The earnest platform

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The propagation of misinformation in social media

7 The earnest platform

U.S. presidential candidates, COVID-19, and social issues on Instagram

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Abstract

Increasingly, Instagram is discussed as a site for misinformation, inauthentic activities, and polarization, particularly in recent studies about elections, the COVID-19 pandemic and vaccines. In this study, we have found a different platform. By looking at the content that receives the most interactions over two time periods (in 2020) related to three U.S. presidential candidates and the issues of COVID-19, healthcare, 5G and gun control, we characterize Instagram as a site of earnest (as opposed to ambivalent) political campaigning and moral support, with a relative absence of polarizing content (particularly from influencers) and little to no misinformation and artificial amplification practices. Most importantly, while misinformation and polarization might be spreading on the platform, they do not receive much user interaction.

Keywords: social media, Instagram, U.S. elections, COVID-19, disinformation, digital methods

Research questions

To what extent is ambivalent and divisive (or earnest and non-divisive) content present in the most interacted-with posts concerning political candidates and social issues on Instagram in the run-up to the 2020 U.S. presidential elections? Do the candidates control their own "name space," i.e., the (top) posts about them? Are there signs of artificial amplification (so-called fake or suspicious followers) among the candidates and their parties?

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How do influencers and celebrities on "political Instagram" contribute to the information climate?

Essay summary

During the "fake news crisis" of 2016, false news sources and front groups spread divisive and ambivalent information and misinformation across social media—notably on Facebook but also on Twitter and Instagram—in the period leading up to the U.S. presidential election (Silverman, 2016; DiResta et al., 2018; Howard et al., 2018). In 2020, concerns about such misinformation and divisiveness heightened in the lead-up to the U.S. elections. These concerns hit the global stage in full force with the rise of the COVID-19 pandemic, in which misinformation about the disease, the necessity of the precautions taken to curb its spread, and the safety of its vaccinations could pose immediate public health threats.

Recent studies and reporting have demonstrated that Instagram is susceptible to problematic information related to elections. Prior to the 2016 U.S. elections, Instagram was a fertile ground for disseminating misinformation and divisive content (Jack, 2017; DiResta et al., 2018). Furthermore, an analysis of Netherlands-based news media accounts on Instagram surfaced a special affinity (in terms of shared followers) between mainstream news sources and so-called junk news providers (Colombo and De Gaetano, 2020). Additionally, recent studies have found that conspiracy theories and anti-vaccine content spread under the guise of lifestyle content (Bond, 2021; Tiffany, 2021; Maragkou, 2020; McNeal and Broderick, 2020). Such "pastel QAnon" accounts—conspiracy theories spread in sugar-coated messages by "mummy bloggers, wellness coaches and lifestyle influencers" (Gillespie, 2020)—are yet another addition to the "cacophony of voices and narratives" which "have coalesced to create an environment of extreme uncertainty" (Smith et al., 2020, p. 2).

A report by the Center for Countering Hate describes how users who follow anti-vax accounts are presented with other problematic information by the platform's recommendation systems. These include "recommendations for antisemitic content, QAnon conspiracy theories, and COVID misinformation" (Center for Countering Hate, 2021, p. 8). The study points out how the U.S. elections and the pandemic have fueled the disinformation problem (Bond, 2021). Not only has there been an increase in disinformation because of the divisive U.S. elections and the COVID-19 pandemic, the platform's recommendation systems further grow the problem by connecting health information to a diverse range of conspiracy theories.

Instagram has been studied for its role in spreading divisive and polarizing content and the amplification of hate speech or harmful content (Bradshaw and Howard, 2018). When other mainstream platforms successfully "de-platformed" accounts accused of sharing hateful messages and polarizing content, for a while, Instagram functioned as a refuge, dubbed as "internet's new home for hate" (Lorenz, 2019) or "alt-right's new favorite haven" (Sommer, 2018). With deplatforming recently on the rise, and extreme user accounts forced to move to "an alternative social media ecosystem" (Rogers, 2020b), this opens up the question of whether the characterization of Instagram as a safe place still holds and whether the platform has succeeded in cleaning up divisive and polarizing content, at least in high-engagement spaces.

Instagram is also the platform most known (and studied) for inauthentic behaviors, such as purchased followers or artificially inflated like and comments counts, obtained through "click farms and follower factories" (Lindquist, 2019), or by participating in "comment pods," where users convene to like and comment each other's posts to inflate their own engagement metrics (Ellis, 2019). Detecting and limiting such inauthentic activities is an increasing need of the marketing industry, as one can note from the deluge of audit tools to "examine the health" (Hypeauditor, 2021) of one account's follower base through scrutinizing various features such as following-follower ratios or number of posts. The platform itself periodically deploys new measures with the aim of "keeping Instagram authentic" (Systrom, 2014), deactivating "spammy accounts" (Systrom, 2014), deleting those using "third-party apps to boost their popularity" (Instagram, 2018), or, more recently, asking suspicious profiles to verify their identity (Instagram, 2020).

In this study, we focus on multiple topics, exploring the quality of information and the users active in those spaces as well as the authenticity of their follower bases. U.S. election-related posts are studied through the prism of the presidential candidates, Trump, Biden, and Sanders. We then identified much-discussed topics in these candidates' spaces and selected gun control, healthcare, COVID-19 and 5G as particularly salient. Where some studies choose to filter out verified Instagram accounts to capture "organic social media conversations as opposed to media reports" (Smith et al., 2020, p. 8), or look at the "twilight zone" (Shane, 2020) beyond highly engaged-with posts, for this study we focus on the most engaging content (in terms of user interactions) regardless of the source. Therefore, we do not filter out any user accounts, which allows us to include in the analysis celebrities and influencers, whose role in spreading misinformation and divisive content has been an object of scrutiny in multiple cases due to

their high level of interactions and follower bases "predisposed to believe them and trust their messages" (Ahmadi and Chan, 2020).

This study considers the quality of information on Instagram about the U.S. presidential candidates of 2020, the COVID-19 pandemic, and a selection of social issues (healthcare, 5G, gun control). These topics are explored in the spring and fall of 2020, where the study zooms in on posts per period that receive the most user interactions. For the top 50 posts, the study combines content analysis with user activity analysis and includes a follower analysis to test for artificial amplification, as discussed in the methods section.

We developed a coding scheme for the content analysis that builds on Benkler et al. (2018) and distinguishes between divisive content (that might fuel polarization, conspiracy, or conflict) and non-divisive content. Following Phillips and Milner (2017), we term as ambivalent content (contrasted here with earnest content) posts that are not inflammatory but may still generate a lighter form of division by possibly excluding those who do not have the cultural references to decode it, laugh about it, and involuntary become "laughed at" (Phillips and Millner, 2017).

In applying these notions to the most interacted-with content concerning political candidates and social issues in 2020, we found, counter-intuitively, that most is earnest as well as non-divisive. In fact, throughout 2020, the political and issue spaces become even more earnest. There is also little to no misinformation encountered. In spring of 2020, influencers, including celebrities, mostly share responsible posts about the pandemic, while later in the year, they mainly encourage people to vote. Regarding COVID-19, there is an evolution from health warnings and supportive messages to posts about mental health during a pandemic and posts demonstrating that personal and professional *life goes on* despite COVID-19. Overall, our study finds a healthier platform than one might expect from one often associated with misinformation. While misinformation might be spreading on the platform, it does not receive much user interaction.

Implications

Increasingly, Instagram is discussed as a site for misinformation, inauthentic activities, and polarization, particularly in recent studies about elections, the COVID-19 pandemic and vaccines. Conspiracy and anti-vax content even have appeared as gradient pastel images under the guise of wellness and lifestyle posts. In this study, we have found a different platform. By

looking at the content that receives the most interaction, we characterize Instagram as a site of earnest political campaigning and moral support, with a relative absence of polarizing content and little to no misinformation.

First, we analyze posts that receive the most user interactions over two time periods (the spring and fall of 2020) related to three U.S. presidential candidates and the issues of COVID-19, healthcare, 5G and gun control. To characterize these spaces, we adopt a two-fold coding scheme: Following Benkler et al. (2018), we distinguish between "divisive" and "non-divisive" posts, and from Phillips and Milner (2017), we identify "ambivalent content" (contrasted here with "earnest content"). These are posts that often through multiple layers of meanings and irony might subtly fuel division, excluding those who do not have the cultural references to decode them.

Second, in the same candidate and issues spaces, we perform a user activity analysis, examining the most active users and the number of interactions they generate with their posts. Third, in order to assess the authenticity of U.S. presidential candidates and parties' audiences, we analyze their follower bases, looking at suspicious behaviors (such as dubious geographical provenance) that might signal automation or artificial amplification practices. Fourth, we zoom in on the role of celebrities and influencers, characterizing through close reading the nature and content of their posts with an eye towards their role in spreading misinformation and divisive content.

Overall, our study finds a healthier space than one might expect from a platform often associated with polarization and misinformation. In fact, throughout 2020, the political and issue spaces become even more earnest. While misinformation and polarization might be spreading on the platform, they do not receive much user interaction.

Indeed, the findings show that while posts about political candidates may entail fierce campaigning, the overwhelming majority of the most engaged with content is earnest and non-divisive. The finding is significant given that research has shown how well divisive and false news and commentary often spread compared to more sincere content (Vosoughi et al., 2018; Klein and Robison, 2019).

For the posts concerning the three presidential candidates under study, each has an equal amount of divisive content (about 15%) in the top 50 posts. For that content, however, it was found that over half of it was posted by Trump or Trump, Jr. One implication is that the Trumps are a leading source of divisiveness and that they are rather alone in that role, at least in the top posts under study. It should be noted that Trump is also the main target of that content type. Of the remaining divisive content, most posts

are about Trump or his administration. Engagement is an impact metric rather than a measure of sentiment. In other words, non-divisive, earnest posts may trigger positive but also negative comments, as we know from research into trolling and antagonistic behavior online (Phillips, 2015). Negativity in the comment space still leads to a high interaction score, so the findings do not imply the absence of toxicity.

The namespace analysis shows an uneven distribution of attention to the three candidates. Trump proved to be successful in dominating his own namespace, while Biden's space is occupied by a variety of users (mainly endorsing him). Sanders is the most successful of the three candidates in populating the others' namespaces. After losing the race to the presidential nomination in the fall, he is left alone in his space, and his language becomes more divisive.

In a further examination of the followers of the political candidates and parties, we find signs of light artificial amplification only for the accounts of the Republican Party and Donald Trump. The finding implies that the majority of the user interaction is not achieved through the purchasing of followers or likes, as was found in previous research, suggesting an apparent slowing of that practice (DiResta et al., 2018; Feldman, 2017).

Lastly, it is worthwhile to zoom in on the outsized role of particular users, apart from the Trumps and the National Rifle Association. On a platform known for its influencers, we can distinguish between at least two types of "issue celebrities" here. The one assumes a more traditional role of celebrity fundraising and awareness-raising, which we find mainly in healthcare posts by those who support front-line workers and hospitals during the pandemic (sometimes with financial donations). For the topic of COVID-19, we also see other, more commercially entangled celebrity engagement, where they sell their products and promise to donate a percentage of the profits to a COVID-related cause.

The study contributes to scholarly work that examines how visual practices on Instagram "are not just social media artifacts, isolated and individual, but are surrounded by debates and discussions that take on political, legal, economic, technological, and sociocultural dimensions" (Highfield and Leaver, 2016, p. 49). By selecting the political content with most interactions, we approach engagement on the platform in a more comprehensive way than content posted by influencers only. Indeed, the points of departure are the political debates and discussions. They take center stage rather than emerge as a byproduct of celebrity and influencer culture. In further assessing the content of top posts as earnest or ambivalent and divisive or non-divisive (Hedrick et al., 2018), it contributes to the

discussions on online (mis)information, offering an analytical framework that is sensitive to critiques of thin ontologies as true or false content (Lazer et al., 2018; Marres, 2018). The work thereby has methodological implications for those categorizing contemporary social media content.

Findings

Finding 1: The top posts concerning political candidates and social issues on Instagram contain largely earnest and non-divisive content. Social media platforms such as Instagram have been described as sites of misinformation and divisiveness, particularly around elections. In this study, however, the political and issue coverage that has received the most user interactions on Instagram from January to mid-April 2020 and from September 2020 to January 2021 is primarily earnest and non-divisive, with scant ambivalent content.

Concerning the political candidates, in spring approximately 85% of the posts are non-divisive, and the vast majority is earnest. The amount of divisiveness in each of the different candidate's namespaces is more or less the same, but nearly half of such content is posted by Donald Trump or Donald Trump, Jr., and most of the remaining divisive posts are about Trump. In the fall, despite the U.S candidates' spaces remaining generally earnest and non-divisive, there are variations compared to the situation in spring, depending on the candidate. Biden's namespace has become much less divisive; both compared to that in spring and to the others. The namespaces of Trump and Sanders have instead become more divisive than in spring. Sanders' space is the one with more divisive posts in the top 50 among the three candidates. Examining the tone and wordings of his posts, we observe an increasingly more divisive language, with direct attacks to various opponents, including Joe Biden (see Figure 7.2), President Trump and Wall Street (e.g., "pathetic … president" and "Wall Street crooks"). Posts about Trump also become slightly more divisive in spring. Trump's namespace has the most memes and jokes, some making fun of him and others of his opponents (sometimes both in one meme). Furthermore, many of the posts in the Trump space are labeled and fact-checked by Instagram (Figure 7.3), with banners, blurring covers and various notices.

The fact that Instagram overlays content moderation notices and disclaimers—not only on Trump's statements and videos but also on memes and fake screenshots posted by satirical accounts—generates an additional layer of messiness that contributes to the ambivalence of this space.

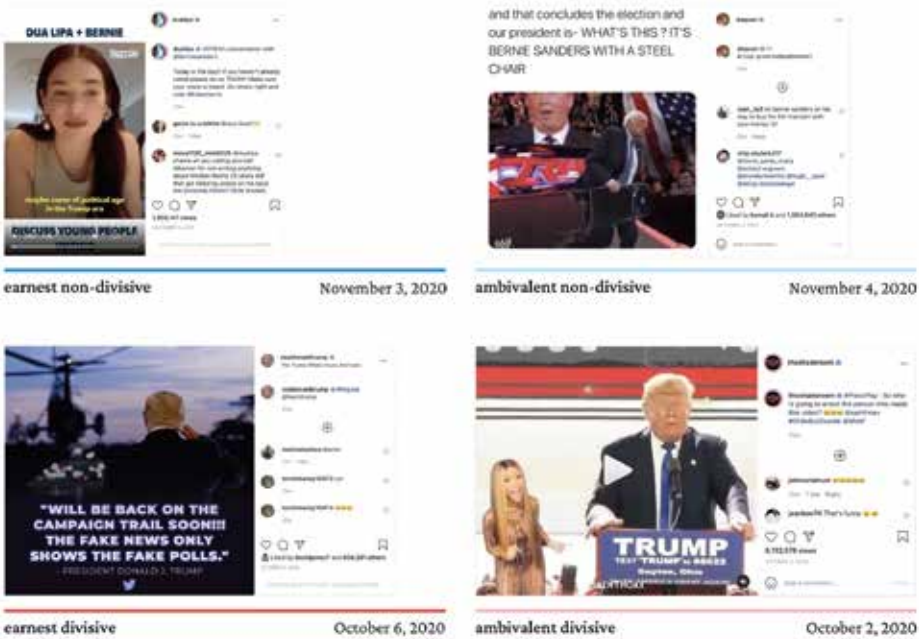

Figure 7.1 Example of Bernie Sanders' posts becoming more divisive in wording. Sources: https://www.instagram.com/p/B9X3SZOBxhX/; https://www.instagram.com/p/CH1Kx5lBsMN/.

Figure 7.2 Examples of fact-checking and content moderation notices found in Trump space in fall. Sources: https://www.instagram.com/p/CGrPpA-MKL1/; https://www.instagram.com/p/CHLS06FBufB/; https://www.instagram.com/p/CHNCRwwLI4f/.

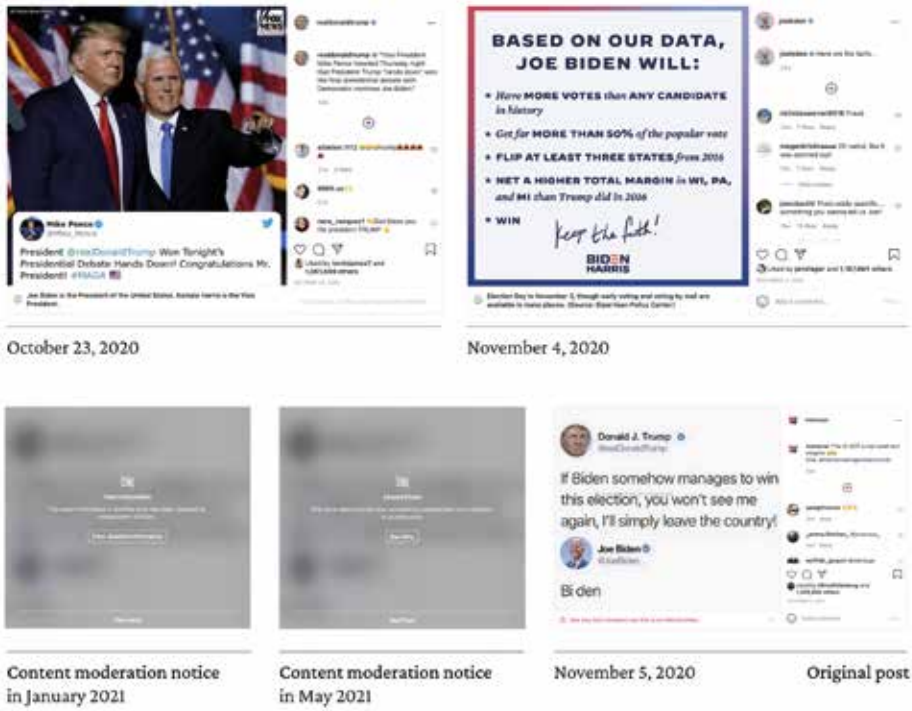

Figure 7.3 Classification of the top 50 Instagram posts (receiving most interactions) in the political candidates' namespaces. Date ranges: January 1, 2020–April 20, 2020 and September 22, 2020–January 5, 2021. Data source: CrowdTangle.

Finding 2: While social issues are mostly discussed in earnest and non-divisive ways in the most engaging posts, some are more divisive than others. Moving from spring to fall, issue spaces remain largely earnest and non-divisive (except for gun control), but the content of the posts differs over time. Contrary to reports about online misinformation on social media, we find Instagram to be an earnest space of non-divisive content about the COVID-19 pandemic and healthcare, mostly posting in support of healthcare workers and encouraging users to stay safe. In the fall posts about the pandemic and health, in general, become even more earnest and non-divisive (with only one divisive post in the healthcare space), and the content of the posts changes. COVID-19 no longer dominates healthcare posts; instead, they address mental health and include well-wishing.

From the spring to the fall the COVID-19 space moves from posts supporting healthcare workers and encouraging users to stay safe to posts about activities that are taking place despite the pandemic. In the first period conspiracy is present in the 5G space, amidst mainly commercial content,

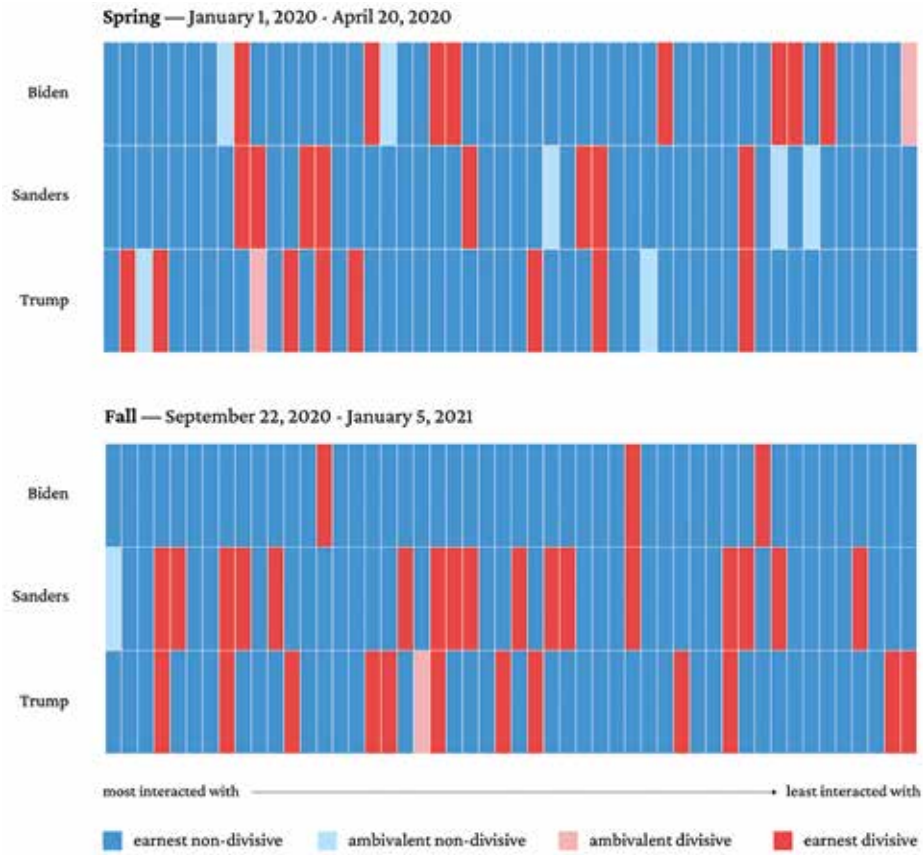

Figure 7.4 Classification of the top Instagram 50 posts (receiving most interactions) in the issues spaces. Date ranges: January 1, 2020–April 20, 2020 and September 22, 2020–January 5, 2021. Data source: CrowdTangle.

with the top post dismissive of the conspiracy theory that the coronavirus is spread through Chinese-made 5G towers. The 5G space becomes even more earnest in the second period under study, with a total absence of divisive or ambivalent content in the top posts, which are mainly commercial and with no signs of conspiracy-themed content in the top 50. We find one 5G conspiracy-related post well down in the results (#306). A post by Robert F. Kennedy, Jr., now removed from Instagram (Jett, 2021), references "deadly 5G radiation" together with "Big Pharma," "Big Data," "Bill Gates" and the "COVID vaccine project." Gun control is the most divisive of the issues we analyzed, and its top 50 posts are dominated by a single user, the National Rifle Association (with 30 out of the 50 posts), becoming even more divisive over time.

Finding 3: Trump performs well in his own namespace in the spring, while Biden is crowded out of his. In the fall, Sanders is left alone in his own namespace. For each candidate, we looked at their respective namespace, that is, the body of posts that @-mention the candidate. The rationale to do so is that when a presidential candidate holds control over his own namespace, this space is likely to be less divisive or ambivalent than when others mostly post about the candidate. For a candidate, controlling one's own namespace might mean being able to actively steer the discourse in their favor and reducing the level of divisiveness. In this next analytical step, we assess if and how the namespace is affected—in terms of its divisiveness and ambivalence—when the candidate occupies it.

Looking at the most active users in each candidate's namespace, Trump performs well in his namespace in both time frames analyzed. Trump's own Instagram content, likely run by his campaign, is not as negative as the insulting messages he is known for on Twitter (Quealy, 2017; Lee and Quealy, 2019). Many of his most engaging Instagram posts in the initial period are about his Super Tuesday wins in several states. However, of the earnestly divisive posts across all namespaces, many are by Trump or Trump, Jr. Compared to the spring, Trump still dominates his own namespace in the fall. His top posts in total receive fewer interactions than before, however, and there is a broader variety of users receiving interaction, including Snoop Dogg (with memes) as well as Kamala Harris, Michelle Obama, and Hillary Clinton (with critical posts).

In the spring Biden's account does not have a strong presence in the top posts about him. His namespace shows the most user diversity. Popular content posted about him by others varies from endorsements, the most popular of which was that by Barack Obama, to criticism and campaigning, for instance by Sanders in 1/5 of the top posts. Donald Trump, Jr. is also active in Biden's namespace, calling him out for his son's business in China and his views on gun control. In the next period, Biden's namespace remains crowded with diverse users, many of whom are non-political celebrities encouraging users to vote for him or congratulating him.

In the spring, Sanders is the most successful of the three candidates in populating the others' namespaces, posting much-interacted-with, campaign-style content about Trump and Biden. In second timeframe, Sanders is left alone in his own namespace, with the number of active users shrinking dramatically. Whereas in the first period, Sanders' namespace is populated by a variety of users, in the second, Sanders dominates his own namespace, with only six active users in the top 50, as expected after Biden became the democratic presidential candidate.

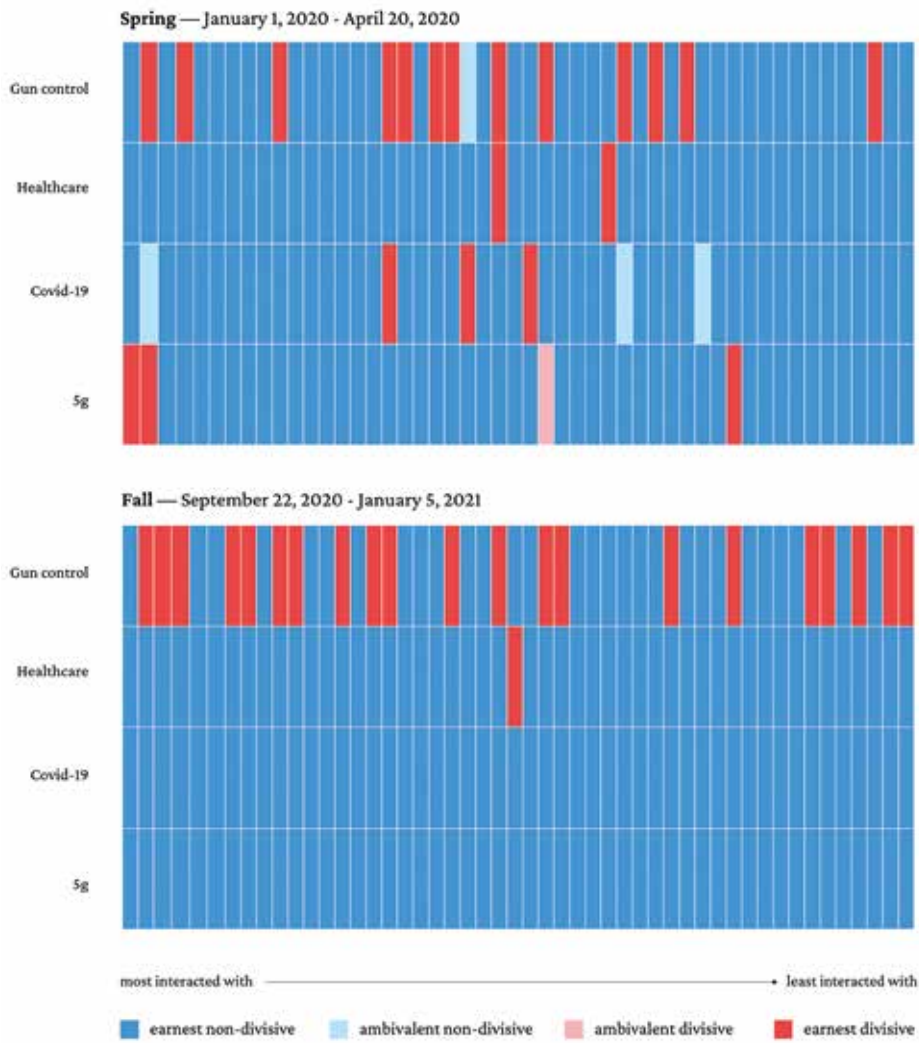

Figure 7.5 The most active Instagram users per political candidate's namespace. Date ranges: January 1, 2020–April 20, 2020 and September 22, 2020–January 5, 2021. Data source: CrowdTangle. The user accounts in our dataset not marked as "verified" public figures by Instagram are blurred in the visualization.

Finding 4: There are few signs of artificial amplification in the U.S. political space. In both time periods the accounts of U.S. presidential candidates and political parties on Instagram do not have suspicious follower bases, with almost 75% giving indications of being genuine followers, with some exceptions and slight differences between the periods. In the spring Donald Trump's account and, more prominently, the Republican party account, have

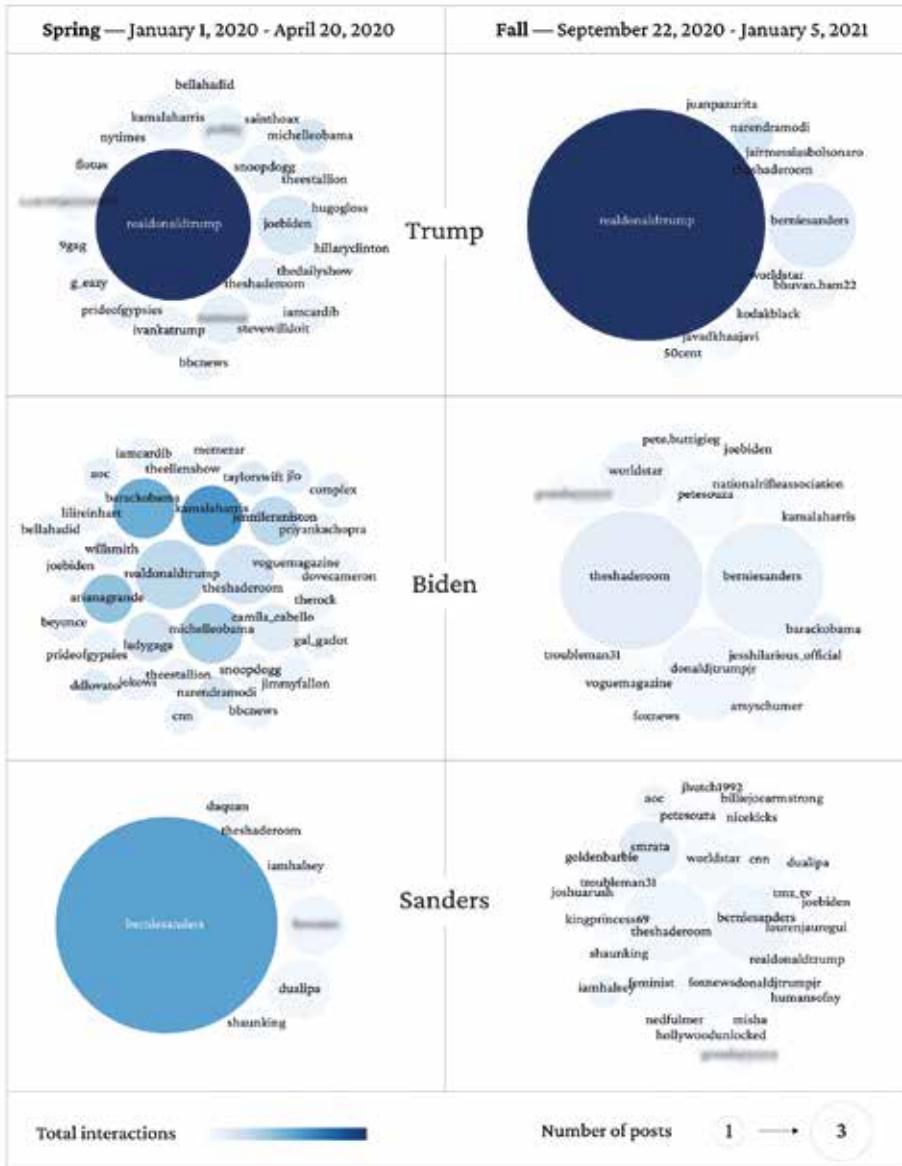

Figure 7.6 Instagram follower analysis of political parties and candidates' accounts. Breakdown of audience types into categories. Date ranges: January 1, 2020–April 20, 2020 and September 22, 2020–January 5, 2021. Data source: HypeAuditor.

slightly over 25% followers that the method considers suspicious (bots, or real accounts that use automatic tools for following or unfollowing other accounts). In the fall the composition of tool-suspected followers for the

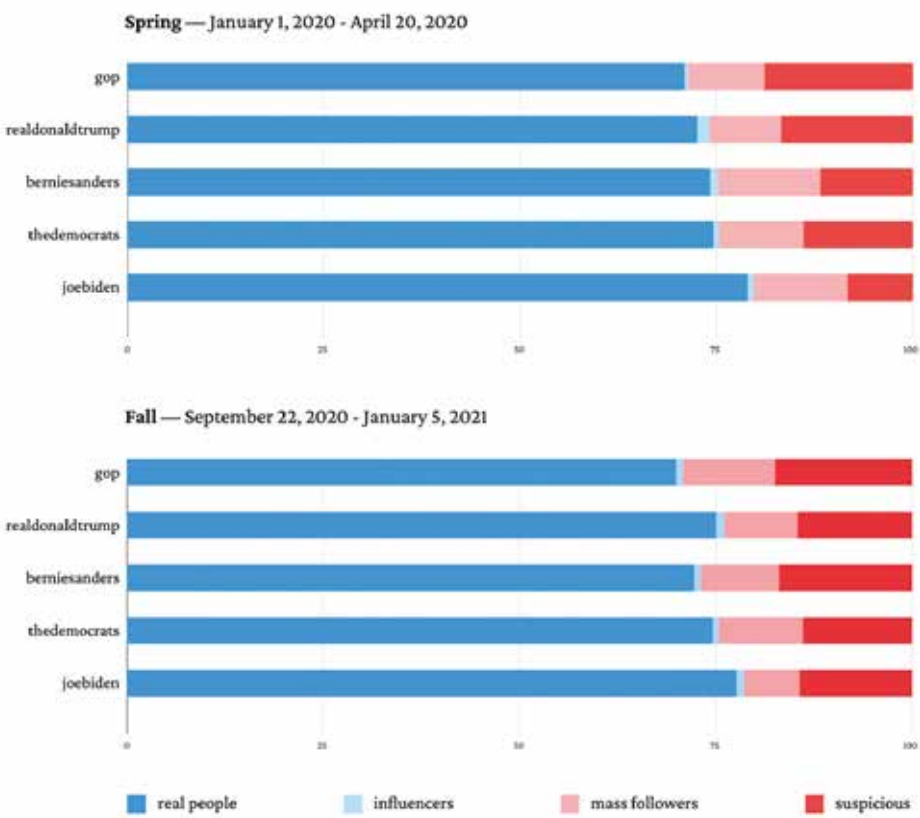

Figure 7.7 Instagram follower analysis of political parties and candidates' accounts. Breakdown of followers' countries of origin, showing the top 5 locations of users in the follower base of each account. Date ranges: January 1, 2020–April 20, 2020 and September 22, 2020–January 5, 2021. Data source: HypeAuditor.

accounts of Trump has slightly decreased, while that of both the Republican and Democratic parties remain largely the same. Contrariwise, the number of suspicious followers has risen slightly for Joe Biden (with a total of 21.4% mass and suspicious followers) and Bernie Sanders (who reaches nearly 27% of mass and suspicious followers).

Analyzing the geographical provenance of the followers of each account, which can also indicate artificial amplification practices, we found both timeframes the follower bases of the political candidates and parties to be overwhelmingly U.S.-based, with the exception of Donald Trump's. In the spring Trump's official account had 25% of followers from other locations than the U.S., including Iran, Brazil, and India.

In the fall we no longer find India-based users in the top 5 locations of Donald Trump followers.

Finding 5: Celebrities and influencers generally make responsible contributions to political Instagram. It is also worthwhile to zoom in on the role of celebrities and influencers on a platform known for their significance in influencing public opinion. Generally speaking, their posts fall into the category of earnest and non-divisive. They raise awareness, donate to causes, show support for a candidate, serve as role models, and debunk conspiracy theories. Indeed, some contributions fit into a longstanding tradition of "issue celebrity" fundraising and awareness-raising, particularly concerning healthcare, with posts by celebrities who support (sometimes with financial donations) healthcare workers and hospitals during the pandemic in spring. In the posts concerning COVID-19, we also witness celebrities promoting their products and promising to donate a percentage of the profits to COVID-19 related funds, as Kim Kardashian does in her four posts that make it into the top 50 on that issue. On healthcare, on top is Tom Hanks' message from Australia, reporting that he and his wife were infected and in self-isolation in Australia. In the 5G space, it is a repost of hip-hop artist 55Bagz making fun of the coronavirus-5G conspiracy that receives the most user interactions. On the issue of gun control, however, rapper Kevin Gates's post of his daughter posing with a gun receives a great deal of attention in a space otherwise dominated by the National Rifle Association (with 30 posts in the top 50). Concerning posts about political candidates, we see how candidate support messages by model and actress Emily Ratajkowski attract high amounts of user interactions.

In the fall we still observe the prominent role of celebrities both in the issue and candidate spaces, although the pool of most active ones in the top 50 posts changes slightly: new celebrities appear (such as athletes Cristiano Ronaldo and Virat Kohli), while others who reached the top in spring have disappeared (e.g., Tom Hanks). Kim Kardashian (present in the top 50 with multiple posts in Spring) remains at the top. For some issues, the tone and the content celebrities discuss change considerably compared to the previous period. Concerning COVID-19, messages of support and advice about the pandemic are replaced by posts that show how *life goes on* despite the pandemic (at least for celebrities who can afford it): film sets are moved to comply with travel restrictions, or "COVID-free" birthday parties are held on private islands. In the health space, support for healthcare workers is partly replaced with messages of awareness

Figure 7.8 Examples of celebrities' posts in fall: Celebrities urging to vote in dedicated posts (Jennifer Aniston), or by inviting to vote (for Biden) in the caption of otherwise non-political posts (Ariana Grande); Celebrity personal life (Kim Kardashian) and professional life (The Rock) going on despite COVID-19. Sources: https://www.instagram.com/p/CGskEr_jE5d; https://www.instagram.com/p/CG5rtaaF8k_/; https://www.instagram.com/p/CG2zK7WgghF/; https://www.instagram.com/p/CHX3TvOFRfn/.

about mental health issues, specifically around World Mental Health Day on October 10th.

In the political spaces, more celebrities are active, calling on users to go and vote, both in dedicated posts (e.g., Jennifer Aniston) or by adding #voteforBiden to otherwise non-political posts. Indeed, among the candidates, Biden is the one receiving the most celebrity support. Together with celebrities, some famous politicians (e.g., Barack Obama) voice support for Biden, while others express criticism for Trump (e.g., Kamala Harris, Michelle Obama, and Hillary Clinton). In the Trump space, Snoop Dogg receives quite a lot of attention by posting memes about the president.

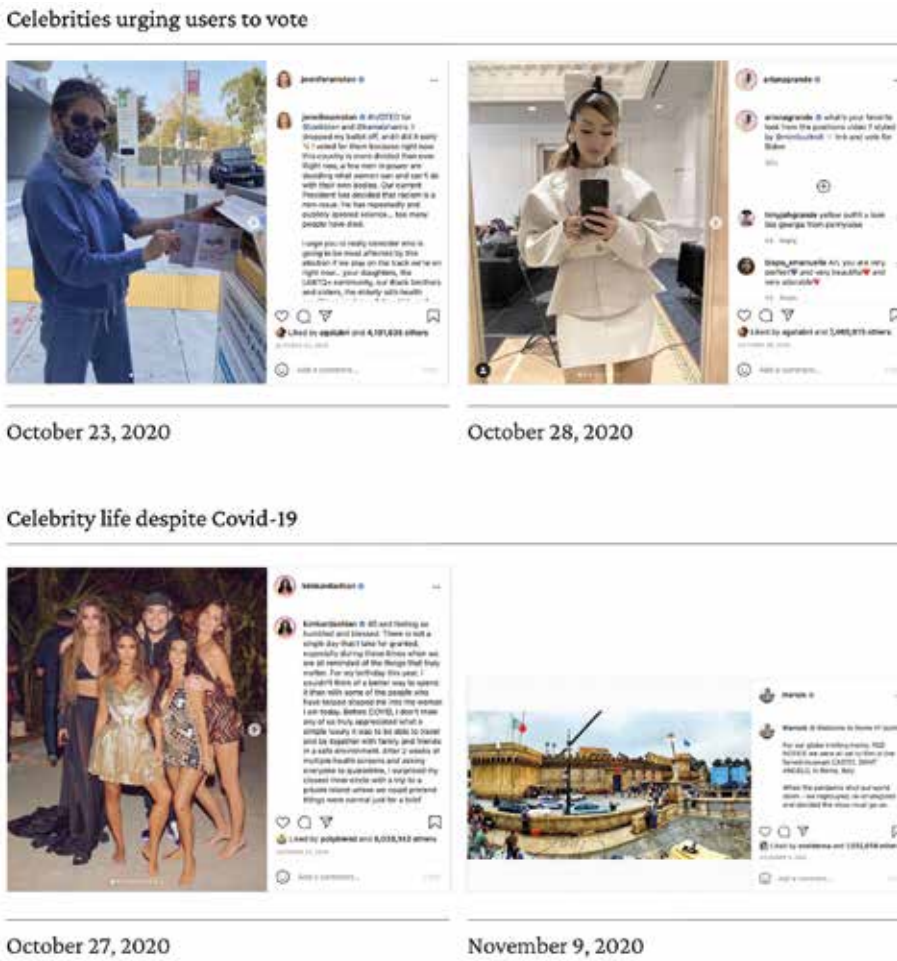

Figure 7.9 The most active Instagram users per issue space. Date ranges: January 1, 2020–April 20, 2020 and September 22, 2020–January 5, 2021. Source: CrowdTangle. The user accounts in our dataset not marked as "verified" public figures by Instagram are blurred in the visualization.

Methods

Content analysis of candidates and issues spaces

The Instagram data for this study is collected with CrowdTangle, Facebook's media monitoring tool that has been made available to academics through the Social Science One program. CrowdTangle allows users to collect Instagram posts that mention one or more keywords during a specific

time frame. To create our dataset, we first compiled a list of keywords for each candidate, including candidate names, campaign slogans, and most-used hashtags. Then, we selected four of the most-mentioned topics in the candidate spaces: healthcare, COVID-19, 5G and gun control. For each of these topics, we compiled a list of relevant keywords intending to include official terms, vernacular words, and, if applicable, pro- and counter-terminology, e.g., including in the query both "gun control" and "gun ownership." (See Appendix for the full list of queries.) We used each query to collect Instagram posts shared in two timeframes: between January 1 and April 20, 2020 (we refer to this period as spring throughout this chapter) and between September 22, 2020, and January 5, 2021 (which we refer to as fall). For each query and each period, we selected the top 50 posts based on the total sum of interactions, which is the number of likes and comments by Instagram users that a post has received.

In this study, we focus on most engaged with posts, as well as most active users in high-engagement spaces, asking specifically whether the posts from highly visible accounts receiving the most user interactions are earnest or ambivalent and whether they are divisive or not. After having manually removed unrelated posts from the dataset, we conduct a close reading of the top 50 posts per space, taking into consideration both the visual elements (image or video) and the post captions, applying a four-category analytical scheme (see Figure 7.10).

We flag as divisive content posts that fuel conflict, polarization, or even radicalization (following Benkler et al., 2018), in contrast to more positive messages (e.g., supporting a candidate or sharing quarantine tips), which we label as non-divisive. We make a distinction between earnest content that is posted with clear intent and may be understood by many users and content that often through humor or (sub)cultural references lends itself to different interpretations, depending on those who receive it and what they read into it. Here, we keep in mind the possibility of encountering convincing yet "maliciously 'fake' content" (Highfield and Leaver, 2016, p. 52).

In opposition to "earnest and non-divisive" content, we categorized as "earnest and divisive" inflammatory posts that might fuel polarization, conspiracy, or conflict. We used "ambivalent and non-divisive" to categorize content that is not inflammatory but may still generate a lighter form of division by possibly excluding those who do not have the cultural references to decode it, laugh about it, and involuntary become "laughed at" as Phillips and Millner put it (2018). We subsequently tagged as "ambivalent and divisive" content that, while ambivalent (as above),

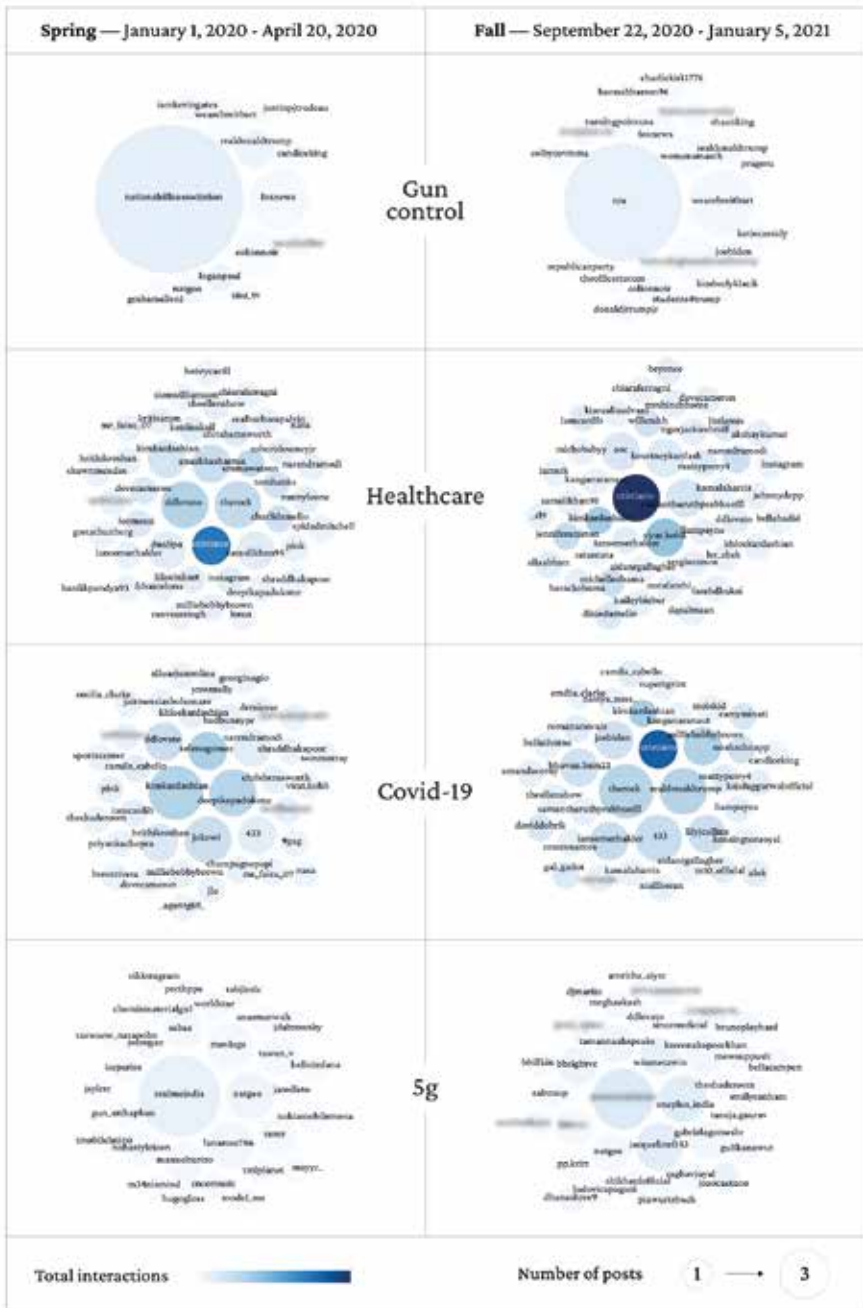

Figure 7.10 Analytical scheme. Examples of coded posts in earnest non-divisive, ambivalent non-divisive, earnest divisive, and ambivalent divisive. Sources: https://www.instagram.com/tv/CHImtYqHfO9/; https://www.instagram.com/p/CHKEGaNh_G3/; https://www.instagram.com/p/CGAn6KFsjDq/; https://www.instagram.com/p/CF1-vqonZJr/.

can be recognized as highly dismissive, polarizing, or otherwise geared towards division.

It is important to note that as we are analyzing content during a political campaign, and many posts were "campaigning" in terms of both their message and tone of voice. Here, we only coded such content as divisive when it was explicitly dismissive of a political opponent or another person or accusatory in incendiary terms. Not all critical posts were labeled as divisive, just as not all jokes were coded as ambivalent.

User activity analysis of candidates and issues spaces

For each of the presidential candidates and issue spaces, we analyzed the most active users. Here, we count how many times a user has posted and calculate the total number of interactions (likes and comments) received by each user for the total of his or her posts. User activity analysis tells us whether one or more very active users dominate a political or issue space and whether those who are the most vocal are also the most interacted with by other users. Concerning the political candidates, we also ask whether one candidate succeeds in "invading" another candidate's namespace. As one candidate mentions (often attacking or criticizing) another candidate, s/he may receive a high number of user interactions, therefore appearing in the top 50 posts of one of the opponents.

Artificial amplification and follower analysis

To assess the authenticity of candidates' and parties' audiences and detect signs of artificial amplification, we use the digital marketing tool, HypeAuditor. The tool provides a set of metrics for one Instagram account, which it compiles into an "audience report." For each candidate and party (Biden, Sanders, and Trump as well as the political party names), we collect the Instagram usernames and then use HypeAuditor to obtain an audience report. The report provides an audience type breakdown, dividing followers into four categories: real people, influencers (> 5,000 followers), mass followers (>1,500 followers), and suspicious followers, defined as "Instagram bots and people who use specific services for likes, comments and followers purchase" (Komok, 2020). From the Hypeauditor report, we also consider the followers' country analysis for each account, which breaks down followers by location and could also point to possible anomalies in the follower base.

Celebrities on Instagram

In the last part of the study, we zoom into the role of celebrities in the various political and issue spaces. In characterizing online celebrities, scholars have made the distinction between "social media natives," sometimes referred to as micro-celebrities to indicate the niche of their fame, whose "activities have been associated with social media from the beginning" (Giles, 2017), and established celebrities who become active on social media and employ the techniques of micro-celebrities to engage with their audience (Marwick and boyd, 2010). In our user activity analysis, rather than tracing where their fame originated from, we consider as celebrities all public figures whose user accounts are labeled as "verified" by the platform.

To obtain a verified account on Instagram, reviewers assess whether an account is "in the public interest" and (in addition to following the platform's terms of service) is "authentic, unique, complete and notable" (Instagram, n.d.). Verified accounts must also be famous outside of Instagram, as the platform "review(s) accounts that are featured in multiple news sources" (Instagram, n.d.) and assigns a verified badge only to those associated with a "well-known, highly searched for person, brand or entity" (Instagram, n.d.). Social media influencers who have not built up a public presence outside of the platform are not marked as verified. Once the badge of a verified account is earned, it is hardly revoked, and "there appear to be no consequences when authentic, verified accounts share lies and half-truths" (Ahmadi and Chan, 2020).

Appendix

Overview of queries used in CrowdTangle

Covid-19 [corona, covid_19, covid, coronaviruspandemic, coronavirus]
5G [5g]
Healthcare [healthinsurance, medicareforall, medicare, medicareforallnow, health, healthcare, lowerdrugcosts, protectourcare, obamacare, Abortion, Medicare]
Gun control [gun control, firearms regulation, gun restrictions, anti-gun, carry permit, 2nd amendment, second amendment, right to keep and bear arms, gun ownership]

Biden [biden, joebiden, biden2020]
Sanders [berniesanders, sanders, feelthebern, bernie2020, votebernie]
Trump [donaldtrump, trump, KAG2020, Trump2020, makeamericagreatagain, maga]

Instagram accounts that were part of the follower analysis with HypeAuditor

Political candidate accounts: @berniesanders, @joebiden, @realdonaldtrump
Political party accounts: @thedemocrats, @gop

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