# The Rules of Engagement: Comparing Two Social Protest Movements on YouTube

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## Abstract

Social media Web sites such as YouTube offer activists unique opportunities to reach out to new audiences through a variety of diverse appeals. Yet the rules of engagement on social media should depend on the structures, goals, and characteristics of the movements engaging in this outreach. To explore how differences in social movements translate into online activism, we employ a paired case study approach, comparing YouTube artifacts for two political mobilizations: the Occupy Movement and California's Proposition 8 ballot initiative concerning same sex marriage. Across movements, we examine the popularity of videos and their characteristics, and whether the type of video consistently predicts video engagement. We find that "social media activism" is not a unitary phenomenon; the two mobilizations produced unique YouTube ecologies. Occupy Wall Street videos tended on average to produce less engagement and focused on filmed live events and amateur content. Meanwhile, Proposition 8 videos usually produced more engagement and bridged more diverse formats: from professionalized and scripted content to live event footage and unscripted monologues to the camera. Therefore, our study suggests that social activism in online spaces such as YouTube is not easily defined, but is adapted to suit movement needs—which makes social media a popular and flexible venue for activism but also highlights the challenges for scholars studying such venues.

#### Introduction

C OCIAL MEDIA OFFER opportunities to citizens the world **D**over to come together and share information and ideas, potentially providing "long-term tools that can strengthen civil society and the public sphere."  $^{\prime\prime1(p.32)-3}$  One important aspect of this potential public sphere is its facilitation of social and political activism. Social media allow activists to reach a substantial portion of the public with their message, enabling a range of tactics beyond appeals to the established media and raising questions of whether traditional social movement theories can adequately explain these protests.<sup>4,5</sup> YouTube videos, for instance, can be shared easily, quickly, and effectively through a variety of other mechanisms, including e-mail, other social media, and even print media, and then watched at the viewer's leisure.<sup>6</sup> At the same time, these sites-YouTube, Facebook, and Twitter, for exampleincreasingly host professionally produced content from political campaigns and other institutional actors as well.<sup>7–5</sup>

Not surprisingly, there is growing scholarly interest in the mediation of activism and political campaigning. However, because of the novelty of the topic, the unique qualities of available data, and the often unwieldy size of data sets, most existing accounts have been limited to analyses of a single case.<sup>4,10–13</sup> This makes it difficult to generalize from the findings of any particular study, limiting our ability to build theory about the uses of social media in moments of political activism. Further, as protest movements grow more diverse, so must our theoretical framework and investigations of the nature of protest movements in online spaces.<sup>14,15</sup> This exploratory study uses the window of YouTube artifacts to explore the role of social media in two political mobilizations: the Occupy Movement and California's Proposition 8 ballot initiative concerning same sex marriage.

## The changing bases of political activism

In classic accounts, the problem of achieving effective coordination within movements was so great as to be central to the structuring of activism. The solution was the creation of bureaucratic organizational forms that could formalize members' participation and direct their actions.<sup>14,16</sup> The rise of inexpensive, networked digital media with marginal costs

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of communication approaching zero arguably means major changes for the nature of mobilization and engagement.<sup>5,17,18</sup> At the same time, traditional political movements—those linked to candidates or issue campaigns—have responded to opportunities presented by the new media environment by becoming hybrid organizations, centrally managed but enabling a relatively entrepreneurial base.<sup>6</sup>

Simultaneously, broader social changes are also contributing to new activist forms. Residents of "late modern" society find themselves increasingly responsible for elements of life such as economic security, risk management, and identity maintenance that once were delivered by social institutions.<sup>19,20</sup> The result is a new set of tasks on the agendas of late modern citizens that enable the creation and continual maintenance of a personally satisfying sense of self—or "personal identity project."<sup>21,22</sup> These conditions become highly consequential to activism as political identities are expressed via lifestyle, consumption choices, and tastes, and thus become highly personalized.<sup>20,21</sup> At the logical extreme of these networked individualized conditions, individuals drop in and out of specific mobilizations as they please.<sup>13,23,24</sup>

#### **The Research Context**

To examine the ways in which different political movements utilize social media Web sites such as YouTube, we used a paired case study approach, which is especially appropriate for developing theory and highlighting differences that merit further investigation.<sup>25</sup> We selected movements that relied heavily on social media as part of their online activism strategy, but that differed in their organizational approach and political goals, as well as in the affordances of online technology (these differences are described in depth below). By choosing movements that adopt distinct approaches to online activism, we begin to tease out the ways in which these differences play out in their social media uses.

Occupy Wall Street (OWS) may be the *sine qua non* of networked, pan-issue, ecumenical activism. At times during the fall of 2011, the Occupy mantle was adopted by individuals and groups identifying with causes as diverse as anarchism, labor unionism, the unemployed and underemployed, teachers, economists, environmentalists, journalists, "culture jammers," and more. OWS took place both online—with a heavy presence on Twitter and YouTube—and offline, encompassing many individual Occupy movements and occupations in cities all over the world.<sup>a</sup> The contrast with conventional political action is striking: in addition to exhibiting the unique structures just described, Occupy explicitly rejected institutional political power-building, resulting in a massive, attention-grabbing mobilization with ultimately questionable impact.<sup>26</sup>

Our contrasting case is Proposition 8, a 2008 California ballot initiative that sought to define marriage in the state constitution as consisting of opposite sex couples only. The campaign surrounding Proposition 8 included record-breaking fundraising on both sides, making it the most expensive social issue campaign in U.S. history, albeit one run by professional political operatives on both sides.<sup>27</sup> Proposition 8 was on the California ballot, but the fight was national in scope. It thus satisfied our need for a case that is explicitly concerned with institutionalized politics—a ballot initiative, with organized Pro and Anti campaigns—but that relied upon extensive use of social media to achieve movement goals.

Our goal is to provide an initial comparison between these two contrasting cases of online activism surrounding political and social protest movements through a very specific window: the videos created and shared on YouTube by publics and actors around the mobilizations. The stock of videos related to a political action can serve as a communal resource, informing, motivating, and connecting like-minded others.<sup>11</sup> YouTube can also provide an inexpensive platform to promote persuasive content, including opportunities to target new audiences precisely, boost viewership, and encourage active engagement with the content.<sup>28–30</sup> We focus on the types of content produced around each case, comparing professionally produced content to more amateur videos, as well as exploring the extent to which videos borrow and remix content from other media.

Although these benefits of social media activism contributed to the integration of YouTube into both movements, three key differences between Proposition 8 and OWS shape our exploration of how each made use of YouTube. First, the two campaigns dealt with different topics and took different approaches. While the Proposition 8 campaign focused on an institutional mechanism for contesting a specific issue (a ballot initiative on same sex marriage), OWS famously lacked a central concern and worked explicitly outside institutional structures.

Second, important dissimilarities in movement structure followed from this difference. Whereas there were clear leaders and advocacy groups on both sides of the Proposition 8 campaign, who coordinated communications and mobilizations, OWS was explicitly and intentionally leaderless and refused to grant, or to deny, communicative authority to anyone. OWS also had a strong geographic component, with on-the-ground occupations in multiple cities. While there were a number of on-the-ground protests associated with Proposition 8, the campaign did not provide as many opportunities for face-toface interaction among supporters or opponents.

Finally, time also separated the movements. The Proposition 8 campaigns took place in 2008, extending into 2009, and the OWS movement was most active in the fall of 2011. Over these years, social media changed markedly: use of YouTube increased roughly threefold,<sup>31,32</sup> and the affordances of the site changed as well.<sup>b</sup> YouTube became more embedded in the online media environment<sup>c</sup> and access via mobile devices grew enormously, tripling in 2011 alone.<sup>28</sup> Examining the ways in which each movement utilized YouTube thus also provides insight into the ways in which the structure and design of the site, the opportunities and abilities of its users to engage with the site, and the expectations that develop around appropriate actions may contribute to the environment fostered in an evolving online space.

## Data collection

For the Proposition 8 case, we sampled 801 total videos at random from the 2,852 unique videos returned by the search function on the YouTube Web site in response to the search queries "prop 8" and "proposition 8," from July 2008 through August 2009.<sup>d</sup> TubeKit software<sup>33</sup> was used to collect information about each video's posting date, ratings, numbers of views, and numbers of comments received.<sup>e</sup>

#### THE RULES OF ENGAGEMENT

For OWS, we used the social media monitoring software Radian6 to assemble a collection of YouTube videos from November of 2011.<sup>11</sup> During the data collection period, an evolving set of keywords and phrases allowed matching potentially relevant social media artifacts in real time using Radian6.<sup>1</sup> Whereas a stable pair of search terms was appropriate to the Proposition 8 case, a dynamic set of queries was necessary to capture the structural, geographic, and ideological unpredictability of the Occupy movement as it unfolded. At the end of the month, we filtered the collection a second time using a restricted set of keywords to eliminate erroneous matches.g This search found 43,378 unique You-Tube videos explicitly marked with Occupy-related keywords somewhere in their titles, tags, or descriptions, from which we randomly sampled 365 unique videos.<sup>h</sup> We used ContextMiner<sup>34</sup> to collect characteristics for each video, including the date it was uploaded, video length, and the number of comments, ratings, and views received.<sup>i</sup>

### Coding

We conducted a content analysis of both sets of videos. For Proposition 8, eight coders were trained using sample videos. Videos were classified by whether they were primarily either original (i.e., created by the uploader) or borrowed from another source. Original videos were further classified as scripted (rehearsed verbal content and action), monologue (unplanned extemporaneous speech, by either the poster or other individuals), or filmed live event, and were coded for their production quality (ranging from amateur videos with little editing and shaky camera work, to those with professional production values). Borrowed videos were classified by both their original source and the level of user editing in adapting the video.<sup>1</sup> Intercoder reliability was calculated with a sample of 30 videos using percent agreement and Cohen's Kappa. The percent agreement was 0.88, and Cohen's Kappa was 0.73 on average over all items.

For OWS, six coders were trained using example videos and then coded 92 videos to test intercoder reliability. The average percent agreement was 0.86, and Cohen's Kappa was 0.76. The same variables were coded as previously described with one change in the coding of original videos. An additional category—interview content—was added to the original three categories to capture differences between personal extemporaneous speech and journalistic attempts to solicit opinions from others.

## Results

#### Video popularity

To begin developing our picture of how the two social movements used YouTube, we first examined the popularity of the videos. While the average video length is roughly the same for each movement (see Table 1), large differences emerged in the median popularity of videos, with videos about Proposition 8 garnering substantially more views than videos about OWS. Further, the videos for Proposition 8 spurred more interaction, both in terms of video ratings and commentary. Therefore, the average Proposition 8 video tended to elicit more attention and interaction than the average OWS video.

## Video content

There were more original, uploader-created videos than borrowed or remixed videos in both cases. However, the

	Mean	Median	SD	Min	Max
Proposition 8					
Duration	245.41	200.00	213.05	11	2,809
Views	5,316.38	840.00	19,781.34	0	247,678
Ratings	110.22	12.00	506.59	0	8,681
Comments	93.85	9.00	344.79	0	6,045
Occupy Wall S	treet				
Duration	249.26	175.00	274.397	3	2,432
Views	878.25	99.50	3,646.193	2	55,358
Ratings	10.41	1.00	35.32	0	403
Comments	11.57	0.00	56.123	0	862

OWS sample included 50% more borrowed videos (21%) compared to the Proposition 8 movement (14%). Videos from OWS were three times more likely to be edited by the user compared to Proposition 8 (see Table 2), although the extent of video editing remained relatively consistent across both cases.

The opposite trend was apparent when we compare the perceived quality of original videos across both movements. Specifically, a higher proportion of original videos were rated by coders as "professional"—with clean editing and multiple camera angles—for Proposition 8, while OWS contained more amateur videos, with little editing and shaky camera work.

When looking at videos that contained borrowed content, news television provided the majority of content across both

TABLE 2. COMPARING VIDEO CHARACTERISTICSFOR PROPOSITION 8 VS. OCCUPY WALL STREET

Proposition 8	Occupy Wall Street
N = 801	N=365
86.0%	78.9%
14.0%	21.1%
N = 689	N=288
32.7%	12.5%
39.2%	65.5%
28.2%	11.1%
N/A	10.8%
55.2%	63.9%
23.9%	27.4%
20.9%	8.7%
N=112	N=77
0%	24.7%
0%	1.3%
1.8%	0%
66.1%	55.8%
24.1%	6.5%
8.0%	1.3%
NA	5.2%
NA	5.2%
16.1%	48.1%
N = 18	N = 37
77.8%	78.4%
22.2%	21.6%
	Proposition 8 $N = 801$ $86.0\%$ $14.0\%$ $N = 689$ $32.7\%$ $39.2\%$ $28.2\%$ $N/A$ $55.2\%$ $23.9\%$ $20.9\%$ $N = 112$ $0\%$ $0\%$ $0\%$ $0\%$ $0\%$ $0\%$ $0\%$ $N = 112$ $0\%$ $0\%$ $0\%$ $0\%$ $1.8\%$ $66.1\%$ $24.1\%$ $8.0\%$ $NA$ <tr< td=""></tr<>

movements, but Proposition 8 posters also borrowed heavily from entertainment television. Protest footage provided a quarter of borrowed content for OWS (see Table 2). This greater emphasis on protest footage in the OWS data was also reflected in the content of original videos, where filmed live events dominated the landscape and represented two-thirds of all original videos. Meanwhile, for Proposition 8, videos were evenly split between filmed live events, monologues, and scripted content. Thus, the types of content posted reflected the goals and structures of the political actions in predictable ways, with OWS videos emphasizing live events and Proposition 8 videos portraying a mix of live events, professional messages, and personal opinion expression.

#### Relationship between content and popularity

To understand better how types of content relate to the popularity of the video, we performed a series of statistical analyses, using nonparametric tests to limit the potential for outliers to skew the data. We began by using a Mann–Whitney *U* test to compare the median scores for original versus borrowed videos. Our findings demonstrated that for both Proposition 8 and OWS, videos containing borrowed content produced significantly more engagement, in terms of the median number of views, ratings, and comments (see Table 3). Thus, while videos that borrowed or remixed content from other sources comprised a small proportion of the content on YouTube, they garnered significantly more views than the more ubiquitous original content.

However, because original videos represent a wide range of styles, from amateur protest footage to professional scripted advertisements, our subsequent analyses broke down how the quality and the content of that video contributed to its popularity. A series of Mann–Whitney *U* tests compared professional versus amateur videos. As might be expected, professional content generated more engagement with the video, boosting views, ratings, and comments for both movements (see Table 4).

Moving to video content, a series of Kruskal–Wallis tests<sup>k</sup> showed that the relationship between type of original video and popularity was dependent on the case in which it was embedded. For Proposition 8, scripted videos were watched significantly more often than either filmed live events or monologues, while filmed live events produced significantly less engagement—in terms of ratings and comments—than either monologues or scripted videos. This pattern does not

 Table 3. Comparing Impact of Original vs. Borrowed

 Video Content on Video Engagement

	Mann–Whitney U test statistic	Original video median	Borrowed an video median	
Proposition 8				
Views	28,014.50***	762	1639	
Ratings	32,591.50	11	14.50	
Comments	26,577.50***	7	25	
Occupy Wall S	treet			
Views	8,697.00**	90.00	162.00	
Ratings	9,028.50*	1.00	3.00	
Comments	8,560.50**	0.00	1.00	

\**p*<0.05; \*\**p*<0.01; \*\*\**p*<0.001.

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TABLE 4. COM	paring Impac	f of Profes	SSIONAL VS.
AMATEUR VIDI	eo Content o	n Video En	IGAGEMENT

	Mann–Whitney U test statistic	Amateur video median	Professional video median	
Proposition 8				
Views	42,085.00***	441.00	1,174.00	
Ratings	43,726.50***	8	17	
Comments	Comments 50,606.00 <sup>†</sup>		10	
Occupy Wall S	treet			
Views	6,208.00***	62.00	157.50	
Ratings	7,177.00***	0.00	0.50	
Comments	8,132.50*	0.00	1.00	

 $^{\dagger}p < 0.10; *p < 0.05; ***p < 0.001.$ 

hold for the OWS movement: there were no significant differences between video genres in terms of number of views or comments, although scripted videos tended to produce somewhat more ratings than the filmed live events or interviews (see Table 5). Thus, while the audience for Proposition 8 videos preferred certain genres of original videos—perhaps because actors on each side of the issue invested heavily in promoting their content—the OWS ecology promoted more equal distribution of engagement across video type.

## Discussion

This exploratory study compares how two disparate political actions used the YouTube platform to define and advance their goals. By examining the popularity and features of these videos, as well as the intersection of the two, we aim to advance our understanding of the use of social media in activism generally, and push the field to consider how those uses differ across cases of institutional and noninstitutional politics.

Our results show that "social media activism" is far from a unitary phenomenon: the two mobilizations produced very different YouTube ecologies. The average OWS video proved considerably less popular and garnered less engagement (in terms of ratings and comments) than a video about Proposition 8, in part because OWS videos competed in a much more dense online environment. The content of videos also differed substantially: whereas OWS videos tended to focus on filmed live events and were rated as amateur by codersin line with common perceptions of the movement-videos about Proposition 8 were relatively professionalized. Finally, these video features contributed to video popularity in discrete ways: for both movements, borrowed and professional content garnered more views and engagement. However, for Proposition 8, scripted content benefitted at the expense of filmed live events, while for OWS, each video type proved equally popular, with filmed live events producing as much engagement as other types of videos. This trend is reinforced by examining the most popular videos for each movement: the Proposition 8 videos were dominated by professional, scripted footage-especially advertisements-whereas the most popular OWS videos tended to be filmed live events, both higher and lower in quality.<sup>1</sup>

Differences in the structures of the movements may help us to account for several of these disparities. During Proposition 8, the involvement of large organized groups on both sides of

	Kruskal–Wallis	Scripted	Filmed	Monologue	Interview
	test chi-square	median	live median	median	median
Proposition 8					
Views	31.53***	1,326.00	503.50	464.00	N/A
Ratings	50.936***	18	7	14	N/A
Comments	38.461***	13	3	13	N/A
Occupy Wall Street					
Views	3.146	119.00	81.50	117.00	93.00
Ratings	7.94*	2.00	1.00	1.50	1.00
Comments	5.194	0.00	0.00	1.00	0.00

TABLE 5. COMPARING THE IMPACT OF ORIGINAL VIDEO TYPE ON VIDEO ENGAGEMENT

\**p*<0.05; \*\*\**p*<0.001.

the issue contributed to professional quality of content, including television advertisements in favor and satirical musicals in opposition,<sup>10</sup> that became part of the social media conversation. Conversely, the leaderless OWS movement encouraged contributions from anyone interested in the cause, but had no central leaders or resources with which to produce polished videos. Similarly, it is likely that whereas Proposition 8 organizers made a concerted effort to bolster the viewing of official videos, the efforts of OWS supporters were fragmented across many different video posters. The majority of videos for OWS documented the active protest environment, including authenticating one's personal involvement in and understanding of the movement.<sup>11</sup> Additionally, the integration of YouTube with social networking sites such as Twitter and Facebook effectively distributed attention across a greater number of OWS videos than was possible during the Proposition 8 campaign, likely more reliant on traditional promotion efforts.

Both nonprofit organizations and activists might draw lessons from these findings. That Proposition 8 videos attracted more views—even at a time with relatively smaller overall YouTube audience—suggests the continuing importance of content quality and strategic promotion to disseminating messages online. The point is reinforced by the fact that despite OWS's anti-elitist ethos, it was content repurposed from professional media content that attracted the most attention and response. This recalls the point being made by some scholars that organization, and even bureaucracy, may be essential to effective political action, even in the social media age.<sup>26</sup> Organizations and activists might take note of the continuing necessity of strategically creating and promoting content.

It is also likely that differences arose from the changes in the social media environment across the span of time separating the two cases. While we might initially expect YouTube videos to be more popular for OWS, given a fourfold increase in the number of video views from 2009 to early 2012,<sup>30,35</sup> the number of videos uploaded has also exploded, diluting viewership for any one clip. There were fewer than 3,000 total videos tagged with the Proposition 8 label during the time frame of our study in 2008–2009, compared to more than 40,000 unique videos about OWS in 2011.

The same trends may have contributed to the more professionalized video environment surrounding Proposition 8. For example, in July 2008, 34% of the public reported using social networking sites via their phone and 46% reported uploading pictures, while these numbers jumped to 59% visiting social networking sites and 55% uploading pictures in June 2011.<sup>36</sup> Thus, it is easier and more likely for the average person to film and upload a video in 2011.

Of course, this study has a number of limitations. While we look across multiple movements to better gauge how social media is used to promote social or political action, we are still limited by the particular movements selected as well as by the unique challenges of sampling videos for analysis. Furthermore, each movement is embedded in a particular social context, shaped by unique concerns, diverse publics, and evolving technological capabilities. We deliberately examined two cases embedded in different contexts, with contrasting movement goals and organizational structures, bounded by the constraints and affordances of each time period. While selecting these cases provides some preliminary insight into how these contextual differences play out in online spaces, it makes it difficult to parse exactly which difference contributes to specific findings about the content uploaded to YouTube. This is what makes the study exploratory: future research will be needed to test differences and similarities between more cases and more kinds of cases. We are also limited by a focus on only one social media platform-YouTube. In an evolving media environment, You-Tube is only one channel by which people can and do share information and ideas.5,11

What our study does demonstrate is that YouTube is not a static environment in which easily outlined rules prescribe how social movements do social media activism. Rather, collective actions project themselves onto the platform, and resulting patterns of use appear to reflect movements' underlying structures, practices, and concerns. Although this flexibility may be one of the strengths of the YouTube environment, and a source of its popularity, it poses challenges for researchers as we seek to understand the complex interactions between movements, media, and politics.

## Notes

- a. Events of particular note include the General Strike organized by Occupy Oakland on November 2; Bank Transfer Day on November 5; the "N17" demonstrations on November 17; the pepper spraying of students at the University of California, Davis, on November 19; and the evictions of Occupy camps in Portland, Oakland, New York City, and Los Angeles on November 13, 14, 15, and 29 respectively.
- b. Notably, the "favorite" option moved to the far left of the screen, which had formerly been occupied by the

"share" option, and "favorite" was replaced with a thumbs up/thumbs down "like" mechanism similar to that employed by Facebook or Reddit. Screenshots available upon request from the authors.

- c. Social media use and platform proliferation was fairly explosive between 2008 and 2011, including the dawn of Pinterest, Google+, and Twitter, all of which are top sites for directing traffic to YouTube.
- d. Our sample was affected by the limitations of You-Tube's search tools. To combat this, we conducted multiple searches using different search priorities: most relevant (YouTube's default), view count, and ratings. Combining the results of these six searches and removing duplicates produced the sample of 2,852. We acknowledge, therefore, our sample is not comprised of the full set of videos that might be returned to a query on Proposition 8—that complete set remains unknown.
- e. The computer assisted data collection was conducted the same week as the hand coded analysis.
- f. Searches conducted through Radian6 are carried out by the YouTube Search API rather than the search function on the YouTube web interface. Although this method enabled us to automate the procedure, it did not eliminate the potential biases of accessing YouTube's databases via public search. This limitation is inherent to the use of a private media platform and shapes the experience of YouTube for movement participants as well as researchers. Combining the results of multiple queries mitigates the potential for bias, and we were able to reach a point of saturation at which new videos were no longer being discovered.
- g. The final list of keywords used to identify OWS-related media artifacts from YouTube were: #occupy, #ows, move your money, ows, occupy, occupy movement, occupy together, occupy wall street, we are the 99, zuccoti. False positives for the search term "occupy" were nearly eliminated by the use of proximity word functionality in Radian6.
- h. During the 7 months since the beginning of our data collection procedures, 18% of the videos in our corpus became inaccessible for reasons including suspended user accounts and claims of copyright violation. Each of missing video selected for the sample was replaced with an accessible video from the same subgroup at random until the completion of a fully accessible sample. The data used in this project are a subset of a large data collection; please see Thorson et al. (2013)<sup>11</sup> for more details on the methodology.
- i. ContextMiner and TubeKit are related projects with comparable functionality for collecting YouTube metadata. See Shah (2009)<sup>33,34</sup> for details regarding their development and deployment.
- Full coding materials are available upon request and are attached to this article as supplemental appendices.
- k. Like the Mann–Whitney *U* tests reported above, the Kruskal–Wallis test is a nonparametric test to correct for potential outliers in the data that allows for comparison of more than two groups.
- To examine top videos, we compared the five most viewed videos in our sample for each movement. For Proposition 8, the five top videos had a range of 122,798–247,678 views, and three of the top videos were original, scripted,

professional content—and four of the videos were professionally produced television advertisements (the fourth video was "borrowed" content and thus quality wasn't coded). Meanwhile, the top five OWS videos ranged from 12,902–55,358 views, and four of the top five videos were filmed live events, with two rated as professional in quality and two rated as amateur in quality.

#### Author Disclosure Statement

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### References

- 1. Shirky C. Political power of social media—technology, the public sphere, and political change. Foreign Affairs 2011; 28:32.
- Lange PG. Publicly private and privately public: social networking on YouTube. Journal of Computer-Mediated Communication 2007; 13:361–380.
- Papacharissi Z. (2009) The virtual sphere 2.0: the Internet, the public sphere, and beyond. In Chadwick A, ed. *Routledge handbook of Internet politics*. New York: Routledge, pp. 230–245.
- Bennett CW, Breunig C, Givens T. Communication and political mobilization: digital media and the organization of the anti-Iraq War demonstrates in the U.S. Political Communication 2008; 25:269–289.
- Van Laer J, Van Aelst P. Internet and social movement action repertoires: opportunities and limitations. Information, Communication, & Society 2010; 13:1146–1171.
- Bimber B, Flanagin AJ, Stohl C. Reconceptualizing collective action in the contemporary media environment. Communication Theory 2005; 15:365–388.
- Carlson T, Strandberg K. Riding the Web 2.0 wave: candidates on YouTube in the 2007 Finnish national elections. Journal of Information Technology & Politics 2008; 5:159–174.
- Gulati GJ, Williams, CB. Congressional candidates' use of YouTube in 2008: its frequency and rationale. Journal of Information Technology & Politics 2010; 7:93–109.
- Obar JA, Zube P, Lampe C. Advocacy 2.0: an analysis of how advocacy groups in the United States perceive and use social media as tools for facilitating civic engagement and collective action. Journal of Information Policy 2012; 2:1–25.
- Thorson K, Ekdale B, Borah P, et al. YouTube and Proposition 8: a case study in video activism. Information, Communication & Society 2010; 13:325–349.
- 11. Thorson K, Driscoll K, Ekdale B, et al. YouTube, Twitter, and the occupy movement connecting content and circulation practices. Information, Communication, and Society 2013; 16:421–451.
- Treré E. (2011) Studying media practices in social movements. CIRN Prato Community Informatics Conference, Prato, Italy.
- Macafee T, De Simone JJ. Killing the bill online? Pathways to young people's protest engagement via social media. CyberPsychology, Behavior, & Social Networking 2012; 15:579– 584.
- 14. Earl J. The dynamics of protest-related diffusion on the web. Information, Communication, & Society 2010; 13:209–225.
- Earl J, Kimport K, Prieto G, et al. Changing the world one webpage at a time: conceptualizing and explaining Internet activism. Mobilization: An International Journal 2010; 15:425–446.
- 16. Olson M. (1965) *The logic of collective action: public goods and the theory of groups.* Cambridge, MA: Harvard University Press.

- 17. Benkler Y. (2006) *The wealth of networks: how social production transforms markets and freedom.* New Haven, CT: Yale University Press.
- Sayre B, Bode L, Wilcox D, et al. Agenda setting in a digital age: tracking attention to California Proposition 8 in social media, online news, and conventional news. Policy & Internet 2010; 2:7–32.
- 19. Beck U. (1999) World risk society. Cambridge: Polity.
- Bennett W. The uncivic culture: communication, identity, and the rise of lifestyle politics. Political Science & Politics 1998; 31:741–761.
- 21. Reynolds J. (2008) *The single woman: a discursive investigation*. New York: Taylor & Francis.
- Giddens A. (1991) Modernity and self-identity: self and society in the late modern age. Stanford, CA: Stanford University Press.
- 23. Rainie L, Wellman B. (2012) Networked: the new social operating system. Cambridge, MA: MIT Press.
- Wojcieszak M, Rojas H. Correlates of party, ideology and issue based extremity in an era of egocentric publics. International Journal of Press/Politics 2011; 16:488–507.
- Karpf D. Macaca moments reconsidered: electoral panopticon or netroots mobilization? Journal of Information Technology and Politics 2010; 7:143–162.
- Kreiss D, Tufekci Z. Occupying the political: Occupy Wall Street, collective action and the rediscovery of pragmatic politics. Cultural Studies ↔ Critical Methodologies 2013; 13:1–5.
- Dolan M. California Supreme Court looks unlikely to kill Proposition 8. Los Angeles Times, Mar. 6, 2009. www.latimes .com/news/local/la-me-prop8-supreme-court6-2009mar06,0, 798075.story-court6-2009mar06,0,798075.story (accessed Aug 15, 2009).
- Wasserman T. (2013). YouTube: Super Bowl ads shown before the game get 600% more views. Mashable.com. http:// mashable.com/2013/01/28/youtube-super-bowl-ads-moreviews/ (accessed Feb. 12, 2013).
- Hanson GL, Haridakis PM, Sharma R. Differing uses of YouTube during the 2008 U.S. presidential primary election. Electronic News 2011; 5:1–19.

- Corteses J, Proffit JM. Looking back as we prepare to move forward: US presidential candidates' adoption of YouTube. CyberPsychology, Behavior, & Social Networking 2012; 15:693–697.
- YouTube statistics. (2013) www.youtube.com/t/press\_ statistics (accessed Feb. 12, 2013).
- Oreskovic A. (2013). Exclusive: YouTube hits 4 billion daily video views. www.reuters.com/article/2012/01/23/us-googleyoutube-idUSTRE80M0TS20120123 (accessed Jan. 29, 2013).
- 33. Shah, C. TubeKit—a query-based YouTube crawling toolkit. Bulletin of IEEE Technical Committee on Digital Libraries 2009; 5(1).
- Shah, C. ContextMiner: supporting the mining of contextual information for ephemeral digital video preservation. International Journal of Digital Curation 2009; 4(2).
- Moore K. (2011) 71% of online adults now use video-sharing sites. Pew Internet Project. http://pewinternet.org/~/media/ Files/Reports/2011/Video%20sharing%202011.pdf (accessed Jan. 29, 2013).
- 36. Hampton KN, Goulet LS, Rainie L, et al. (2011) Social networking sites and our lives: how people's trust, personal relationships, and civic and political involvement are connected to their use of social networking sites and other technologies. Pew Research Center's Internet and American Life Project. http://www.pewinternet.org/~/media//Files/Reports/2011/PIP%20-%20Social%20networking%20sites% 20and%20our%20lives.pdf (accessed Feb. 5, 2013).

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## Appendices

#### Appendix 1. Proposition 8 coding instructions

- 1. *Video removal*. Select yes if the video has been removed. Otherwise select no.
- 2. *Identifying Proposition 8 videos*. Is this a Proposition 8 video? If there is any mention of Proposition 8, including in the video tags, choose yes.
  - Now watch the video and code the remaining questions.
- 3. *Content origin.* Is the content original or borrowed? Borrowed: Content is clearly identifiable as belonging to another source (i.e., a news logo is present). Original: Anything else. Be sure to check the user name to see if it matches the content (CBS content posted by CBS News is original, not borrowed).
  - (a) For *borrowed* content:
  - i. Is the borrowed content user edited? (Yes/No). If yes, what degree of user editing is there? Low level:

Adding a branded intro, watermark on the screen, "check out this video" screen. Introducing or ending in a way that maintains the flow and integrity of the clip itself. High level: Change to the structure of the clip, editing together disparate pieces, adding music or other audio content.

- ii. Where did the borrowed content come from?
  - A. Rally: Video of a rally or protest
  - B. Speech: Footage of a speech *without* a rally press conferences, politician speaking to legislative body
  - C. Church: Footage of a church service—takes place in a religious building, presence of a religious figure (pastor, priest, etc.), bibles, crosses, worship music, etc.
  - D. News TV: Video content is dominated by clips from a news organization or multiple news or-

ganizations. Look for identification of a network, news set, correspondent commentary

- E. Entertainment TV: Video content is dominated by clips from entertainment television, such as a talk show (Oprah, Daily Show, Letterman), or other dramatic television (West Wing, Seinfeld)
- F. Advertisement: Video content is an ad that clearly was borrowed—you can tell it aired on television. (Note: If you cannot determine that the ad was borrowed, then code advertisement as original—scripted.)
- (b) For original content:
  - i. Where did the original content come from?
    - A. Scripted: Produced by its creator (not necessarily the poster, though it could be). May include actors, planned or scripted address to the camera.
    - B. Filmed live event: May include footage from press conferences, speeches, rallies. (Note: There may be editing or voiceovers, but if footage is of a live event—press conference, hearing, protest, etc.—it belongs in this category.) However, if the person filming the live event has a substantial amount of face time, code as monologue.
    - C. Monologue: Webcam speech, extemporaneous, can include more than one person. Lacks a script.
  - ii. Production quality. Assess the production quality. Amateur: No editing or choppy cuts. Skilled amateur: Steady camera work, some editing. Professional: Multiple camera angles, studio production, clean editing.

## Appendix 2. Occupy coding instructions

- Video removal. Is the video available for coding? (Yes/ No, it has been removed/No, it is marked private/No, other reason).
- 2. *Identifying Occupy videos*. Is this a video explicitly about the Occupy movement? (Yes/No). If there is any mention of Occupy in the content of the video or in the metadata, choose "yes." If the video does not mention Occupy, but you could see how it might be relevant to a conversation about Occupy, you should still choose "no."
- 3. *Content origin*. Does the video contain primarily original content or is some of the audio/video borrowed? Borrowed: At least some of the content is *clearly* identifiable as belonging to another source (i.e., a news logo is present or the video includes footage from a movie or TV show or pictures are identified with a source). In general, if this is a video you think would be classified as a mash-up or remix, choose borrowed. Original: Anything else. This category is reserved for videos that you estimate to contain at least 90% original footage. Be sure to check the user name to see if it matches the content (CBS content posted by CBS News is original, not borrowed).
  - (a) For *borrowed* content:
    - i. Is the borrowed content user edited? (Yes/No). If yes, what degree of user editing is there? Low level: Adding a branded intro, watermark on the screen,

"check out this video" screen. Introducing or ending in a way that maintains the flow and integrity of the clip itself. High level: Change to the structure of the clip, editing together disparate pieces, adding music or other audio content.

- ii. Where did the borrowed content come from? Choose the option that best characterizes the largest amount of borrowed content.
  - A. Rally: Video of a rally or protest
  - B. Speech: Footage of a speech *without* a rally press conferences, politician speaking to legislative body
  - C. Church: Footage of a church service—takes place in a religious building, presence of a religious figure (pastor, priest, etc.), bibles, crosses, worship music, etc.
  - D. News video: Video content is dominated by clips from a news organization or multiple news organizations. Look for identification of a network, news set, correspondent commentary
  - E. Entertainment content: Video content is dominated by clips or stills from the entertainment world, such as a talk show (Oprah, Daily Show, Letterman), concert performances, or dramatic television (West Wing, Seinfeld)
  - F. Advertisement: Video content is an ad that clearly was borrowed—you can tell it aired on television. (Note: If you cannot determine that the ad was borrowed, then code advertisement as original—scripted.)
  - G. Music video or song: Primarily borrowed from a music video or song
  - H. Other
- (b) For *original* content:
  - i. Where did the original content come from?
    - A. Scripted: Produced by its creator (not necessarily the poster, though it could be). May include actors, planned or scripted address to the camera.
    - B. Filmed live event: May include footage from press conferences, speeches, rallies (Note: There may be editing or voiceovers, but if footage is of a live event—press conference, hearing, protest, etc.—it belongs in this category.) *However*, if the person filming the live event has a substantial amount of face time, code as monologue. Original news footage will most often fall into this category.
    - C. Monologue: Webcam speech, extemporaneous, can include more than one person. Lacks a script.
    - D. Interview only: Can be amateur or professional, casual, journalistic or academic. Note: mark this category only if the video is at least 75% interview content.
  - ii. Production quality. Please assess the production quality. Amateur: No editing or choppy cuts. Pro-Am: Steady camera work, some editing Professional: Multiple camera angles, studio production, clean editing.