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Dynamic Success on YouTube: A Longitudinal Analysis of Click Counts and Contents of Political Candidate Clips during the 2009 German National Election

SEBASTIAN SCHERR, CARSTEN REINEMANN and OLAF JANDURA

Since the 2008 Obama victory, mass media and academic research have contributed to the widespread notion that modern political campaigns are won in the so-called 'web 2.0', more precisely on YouTube. While respective studies were able to identify some major factors for the success of political YouTube videos, some videos 'failed' to have the presumed success online. This lack of clarity has not been convincingly explained by cross-sectional designs without taking into account the dynamic aspects of the success of YouTube videos. This study evaluates and validates the impact of presentation, professionalism, topic, age and the typical slope of the website-visits over time on the total amount of page visits. Political YouTube videos were analysed over a five-month period before the 2009 German national election. Most strikingly, one has to ignore some of the YouTube conventions to be successful on the platform during an election campaign, like uploading user-generated content.

INTRODUCTION

The 2008 US presidential election created – at the latest – another new media myth. The Obama campaign itself, the media and some academic research contributed to the widespread notion that 'web 2.0' campaigning was crucial for Obama's electoral success.[1] The new methods of campaigning, however, have not only impressed the US public but also attracted the attention of the European media, campaigners and researchers. They asked themselves what they could learn from the Obama campaign and whether or not the effects found in the US context could be transferred to a European setting. Consequently, and even before 2008, scholars in many different countries[2] looked at various aspects of web 2.0 in political communication both generally and in election periods in particular.[3] This also holds true for Germany. Although German general elections differ in many ways from American races, it has often been assumed that the presence of parties, politicians and their supporters on web 2.0 is becoming more and more important for electoral success. Often this notion is based on the impressive number of web 2.0 users. As YouTube is the third most viewed website in the world, it stands to reason that it has the potential to be an effective election campaign tool.[4]

However, these optimistic assumptions have not yet been confirmed by the findings of recent empirical studies. In the German case, it turned out that the electorate did not regard web 2.0 as an important source of information when compared to traditional news media or online news sites.[5] Bearing this in mind, this paper investigates the success of political videos on YouTube prior to the German national election in 2009. In line with prior research, we operationalise video success by the total number of clicks gained over time. In contrast to earlier studies, however, we do not use a cross-sectional design but a longitudinal one to explain the dynamics of video success. To this end, we take advantage of the fact that the users' interest in political YouTube videos is continuously measured by counting and stating the number of clicks.

LITERATURE REVIEW

There has been increasing interest in the way YouTube and other social media impact political communication. Thus we reviewed existing literature in the field of political communication especially with regards to: (1) the political content presented on YouTube; (2) its importance as a source of political information; and (3) the factors influencing the success of individual political YouTube videos.

The Content of Political YouTube Videos

YouTube is a platform on which both user-generated content and professionally created material is distributed and shared. However, only a small portion of the videos on YouTube is about politics. Cheng *et al.* analysed the data of more than three million YouTube videos in 2008.[6] These videos had an average of 4800 views, the median being 741. Results indicate that only 4 per cent of the videos fell into the category 'news and politics'. Furthermore, videos (in 98 per cent of the cases) are usually no longer than 10 minutes which is the regular users' limit imposed by YouTube to upload a clip. In total 21 per cent of the videos were no longer than one minute and 17 per cent were between three and four minutes. The last group of videos, being three to four minutes long, consists mainly of music clips. These belong to one of the most popular categories on the platform (23 per cent of the videos in the sample were categorised as 'music'). Regarding the production quality of the YouTube videos, Cheng *et al.* found that 98 per cent of the clips posted on YouTube until 2008 were less than 25 MB large. Thus videos have moderate bitrates, which indicates a trade-off between quality and streaming rate.

In spite of – or maybe because of – the small proportion of politics on YouTube, the US website started its campaigning channel 'You Choose '08' in 2007. Here, candidates and campaigners could distribute their messages. According to Dylko *et al.*, 'You Choose '08' encouraged many presidential and congressional candidates in the USA to voice their points of view on the platform.[7] All promising candidates that made it into the last phase of the primary process were featured in the YouTube videos (Obama, Palin, McCain, Clinton, Biden and Edwards). A content analysis of the videos on the channel showed an average length of nine minutes which is nearly the upper time limit set by YouTube. As far as the origin of the material is concerned, videos contained either no or only media content produced by professional journalists.

For the 2012 presidential elections, YouTube established the platform 'YouTube Politics'. This offers a ranking of the most popular political videos, provides statistics on the views and subscriptions of candidates' videos and portrays the candidates.

In the Scandinavian context, a study by Carlson and Strandberg reveals that during the 2007 Finnish elections only a small proportion of all candidates actually posted videos during the campaign. In the group of those who did, members of smaller parties were overrepresented.[8] The study investigated the impact of all videos that featured Finnish parliamentary candidates on the last working day prior to election day. The authors identified 295 videos with information about the date of the upload, the length of the video, the overall valence of a candidate's portrait, viewer comments, the number of views and the number of links leading to the video. The viewing median of these videos was 382 and the largest number of videos was uploaded about three weeks prior to election day.

The Audience of Political YouTube Videos

Research for Germany shows that different types of online media, content, users and effects have to be considered when the impact of online media is studied: while on the one hand websites of classical media have become a major source of political information especially for younger audiences, social media platforms like YouTube play a less important role. For example, a recent representative telephone survey conducted right after the 2009 national election revealed that about 46 per cent of all 'onliners' – which make up about 65 per cent of the German population – turned to political information on the internet.[9] However, there was an obvious age gap: only 13 per cent of the population being 65 years and older have turned to political information online in contrast to 70 per cent of the population aged 18 to 24. These results were confirmed by other studies showing that traditional news media are still very important and that there is a strong impact of individual factors like age and political interest on the use of online political information.[10]

Recent data from the Pew Research Center show that these numbers differ for the USA: in January 2012, people were asked whether they go online for political campaign news. In total 11 per cent of the 65+ age group indicated that they are learning from the internet about the campaign – this is comparable to Germany. However, only 29 per cent of the 18- to 29-year-olds indicated that they regularly learn about the candidates and campaigns online. The fact that US figures have decreased in general since the 2008 presidential elections demonstrates that the 2008 elections successfully mobilised people in a way that no other campaign thereafter was able to achieve.

In Germany, about one-third of the online population (older than 14 years) usually spends time on video platforms like YouTube daily or weekly. Between 2007 and 2011, this share has doubled.[11] Therefore, as this paper focuses on political YouTube videos, one could argue that the presumed influence of YouTube videos during an election campaign should be modest: the Pew Research Center reports for 2012 that only between 1 per cent and 5 per cent of the population older than 18 years use YouTube videos as news sources about the campaign. Nevertheless, 24 per cent of the people aged 18 years and older say that they have seen something about the 2008 campaign in a video online – either a speech, an interview, a commercial or a debate.[12] One has to keep in mind, however, that audiences are possibly

changing, as data from the Pew Research Center suggest: it is recognised that each source for campaign news has unique advantages and disadvantages and that information can be obtained online easily through search engines. There is even reason to believe that nowadays there are a number of people for whom YouTube is the only source of political information.

The Success of Individual Political YouTube Videos

Another line of research looked at the factors influencing the success of individual YouTube videos. Usually, 'success' is measured by the absolute number of views a video has generated at a given point in time. Sometimes, authors also refer to the dynamics of click rates, for example when mentioning the period of time a video needed to accumulate a certain number of views.

In order to identify the factors that contribute to the success of political YouTube videos, it is first necessary to bear in mind how users find specific videos on the platform. YouTube offers at least three ways: 'direct navigation' refers to watching videos which users find via search engines like Google; 'goal-oriented browse' means watching videos on a certain topic; and 'unarticulated wants' describe a rather entertaining mode.[13] These three YouTube usage types may, of course, interchangeably occur during the very same YouTube session.[14] Second, video characteristics need to be distinguished. Here we look at: (1) the characteristics of the video content itself; (2) the characteristics of a video's context on YouTube; and (3) external factors such as media coverage of a video, links from other websites or social media platforms, the placement of a video in the results lists of search engines and so on.

(1) As far as features of the videos themselves are concerned, one can distinguish between: (a) their formal features; (b) their topics; and (c) the presentational characteristics. Cheng *et al.* found a positive correlation between the age of a YouTube video and the number of views which the authors explain by the higher likelihood of older videos being accessed by users. Of course, there are also extremely popular newer videos and unappreciated older ones which underline the different '*growth trends*' that Cheng *et al.* had pointed out earlier. We want to call them '*growth types*' in this paper. Cheng *et al.* furthermore differentiate between the so-called 'growth trend' – indicating the changing number of additional clicks over time – and the so-called '*active life span*' which includes the number of weeks a certain video is on YouTube. The authors suggest that the active life span of a video depends on both the growth trend factor of the video and the number of weeks the video has been on YouTube. The latter is independent of the number of views the video had at the beginning of the monitoring.[15] This finding justifies the monitoring of YouTube videos at a given point of time over a certain period.

In the only study that investigated the variables that affect the success of political YouTube videos in Germany, Bachl concentrated on clips that the parties themselves uploaded on the platform in the 2009 campaign.[16] In his cross-sectional design he found that only a few of the 198 analysed videos had more than 100,000 views. This finding is consistent with Cha *et al.* who describe the (skew) popularity distribution of YouTube videos with the 'Pareto Principle' (the so-called 80–20 rule).[17] In addition, Bachl identified humour and the video being an official campaign ad as the most important factors predicting the success of a clip. However, one has to

keep in mind that these results are based on an analysis of videos uploaded by the parties themselves.

In addition, albeit not investigated previously, it also is plausible that factors influencing the selection of political news in other media environments also affect the selection of political YouTube videos. For instance, the presence of certain news factors in a message, the potential to emotionalise, the negative tone or attack character and authenticity have been shown to affect positively the probability of a message being selected and perceived by audience members.[18] It therefore can be assumed that those kinds of content features also might affect the success of political videos on YouTube.

(2) As far as a video's context on YouTube is concerned, the YouTube recommendation system is likely to affect the success of certain videos especially for the 'unarticulated wants'-usage scenario described above. In order to keep users entertained and to ensure that they have a wide overview over the diverse contents on the platform, these recommendations are updated regularly. The main principle of the recommendation system is a live experimental setting in which all actual users are divided into two groups of which one is the control group and the other is exposed to, for example, new features, data or user interfaces. The two groups are then compared to each other and the whole procedure runs in multiple experiments at the same time for different conditions in different videos. Nevertheless, not all experiments have sufficient traffic to produce significant results from a timely perspective. The evaluation of recommendation quality is then based on click through rates (CTR); long CTR which refer to clicks that lead to full receptions; session length (most videos are not longer than 10 minutes); time until first long watch and recommendation coverage of logged-in users on the platform. As political or campaign clips usually present only video bits taken from TV or user-generated content of lower quality and length, these videos are: (a) not likely to be appropriate for experimental variation; and (b) not likely to be recommended due to the reasons mentioned above. In general, it is more likely that political YouTube videos remain on an absolutely low level of click counts and are per se not likely to be recommended in a prominent position on the website. In sum, recommendation is in fact an important factor for the success of videos on YouTube, but in a political context this may only be relevant for a small number of the videos on the platform.

(3) Finally, as far as YouTube-external factors are concerned, media coverage of certain videos, links from other websites and their position in search engine listings are likely to contribute to their success. As YouTube is part of Google Inc., the video platform is most likely to attract a great deal of attention as the videos are listed in search results. Their visibility thus depends on the changing Google ranking factors. YouTube videos are ranked higher the better they are integrated in so-called web 2.0 applications, like Facebook, Twitter and Google+.[19] This assumption is supported by the fact that references to YouTube videos are an important part of Twitter posts. For example, in an Austrian study, Maireder found that about 30 per cent of the URLs posted referred to YouTube videos and other social web applications like Facebook.[20] A study by Wallsten also lends support to the notion that external factors may play a crucial role for a video's success.[21] He claims that bloggers and campaigners in particular can influence the success of an online political video so that it becomes

viral. Wallsten tested his assumptions by tracking the – as the author describes it – most prominent example of a viral video campaign on YouTube in the 2008 US presidential election: The 'Yes we can!' music video by will.i.am. Aside from other figures describing the success of the video, Wallsten tracked the number of times a video was viewed, the number of comments the video received and the number of ratings that were given as well as the overall rating scores or the number of links that actually led to the video. Over time, the results show that after the video was posted it was extensively linked in blogs, echoed in the mass media and at the same time commented on by the official campaign. More detailed analyses showed that compared to journalists bloggers and members of the Obama campaign played crucial roles in augmenting the number of clicks of the video.[22]

However, there also is evidence that suggests that while the impact of external factors may be crucial for certain highly successful videos most political clips will not be featured somewhere else and thus will not benefit from external attention. For example, the study by Carlson and Strandberg mentioned above found that a maximum of five links pointed to one of the candidate-related videos they analysed. And these links led to a median of only five clicks on the candidate video.

RESEARCH QUESTIONS

This paper focuses on content features that impact the success of political YouTube videos in the run-up to the 2009 German national election. Based on the literature review, we favour a series of research questions over hypotheses. The reason for this is that crucial factors for the success of a political YouTube video in the German environment cannot be extracted from existing research. In our analysis, we concentrate on video-specific factors leaving aside factors of the YouTube environment (e.g. recommendations on YouTube) and factors outside of YouTube (e.g. media coverage, external links, etc.). In doing so, we put forward research questions on the formal and presentational features of the videos and their topics:

> RQ1: What was the impact of *formal features* of political YouTube videos on their overall success in the 2009 German national election?
>
> RQ2: What was the impact of the *topics* of political YouTube videos on their overall success in the 2009 German national election?
>
> RQ3: What was the impact of *presentational features* of political YouTube videos on their overall success in the 2009 German national election?

In addition, we will take into account the dynamic success of a video as regards its maximum number of clicks. More specifically, we investigate the different types of click count developments and integrate these types as predictors in a model for the success of YouTube videos. Thus, our last research question reads:

> RQ4: What was the impact of *click count dynamics* of political YouTube videos on their overall success in the 2009 German national election?

METHOD

The data for this analysis were gathered in three steps (see below for details). First, we identified all videos on YouTube that referred to the five parties represented in parliament *and* their top candidates in a 20-week period before the 2009 German nation al election. Once a week, a search for relevant videos was conducted. If new videos appeared that met our criteria of selection, they were downloaded. Second, the clicks or views of the relevant videos – which can be found beneath each clip on YouTube – were documented on a weekly basis. On that basis, we identified different dynamics of how the views of the videos developed. Third, a content analysis of a stratified random sample of these videos was conducted in order to identify possible video-related factors that contribute to their success.

Longitudinal Monitoring of Political YouTube Videos

We concentrated on those videos that were posted on YouTube between 2 May 2009 and 25 September 2009 and tracked their click counts weekly. The period of time chosen can be regarded as the final phase of the 2009 German national election. According to our review of the existing literature on the use of YouTube in academic research, we could not identify a mainstream pick-up criterion for identifying a certain type of video. Therefore, we chose to pick up any video that we found using the search terms [*name of candidate* + *name of party*], for example [*Merkel* + *CDU*] and the date of upload.[23] In every monitoring session, this procedure was replicated for all parties represented in the Bundestag.[24] Due to technical problems, YouTube videos were not monitored at all on 11 September and only partly on 22 May, 26 June and 24 July. In these cases, we substituted single missing data by the mean value of two neighbouring data points. In total, 902 videos and their most important specifications have been monitored and archived offline either once or weekly for the field period. The specifications were the title, the date of upload, the search terms for identifying the video (monitored once) and the absolute click count of the video (monitored weekly). On 25 September 2009, 559 of the videos were still accessible online.

Dynamics of YouTube Video Views

The dependent variable of our study is the maximum click count of each video at the end of our data monitoring on 25 September 2009. This count is of course a cumulative result as it has been used in other studies that focus on absolute click counts of political YouTube videos in a particular election campaign or in a more general political context.[25] Nevertheless, the data presented here have a more far-reaching meaning for political communication: beyond the cross-sectional absolute count of clicks on YouTube, we can distinguish videos by the typical progress of their clicks over time. It is surprising that so far no study in the field accounted for these dynamics with a longitudinal design, even though the platform is generally regarded as a symbol for the dynamics of modern campaigning. To us, it seemed mandatory to fill this void by integrating these different dynamics of click counts over time.

Additionally, we categorised the videos with regard to the dynamics of their click counts. In order to do so, we looked at the development of the click counts over time. The visual inspection of the corresponding graphs resulted in four different types of

click count distributions over time: (1) linear growth type; (2) logarithmic growth type; (3) logistic growth type; and (4) the so-called 'flatliner' – videos with (almost) no growth in click counts over time. This typology is rooted in the different types of how issues can become salient in the population according to non-linear models of agenda-setting.[26] We adopted this approach measuring the salience of YouTube videos as indicated by their click counts. Each video was then classified as one of these four types of click growth over time.

Content Analysis of Political YouTube Videos

Due to practical reasons, we selected a stratified random sample of these 559 videos. The latter is drawn with regard to the ratio of the search terms in the total sample which is applied to the content analysis as well. In sum, 241 videos were content analysed.[27] The unit of analysis and coding is the whole YouTube video including all picture fade-ins. The content analysis included indicators for the formal and presentational features of the YouTube videos and their topics. The following categories were used in the content analysis.

In terms of the formal features, the '*source*' of the video was coded first (e.g. if the video contained user-generated content or consisted of extracts or complete video material that originally came from the mass media or parties). In addition, the degree of '*professionalism*' in the video was coded as regards aspects like camera work, sound, picture resolution and so on. A five-point scale was used here ranging from 1 'very unprofessional' to 5 'very professional'. Finally, the '*number of days*' the video had been on YouTube was coded.

Regarding the '*topics*' of the video, a list of about 150 issues was used that had been tested in several studies on political media coverage conducted by the authors. This list included a great variety of topics ranging from various policy fields to politics-related topics like campaign events, televised debates, parties' or candidates' campaign activities. For each video, up to three topics from the list were coded. Dummy coding indicates whether a certain topic was actually present in the video (= 1) or not (= 0). In the following analysis, we concentrate on the question of whether a video contained a policy issue and/or campaign-related information.

As regards the presentational features of the video, we first coded the presence of eight '*news values*' on a four-point scale (e.g. personalisation, personal influence, location, reach).[28] Second, the '*emotionalising potential*' was measured (a) by a five-point scale representing coder's overall impression of the '*degree of emotionalisation*' and (b) by coding the presence or absence of 13 '*individual emotions*' (e.g. humour, anger, fear). Emotions were coded if explicitly mentioned or shown. Third, '*authenticity*' was operationalised as the presence of sound-bites of the respective candidates in the video, that is, whether a candidate was seen and/or heard talking in the video. For each of the seven different search terms, the presence (= 1) or absence (= 0) of sound-bites was coded.[29]

Reliability of the Content Analysis

Coding was done by one student coder closely supervised by one of the authors. To secure reliability, we measured the extent to which the coding remained stable over a period of time (intracoder reliability). To assess intracoder reliability, a random

subsample of 30 videos was drawn from the final sample of 241 videos in our analysis. Subsample size corresponds to more than 10 per cent of the coding sample which can be regarded as sufficient for intracoder reliability assessments. The articles in the subsample were separately coded and recoded after seven days elapsed – nevertheless the stability of coding can be regarded as the weakest form of reliability.[30] Due to practical reasons, five-point scales have been transformed into three-point scales for reliability assessment. Reliability values of about 1 express higher coding agreement than lower values. In sum, reliability measures were higher than .90 (per cent pairwise agreement) in all categories, but topic. For the topic category, reliability measures ranged from .70 to .80 – mostly due to the fact that topics have been coded in a different order than in the re-coding – and were thus also regarded as acceptable.

RESULTS

The Content of Political YouTube Videos in the 2009 German National Election

As the analysis of success factors is the main focus of this paper, we will only give some basic descriptive information regarding some of the content features of the videos. Of all candidates, Chancellor Angela Merkel appeared most often in the videos (31 per cent), followed by Guido Westerwelle (FDP, 25 per cent) and Merkel's most important competitor, SPD's Frank-Walter Steinmeier (23 per cent). Regarding the source of the videos, 44 per cent were party-originated, 36 per cent user-generated, 19 per cent came from professional media and 1 per cent from other sources. Videos by parties and media were on average both coded as quite professional whereas user-generated content was coded as rather unprofessional. In total 25 per cent of the videos concentrated on policy issues, 28 per cent on campaign issues and 47 per cent consisted of a mix of campaign and policy issues.

Success of Political YouTube Videos in the 2009 German National Election

The average click count of all political YouTube videos monitored between May and September 2009 was 3127 ($SD = 9904$). Of all videos, 86 per cent had less than 5000 clicks indicating that the often presumed impact of political videos in an election campaign has to be questioned at least. Only 3 per cent of the videos were clicked between 5000 and 9999 times. Only 13 videos had more than 50,000 clicks and only 4 videos had more than 100,000 clicks. The video with the highest number of clicks was a short clip that showed Angela Merkel misspeaking the name of the former minister of the German state Hessen, Roland Koch. The average length of the videos was 6.5 minutes ($SD = 10.5$).

Of the 241 videos that were content analysed, 144 could be clearly classified as one of the dynamic click count growth types. Forty-one per cent of the videos were categorised as 'flatliners' (type 4), meaning that their click counts did not or hardly ascend over time. Thirty-two per cent were categorised as the logarithmic click growth type (type 2) which is characterised by ascending click counts shortly after being online and a quick flattening after a period of time online. Nineteen per cent of the videos were categorised as linear growth type (type 1) which is a self-explicating type of constant augmentation of click counts over the monitored period of time. Six per cent of

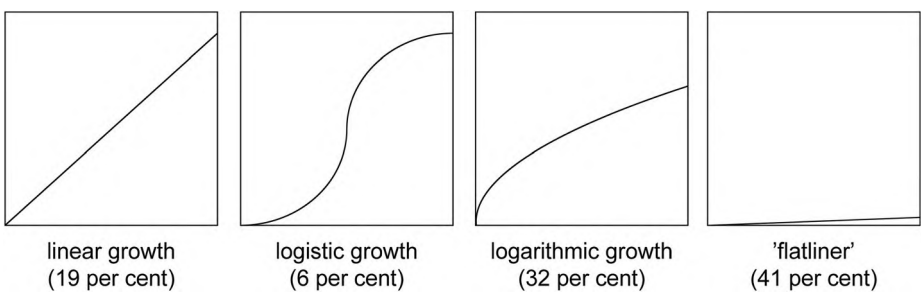
the videos were categorised as the logistic growth type (type 3), for which it is characteristic that immediately after being online there is no significant growth of the click counts of the video, yet one can observe a subsequent growth of the click counts and after that phase click counts drop again with no further increase (for an overview see Figure 1).

Factors Influencing the Success of Political YouTube Videos

As a first step, we computed hierarchical multiple regressions with the theoretically derived variables listed in the method section. Formal and presentational features of the video and topics were included in the regression model in this order. The model explained 31.3 per cent of the variance (adjusted R^2) of the maximum number of clicks and significant predictors for a video's success were: professionalism (beta = .24), media as source (−.17), the presence of a policy issue (.16), authenticity of the portrayal of the SPD-candidate Steinmeier (.16) as well as logarithmic and linear growth types (.25; .24). This means that neither the news factors nor the emotional quality or the authenticity of other candidate portrayals had an impact on the success of the videos. This is also true for the number of days the video had been available on YouTube. In the next step of the analysis, we excluded the variables that did not exert a significant influence on the maximum number of clicks.

We test the effects of the variables that appeared as significant predictors in our first analysis using a multiple mediation model. In general, mediation analysis is based on the widely applied so-called 'causal-steps approach'.[31] In contrast to its wide reception and citation, this approach has also been heavily criticised. One of the most problematic aspects is the lack of power and the high rates of type II errors.[32] Newer approaches use bootstrap methods for significance testing for indirect effects in OLS regression path models.[33] This non-parametric and iterative resampling procedure improves model power as it assesses the empirical sampling distribution more accurately than standard normal-theory tests of indirect effects.[34] Furthermore, in this paper we used an approach to estimate direct and indirect effects in models with more than one independent variable. Results presented are based on 95 per cent bias

FIGURE 1
OVERVIEW OF GROWTH TYPES IN CLICK COUNT NUMBERS FOR POLITICAL YOUTUBE VIDEOS



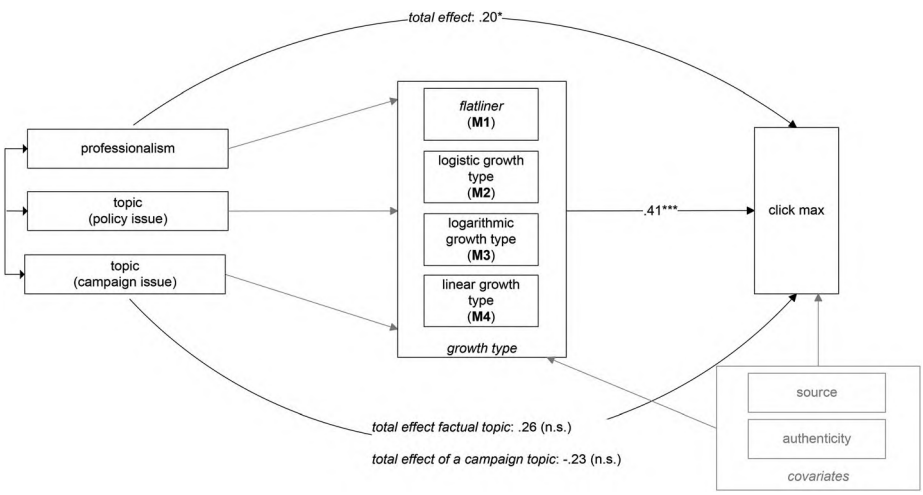
Note: Figure 1 gives an overview of typical growth rates in click count for those 60 per cent of the political YouTube videos that could be classified.

corrected accelerated confidence intervals based on 5000 bootstrap samples for specific indirect effects. If bootstrap intervals do not include zero, the indirect effect significantly differs from zero.

Based on the results of the first analysis, we include professionalism and the presence of a policy issue as a first group of factors impacting a video's success. Our main assumption is that YouTube video material which is untypical for the usual content on the platform (i.e. not user-generated content) leads to higher click counts. This supposition was operationalised by looking at the influences of professionalism on the success of the videos. The second assumption is that videos with policy issues lead to less clicks in the end, as this is unfamiliar content on the platform and does not correspond to audience expectations regarding YouTube content. Besides these direct effects, we conceptualise the specific growth types as mediators of a video's success. The underlying assumption here is that the more dynamic the growth of a video, the more attention it can receive through both the absolute number of clicks and the recommendation systems on YouTube which are closely interlinked. Therefore, the absolute success of a YouTube video should not only depend on the topic or the style of the video, but also on the dynamics of its success.[35] Finally, as a third group of variables, we included the source of the video and its authenticity as covariates in our model (see Figure 2). All in all, this means that we estimate the effect of professionalism and topic in a political YouTube video on its success mediated by typical click count growth types and controlled for the source and authenticity of the candidate portrayal. In order to report standardised path coefficients which are widely received, we standardised our dependent measure.

The analysis of our data shows a significant positive total effect of professionalism on the success of a political YouTube video ($b = .20$, $SE = .08$, $p < .05$). In contrast to

FIGURE 2
MULTIPLE MEDIATION MODEL OF FACTORS OF SUCCESS ON YOUTUBE



Note: $n = 240$; Total effects model: $R^2_{adj} = .12$; $F = 3.8$; $df = 7$; $p < .01$

that, there was no significant total effect of a policy or campaign-related topic on the click counts ($b_{fact} = .26$, $SE = .21$, $p > .05$; $b_{camp} = -.23$, $SE = .23$, $p > .05$). Nevertheless, coefficients of these direct and indirect effects point in an interesting direction – although this finding is not significant: if a video portrayed a campaign topic, fewer people watched the video in comparison to videos that focused on policy issues. In a next step, we estimated the indirect effects of professionalism and topic on a video's success mediated by its growth type. Our analysis shows no such significant indirect effects of 'professionalism' ($b = .03$, $SE = .04$) (95 per cent biased corrected and accelerated bootstrap *CI*: −.047; .107), 'policy issue' ($b = .04$, $SE = .09$) (95 per cent biased corrected and accelerated bootstrap *CI*: −.144; .231) or 'campaign topic' ($b = -.07$, $SE = .11$) (95 per cent biased corrected and accelerated bootstrap *CI*: −.299; .140). Nevertheless, these non-significant indirect effects point in the expected direction. 'Professionalism' and a 'policy issue' contribute to faster growth types of videos (like logarithmic growth or linear growth). In contrast, 'campaign topics' contribute more to slower or no growth types of click counts. The bijective classification of a YouTube video to a certain growth type in turn contributes significantly to higher maximum click counts ($b = .41$, $SE = .07$, $p < .001$). This result indicates that more dynamic and higher growing types of YouTube videos (e.g. the linear growth type) will also reach higher maximum click counts in the end. The explained variance of the full mediation model is satisfactory ($R^2_{adj} = .12$), $F(7,134) = 3.81$, $p < .01$). Source and authenticity, however, which were significant predictors in the above tested OLS regression model, did not appear as significant factors influencing a video's success in the multiple mediation model.

DISCUSSION

Our analysis of the success of individual political YouTube videos showed that audience sizes were quite limited in the run-up to the 2009 German national elections. Over a five-month period, none of the videos in our sample reached an audience that a small-sized daily newspaper reaches in a single day. In that our results are in line with survey studies showing that in the 2009 elections, only a small proportion of citizens regarded web 2.0 platforms as an important source of political information. Due to the fragmentation of news media audiences and the rising number of people who avoid political information in the traditional media, YouTube could become a new channel for politicians in order to reach out to their electorate. However, we still need to learn more about the factors that promote the 'success' of political YouTube videos. Identifying reasons for their success might help to answer the question of why political YouTube videos in general have not yet become important in the German context. In fact, it came as a surprise that a lot of the factors that usually determine the likelihood of reception in other media environments did not play a role for the success in web 2.0, which is especially true for traditional news factors. A more intuitive result is the fact that faster click growth rates lead to higher click counts in the end which can best be described by the sociological phenomenon of accumulated advantage, the so called '*Matthew effect*'.

Campaign strategists usually choose well-fitting issues for political agenda-building. Using the emotionalising potential of web 2.0 applications, campaigners believe

that the new instruments can also help to activate the electorate in a political campaign (like in the USA, where political engagement includes donating and volunteering in the presidential elections). Our study implies that a candidate cannot expect both from the video platform YouTube. In contrast, our results imply that focusing on campaign issues leads to fewer views of the respective video on YouTube – or in other words: campaign issues reduce the success of a YouTube video. Although issues and emotions are crucial factors in a political campaigning strategy, this does not imply that both elements will also work together or even on the same platform. Moreover, YouTube is probably more suited for communicating aspects of personality, honesty, credibility or authenticity of a candidate, and less suited for campaign issues. One reason can be regarded in the fact that most users have entertainment expectations towards the platform.

Certainly, the findings of our study are limited by the search terms used to identify our sample of relevant YouTube videos. As we used the combination 'top candidate + respective party' our sample overrepresents videos that focus very much on institutionalised participants in the political process. Therefore, the blind spot of our study surely lies in political parties that are not represented in the German Bundestag as well as in celebrities or VIPs who support and publicly endorse a certain political campaign or standpoint. These actors are likely to be familiar with web 2.0 mechanisms in order to mobilise their fans or followers and may thus attract public interest as well as the traditional (news) media.[36]

CONCLUSION

In times of a rising audience fragmentation and a turning away from traditional news media by growing segments of the society, video-sharing websites like YouTube have the potential to transport political information. By using a longitudinal design, we could show that the popularity of political videos on YouTube can develop differently over time and that the different resulting 'growth types' (with regard to the click counts of the respective video clips) are determined by formal, presentational and topic-related factors. Future studies should also include systematic content analyses of political videos on YouTube that are not made or uploaded by parties or party politicians. For the perspective of media use research, our study points to some deficits that can be seen in the knowledge about the media repertoire of YouTube users. To us, this is a highly relevant aspect, in order to gain further knowledge of the potential of video-sharing platforms on their way to becoming an important channel for political information.

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NOTES

1. Three days after the 2008 US presidential election, on 7 Nov. 2008, Claire Cain Miller resumed on the *NY Times* Blog 'How Obama's Internet Campaign Changed Politics', available from http://bits.blogs.nytimes.com/2008/11/07/how-obamas-internet-campaign-changed-politics/ (accessed 20 June 2012).
2. See for Romania: P.A. Aparaschivei, 'The Use of New Media in Electoral Campaigns: Analysis on the Use of Blogs, Facebook, Twitter and YouTube in the 2009 Romanian Presidential Campaign', *Journal of Media Research* 2/10 (2011), pp.39–60; see for Finland: T. Carlson and K. Strandberg, 'Riding the Web 2.0 Wave: Candidates on YouTube in the 2007 Finnish National Elections', *Journal of Information Technology & Politics* 5/2 (2008), pp.159–74; see for the Netherlands: V. Bekkkers, H. Beunders, A. Edwards and R. Moody, 'New Media, Micromobilization, and Political Agenda Setting: Crossover Effects in Political Mobilization and Media Usage', *The Information Society: An International Journal* 27/4 (2011), pp.209–19; see for Australia: R.K. Gibson and I. McAllister, 'Do Online Election Campaigns Win Votes? The 2007 Australian "YouTube" Election', *Political Communication* 28/2 (2011), pp.227–44.
3. See for an early discussion of the new forms of campaigning through MySpace and YouTube, V. Gueorguieva, 'Voters, MySpace, and YouTube: The Impact of Alternative Communication Channels on the 2006 Election Cycle and Beyond', *Social Science Computer Review* 26/3 (2008), pp.288–300; see for a comparison between new media and classic media (TV), J. Cha and S.M. Chan-Olmsted, 'Substitutability between Online Video Platforms and Television', *Journalism & Mass Communication Quarterly* 89/2 (2012), pp.261–78; see for the uses of YouTube during the election campaign, G.L. Hanson, P.M. Haridakis and R. Sharma, 'Differing Uses of YouTube during the 2008 U.S. Presidential Primary Election', *Electronic News* 5/1 (2011), pp.1–19; see for the effects of YouTube videos during an election campaign, T.L. Towner and D.A. Dulio, 'An Experiment of Campaign Effects during the YouTube Election', *New Media & Society* 13/4 (2011), pp.626–44; see for YouTube videos in the context of political marketing, T.L. Towner and D.A. Dulio, 'New Media and Political Marketing in the United States: 2012 and Beyond', *Journal of Political Marketing* 11/1 (2012), pp.95–119.
4. Alexa Internet, 'Top Sites: The Top 500', available from http://www.alexa.com/topsites (accessed 20 June 2012).
5. T. von Pape and T. Quandt, 'Wen erreicht der Wahlkampf 2.0', *Media Perspektiven* (2010), pp.390–8.
6. X. Cheng, C. Dale and J. Liu, 'Statistics and Social Network of YouTube Videos', Paper Presented at the '16th International Workshop on Quality of Service 2008', Enschede, the Netherlands, 2–4 June 2008, available from http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4539688 (accessed 16 March 2015).
7. I.B. Dylko, M.A. Beam, K.D. Landreville and N. Geidner, 'Filtering 2008 US Presidential Election News on YouTube by Elites and Nonelites: An Examination of the Democratizing Potential of the Internet', *New Media & Society* 14/5 (2012), pp.832–49.
8. Carlson and Strandberg, 'Riding the Web 2.0 Wave'.
9. Von Pape and Quandt, 'Wen erreicht der Wahlkampf 2.0'.
10. M. Emmer, G. Vowe and J. Wolling, *Bürger online* (Bonn: Bundeszentrale für Politische Bildung, 2012).
11. ARD/ZDF Online Studie 2011.
12. Pew Research Center for the People & the Press, 'Internet's Broader Role in Campaign 2008 Social Networking and Online Videos Take Off', available from http://www.people-press.org/2008/01/11/internets-broader-role-in-campaign-2008/ (accessed 20 June 2012).
13. J. Davidson, B. Liebald, J. Liu, P. Nandy and T. Van Vleet, 'The YouTube Video Recommendation System', *RecSys '10, Proceedings of the Fourth ACM Conference on Recommender Systems* (2010), available from http://dl.acm.org/ft_gateway.cfm?id=1864770&ftid=845500&dwn=1&CFID=643518768&CFTOKEN=42142279 (accessed 16 March 2015).
14. In addition, YouTube videos may also reach their audience via other media channels. For example, in 2007 CNN and YouTube established the CNN/YouTube debates. Viewers were encouraged to put video questions to presidential candidates on YouTube. CNN journalists selected about 40 questions for each of the two parties which were later aired during the CNN/YouTube televised presidential debate. Although a content analysis of the selected YouTube questions revealed that these were less balanced, more personal and failed to reflect a broader set of issues than a journalistically organised debate, the 2007 CNN/YouTube debates underscore the importance that is ascribed to YouTube by the large news networks in the USA. Therefore, it seems plausible that scientific discussions emerge about the possible cannibalisation effects of online video platforms on television. See J. Stromer-Galley and L. Bryant, 'Agenda Control in the 2008 CNN/YouTube Debates', *Communication Quarterly*

59/5 (2011), pp.529–46; J. Cha and S.M. Chan-Olmsted, 'Substitutability between Online Video Platforms and Television', *Journalism & Mass Communication Quarterly* 89/2 (2012), pp.261–78.

15. Cheng *et al.*, 'Statistics and Social Network of YouTube', p.234.
16. M. Bachl, 'Erfolgsfaktoren politischer YouTube-Videos', in E. Schweitzer and S. Albrecht (eds), *Das Internet im Wahlkampf* (Wiesbaden: VS Verlag, 2011), pp.157–80.
17. The authors analysed YouTube videos and found that only 10 per cent of the most popular videos on YouTube account for over 80 per cent of the clicks all videos obtained. Their results are insofar surprising as other online websites do not show such skewness (p.4): see for more details, M. Cha, H. Kwak, P. Rodriguez, Y.-Y. Ahn and S. Moon, 'I Tube, You Tube, Everybody Tubes: Analysing the World's Largest User Generated Content Video System', *IMC'07* (2007), pp.1–13, available from http://dl.acm.org/ft_gateway.cfm?id=1298309&ftid=461527&dwn=1&CFID=643521517&CFTOKEN=97237279 (accessed 16 March 2015).
18. See for news factors in a message, C. Eilders and W. Wirth, 'Die Nachrichtenwertforschung auf dem Weg zum Publikum: Eine experimentelle Überprüfung des Einflusses von Nachrichtenfaktoren bei der Rezeption [News Value Research Meets the Audience: Investigating the Impact of News Factors on Reception Processes in an Experimental Setting]', *Publizistik* 44/1 (1999), pp.35–57; see for the emotionalising potential of political messages, C. Schemer, *Kampagnen für Herz und Verstand: Kognitive und affektive Einflüsse der Massenmedien auf politische Einstellungen* [*Political Campaigns for the Heart and Mind: Cognitive and Affective Influences of the Mass Media on Political Attitudes*] (Baden-Baden: Nomos, 2009); with regard to basic emotions and emotionalisation, see C. Reinemann, O. Jandura, M. Maurer and T. Zerback, 'Wer sind die Spätentscheider? Erste Befunde einer Mehrmethoden-Studie zur Bundestagswahl 2009 [Who Are These Late-Deciders? First Evidences of a Multi-Method Study on the 2009 German National Election]', in H. Oberreuter (ed.), *Am Ende der Gewissheit. Wähler, Parteien und Koalitionen in Bewegung* [*Final Certainties: Voters, Parties and Coalitions on the Move*] (München: Olzog, 2011), pp.247–70; see with regard to authenticity, W. Donsbach and O. Jandura, 'Chances and Effects of Authenticity: Candidates of the German Federal Election in TV News', *Harvard International Journal of Press/Politics* 8/1 (2003), pp.49–65; see with regard to negative campaigning, S. Ansolabehere and S. Iyengar, *Going Negative: How Political Advertising Divides and Shrinks the American Electorate* (New York: Free Press, 1997).
19. See, for example, M. Missfeldt, 'Google Ranking Factors' (2012), available from http://t3n.de/news/seo-google-ranking-faktoren-2012-390841/google-ranking-faktoren-komplett/ (accessed 20 June 2012).
20. A. Maireder, 'Twitter in Österreich: Strukturen, Formen und Themen österreichischer Tweets', available from http://phaidra.univie.ac.at/o:52301 (accessed 20 June 2012).
21. K. Wallsten, '"Yes We Can": How Online Viewership, Blog Discussion, Campaign Statements, and Mainstream Media Coverage Produced a Viral Video Phenomenon', *Journal of Information Technology & Politics* 7 (2010), pp.163–81.
22. Ibid.
23. For identifying videos on YouTube, the platform alternatively offers the possibility to search for videos by several categories. Among others, there is also a category 'news and politics' to which videos do not necessarily nor correctly need to be assigned by the authors.
24. Thus search terms were: 'Merkel + CDU', 'Steinmeier + SPD', 'Westerwelle + FDP', 'Gysi + Linke', 'Lafontaine + Linke', 'Özdemir + Grüne', 'Künast + Grüne'.
25. E.g. Bachl, 'Erfolgsfaktoren politischer YouTube-Videos'.
26. H.-M. Kepplinger, K. Gotto, H.-B. Brosius and D. Haak, *Der Einfluss der Fernsehnachrichten auf die politische Meinungsbildung* (Freiburg: Alber, 1989).
27. The final sample of 241 videos that have been content analysed consisted of 48 videos of Westerwelle (FDP), 46 videos of Steinmeier (SPD), 40 videos of Gysi (Die Linke), 34 videos of Lafontaine (Die Linke), 29 videos of Künast (B90/ Die Grünen), 23 videos of Özdemir (B90/Die Grünen) and 21 videos of Merkel (CDU).
28. The categories 'personalisation', 'location' and 'reach' were operationalised as 0 (very small/no personalisation), 1 (small personalisation), 2 (large personalisation), 3 (largest personalisation); 'personal influence' was operationalised as 0 (no person was mentioned), 1 (regional and institutional or group-related political influence), 2 (national influence), 3 (international political influence).
29. With regard to the different categories, the codes for the content analysis stem from: Eilders and Wirth, 'Die Nachrichtenwertforschung' (with regard to news values); Reinemann *et al.*, 'Spätentscheider' (with regard to basic emotions and emotionalisation); Donsbach and Jandura, 'Effects of Authenticity' (with regard to authenticity); Ansolabehere and Iyengar, *Going Negative* (with regard to negative campaigning).

30. K. Krippendorff, *Content Analysis: An Introductions to Its Methodology*, 2nd edn (Thousand Oaks, CA: Sage, 2004), p.215.
31. See R. Baron and D. Kenny, 'The Moderator–Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations', *Journal of Personality and Social Psychology* 51/6 (1986), pp.1173–82.
32. See A.F. Hayes, 'Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millennium', *Communication Monographs* 76/4 (2009), pp.408–20; D.P. MacKinnon, C.M. Lockwood and J. Williams, 'Confidence Limits for the Indirect Effect: Distribution of the Product and Resampling Methods', *Multivariate Behavioral Research* 39/1 (2004), pp.99–128.
33. K.J. Preacher and A.F. Hayes, 'SPSS and SAS Procedures for Estimating Indirect Effects in Simple Mediation Models', *Behavior Research Methods, Instruments, & Computers* 36/4 (2004), pp.717–31; K.J. Preacher and A.F. Hayes, 'Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediator Models', *Behavior Research Methods* 40/3 (2008), pp.879–91; P.E. Shrout and N. Bolger, 'Mediation in Experimental and Nonexperimental Studies: New Procedures and Recommendations', *Psychological Methods* 7/4 (2002), pp.422–45; J. Williams and D.P. MacKinnon, 'Resampling and Distribution of the Product Methods for Testing Indirect Effects in Complex Models', *Structural Equation Modeling: A Multidisciplinary Journal* 15/1 (2008), pp.23–51; Preacher *et al.* (2007) recommend bootstrap confidence intervals as the most powerful method to assess the significance of indirect effects: see K.J. Preacher, D.D. Rucker and A.F. Hayes, 'Addressing Moderated Mediation Hypotheses: Theory, Methods, and Prescriptions', *Multivariate Behavioral Research* 42/1 (2007), pp.185–227.
34. D.P. MacKinnon, C.M. Lockwood, J.M. Hoffman, S.G. West and V. Sheets, 'A Comparison of Methods to Test Mediation and Other Intervening Variable Effects', *Psychological Methods* 7/1 (2002), pp.83–104.
35. Since it is generally possible that click growth dynamics change over time (e.g. a 'flatliner' video that becomes a late starter), we exploratory analysed the dynamics of all videos in our sample to check for the empirical prevalence of variances in growth type within a single video. No video changed its click count growth type over time, thus the assignment of one growth type to each YouTube video has been regarded as empirically justified.
36. We believe this aspect to be highly relevant for the activation of shrinking electorates as the mediation of political and civic discussion will face shifts in the future. For instance, some scientists especially focus on the shift from hard news to soft news and have named the positive effect of 'soft news' on some voters' political knowledge as the 'Oprah Effect'. See for more detail, M.A. Baum and A.S. Jamison, 'The Oprah Effect: How Soft News Helps Inattentive Citizens Vote Consistently', *Journal of Politics* 68/4 (2006), pp.946–59.