

Westfälische Wilhelms-Universität Münster

Institut für Kommunikationswissenschaft

Wintersemester 2020/21

Modul: Gesellschaft, Öffentlichkeit, Kultur

Politischer Aktivismus – vom analogen zum digitalen Protest

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# **Non seulement Parler, mais aussi agir?**

Theoretical and methodological considerations on investigating Parler's role in  
organizing the capitol riots

Münster, den 07.10.2021

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# 1 Introduction

Together we are determined to defend and preserve government of the people, by the people and for the people. Our brightest days are before us, our greatest achievements still wait. [...] And we fight. We fight like hell and if you don't fight like hell, you're not going to have a country anymore. [...] So we're going to, we're going to walk down Pennsylvania Avenue, I love Pennsylvania Avenue, and we're going to the Capitol [...]. (Trump, 2021)

It was not even an hour after former U.S. President Donald J. Trump had uttered these words on January 6 that a mob of at least 800 protesters (Barrett & Hsu, 2021) stormed the capitol by overrunning the guards at the west entry. In an attempt to prevent Congress from counting the last ballots required to officially acknowledge Joe Biden's victory over Trump, property worth over 30 million dollars was destroyed (Cochrane & Broadwater, 2021) and an estimated 140 police officers were injured by the protesters (Jackman, 2021). One of the officers died the next day after having been assaulted with chemical spray (Hermann & Hsu, 2021), and four police officers are publicly reported to have committed suicide shortly thereafter (Fitzsimons et al., 2021). Another four people lost their lives on the day of the riots (C. McCauley, 2021, p. 97).

In response to the events which happened on January 6, an impeachment trial against Donald Trump was instigated, charging him with incitement of insurrection (Blake, 2021), and a heated discussion arose as to whether the capitol riots should be considered a protest, an insurrection or a coup (McBride, 2021); some government officials went as far as to refer to the riots as "domestic terrorism", thereby linking them with the events that happened on September 11, 2001 (Kornfield, 2021). Given that the capitol riots are unprecedented in the history of the United States, and given that they bore witness to a deep and violent rejection of fundamental democratic values, it is apparent that this incident requires thorough investigation, and whilst such investigation has already been carried out both by the state (Peters et al., 2021) and by journalists (Hymes et al., 2021), *scientific* research on this topic is surprisingly scarce.

One desideratum of particular importance is answering the question of whether the capitol riots were organized via the social media platform Parler; both in numerous newspapers and in the scientific literature, it seems to be taken as a given that the answer to the question is in the affirmative, although no empirically reproducible results have yet supported this claim. The aim of this paper is to address this issue by revealing both conceptual and source-related shortcomings in the relevant literature and making suggestions for dealing with these shortcomings by theoretical and empirical means.

Section 2 discusses why social media are important in connection with organizing protests in general, and why research on whether the capitol riots were organized on Parler in particular is needed. In section 3, it is shown that so far, no conclusive research has been conducted on organizing collective action via social media (OCASM); in response, an operational definition of the concept is provided, and research questions as well as hypotheses are developed. Section 4 examines potentially relevant data, suggests a dataset and sketches a deep learning approach in order to test the aforementioned hypotheses. Lastly, in section 5, problems with this approach are made transparent, and suggestions for further research are put forward.

## 2 Collective Action on Social Media

To begin with, the relevance of the issue at hand is shown. Section 2.1 argues for the key role social media play in organizing protests in general; in section 2.2, reasons for investigating whether the capitol riots were organized on Parler are provided and the network is briefly described in comparison with Twitter. Throughout the paper, following Schweingruber (2021, p. 110), the term “capitol riots” is used to refer to the events that happened on January 6.

### 2.1 The Shift to Online Collective Action

It is a well-established fact that social media have become an integral part of the everyday world. Arguably, one of the most important changes the increasing usage of social media has brought about in this area is that they serve as sources of information, especially for younger generations, frequently replacing classical media such as newspapers, radio and television (Westerman et al., 2014). As a consequence, both the amount of information sources and consumers’ means of interacting with them have changed drastically:

In the previous media environment, media companies dictated content using a limited number of primarily two-sided news distribution channels that subscribed to preset journalistic standards that structured the content [...]. For a viewer or a reader seeking to avoid contrary information, [...] there was little they could do other than simply avoiding news. In the massive number of self-created channels in the social media, infinite single channels of information have recreated the information landscape. (Gainous and Wagner, 2014, p. 21)

In recent years, this paradigm shift has started to change political communication, too. It is well-known that Twitter played a key role in the 2016 U.S. presidential election (Bovet & Makse, 2019), and considering Trump’s increasing influence on the micro-blogging network before his accounts were banned (Pérez-Curiel et al., 2021), results at least just as significant can be expected of the 2020 elections, although the relevant data has not yet been analyzed in detail (E. Chen et al., 2021). But it is not just unmediated communication from politicians to voters that has increased; discussions by and among non-politicians about political topics have become more popular on social media, too (Platonov & Legostaeva, 2021), and with it, the mobilizing, organizing and documentation of politically relevant actions, commonly referred to as “online collective action” (Agarwal et al., 2014). These actions reach from fund-raising and attracting support for petitions (Dumas, 2021) via coordinating protests (Robinson & Parmentier, 2014) to the most violent form of collective action—terrorism (Bloom et al., 2019).

To illustrate how much influence social media have on present-day political protests, a recent example is given. Since text messages, mails and communication on WeChat had been kept under surveillance by the Chinese government, and since both Telegram and the Reddit-like platform LIHKG had been shut down by DDoS attacks, activists from the Anti-Extradition Law Amendment Bill Movement in Hong Kong used Bridgefy, a mesh networking manager which allows communication via Bluetooth, to coordinate their action (Albrecht et al., 2021).

Moreover, the protesters documented the violent methods and suppression tactics employed by the police on Twitter in order to attract worldwide attention to the issue (Kow et al., 2020).

As the above example reveals, social media use was essential to the effectiveness of large-scale political protests against authoritarian governments, and, given countless further examples (Shaked, 2017), it is apparent that social media have become a key part of organizing collective action at large. In light of this fact, it is no surprise that online and offline collective action were found to be positively correlated (Greijsdanus et al., 2020), so much so that the distinction between them has been disputed (Olcese, 2014).

## 2.2 Parler and the Capitol Riots

### 2.2.1 A Brief Overview of Parler

Since the focus of this paper is on the social media network Parler, a brief overview of its key features is in order, especially given that it has until recently not received much scholarly attention (Aliapoulos et al., 2021b). For more detailed information on Parler and its features, the reader is referred to Ojala et al. (2021, pp. 225–226), Hitkul et al. (2021, pp. 2–4), Pieroni et al. (2021), and section 3.1.2.

In many regards, Parler can be considered similar to Twitter. Both are micro-blogging services available as a website and an app respectively, and most Twitter functionalities have a matching functionality on Parler: Instead of tweets, the main way of communicating on Parler is by means of so-called *parleys*—short messages that are allowed to have at most 1,000 characters (Hitkul et al., 2021, p. 2). If a parley from someone else is re-posted, it is called an *echo*, analogous to a re-tweet on Twitter; *votes* on Parler mimic the concept of likes on Twitter.

Although every user has their individual feed as well, in contrast to Twitter, Parler provides functionalities to configure it, for example by specifying which parleys are shown and which are not. *Impressions* are those parleys which are shown in a user’s feed (Ng et al., 2021, p. 3). The people-to-follow-section on Parler deviates significantly from that of Twitter, giving the impression of a check-list to be worked off (Pieroni et al., 2021, p. 5). Hashtags, comments, following and unfollowing, direct messages (DMs), blocking and muting are Parler functionalities that work the same way as on Twitter and share the same names.

Unlike Twitter, every user on Parler is assigned a so-called *verification badge*, i.e. an icon describing what identification and security measures they have undergone. In total, there are seven badges, namely *Verified Influencer*, *Parler Affiliate*, *Verified Real Member*, *Parler Partner*, *Private Account*, *Early Parley-er*, and *Parody Account*. Depending on the badge assigned to a user, they are allowed to use extra features such as importing articles from their websites. Badges can be distinguished by means of their icon color. In contrast, Twitter only has one blue badge for verified accounts, and allows users to not have a badge at all.

### 2.2.2 The Importance of Organizing in the Capitol Riots

As is known from a government report (Peters et al., 2021), the capitol riots only took place because the security measures taken in preparation for the Save America Rally at the Ellipse

were insufficient. If it had been known that the capitol riots would occur, though, appropriate security measures could have been issued in order to forestall the protesters' aim. A severe problem which goes along with this, though, is that it is hard to assess whether violent or unlawful actions announced anonymously on the Internet will actually be performed; due to their detachment from any commitment, such words are often not followed up with action (Amichai-Hamburger, 2017). Therefore, some way of discerning the earnestness of such claims is needed.

Arguably, one way of doing so is to investigate whether *concrete organizing* took place in preparation of the announced action. In contrast to just claiming to perform an action, these plans require effort, and it is unlikely that users would go to such lengths if they were not seriously intent on putting their plans into action. Thus, if an action is planned by a group in detail, it is likely that the protesters will at least attempt to carry it out. In addition, research on the organization of the capitol riots can provide empirical evidence for or against the wide-spread claim that the riots were a coup attempt (Parmar, 2021; Samuels, 2021): Only if storming the capitol and overtaking the senate were planned beforehand may the word "coup attempt" be used to accurately describe the events that happened on January 6.

For these reasons mainly, detecting and analyzing efforts to organize collective action on social media is not only of epistemic value but also—especially in combination with methods developed in Van Dijcke and Wright (2021)—provides vital information to prevent large-scale violent actions during political protests. Consequently, it is of crucial importance to better understand the phenomenon of organizing collective action on social media and develop research methods for detecting such organizing in advance. The importance of this has also been stressed by most recent research (Hitkul et al., 2021, p. 11; Ng et al., 2021, p. 9).

It is not only the recency, the political importance (see Section 1) and the shortcomings in reacting to the capitol riots that make investigating their organization an important desideratum in the current research on online collective action. Additionally, the relevant literature on the riots reviewed in Section 2.2.2 does not treat this matter with the necessary scrutiny. For example, Hitkul et al. (2021, p. 2) claim that Parler "has also been used by right-wing extremists to plan the Jan 6th breach of the Capitol", backing it with an article by Business Insider, which itself relies on a BuzzFeed article. In this article, these claims are in turn justified on the grounds of an interview with a resident fellow at Atlantic Council's Digital Forensic Research Lab, who only states that on alt-right social media platforms, intentions to attend the Save America Rally and calls for violence were posted (Lytvynenko & Hensley-Clancy, 2021). On the one hand, Parler is not mentioned by the interviewee once; on the other hand, planning, as will be laid out in 3.2.1, requires discussing tactics and logistics, no evidence of which is provided. Similar problems with source implementation can be found in Ojala et al. (2021, p. 227).

Lastly, Thiel et al. (2021, p. 2) claim that Parler "served as a central coordination platform for individuals who stormed the U.S. Capitol on January 6" and refer to "numerous FBI investigations" but do not mention any source. After a systematic search, no official FBI documents were found which back up this strong claim, but only a single article in which anonymous police officers who—according to Reuters—have been "directly involved or briefed regularly" talk about the organization of the capitol riots (Hosenball & Lynch, 2021).

## 3 Theory

As has become apparent in the last section, it is of vital importance to have secured knowledge of whether the capitol riots were organized on Parler. Although this is not the case, the current literature creates the opposite impression, taking for granted that the rioters planned to storm the capitol via Parler. In an attempt to make up for these shortcomings, the following section outlines a theoretical basis for conducting reproducible research to determine the role Parler played in organizing the riots. Section 3.1 summarizes the relevant literature dealing with the connection between Parler and January 6, and establishes the fact that so far, no research on organizing the riots has been conducted. In section 3.2, it is revealed why no satisfactory notion of organizing collective action on social media is to be found in the literature, and an operational definition is provided. On this basis, in section 3.3, research questions and hypotheses are deduced.

### 3.1 Literature on Parler and the Capitol Riots

#### 3.1.1 Search Procedure

In order to identify the literature on the capitol riots relevant to this paper, a four-step systematic literature search was conducted. First, the two biggest databases for social science research—the Web of Science, including the Social Sciences Citation Index, and Google Scholar—were searched for academic papers published in 2021 which contained at least one of the strings “capitol”, “riot”, “insurrection” “coup”, “attack” and “January 6” in either the title or the keywords. The search yielded 433 results for the Web of Science and 434 results for Google Scholar.

Second, the results were sighted and filtered manually; only those papers were selected which (1) actually concerned the capitol riots on January 6 and (2) analyzed data derived from the social media platform Parler. For example, not only papers discussing historical aspects of riots were disregarded, but also research on the link between depression and participation in the capitol riots. Six papers in total met the above requirements.

Third, the method of backward snowballing (Wohlin, 2014) was applied and another relevant analysis was identified. In the last step, the papers were checked for legitimacy in order to prevent citing non-scientific literature stemming from predatory journals (Kearney, 2015) or other unreliable sources. Of the seven papers, six were without restriction found to be trustworthy; five of them were published in peer-reviewed journals, one in the conference proceedings of the International World Wide Web Conference. As a limiting case, although neither published in a journal nor peer-reviewed, an official report by the Stanford Internet Observatory was admitted, but critical attention was given to empirically falsifiable claims. In the following, the research results of these seven sources are summarized.

### 3.1.2 Methods and Findings of the Relevant Papers

The most comprehensive study that has so far been conducted on the capitol riots is that of Van Dijke and Wright (2021). Using a novel approach combining GPS data from mobile devices, geolocation metadata of videos uploaded on Parler, and CBG-level election results, the authors successfully predict protest locations and detect communities whose members were positively and robustly associated with local proximity to chapters of the Proud Boys, the intensity of local misinformation posts and video activity on Parler. The results suggest that people living in socio-politically isolated communities, i.e. those supportive of Trump but surrounded by communities not supportive of him, were likely to take part in the riots.

Pieroni et al. (2021) analyze the user experience design of Parler in order to identify features whose implementation explains why the network has become popular among U.S. citizens tending to far-right thought. The authors provide evidence for the claim that the web design stands in stark contrast to that used by mainstream media in order to create an outsider status, thus appealing to individuals doubting their legitimacy. It is argued that by not allowing to string-search parleys and by deflecting attention from the parley's source, a feeling of relative anonymity is created, thus inviting users to spread even more radical views. What is more, the low contrast between the background color and the color used for parleys is shown to give priority to images over text. In view of the fact that radical views which would otherwise be objected can be legitimized by using emotionally charged images (Corrigall-Brown, 2012), it is reasonable to assume that the web design of Parler was well-suited to be used by far-right activists. The authors conclude that "Parler's commitment to 'free speech' seems largely one-sided, encouraging the spread of unverified claims, rumors, and misinformation" (p. 8).

Munn (2021) introduces the concept of a *preparatory medium*, which "frames events, establishes targets, and sets agendas, providing a degree of order and working against disaggregation online" (Conclusion, para. 1). The author argues that preparatory media are used to pursue three main objectives—*Mobilizing*, *Inciting* and *Legitimizing*—, which serve the purpose of winning over supporters, stoking anger and hatred, and morally justifying violence, respectively. It is observed that calls for violence often involve lynching, reminiscing of white supremacist lynch mobs who, around the wake of the 19th century, killed thousands of African Americans. Using a theoretical sampling approach, Parler is classified as such a preparatory medium.

Hitkul et al. (2021) use a hashtag analysis to compare the contents posted on Parler with those posted on Twitter during the capitol riots. It is found that whilst Twitter users to a large proportion strongly objected to the riots, Parler users kept pushing the narrative of voter fraud, thereby supporting those who stormed the capitol on January 6. Furthermore, the authors show that although "trump" was a hashtag trending on both social media networks at that time, it predominantly occurred in negative contexts on Twitter, whereas it was used almost exclusively in positive contexts on Parler. Lastly, it is revealed that the traffic of influential hashtags was massively manipulated on Parler; 11% of all contents were posted by a mere five accounts and the most manipulated hashtag having a CTM score 46 times higher than that of the most manipulated Twitter hashtag. The authors announce that a further in-depth analysis of these findings is in progress.

Otala et al. (2021) examine the platform migration from Twitter to Parler caused by the capitol riots by comparing how members of the then sitting United States congress used these



media. They observe that whilst almost every congress member was on Twitter, only every fifth of them used Parler, a mere 10% of which were Democrats. Furthermore, a ten-fold increase in Parler users following Republican accounts is detected in a five-day time span during which the capitol riots took place and Trump's account was banned from Twitter. Nonetheless, it is found that, except for a single congress member who had stopped posting on Twitter, all of those who used Parler actively were still twice as active on their Twitter accounts. Contents on Parler had often been posted on Twitter before and, if at all, only differed in the images attached to the text message, which the authors deem as evoking more emotion on Parler. It is observed that according to the Twitter guidelines, none of the contents posted by the congress members on Parler would have been flagged or deleted.

The most recent study is that of Ng et al. (2021), who investigate the spread of disinformation on Parler during the capitol riots. They find that posts containing disinformation about the presidential election can be attributed to three main groups of users—those showing military affiliation, those calling themselves “patriots”, and members of QAnon—and that these posts attracted more attention than usual posts. By means of a text-to-text-graph, networks of users who post similar or identical parleys are identified, providing evidence that the disinformation spread on Parler was coordinated.

Lastly, there is a report by the Stanford Internet Observatory (Thiel et al., 2021) containing a wide-spread analysis of Parler data. First, the authors show that Parler does not have an automated mechanism to detect content to be moderated; although the platform at that time had about 13 million users, a mere 802 moderators were employed who only reacted to user reports. Second, it is found that the most active users had their content posted automatically, primarily via RSS feeds. Third, networks of fake accounts used to advertise scam websites or adult portals like OnlyFans are detected. Fourth, a tight connection between user growth and important political events in the USA is established, and it is shown that similar connections can be drawn for accounts created from Brazil or Saudi Arabia.

Additionally, some non-scientific sources were found, whose results are only stated for reasons of completeness and will not be considered empirical knowledge. USA Today (Bajak et al., 2021) conducted a sentiment analysis to investigate the effect Trump's speech had on Parler users. It is found that during his time on stage, talk on Parler became significantly more negative. Subsequently, the phrase “civil war” was prominently used, which suggests that Trump's speech had an inciting effect on those who later stormed the capitol. Similarly, Leibowitz (2021), who claims to have analyzed over 1.9 million Parler posts, stresses the violent posts against Mike Pence and Nancy Pelosi.

Lastly, an article by Atlantic Council's Digital Forensic Research Lab (Holt et al., 2021), which was published one day after the riots, is mentioned, but only to cast doubt on its findings; although the authors point to exhaustive research on their part, their claim that the riots were coordinated online is made without reference to the data or respective methods of analyzing it.

Concluding the summary of the relevant literature, it is to be noted that some facts about the capitol riots in general and the deaths involved in this event in particular have been incorrectly stated in some of the papers, mainly because misinformation was adopted from newspaper articles without further scrutiny. C. McCauley (2021) points out this deficiency, corrects mistakes and gives an adequate description of what happened on January 6.

## 3.2 The Concept of Organizing Online Collective Action

In section 2.2.2, it was argued that investigating whether the capitol riots were organized via Parler is of crucial importance. As is clear from the papers that have just been discussed, though, the current literature has not yet been concerned with any research on organizing efforts; to the contrary, it faces substantial deficits in this regard. The aim of this section is both to reveal these deficits and to provide a fixed notion of organizing collective action on social media, thereby allowing quantitative research on this matter.

### 3.2.1 Theoretical Problems

Despite the fact that since the 1960s (Olson, 1965), a considerable amount of scholarly attention has been devoted to researching the organization of collective action (Millward & Takhar, 2019), applying theories and research findings to the capitol riots faces severe limitations. Apart from the fact that most research is concerned with offline organizing, it has primarily focused on organizing efforts regarding large-scale collective action within communities (Schutz & Sandy, 2011), trade-unions (Doralt, 2005), social movements (Davis et al., 2005) or global collectives at large (Sandler, 2004). In contrast to what happened with regard to the capitol riots, such meso- and macro-level organizing is more formal and institutionalized; for example, responsibilities for certain areas are delegated to specific people and organizing procedures often follow fixed conventions (Bennett & Segerberg, 2012). As a consequence thereof, organizing understood in these terms is carried out with regard to long-term goals.

Since an adequate notion of organizing that is expected to have happened in preparation for the riots needs to take into account that collective action has in recent years become highly intertwined with social media, more decentralized and de-institutionalized (R. Wang & Chu, 2019), and since theories of organizing deployed in the literature on collective action in general are ignorant of this, another notion of organizing is needed. Although a vast body of literature exists on online mobilizing, literature on online *organizing* is particularly scarce. One reason for this is that in the relevant literature, these concepts are often times treated as if they described the same phenomenon. Keeping these concepts apart, though, is vital to understanding online collective action:

Organizing is different from the more well studied concept of mobilizing because mobilizing is limited to activate an existing base of support, whereas organizing begins by asking where the power needed to affect change is, and then works backwards to devise a systematic strategy to develop the resources needed to produce change. (Cardoso et al., 2019, p. 2)

With regards to the capitol riots, differentiating between organizing and mobilizing is of particular importance because investigating mobilizing efforts only give hints as to *how many* protesters are to be expected, and *what sentiments* caused them to take part; investigating organizing efforts, on the other hand, gives hints as to *what actions* can be expected to be carried out by the protesters. As has been laid out in section 2.2.2, it is the knowledge of these actions that is important for assessing potential threats and arranging countermeasures. Consequently, it is indispensable for theoretical as much as for practical reasons not to confuse the concepts of mobilizing and organizing.

### 3.2.2 A Concrete Notion of Organizing Social Media Collective Action

Since in order to have a firm theoretical basis for researching the forms of organizing that could have happened in preparation for the capitol riots, it is essential to tie down an unambiguous notion of organizing. In the relevant literature, for the reasons just mentioned, no satisfactory notion of organizing was found. Therefore, an operational definition is provided.

**Definition.** A *resource* is anything that can be used in order to reach a goal.

**Definition.** *Organizing collective action on social media* (OCASM) is the process of using social media in order to identify, distribute and most effectively utilize a group's personal and collective resources in an attempt to reach its goals.

Given the complexity of the definitions, a few remarks are in order. Starting with the definition of *resource*, the term “anything” was chosen in order to cover the wide-ranging types of resources; resources are not just concrete objects such as megaphones and portable sound systems, but also people—for example, to form human chains—and their abilities—for example, the ability to speak eloquently in front of a crowd—, money or more abstract things such as time.

As to the definition of OCASM, it was chosen in such a way that the concepts of mobilizing and organizing do not overlap; mobilizing is not identifying, distributing and effectively making use of people and their resources, it is generating support of these people in the first place. Furthermore, the definition deliberately leaves open specifics about both the hierarchical structures involved in the organizing (Simpson et al., 2012; Toepfl, 2018) and the time-spans between planning and action (see below). Lastly, it emphasizes that planning always happens with specific goals in mind. As mentioned in section 2.2.2, it is this connection between planning and goals (Knoke, 1990, p. 56) that makes monitoring plans effective in predicting collective action. The key concepts *tactics* and *logistics* are taken account of by the phrase “effectively utilizing resources”.

## 3.3 Research Questions and Hypotheses

Now that a fixed notion of OCASM has been provided, an exact formulation of the issue at hand is possible. As already demonstrated in section 2.2.2, the aim of this paper is to investigate to what extent, if to any, Parler was used to organize the capitol riots. This question is of a very general nature, though. For reasons of clarity and in preparation for section 4, conceptually unambiguous and empirically decidable research questions are formulated.

**Research Question 1.** If at least some organizing of the capitol riots took place on Parler, which resources were involved in it?

**Research Question 2.** If at least some organizing of the capitol riots took place on Parler, to what extent was it hierarchical?

**Research Question 3.** If at least some organizing of the capitol riots took place on Parler, how long before the riots did the organizing take place?

The first research question focuses on the resources used to organize the riots. Since storming the capitol could only succeed because the United States Capitol Police was swamped, the crowd was an important resource to get into the building; according to the Atlantic Council’s Digital Forensic Research Lab, there were specific discussions about this on Parler (Holt et al., 2021), but, as was clarified in section 3.1.2, the source must not be consider safe.

On top of that, protesters carried weapons with them prepared to intimidate or even shoot police officers to enter the building, so force of arms was another vital resource; notice that these resources are in line with the notion of civil war that seems to have dominated Parler posts during the riots. Since organizing is aimed at effectivity, and since the items just listed were arguably most effective in reaching the protesters’ goals, it is reasonable to assume that if the riots were organized via Parler, the employment of these resources were mentioned most often.

The second research question is concerned with the hierarchical structures of organizing. Due to the many right-wing breakaway factions—such as QAnon, the Proud Boys or Info Wars—involved in the riots (T. McCauley, 2021), it is to be assumed that there was no hierarchy *per se*. Nonetheless, considering that on Parler, very few people caught an extreme amount of attention because hashtag traffic was manipulated significantly, there still is reason to assume an *organizing hierarchy*. Since evidence points in opposite directions, the hypothesis formulated below was not chosen for theoretical, but for pragmatic reasons: Hierarchically structured violence would have been the biggest threat to democracy, so attempting to falsify the claim that the riots were organized top-down is most important.

The third research question examines the distances of time between organizing and action. Once the protesters had managed to get into the capitol, as the high material damage (see section 1) suggests, the crowd’s behavior seems to have become arbitrary and uncoordinated rather than aimed at a specific goal. If the breach had been organized weeks before, this would probably not have occurred. In addition, the large spike in user account creations on the day of the riots (see section 3.1.2) shows that many protesters were not active on Parler before, so that if long-term organization had taken place, they would not have known about it. From the preceding theoretical considerations, the following hypotheses can be deduced:

**Hypothesis 1.** The resources used most in organizing the riots were crowd and armed forces.

**Hypothesis 2.** The organizing of the riots was top-down rather than bottom-up.

**Hypothesis 3.** The organizing of the riots was short-term rather than long-term.

It is important to note that all hypotheses are to be understood as conditional claims; they are only sensible under the assumption that the riots were at least in part organized via Parler. Thus, in order for the hypotheses to be tested, it is necessary to have empirical evidence backing up this claim in the first place. Ways of ensuring this are presented in section 4.2.

## 4 Method

Now that the notion of OCASM has been fixed and with it, research questions and hypotheses have been developed, attention is drawn to the empirical side of the research. In Subsection 4.1, the dataset and its acquisition are described. Subsection 4.2 presents the problem of analyzing such unprecedented amounts of data and describes how it might be used to find out what role Parler played in the organization of the capitol riots.

### 4.1 Data

Since in the following, methods for testing hypotheses about organizing the capitol riots are laid out, the dataset used for the research must cover the period of time during which such organizing could have happened. On the one hand, organizing can only take place if specifics about time and place of collective action are known, so the starting point of the data to be analyzed is determined by the first announcement of the Save America Rally on January 6, which Trump posted on Twitter on December 19, 2021, at 1:42 a.m. (Pilkington, 2021). On the other hand, since, as was argued for in section 3.2.2, organizing is goal-directed by nature, the end point of the relevant time period is the end or abandonment of the goal, which in this case is the end of the capitol riots. As a reference point, the reconvention of the congress at 08:00 p.m. (Peters et al., 2021, p. 26) was chosen. Thus, the dataset to be analyzed must range from December 19, 2021 at 1:42 a.m. to January 6th, 2021 at 08:00 p.m.

At the time of this writing, several datasets fulfill this requirement. Aliapoulios et al. (2021a) provide a dataset of 183 million Parler posts between August 2018 and January 2021 along with metadata such as hashtags, number of followers, and amount of parleys posted. Problematically, the dataset did not pass a two sample KS test and can thus not be considered representative. The reason for this result might be the enormous influence that a handful of users had on content traffic (see section 3.1.2). The same dataset is laid out in more detail in Aliapoulios et al. (2021b). Since the data to be analyzed should be representative, this dataset is not chosen. The dataset of Hitkul et al. (2021), who collected approximately 100,000 parleys from 22,000 unique accounts between November 1, 2020 and January 8, 2021, faces the same problem.

Pieroni et al. (2021) collected about 10,000 parleys between September 2020 and January 2021 from 67 right-wing accounts known to be most active on Parler. Since the low amount of Parler users does not allow for an analysis of hierarchical structures, the dataset is not suited for present purposes. Similar doubts apply to the dataset used by Ojala et al. (2021), who collected data from 535 high-ranking U.S. politicians.

Lastly, Parler data scraped by the Twitter user donk\_enby are used in the literature. The activist used a self-written python tool (d0nk, 2021) to scrape almost all Parler activity—parleys, echoes, comments, images, videos, and metadata—through its API, even accessing deleted content. The research conducted with this data is that of Van Dijcke and Wright (2021), who use its geolocation metadata and Ng et al. (2021), who use a dataset containing 98% of parleys and echoes posted on the platform between January 3 and January 10. For the method

employed in this paper, it is suggested that the data underlying the research make use of the scraped data, too, analyzing all parleys and echoes that were posted on Parler during the time span mentioned above.

With regards to ethical considerations, it is to be noted that, contrary to information provided in some newspaper articles (Parsons, 2021), private data was not hacked and made public; rather, data that had been made public in the first place was gathered, bundled and archived. To put it with Van Dijke and Wright (2021, p. 33), “all the raw data underlying the mobile device data and the Parler data was retained with the explicit compliance of the platform users who generated it”. Thus, the Digital Millennium Copyright Act was not infringed, and the data was gathered by legal means only.

## 4.2 A Deep Learning Approach

Now that the dataset has been specified, methods for testing the hypotheses formulated in section 3.3 are suggested; it is to be noted in advance that, since the sample data and the population data are almost identical, means of inferential statistics are neither necessary nor adequate to test the hypotheses at hand. Instead, a descriptive approach is chosen. Nonetheless, this approach is expected to face severe limitations; see section 5.1. Thus, the aim of this section is not to give a detailed account of how exactly the research should be conducted, but rather to provide research *suggestions* that seem adequate to start with.

In order to generate knowledge of organizing efforts during the capitol riots on Parler, such efforts need to be detected in the first place. Consequently, the first research step is the identification of parleys and comments—in the following just “(organizing) parleys”—featuring this topic. Since the dataset consists of millions of parleys, manual identification methods are not an option, so automatic detection is needed. After an extensive search, no methods for detecting organizing efforts were found. Therefore, a novel approach is suggested.

Automatic detection methods based on text data belong to the field of natural language processing (Indurkha & Damerau, 2010), whose paradigm has after decades of traditional machine learning methods such as support vector machines or logistic regression recently shifted to deep learning networks (Young et al., 2018). Most prominently, deep learning approaches were with great success used for sentiment analysis (Kim, 2014) and fake news detection (Islam et al., 2020). For three main reasons, the use of such deep learning networks is suggested. Firstly, dividing parleys into the categories *organizing* and *non-organizing* is a classification task, which is known to be handled well by deep learning networks (Brinker et al., 2019). Secondly, organizing is a very broad concept, so sentence-level analyses including the dimension of context are needed, and deep learning networks have shown to be successful in this (Aggarwal & Murty, 2021, p. 54). Thirdly, and most importantly, the effectiveness of classical approaches to NLP stagnates when applied to huge amounts of data, whilst deep learning networks are known to be most effective for such tasks (X.-W. Chen & Lin, 2014). Given the unprecedented size of the dataset, deep learning networks are expected to notably outperform classical approaches.

Deep learning approaches vary vastly in training duration, method and applications. For the specific research at hand, recurrent neural networks (RNNs) featuring long short-term memory are suggested (X. Wang et al., 2015). On the one hand, RNNs are best suited for short text

analysis (Torabi Asr & Taboada, 2019), which matches up well to Parler’s character-count restriction explained in section 2.2.1. On the other hand, such networks sequentially process inputs, which makes them context-aware—a feature urgently needed for detecting organizing efforts.

Specifics about how exactly the research is to be conducted are beyond the scope of this paper; for further information on deep learning networks, the reader is referred to Aggarwal and Murty (2021) and for helpful python code snippets to Kulkarni et al. (2021). It is not stated that this approach will turn out to be best in practice. Due to the inherent complexity of deep learning networks and their dependency on training data, only empirical research will show its effectiveness (Hutter et al., 2019). In the following, a reasonably accurate detection mechanism for organizing efforts is assumed. If organizing efforts cannot be detected in the randomly sampled dataset that is manually labeled for training, validation and testing purposes, the data provides strong evidence against the claim that the riots were organized via Parler. Similarly, the dataset containing automatically assigned labels allows assessing whether organizing efforts actually took place on Parler by comparing their prevalence with the number of protesters (see section 1). Only if this assessment turns out positive, will testing the hypotheses be necessary.

After the parleys have been classified into those which feature organizing and those which do not, the hypotheses developed in section 3.3 are tested. For hypothesis 1, a deep learning approach similar to the one just described is suggested, this time with an n-ary classification task. After a random sample has been drawn, parleys are manually assigned labels describing what resources are mentioned in the respective parley. Subsequently, the on-the-spot-made labels are, if needed, summarized into more general labels. The thus acquired labeled dataset (n being the total amount of labels) serves as the sample data to train, validate and test the deep learning network’s accuracy. If the accuracy is sufficiently high, the categorization is automated, and the proportions of the respective organizing labels are compared. Hypothesis 1 is supported by the data if and only if the resources labeled most often are crowd and armed forces. Since the sample size needed to train the data set is heavily dependent on the accuracy of the network, it cannot be specified in advance.

To test hypothesis 2, the reach of a parley is determined based on the amount of echoes and comments it received; since the difference between comments and echoes in influencing impressions (see section 2.2.1) is unclear, a simple additive index is suggested. Hypothesis 2 is supported if and only if (1) few accounts posted many organizing parleys and (2) the reaches of their parleys are significantly above the mean reach of organizing parleys. In addition, network analyses can be used to shed light on the network structure; see, for example, Gupte et al. (2011).

Hypothesis 3 can be tested by calculating the mean difference between the time the organizing parleys were posted and the end of the riots on January 6 at 8 p.m. If the time distance amounts to hours, the organizing can be considered short-term, whilst it can be considered long-term if it amounts to days or even weeks. Implementing the results of hypothesis 2 and considering the five extreme outliers mentioned in section 3.1.2, organizing parleys with the highest reach should be checked separately to ensure that they do not deviate significantly from the mean difference.



## 5 Discussion

The aim of this paper was twofold: On the one hand, problems in the literature with the concept of organizing collective action on social media in general and the question of whether the capitol riots were organized on Parler in particular were revealed. On the other hand, a theoretical framework along with methodological suggestions was provided in order to address these problems. Nonetheless, this approach faces severe limitations, which are discussed in section 5.1. Section 5.2 exposes desiderata in this area whose investigation is expected to complement the findings of the research outlined in this paper.

### 5.1 Limitations

Starting with theoretical problems, due to its novelty, it is not clear whether the definition of OCASM provided in section 3.2.2 is able to adequately grasp what collective action on social media *actually* is. It has only been provided as an operational definition, so there is the risk that it is too narrow, excluding cases which are commonly considered OCASM, or too broad, including cases which do not fall under the concept. Furthermore, even if this was not the case, methods of quantifying OCASM are not tested for validity or reliability; it is well possible that severe problems in terms of quantitatively measuring this concept will arise. For these reasons, both theoretical discourse and empirical research are needed in order to produce an adequate and empirically robust notion of OCASM. Additionally, OCASM has not yet been implemented into more general theoretical constructs; for example, it seems to complement the notion of a preparatory medium as defined in Munn (2021), especially in light of section 3.2.1.

Regarding the dataset, it is yet uncertain how it is to be acquired. Although donk\_enby, together with volunteers from Reddit, uploaded all the data to the Internet Archive (icestrategy, 2021), they are not publicly accessible, the wiki page has not been updated in months, and her Twitter posts about the data were deleted. Interestingly, this issue was not found to be mentioned by either newspaper or journal articles; it was only discussed in a Reddit post (GreenBottom18, 2021). A personal message to donk\_enby on Reddit has not received any response yet. Therefore, data acquisition poses a hurdle for conducting the research at hand. Snapshots of the data are publicly available, though (a data scientist, 2021).

As to methodological considerations, the study design only permits an analysis of parleys on their own, but not in connection with others. Nonetheless, it might be that a high proportion of organizing efforts can only be identified by considering parleys in connection with comments belonging to them, especially if the riots were organized in a non-hierarchical way. If that was the case, the research could produce utterly misleading results. Further, looking at single parleys, the distinction between organizing the storming of the capitol and organizing the *protests* will be hard to draw, increasing the risk of incorrectly coding the parleys—even for humans.

Lastly, many details of how exactly the deep learning network should be utilized are beyond the scope of this paper. For example, it was not discussed whether transfer learning should be used in light of the fact that there is no large supervised training set for identifying OCASM



efforts yet (Kim, 2014), and ways of ensuring inter-coder-reliability in face of ad-hoc labels have not been mentioned. Additionally, many problems that come along with deep learning, such as overfitting (Poggio et al., 2018) or the unbalanced ratio between organizing and non-organizing parleys (Johnson & Khoshgoftaar, 2019), were not addressed.

## 5.2 Further Research

At the time of writing this paper, the analyses mentioned in section 3.1.2 were the only ones to have made use of some parts of the data described in section 4.1. Taking into account that this is the most comprehensive large-scale information source allowing analyses of alt-right-networks, and bearing in mind that it includes not only text, but also image, video and metadata related to the capitol riots, a vast variety of research can be conducted with it. For example, analyzing the footage posted during the riots will assist in revealing how the riots actually happened, and the deleted content could assist in answering the question of whether the rioters were trying to hide proof of their crimes documented on Parler from law enforcement agencies.

Furthermore, an approach complementary to the one described in section 4.2 would be to build on the geolocation data analyzed in Van Dijcke and Wright (2021) in order to restrict the dataset to the parleys of those users who posted footage during the capitol riots. This way, most of the parleys collected would stem from Parler users who actually participated in the riots. However, this approach faces problems, too, since it is possible that many people who organized the riots and took part in them did not post any contents on Parler, whilst many protesters who created an account on the day of the riots and thus did not take part in the organization did. In consequence, considering the results of both approaches is expected to yield the most accurate results.

Leaving the realm of Parler, given that there is a plethora of other alt-right networks, research on organizing the capitol riots on these media is needed as well; the only relevant study found in the literature is that of Scheffler et al. (2021), who find that at least some planning happened in Telegram groups. The most important network to be investigated is supposedly Gab, which has for a long time been used extensively by people leaning to the far-right (Ali et al., 2021); for a collection of relevant datasets, see Aliapoulios et al. (2021a, p. 950).

Lastly, there is no research into what narratives circulated on Parler after the capitol riots. An unsystematic search of parleys posted after January 6 (a data scientist, 2021) suggests that Antifa and the Black Lives Matter movement were blamed for what happened, which corresponds to the picture presented by Leibowitz (2021), although, as explained in section 3.1.2, this source is not considered trustworthy. In order to give an adequate picture of how Parler users thought of the riots in retrospect, further research is required.

In conclusion, this paper was able to reveal shortcomings in the literature regarding the concept of organizing collective action on social media and claims about its prevalence before and during the capitol riots. Further, it showed that advances in theoretical as much as in methodological approaches are yet to be made, and that not just for epistemic, but also for practical reasons. As a consequence, though, respective considerations provided in this paper are of such a general nature that they can only be understood as glimpses at future work, which is, as a matter of fact, urgently needed.

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# Plagiatserklärung

Hiermit versichere ich, Vitus Schöfflein, dass die vorliegende Arbeit mit dem Titel „Non seulement Parler, mais aussi agir? Theoretical and methodological considerations on investigating Parler’s role in organizing the capitol riots“ selbstständig verfasst worden ist, dass keine anderen Quellen und Hilfsmittel als die angegebenen benutzt worden sind, und dass die Stellen der Arbeit, die anderen Werken – auch elektronischen Medien – dem Wortlaut oder Sinn nach entnommen wurden, auf jeden Fall unter Angabe der Quelle als Entlehnung kenntlich gemacht worden sind.

Münster, den 07.10.2021

(Ort, Datum)

Vitus Schöfflein

(Unterschrift)