* mainly relied on the surprise that comes from breaking existing expectations. The role played by the unexpected in both formats reveals the defining nature of the contemporary political talk show to be a format profoundly hybridized with entertainment. In other words, in a context of highly personalized and spectacularized politics (D’Arma, 2015), Twitter engagement around political talk shows tends to respond to a mediatized, rather than strictly political, logic.

Observing the way suspense and surprise are played also clarifies the relation between TV content and the flow of conversation on Twitter. In the unscripted but highly structured format of talent shows, where suspense plays a key role, peaks of engagement are often predictable. However, the more closely a show observes a routine, the better the chances for producers to wrong-foot the viewer. What appears to be unexpected and surprising for the audience may be the result of something carefully planned in advance by the producers. Unscripted shows, like their scripted counterparts, are providing more of a framework for surprise in TV formats, with the goal of accurately predicting the levels of audience engagement during the show. Such a strategy allows the producer to decide where to put highly profitable contents (for example, putting advertising immediately before the final elimination in a talent show or before an extremely controversial editorial, previously announced). Although this strategy is not new, the way of measuring audience engagement is evolving. Analyzing the relationships between highly engaging TV scenes and online comments, our study suggests that the reactions of online audiences can be used to refine this strategy. Moreover, unlike previous studies on live tweeting during media events and specifically during political debates (Freelon & Karpf, 2015; Trilling, 2015), we observed a prevailing framing effect of television on the structure, topics, and volume of Twitter conversations. In other words, even in the context of a social media platform where the agency of the users and the role of communities may lead to creative and divergent forms of TV consumption, a full-season data analysis of two different TV genres revealed that the rhythm of Twitter engagement is closely synchronized with the structure of the format and the strategies employed by the producers. While apparently contradicting previous findings, a bird’s-eye-view approach to the entire season offers a more balanced take on the relationship between TV online consumers and producers. While not denying space for creativity and user agencies, these findings call for a renewed attention toward everyday TV consumption that goes beyond the analysis of single events.

The third area of results corroborates the already well-investigated correlation between TV-based issues perceived by the audience as particularly sensitive or informative and the subsequent users’ adoption of original tweets or retweets for strategic/communicative purposes (boyd, Golder, & Lotan, 2010; Small, 2011; Stieglitz & Dang-Xuan, 2012). Original tweets are more frequent while discussing

entertainment than politics and when someone perceived as a peer by the audience is on screen (a member of the studio audience talking during a political talk show or a contestant singing during a talent show). Moreover, opinions are expressed as a joke and accompanied by information more frequently when discussing politics than entertainment. At the same time, but only in political discussions, we observed a correlation between low levels of original tweets in a peak and the frequency of expressing opinion in combination with information. Talent shows, as well as pursuing their main goals (polarizing people around specific contestants and/or provoking their need for self-expression), also constitute fertile ground in which all these types of participation might take place. On the other hand, the relatively lower percentage of *Servizio Pubblico's* original tweets may suggest the presence of a social TV-based variation of couch participation (Zuckerman, 2014). In other words, Twitter conversational engagement around political talk shows seems to be frequently characterized by the reuse of opinions expressed by others either to bolster credibility or to completely delegate a more direct expression of one's own opinions. While situated at the crossroads between audience and citizen participation (Giglietto & Selva, 2014), the political talk show *Servizio Pubblico* is not attracting more explicit requests for a change (interaction) than *The X Factor*. Moreover, the category of interaction accounts for only about 10% of all coded tweets. However, to dismiss the idea of online audience participation on this ground would be a mistake, because different nuances of spectator tweets aimed at influencing the show or the behavior of guests, contestants, judges, and the host are also present in tweets categorized as opinion and accounting for one-third of coded tweets.

The scope of this article is restricted to Twitter, and, due to the profound differences within the wide range of available social media platforms, it is not possible to generalize the findings to include the entire realm of Internet-mediated conversation around TV. At the same time, we are aware that the motivation behind an audience's observed behavior cannot be fully grasped through an analysis—however well structured and detailed—of online contents created by those viewers. Although attempting to understand such motivation lies outside the scope of this article, this inherent limitation calls for more studies aimed at effectively combining behavioral and self-reported data.

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