GUIDE
FOR CIVIL SOCIETY
ON MONITORING SOCIAL MEDIA DURING ELECTIONS
This Toolkit for Citizen Observers is composed of five guides covering respectively:
• Guide for Civil Society on Sustaining Peace through Elections
• Guide for Civil Society on Election Observation Reporting
• Guide for Civil Society on Observing Elections from a Gender Perspective
• Guide for Civil Society on Electoral Reform
• Guide for Civil Society on Monitoring Social Media during Elections

TABLE OF CONTENTS

p5 Introduction
p5 A Guide for civil society organisations, written by civic activists
p5 Why do we care about social media in elections?
p8 How can traditional electoral observation inform social media monitoring?
p10 1 Social media’s role in elections and its restraints
p11 1.1. The changing media environment
p13 1.2. Legal framework applied to social media
p14 1.2.1. International law
p16 1.2.2. National laws
p17 1.2.3. Self-regulation
p17 1.2.4. Relevance of legal framework for observers
p18 2 Social media’s impact on the electoral process
p18 2.1. How information shared on social media influences political behaviour
p22 2.2. What aspects of social media influence democratic discourse in practice?
p22 2.2.1. Different levels of threats: The 3 Ms
p23 2.2.2. Different phenomena: characteristics and influence on elections
p27 3 How to monitor social media? Methodological approach
p28 3.1. Getting practical: defining the scope of monitoring
p28 3.1.1. Which platforms? Establishing the social media landscape
p32 3.1.2. Which time span? Defining the period of analysis
p33 3.1.3. What theme? Looking at the message
p35 3.1.4. Which actors? Looking at the messenger and their behaviour
p38 3.2. Data collection and tools
p38 3.2.1. Getting access to data
p40 3.2.2. What tools are available for data collection and analysis?
p43 3.3. Analysing the data: how to monitor each phenomena
p47 4 Making an impact with social media monitoring
p47 4.1 Publishing reports in real time vs. weekly or monthly
p48 4.2 Addressing ethical questions
p48 4.2.1. How to use the data: maintaining user data anonymity during research activities
p49 4.2.2. Managing data and developing a privacy policy
p50 4.2.3. Traditional election monitoring integrity applied to social media reporting
The methodology was developed in cooperation with an international working group, supported by Supporting Democracy. Supporting Democracy is implemented by a consortium composed of SOFRECO, Democracy Reporting International (DRI) and the National Democratic Institute (NDI).

The methodology was drafted by Rafael Schmuziger Goldzweig (DRI) and Michael Meyer-Resende (DRI), with contributions from a working group of experts that gathered in Brussels in February and May 2019. The expert group was comprised of Olufunto Akinduro (EISA, South Africa), Susan Angle (Media4Democracy, Belgium), Michael Baldassaro (the Carter Center, US), Mikheil Benidze (ISFED, Georgia), Julia Brothers (NDI, US), Lucas Calil (FGV-DAPP, Brazil), Viktoras Dauksas (Debunk.eu, Lithuania), Amaro Grassi (FGV-DAPP, Brazil), Rast’o Kužel (Memo98, Slovakia), Anders Olof Larsson (Kristiania University College, Norway), Elijah Lewien (The Carter Center, US), Michael Lidauer (Election-Watch.eu, Austria), Giovanna Maiola (EODS, Belgium), Mohamad Najem (SMEX, Lebanon), Raphaël Pouyé (SD, Belgium), Stefan Stieglitz (Duisburg-Essen University, Germany), Josh Smith (DEMOS, UK), and Chandanie Watawala (ANFREL, Thailand). We also thank the support of Madeline Brady (DRI).

We thank the participants for their insights and comments, which made the compilation of this methodology possible.
A guide for civil society organisations, written by civic activists

Whether it’s tech experts, tech journalists, academics or civil society – many organisations have started experimentally monitoring social media. Traditional election observation needs to catch up with these new social media monitoring techniques. This guide is a publicly available resource for any organisation that wishes to observe social media in elections. We have written it in particular for civil society organisations that observe social media in their own country, and we have tried to use as little jargon as possible to make this technical topic easy to understand.

Why do we care about social media in elections?

The advent of the internet and in particular, the rise of social media, has changed the way people spread and consume political information. The focus has partly shifted from traditional means of communication such as newspapers, TV and the radio, to the more interactive and low-cost possibilities offered by social media. This has transformed the information environment in which elections take place. Social media refers to any platform that allows people to communicate and share information online.

Digital platforms have empowered groups that may have been excluded from traditional media, particularly in authoritarian countries in which traditional media are controlled by the state or the ruling party. Also, where major media groups are owned by a few influential people with political agendas, social media have helped other interests to connect and to be heard.

On the other hand, they are also used by extremists to work against democracy or by foreign governments trying to interfere with domestic debates and elections. In the past years, attempts to manipulate public opinion and voter choices have become a major concern. The initially positive view of social media has changed. It has been seen that they can be used for good and bad purposes, like any technology.
### Figure 1: Definitions of social media problems

<table>
<thead>
<tr>
<th>Term (Source)</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information (or influence) operations / coordinated inauthentic behaviour (Facebook)</td>
<td>Actions taken by organised actors (governments or non-state actors) to distort domestic or foreign political sentiment, most frequently to achieve a strategic and/or geopolitical outcome. Such actions may be characterised as coordinated inauthentic behaviour, an artificial way to manipulate social media discussions and perceptions.</td>
</tr>
<tr>
<td>Violations of election integrity (Twitter)</td>
<td>The use of Twitter’s services for the purpose of manipulating or interfering in elections - misleading information about how to participate, voter suppression and intimidation, and false or misleading affiliation.</td>
</tr>
<tr>
<td>Disinformation (Google)</td>
<td>Deliberate efforts to deceive and mislead using the speed, scale, and technologies of the open web.</td>
</tr>
<tr>
<td>Computational propaganda (Oxford Internet Institute)</td>
<td>Use of algorithms, automation, and human curation to purposefully distribute misleading information over social media networks.</td>
</tr>
<tr>
<td>Information disorder (First Draft News/Council of Europe)</td>
<td>An umbrella term encompassing: disinformation (false information deliberately created to harm), misinformation (false information, not created with the intention of causing harm) and mal-information (information based on reality used to inflict harm).</td>
</tr>
<tr>
<td>Narrative competition (Institute for Strategic Dialogue)</td>
<td>Promoting a “culture war” dynamic around issues like migration, Muslims in Europe, family vs. progressive values and increasingly climate policy. A shift away from information warfare.</td>
</tr>
<tr>
<td>Threats to Democratic Discourse (Democracy Reporting International)</td>
<td>Intentional harmful actions by people or unintended consequences of social media’s platform design, which threatens the pluralistic debate of any issue related directly or indirectly to policy issues, during and outside of elections.</td>
</tr>
</tbody>
</table>

Many elections in the past years have been controversial because of the abuse of social media. Too often there was a sense that “something was wrong” but what exactly went wrong was only discovered long after the election, if at all. This needs to change and we hope that this methodology will help more groups shed light on what has been a black box until now: the dynamics of social media debates and their use during elections.

There are various aspects of looking at social media phenomena during elections. One of the best-known is fact-checking. In many countries, groups are now monitoring digital debates by fact-checking statements by prominent persons or stories that are widely shared. Fact-checking is often done by media or in close cooperation with media. Election observation has a broader focus, as the following table shows.

**Figure 2:**
The role of social media fact-checking versus electoral observation

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>FACT-CHECKING</th>
<th>ELECTORAL OBSERVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure higher journalistic standards, correct false claims and take action against disinformation online</td>
<td>Ensure that elections are free and fair and that the rights of candidates, parties and voters are respected</td>
<td></td>
</tr>
<tr>
<td>FOCUS OF THE MONITORING</td>
<td>Statements from politicians, false news that are spread and get viral during elections, false pages</td>
<td>Pages of candidates and parties, news media pages, may include false pages and other political influencers. Topics and narratives discussed around electoral periods.</td>
</tr>
<tr>
<td>PERIOD</td>
<td>Can be focused on electoral periods, but it normally exists around the clock</td>
<td>During electoral period</td>
</tr>
<tr>
<td>TYPE OF INTERVENTION</td>
<td>Aims at debunking false information and increase the quality of journalism</td>
<td>Witnessing and reporting on electoral developments [declaration of principles] and assessing how political actors and voters are targeted by disinformation/discrediting campaigns</td>
</tr>
</tbody>
</table>

While fact-checking is closely related to specific news content or stories (the message), election observation is broader. Election observers may analyse anything that shapes the quality of democratic debate online, for example: the prominence or not of candidates or parties on social media, the authenticity of pages and actors (messenger), the use of paid ads or other artificial means of attention generation (social bots) to increase the reach of campaigns, or the spread of campaigns and stories (messaging/distribution).

**How can traditional electoral observation inform social media monitoring?**

Social media monitoring in elections can be seen as an extension of traditional election monitoring and can thus take inspiration from the *Declaration of Principles for Non-Partisan Election Observation* by citizen organisations. These principles have been endorsed by many citizen groups and are available in many languages.⁹ They explain which human rights are relevant during elections and the purpose of citizen election observation. They give valuable orientations that any group looking to monitor elections should consider, such as:

- **Observers’ impartiality towards all parties and candidates (or in the case of a referendum, towards the possible outcomes).**

- **Observers’ cooperation with election management bodies and other state bodies by meeting, sharing reports, and/or offering recommendations.** In the field of social media, such an approach should be extended to the tech firms that provide social media platforms (traditional social media services from Facebook, Twitter and others) or other digital content (such as Google search results).

- **Citizen observers should be transparent about their funding.**

- **Citizen observes should regularly issue reports in a timely manner, with their systematic findings.** If they only observe one aspect of the electoral process, they should be clear about that.

---

⁹ Available at: https://www.ndi.org/DoGP
When considering social media monitoring, it is also useful to consider the experience of traditional media monitoring, which is undertaken by some Election Observation Missions. Traditional media usually encompasses a limited set of actors (TV and radio stations, and newspapers). Social media is far more complex, with a myriad of actors and content. Social media is shaped not only by “official” actors (governments, media, parties), but by many unofficial influences (individuals, groups sympathetic to a party/or a programme, etc.), and also allows other users to be content producers.

With regard to traditional media monitoring, the selection of TV or radio stations to be monitored is based on relatively simple metrics:

Those selected should include state/public and privately-owned media outlets, and ensure a varied balance considering, for example, political leanings and target audiences. Media aimed at minorities should be considered for monitoring, and the geographical balance of the regional media should also be taken into account. For broadcast media, the media analyst normally monitors all programmes during primetime broadcasts and other election-related programming for the entire period of the defined campaign period. Television and radio programmes are recorded by the EU EOM and stored until the end of the mission.¹⁰

Not all of the ideas applicable to traditional election monitoring are automatically applicable to a citizen observer group or a group that focuses on monitoring social media in elections. The specific context in a country may suggest variations to these observation principles. However, they are a good starting point for designing an observation exercise and variations from these principles should be well thought through.

Social media monitoring when Domestic Observation is not possible

When CSOs are directly threatened by violence or other forms of political repression, traditional on-the-ground election monitoring activities may not be possible. Although social media monitoring cannot replace all aspects of traditional electoral monitoring, it may be used as a tool to shed light on certain aspects a country’s electoral situation.

Traditional election monitoring typically includes monitoring the media, campaign finance, voter and candidate registration, instances of intimidation and accordance with national law and international standards, etc. Through social media, it is possible to:

1. Monitor the media and candidates’ official pages to track narratives and compliance with electoral laws.
2. Discover signs of voter suppression, intimidation or human rights abuses through crowd-sourced reports from individual users. Although it is not possible to verify voter and candidate registration through social media, it may be possible to track reports of any violations from users.
3. Track the campaign finance dimension through political ad spend data on Ad Transparency social media sites.

¹⁰ (EU EOM Observer handbook, 2006. Page 80)
CHAPTER 1: SOCIAL MEDIA’S ROLE IN ELECTIONS AND ITS LIMITATIONS

1.1. The changing media environment

The public sphere matters to elections. The way issues or candidates are discussed affects voters’ choices. International human rights law links the right to political participation and free expression, including access to information. In the words of the UN Human Rights Committee which monitors the implementation of the International Covenant on Civil and Political Rights (ICCPR):

*The free communication of information and ideas about public and political issues between citizens, candidates and elected representatives is essential. This implies a free press and other media able to comment on public issues without censorship or restraint and to inform public opinion. The public also has a corresponding right to receive media output.*

As election observers have often found, the technical aspects of an election may be properly managed, but if only one candidate or party has access to or coverage on public TV or other media, an election may be perceived as unfair. For this reason, many democratic states have rules on access to media for candidates and they finance public broadcasters to avoid commercial interests shaping the sensitive space for forming political opinions. That is also why some election observer organisations monitor traditional media to determine whether all candidates had sufficient access to them.

Social media present new challenges in three aspects:

**SCALE:** They allow an ongoing exchange of amounts of information incomparably larger than before.

**SPEED:** Information is passed around the globe in split-seconds potentially reaching massive audiences.

**DEPTH:** Information production is bigger than in the past, but users often consume it with less depth, focusing on headlines, pictures or videos.

---

11 General Comment 34 on Article 19, point 13
Social media thus pose a new challenge to election observers. In order to monitor social media, election observers have to analyse huge amounts of data and be prepared for sudden and quick developments. A lot of information in the public sphere is no longer being controlled by journalistic “gatekeepers”, the intermediaries that make decisions about what information is presented to the public. Now the dissemination of information involves many private persons or non-news organisations. If there are intermediaries, they are the social media platforms, which programme algorithms that decide what users are more likely to see.

**Figure 3:**  
The old world of established media

![Figure 3](image1.png)

**Figure 4:**  
The new world of social media

![Figure 4](image2.png)

Of course, the old world of journalism has not disappeared. The two worlds are merging. For example, a lot of content that is passed around on social media is from traditional media. Social media have hugely reduced costs, allowing more actors to create and share information. Now people can access and even produce information more easily, which is positive. But they are not bound by the accountability standards that traditional media are held to, at least in democracies.

When it comes to traditional media monitoring, this effort is relatively clear - the choice is based on audience numbers or specific target audiences (i.e. minorities, youth, etc.). Monitoring social media is more challenging for several reasons:
• **The number of actors:** Traditional media include a known number of recognised TV or radio stations, while on social media the number of potential actors is huge.

• **Size of material:** Traditional media monitoring analyses some 100 hours of coverage. Social media monitoring must analyse millions of posts.

• **Social media is dynamic:** An account on social media may reach a large audience one day while on other days it is irrelevant. In contrast, traditional media’s reach is relatively stable.

**Figure 5:**
Information, production and consumption on social media

Public perceptions and political opinions are now also influenced by discourse on social media and by the order in which social media companies show posts and stories to their users (this is done by company algorithms and is called ranking). These can be manipulated to undermine the integrity of elections.

That is why it makes sense to monitor social media in elections. It should be kept in mind that in many countries only a part of the population uses social media. They are usually more affluent, younger and more urban than the rest of the population.

Do not equate the users of social media with the population at large. For many citizens in many countries, the public sphere still means TV, radio and printed newspapers.
1.2. Legal framework applied to social media

Three levels of norms may be used by election observers to apply to social media discourse: **international law** obligations that have been freely accepted by almost all United Nations member states, in particular the International Covenant on Civil and Political Rights (ICCPR), and the norms of regional organisations (such as those of the African Union or the Council of Europe, which are part of international law); **national laws** (such as fundamental rights in constitutions or criminal legislation against defamation); and **self-regulation** by social media companies that applies in every country in which they have business.

**Figure 6:**
International law, national law and self-regulation
1.2.1. International law

A genuine democratic election process requires that candidates and political parties can communicate their messages freely, and that voters receive diverse information that they can discuss freely to make an informed electoral choice.\(^\text{12}\)

International law protects free communication as a cornerstone of any democracy. In the words of the UN Human Rights Committee which monitors the implementation of the ICCPR: "The free communication of information and ideas about public and political issues between citizens, candidates and elected representatives is essential. This implies a free press and other media able to comment on public issues without censorship or restraint and to inform public opinion. The public also has a corresponding right to receive media output"\(^\text{13}\)

As the quote makes clear, freedom of speech (article 19 of the ICCPR) is essential and in countries with internet censorship, this aspect may deserve particular monitoring. However, freedom of speech is not unlimited, and restrictions are permitted based on, for example, national security, ordre public, or the rights or reputation of others. But in many cases, these restrictions are abused, for instance when legitimate political criticism is labelled as terrorism or a threat to national security.

The right to political participation (article 25 of the ICCPR) requires, inter alia, freedom of expression, but also focuses on how opinions are formed (and not only how they are expressed). The UN Human Rights Committee, the monitoring body of the International Covenant on Civil and Political Rights, noted in its General Comment 25:

"Persons entitled to vote must be free to vote for any candidate for election and for or against any proposal submitted to referendum or plebiscite, and free to support or to oppose government, without undue influence or coercion of any kind which may distort or inhibit the free expression of the elector’s will. Voters should be able to form opinions independently, free of violence or threat of violence, compulsion, inducement or manipulative interference of any kind."\(^\text{14}\)

The mention of undue influence, distortion, inhibition and manipulative interference points to the relevance of Article 25 for the quality of public discourse. It is noteworthy that the Human Rights Committee adds to these that "reasonable limitations on campaign expenditure may be justified where this is necessary to ensure that the free choice of voters is not undermined, or the democratic process distorted by the disproportionate expenditure on behalf of any candidate or party." Accordingly, campaign finance questions are an integral part of the idea that citizens should form their political opinions freely without being over-exposed to opinions merely because they are well-funded.

---

\(^\text{12}\) For more EU Election Observation Handbook, page 78.
\(^\text{13}\) General Comment 34 on Article 19, point 13
\(^\text{14}\) UN Human Rights Committee, General Comment 25, 1996, point 19
While there is ample literature on freedom of expression and the internet\(^\text{15}\), the "no-manipulation" aspect of Article 25 has not been explored, especially not in its practical implications. Observing social media in elections and attempts at manipulation would help build an evidence base for further discussions regarding this right.

The third important right is the **right to privacy**. Article 17 of the ICCPR notes that "no one shall be subjected to arbitrary or unlawful interference with his or her privacy, family, home or correspondence, nor to unlawful attacks on his or her honour and reputation". It further states that "everyone has the right to the protection of the law against such interference or attacks." In terms of elections and participation, the most sensitive aspect appears to be the gathering and possibly selling of data of social media users so that political campaigns can address voters in a highly targeted manner; the Cambridge Analytica story is the most high-profile scandal in this regard. A recent report explored the global business of selling private data for political campaigns in detail.\(^\text{16}\)

Social media companies should be the main addressees of these rights, as they shape discourse on their platforms through their user policies. However, international human rights obligations do not apply directly to them. Nevertheless, the UN Human Rights Committee has noted:

> The positive obligations on States Parties to ensure Covenant rights will only be fully discharged if individuals are protected by the State, not just against violations of Covenant rights by its agents, but also against acts committed by private persons or entities that would impair the enjoyment of Covenant rights in so far as they are amenable to application between private persons or entities. There may be circumstances in which a failure to ensure Covenant rights as required by article 2 would give rise to violations by States Parties of those rights, as a result of States Parties’ permitting or failing to take appropriate measures or to exercise due diligence to prevent, punish, investigate or redress the harm caused by such acts by private persons or entities.\(^\text{17}\)

This area of the "horizontal effect" of human rights is complex and depends on practices in each state. While these cannot be explored in this methodology, an argument can be made that governments have an obligation to ensure that social media companies organise discourse on their platforms in a manner that does not unduly distort or allow manipulative interference in order to guarantee proper public participation in electoral processes.

---


\(^{17}\) UN Human Rights Committee, General Comment 31, 1996, Paragraph 8
### 1.2.2. National laws

National legislation exists in relation to different aspects of social media.

**Figure 7:**
National laws and social media

<table>
<thead>
<tr>
<th><strong>CONSTITUTIONS</strong></th>
<th>Fundamental rights catalogues that protect freedom of expression, political participation, right to privacy and inviolability of communications.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CRIMINAL LAW</strong></td>
<td>Criminal laws prohibit defamation, hate speech or incitement to violence. Legislation obliging companies to remove illegal content (e.g. NetzDG in Germany).</td>
</tr>
<tr>
<td><strong>ELECTORAL LAW</strong></td>
<td>Election campaign regulations on campaign funding ceilings and transparency or campaign silence period before election day.</td>
</tr>
<tr>
<td><strong>DATA PROTECTION LAW</strong></td>
<td>Data protection regulations set privacy standards that aim to give individuals control over their personal data, setting guidelines on how governments and business can collect and use personal data.</td>
</tr>
<tr>
<td><strong>MEDIA LAW</strong></td>
<td>Regulation of advertising, broadcasting, telecommunications and general aspects related to digital and traditional media. Issues include defamation, confidentiality, privacy, freedom of information, among other.</td>
</tr>
</tbody>
</table>
Election observers can relate their observations to these kinds of obligations. However, given the new disruptive nature of social media, in many countries there is not much relevant legislation. Again, the findings of social media monitoring during elections may build the necessary evidence for a fact-based discussion of whether and what regulation may be needed.

1.2.3. Self-regulation

Social media platforms have policies they have created and to which they have committed themselves. For example, Facebook has “community standards” about what it tolerates and what it would remove from its platform. In addition, several social media companies have made promises to safeguard electoral integrity. In the context of the European Union, platforms have also accepted a Code of Practice against Disinformation.18

Election observers could use these acts of self-regulation as a reference for their work, i.e. assessing whether companies have honoured these commitments. Some aspects of self-regulation, for example on the transparency of political advertising or on preventing unauthentic account behaviour, are specific and can be assessed.

1.2.4. Relevance of the legal framework for observers

How important should these three levels of regulation be for election observers? For some observers, such as international governmental election observer groups, it is usually important to relate their work to existing norms.

However, for many civil society organisations, it may not be essential to make “respect for legislation” the core of their social media monitoring. Civil society organisations may have many different points of interest: for example, how certain election campaigns evolve, how different parties behave on social media, or how female candidates are treated, or the amount of content that is shared by traditional media sources and false pages spreading disinformation. The question of these is not whether rules are broken or not, because in most of these cases there is no specific legislation dealing with the boundaries of what can and cannot be done on social media around electoral periods.

Of course, the legitimacy of a concern raised will be strengthened if it can be described as a violation of law or rules that companies set for themselves. However, social media are a new phenomenon that is not regulated in many aspects. Monitoring can help build a body of evidence for an objective discussion on the need for regulation or broader policy frameworks.

2.1. How information shared on social media influences political behaviour

Traditional media and social media are influential actors in the public sphere. We are interested in the public sphere because political opinion, voting decisions and electoral behaviour (vote or not vote, where to vote) are shaped or influenced here. We can distinguish various levels of influence:

Figure 8: Levels of social media impact on political behaviour

19 The following framework builds on the approach designed by DRI. The briefing paper discussing threats to the democratic discourse can be found here: https://democracy-reporting.org/de/dri_publications/bp100-online-threats-to-democratic-debate/
The worldview is the deepest level of a personal belief system formed in the long-term. Such a worldview is formed by a person’s rationality, religious, moral and ethical convictions. Disinformation and online manipulation try to weaken democracies’ roots at the worldview level by turning citizens into cynics or paranoids, making them believe in a set of alternative facts, therefore challenging the democratic debate. Specific myths (i.e. flat earth, chemtrails or anti-vaccination) are destructive because they question basic scientific assumptions. Also, the credibility of scientists can be tactically undermined to serve a political purpose, as has been the case with climate deniers. The end result is cynicism and distrust in a professional community that provides essential information for a fact-based democratic discourse. The same is true when they are directly related to critical democratic institutions (“all journalists are liars”, “all politicians are corrupt”).

If we identify worldviews as a specific target of influence operations, it becomes also clearer where to look for threats. For example, typically adolescents do not yet have firm worldviews, so actors who seek to undermine them would look for platforms that are used by them, such as Instagram or gaming platforms.

In the medium to long term, actors may try to influence political beliefs and ideology. Such views may not immediately translate into electoral choices, but they affect the general positioning of a person in public discourse and may affect their electoral choices in the long term. It may or may not present false content but is a result of a one-sided selection of topics to build or reinforce a political belief (such as a website only reporting crimes committed by immigrants, reinforcing beliefs against migrants with a propaganda, and not a news purpose). Sites and actors spreading content with propagandistic purposes remain one of the major challenges for social media platforms, as they often report on true specific stories. Impact at this level prepares the ground to influence the next level of behaviour, namely electoral or other concrete political choices.
In the medium to short term, electoral and other choices of political action can be influenced by social media content. For example, the wide-spread campaign during the US 2016 presidential elections portraying Hillary Clinton as a criminal. The campaign did not try to turn Democratic voters into Republican ones, but instead signalled to democratic voters: even if you like the Democratic party, do not vote for this particular candidate. Operatives of the Democratic Party tried to divide the support for Republican candidates in the Alabama Senate elections in 2018;\textsuperscript{20} it did not try to change their political beliefs. The Russian Internet Research Agency published posts calling for demonstrations that would not have happened otherwise. It reinforced and activated existing beliefs, but it did not create or change them. Such threats usually have short-term impacts aiming at influencing a specific upcoming election or policy decision.

At the most short-term level, disinformation may try to change electoral behaviour without attempting to change the voters’ minds about a candidate or a party. For example, in the 2018 elections in Brazil, an ad was posted indicating that supporters of the Workers’ Party should go to vote one day later than the official election day. During the US 2016 elections, misleading pictures showed police checks at polling stations to deter vulnerable voter groups (i.e. undocumented immigrants) who fear the police. From an electoral standpoint, the period right after the end of the vote may also be relevant. In many elections the process and the results may be correctly or falsely questioned. The fight for public opinion on the credibility of an election also takes place on social media.

The hourglass explores a wide variety of manipulation strategies against democratic discourse, which include anything from shaping worldviews to influencing specific decisions on voting day. In recent years, the threat of electoral interference has brought this topic into the spotlight given the recent evidence of potential electoral interference, bringing attention to the impact of social media in democracies. Democratic discourse is a larger concept than electoral integrity, and political participation is exercised around the clock and not only during elections. Citizens inform themselves, debate (online or offline), may publicly demonstrate on issues, or may be active in associations or political parties. Elections are an essential element of democracy, but even the most reduced academic definition includes more than just casting votes.

**Figure 9:**
Cycles of political participation
Public discourse takes place constantly, beyond electoral cycles. When democratic discourse is manipulated, it may not only affect elections, but also public policy choices. A high-profile example is the sudden, online-generated opposition against the UN Migration Pact. While opposition to the pact is legitimate in any democracy, the campaign against it showed elements of online disinformation\(^\text{21}\). Massive resistance emerged suddenly at a late stage in the process, when there had been little opposition during the long process of negotiating the pact. Online manipulation may target even deeper roots of democracy. It may attempt to turn engaged citizens apathetic, cynical or fundamentally distrustful of the entire system of democracy.

When various actors engage around the clock to manipulate public perceptions, democracy is posed with a challenge. Therefore, looking beyond just the electoral cycle helps us to understand how networks of disinformation work. When people believe in conspiracy theories they are removed from a reasonable political debate - without common basic facts, it is impossible to discuss climate or healthcare policies. Disinformation and conspiracy theories close the door to any informed political debate. Ultimately, if people distrust government, scientists and journalists, they cannot meaningfully engage in public discourse.

2.2. What aspects of social media influence democratic discourse in practice?

2.2.1. Different levels of threats: the 3 Ms

To classify the threats to democratic debate more clearly, we distinguish three sources to look into the problem, which can help guide monitoring efforts.

Figure 10: The 3 M’s\(^\text{22}\)

---

\(^{21}\) https://www.politico.eu/article/united-nations-migration-pact-how-got-trolled/

In the last few years, the debate has been much on the message. Is a message’s content correct, misleading or false? Does it constitute hate speech or incitement to violence? Concerns about these issues have resulted in the emergence of fact-checking organisations, more content moderation by tech companies, and legal debates focusing on freedom of speech. These are important issues of democratic debate. But there is more that should interest us in elections.

A second aspect is the messenger. A message may be unproblematic, but the messenger may not be. In the US elections, Russian agencies bought Facebook ads that pretended to belong to the ‘black lives matter’ movement. The messages as such were not problematic, but it was problematic that a foreign power masqueraded as a domestic group in order to increase political polarisation. When a website portrays news reinforcing anti-Muslim narratives for propagandistic purposes, the message may be acceptable, but not the messenger.

When monitoring different messengers, one may discover that they coordinate or that they are linked, creating a network of pages with a specific political purpose. They may share the same stories or other content, or re-post from similar sources. The date of creation of such pages and accounts may indicate that they have a purpose: many campaign pages are created a few months before elections take place, for example. Others may change their names to pretend they are media pages, when in fact they are acting in favour of one or another political interest. This type of knowledge is only possible when looking at the messenger.

The third aspect is messaging, or the distribution of a message, is whether some topics or messages generate a lot of attention (if they “become viral”) and why that may be. Sometimes it may be because of the message. But a message can also become viral because it has been boosted by paid ads, is supported by a network of social bots, or because the companies’ algorithm gives that type of message more prominence than others. These issues cannot be detected by focusing solely on the message and messenger.

Looking at social media in this way also helps give more structure to the debate on possible remedies. This is useful for social media monitors who want to make recommendations to policymakers or tech firms.

2.2.2. Different phenomena: characteristics and influence on elections

Public discourse is influenced by features related to the technical design of platforms, and can also be manipulated by malicious actors sharing content using these platforms as a way to reach more audiences.
Figure 11: Characteristics and impact on elections for different social media phenomena.

<table>
<thead>
<tr>
<th>PHENOMENA</th>
<th>GENERAL CHARACTERISTICS</th>
<th>INFLUENCE ON ELECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATFORM DESIGN</td>
<td>Outcomes of business model: filter bubbles, echo chambers</td>
<td>Polarisation, skewed perception of reality, harms democratic culture</td>
</tr>
<tr>
<td>ADVERTISING</td>
<td>Outcomes of business model: data of users helps ads to be more effective</td>
<td>Targeted political ads (&quot;dark ads&quot;), lack of transparency, anti-democratic propaganda, foreign meddling</td>
</tr>
<tr>
<td>SOCIAL BOTS, TROLLS</td>
<td>Use of artificial methods to call the attention of the public (for a product, etc.)</td>
<td>False public support to a cause, idea of candidate, intimidation, manipulation of public debate</td>
</tr>
<tr>
<td>DISINFORMATION</td>
<td>Business logic (click baiting strategies) or political motivation</td>
<td>Political debate influenced by lies: divisives narratives, voter suppression, discrediting campaigns</td>
</tr>
<tr>
<td>HATE SPEECH</td>
<td>Web-based interaction, lacks social control, political motivation</td>
<td>Attacks and insults may intimidate and silence users and the menace of physical violence or confront may prevent groups to vote</td>
</tr>
</tbody>
</table>
Figure 11 helps to structure how these phenomena play a role in social media. From structural questions (related to platform designs and companies’ business models) to contextual questions (related to the country where social media platforms are present):

a. The **platform design** explains how social media has the potential to shape people’s perceptions and behaviour. These privately-owned platforms essentially want to sell advertising space to earn money. To do that profitably, they need users to stay on their platform for as long as possible, to gather their data and monetise it. In order to do that, the companies display content that the user is expected to like. Some believe that this results in filter bubbles and echo chambers, exposing users to political content that reinforces their beliefs and distances them from opposing political perceptions. Over time, this has the potential to increase polarisation. Platforms tend to favour more attention-grabbing news (clickbait) to keep users on the platform, thereby undermining the idea of a well-informed electorate. Or worse, this can drive users to sensationalist, extremist content. YouTube stands accused of doing so through its recommendations (which play automatically if the user does not stop them). Overall, the interesting question for democracy and observers is what kind of reality the algorithms of platforms produce for their users.

b. Social media companies also sell **political ads**. The way political campaigns buy ad space online has affected traditional campaign finance monitoring. Undeclared sponsoring of content has become easier through unofficial pages paid for by official campaigns. During the 2016 US elections, the source and cost, as well as the targeted audience of political advertisements, were not made available (the so-called “dark ads”), but this is changing. Facebook, Google and Twitter have increased the transparency standards behind political ads by making “ad libraries” available in some countries. They have also added requirements on who can buy political ads and identifying political ads to users. It seems that the big companies use varied practices depending on the country, and give more attention to larger or more influential markets.

---

23 A summary from Eli Pariser, who coined the term, can be found here: https://tedsummaries.com/2014/02/01/eli-pariser-beware-online-filter-bubbles/
25 A more comprehensive list of different types of false content can be accessed here: https://medium.com/1st-draft/fake-news-its-complicated-d0f773766c79
A third aspect is the use of bots and the activities of trolls or a mix of both (hybrids). A bot is a software that carries out simple and repetitive tasks that would be very time consuming for a human to perform. They can be used to automate productive tasks, but also for malicious purposes. When they are employed to manipulate public debate or have political intentions, they are called social bots. Trolls manipulate the debate by harassing people, distracting and posting inflammatory and digressive messages on posts and groups. Differently from bots, trolls are human beings, but similarly to bots, their action is often intended to manipulate attention to give more visibility to a topic or narrative, or to harass other users or public figures online. They may be paid, but they may also act out of conviction. The third group, hybrids, relates to a human controlling several different accounts, mixing natural and artificial behaviour. Artificial methods of generating attention create a false impression that a person, topic, hashtag or discussion matter more than they would in reality, influencing other users’ perceptions of the public debate online.

Sharing disinformation and spreading hate speech are further practices that are problematic for democratic discourse and may be analysed by election observers. Identifying and tackling disinformation and hate speech is a challenging task. Information manipulation can go from false to misleading, partisan to biased, and the different levels of how it can be used to manipulate people’s perceptions makes it difficult, yet not impossible, to monitor such phenomena. Here election observers can link up with fact-checking organisations that have significant experience and skills in some countries. Likewise, hate speech is monitored by specialised groups in some countries.

26 A more comprehensive list of different types of false content can be accessed here: https://medium.com/1st-draft/fake-news-its-complicated-d0f773766c79
Media is an essential part of any electoral process, and monitoring TV channels, newspapers and radio can help ensure that news coverage is fair, professional and that different parties and candidates have access to the media. It also gives insights about the content of electoral coverage - topics discussed, agendas of parties or candidates, language and style of the coverage, and whether the interests and voices of minority or marginalised groups are reflected in the media. The work of traditional Election Observation Monitors (EOMs) in monitoring traditional media can help in the discussion about the challenges related to social media.

Despite the social media environment being far more complex than the traditional media environment, such an approach gives insights as to how social media monitoring in electoral contexts could be done. Typically, NGOs have used three different starting points to determine their scope of observation:

**Feasibility:** Because the Twitter platform allows better access to its data, many groups tend to monitor discourse on it. However, in many countries Twitter is not widely used and other platforms, such as Facebook, may be far more relevant. In others, such platforms may interact with encrypted messaging services such as WhatsApp and Telegram.

**Compliance with laws:** Monitoring whether legal obligations are respected makes sense. If the election law includes a period of silence before election day, one can call out parties or candidates that violate the law by campaigning online. However, as many aspects of social media campaigning are not necessarily regulated yet, a focus on compliance with the law may be too narrow.

**Impact:** It appears that the most important starting point should be the question of impact. Which platform may have most impact in elections? What phenomena are the biggest concerns in an election [or which will be the most relevant to increase its integrity]? Which actors are most relevant? What is the social media landscape?
Any monitoring project needs to decide what to focus on and ask the following questions:

**Questions to ask**

- **Which platforms?** Establishing the social media landscape
- **Which time span to cover?**
- **Which actors to look at?**
- **What themes to follow?**

The following section (3.1) will discuss these four questions, and how to narrow down the scope of your social media monitoring activities.

### 3.1. Getting practical: defining the scope of monitoring

#### 3.1.1. Which platforms? Establishing the social media landscape

Social media consumption is complex. The relevance of different platforms varies from country to country, and other factors, such as the level of connectivity, mobile penetration and the presence of social media platforms in a given market influence how people use social media in their daily lives.

A first layer to consider is the level of **connectivity**. A starting point to consider the influence of social media in public debate is the unequal representation of society in social media. The so-called “digital divide” refers to the fact that some groups are underrepresented on social media given the structural inequalities that prevent individuals, households, businesses, age groups and geographic areas from having equal access to the services provided by the internet. Social media access in some countries may be a privilege, while in others access is more equal.

Data from the World Bank and the International Telecommunications Union provide insights about the percentage of the population with access to the internet, as well as the fixed and mobile internet subscriptions in a given country. Further national
sources may indicate how this access is distributed in different regions, and whether it is concentrated in urban and more developed areas (often the case), or whether only richer parts of the country have access to the internet.

This consideration is important to assess the relevance of internet and social media platforms as sources of information during elections. The National Democratic Institute noted in a report on a mission to Liberia in 2017, that radio and television influence is much higher than the internet, given the limited internet penetration and high illiteracy rates. This is not to say that social media does not impact the political debate in the country, but it provides important perspective. Monitoring “social media debate” may mean only monitoring the social media debate of a specific part of the overall population.

A second step is to define the social media consumption of a given country. “We are social”, an agency for digital communication, publishes an annual report containing insights into the internet, social media, mobile and e-commerce use around the world, that is publicly available and segmented by country and region. The data shows how social media is used in a given country and segments it by categories such as age and gender. It also helps define which platforms are more used than others, and provides insights as to the behaviour of users when accessing social media, dividing it by mobile vs. fixed access.

When it comes to mobile use of the internet, private messaging apps may have a bigger impact than other types of social media in specific countries. Mobile operators sometimes offer unlimited access to messaging apps such as WhatsApp as part of a pre-paid plan in some countries. This incentivizes low-income consumers to use private messaging apps to exchange information. Focus groups and surveys can help make this initial assessment.

---


30 The platform https://napoleoncat.com/ provides insights on gender disaggregated data of social media users by country, as well as the number of active users per month in its free version.
Figure 12: First and second most used social networks, by country

Source: Vincos blog, based on Alexa/SimilarWeb data
The image above gives an insight as to the importance of platforms in different contexts. Facebook dominates the social media market worldwide, but the importance of other platforms may turn the monitoring exercise into a more or less complex exercise in a given context depending on the consumption habits of the population.31

Facebook, then, is important for monitoring almost anywhere, but Instagram is gaining in importance as the second most used social network in many countries. It benefits from visual forms of communication that are increasingly becoming central to information consumption on social media. On Twitter, video content generates 10 times more engagement than text only.32 Disinformation often uses video content, and either manipulated or misleading material. This rising trend makes platforms such as Instagram and YouTube important platforms for democratic debate and its manipulation. Such platforms also appeal more to younger audiences, and as such, trends on social media use need to be constantly assessed to have an idea of the impact they may have in the electoral process.

Figure 13: Preparatory steps

From a social and behavioural perspective, is a country’s society accurately represented on social media? Educational background, age, sex and ethnicity play a role in how social media are used. Social media participation may not include older generations, while younger generations are better represented. In countries where men dominate the sphere of public discourse offline, this may carry over into the world of social media. How do users react to female versus male users? These questions may also be applied to ethnic or marginalised groups, which are not represented in either offline or online public discourse, but should be included in an election monitoring analysis. Discourse on social media may influence mainstream

---

31 This data can be accessed on the Alexa top websites webpage and it is available by country.
discussions, while leaving certain groups out. Also, malicious actors may try to specifically target certain demographics of users to influence their opinion.

3.1.2. Which time span? Defining the period of analysis

Social media monitors must decide when to start and when to finish their analysis. They must also be prepared for the fact that within that timeframe, political discourse may take place with varying intensity. As explained above, some may undertake long-term monitoring beyond the election period, while the majority of election observers will focus on the election period, which in most countries is between one to two months.

Figure 14: Period of analysis

Actors aiming to manipulate people’s perceptions do so around the clock, but elections are predictable moments where they become more active. Considering the electoral period, the intensity of such networks becomes stronger in the month before voting day. This means that the monitoring preparation effort should start between 4-5 months before the elections. The coverage should include the campaign period and the pre-electoral and post-electoral period.

Preparatory steps checklist:

- Determine the level of internet connectivity and its distribution (developed v. less developed).
- Identify the most popular social media networks and forms of media consumption (TV, radio).
- Understand how the social dimensions of the context analysed (sex, religion, age, ethnicity, etc.) are reflected across social networks.
### 3.1.3. What theme? Looking at the message

Different topics can be monitored, for example the biggest subjects of campaign debates. Many of these can be foreseen based on political discourse in the country. However, social media debates can be volatile, and monitors should be ready to add themes as they go along, when it turns out than an unexpected topic becomes much debated. Here one can see certain topics that are more likely to arise at different points in a campaign.

**Figure 15:**
**Topics associated with different electoral related periods**

<table>
<thead>
<tr>
<th>CAMPAIGN PERIOD</th>
<th>ELECTION DAY</th>
<th>POST-ELECTORAL PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Discrediting campaigns</td>
<td>• Attempts to suppress votes from specific groups (through disinformation, hate speech)</td>
<td>• Doubts about electoral integrity</td>
</tr>
<tr>
<td>• Divisive narratives/hate speech</td>
<td>• Confusion about electoral information (where, when and how to vote)</td>
<td>• Wrong information on complaints and appeals</td>
</tr>
<tr>
<td>• Information aimed at confusing voters</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table summarises topics commonly observed on social media during electoral periods. The analysis of the narratives can focus on these areas and be short-term focused (election week/day) or cover a more extensive period (narratives around the campaign, discrediting campaigns between candidates, etc.). Furthermore, certain themes are more likely to be subject to disinformation and hate speech during electoral periods.
Figure 16: Risk assessment based on issue area

Issues and topics that will likely not be at the center of the debates. Tensions do not generate heated discussions on and offline. Probability of manipulation is low.

Issues and topics that will likely be raised around elections. May not be at the center of the discussions, but it is often featured. Moderate probability of manipulation.

Issues and topics that will definitely be raised, as they tend to generate tensions and strong disagreements. High probability of manipulation via disinformation and hate speech.
While it is impossible to predict how such topics will be explored, the risk assessment based on issue areas helps to map the issues most likely to be manipulated. When deciding on the focus of the analysis, the risk assessment helps guide the initial selection of questions, keywords or actors that may be involved in such campaigns.

A CSO may have a specific mandate, looking at questions related to gender or minorities. Such risk analysis can aim to cover the whole spectrum of manipulation attempts or focus on the issue area of the CSO’s work. Regardless of the case, it helps to identify the focus for the analysis, which will guide the sample selection and the data collection at a later stage.

Not only is choosing the specific issue area important for message analysis, but analysing how the issue area is framed on social media matters too. Let’s take migration for example. One could frame migration as a threat (in economic terms, security terms, or in terms of identity), more neutrally, or in a more positive note (humanitarian context, contribution to the economy, demographics).

3.1.4. Which actors? Looking at the messengers and their behaviour

Selecting actors on social media is a complex task. It is essential to keep the dynamics of social media in mind to define who the subjects of observation should be. Three categories of actors appear obvious for monitoring: political actors, media pages and political influencers. These groups may be subdivided into three categories - official, unclear affiliation and false.

An interesting example on how to frame topics can be found on a study from Bakamo.social: https://www.bakamo-social.com/2018-eu-migration-study
Figure 17: Actors to be monitored

**OFFICIAL**
- Real pages of politicians, candidates, parties, public servants, etc.

**UNCLEAR AFFILIATION**
- Pages in support of a candidate, campaign or agenda without affiliation information
- Influential media pages that have no clear affiliation
- False pages of religious groups, social movements, etc.

**FALSE**
- False political pages and groups
- False media pages

**POLITICAL ACTORS**
- Media pages of well known newspapers, television channels and broadcasters
- Journalists, religious leaders, well known activists, lobby groups

**MEDIA PAGES**
- Influencers with no clear affiliation
- Page is not verified and lacks transparency information-tend to be highly biased but displays authentic behaviour
- Constant name changes, date of creation close to elections, coordinated and/or inauthentic behaviour

**POLITICAL INFLUENCERS**
- Official and verified pages, clear affiliation (websites/further information)

---

More statistics on influencers (Facebook, Twitter and YouTube) can be found on https://www.socialbakers.com/statistics
Selecting official candidates, parties and media outlets appears obvious for monitoring during elections. And if the focus of the study is an understanding of the conduct of these parties, this may suffice. If, however, other aspects of manipulation need to be monitored, it is useful to expand the selection and to include pages of unclear or false affiliation.

These are not as easily found as official pages. Monitoring groups may have a deep knowledge of the social media scene and already know of such pages or sites. Or they may find them through topic research. The sample can also include a different set of influencers - people who have high visibility on social media, such as political activists or journalists, for example. In order to identify them, one can map the stakeholders that are involved in each of the questions identified in the risk assessment.

A useful tool for actor mapping is Socialbakers. This product provides data about which pages are most influential in a given country, dividing it by category (politics, media, NGOs, etc.). It can be helpful to design a media landscape matrix, for example, after the identification of the most popular news pages in a country. The platform is fee-based (its free version is limited).

Secondly, before starting any monitoring exercise, it is important to understand that actors aiming to spread disinformation or hate speech during elections exist all year round. Their goal is usually not only to manipulate elections, but also to manipulate different aspects of the democratic debate.

**Figure 18:**
Activity of networks of actors spreading disinformation, hate speech, etc.

![Activity of networks of actors spreading disinformation, hate speech, etc.](image-url)
Given the predictable nature of electoral processes, they are the more obvious political events to suffer this type of attack in a coordinated manner. Furthermore, they are about real political power (seats in parliament, election of presidents). It is not by chance that Facebook put several ‘war rooms’ in place to operate ahead of big elections, for example the 2018 Brazilian general elections, the 2018 US midterm elections and the European parliamentary elections in 2019. Facebook argues that disinformation actors and networks engage more intensively some weeks before an election day. Independent studies have identified the same behaviour.

Outside of election periods, malicious actors react in real time to political events, disasters or other moments that favour them. When the Notre Dame cathedral burned, manipulation campaigns took place that aimed to polarise Muslim and Christian communities.

Monitoring the messenger:

- Identify the most influential actors in a given context (political actors, media pages, political influences, etc).
- Expand the selection to include false pages and pages of unclear affiliation.
- Such actors act beyond the election cycle and may capitalise on political events or disasters. Pages with unclear affiliation or false pages tend to be deleted and recreated, so the sample should be updated often.

3.2. Data collection and tools

3.2.1. Getting access to data

One challenge of social media analysis is access to data. Data policies are changing constantly, and the methodologies used to analyse social media by initiatives around the world have to be adapted based on the quality and quantity of data that can be imported from social media platforms. After the Cambridge Analytica scandal, Facebook and other social media companies restricted access to data from their platforms. Previously, any public data on Facebook could be collected through a simple registration on the Application Programming Interface (API) access granted by the platform.

It is important to note that API access did not provide any personal data from users and their friends’ networks - which was exactly the type of data that was acquired by the app used by Cambridge Analytica to access data from about 87 million users. As a result, Facebook’s response to close access to public data via the API - namely data from public pages, commentaries on such pages and other data accessible by any user - did not address the data breach of Cambridge Analytica. Election observers...
would not seek private data for their analysis, they are only interested in public data.

The process to get API access varies from platform to platform. To date, Twitter is the platform that is most open to data collection. Facebook shares data only with specific partners, most notably fact-checking initiatives, giving them access to a tool called Crowdtangle, owned by Facebook. Access to Facebook data for academic research was possible through an application developed by academics called Netvizz, which was shut down in August 2019.

When it comes to accessing Instagram data, access to the API is granted purely for commercial purposes. Full access to public profile information and the media of a given user, as well as followers’ lists and comments, are not available for analysts. So far, very few academic studies have looked into Instagram as a tool for political mobilisation, and research has often used surveys and focus groups as methods for analysis. Few used the data available before the data access restrictions in 2016. They found that the platform allows politicians to engage with younger audiences, who have entertainment motives for following political leaders’ posts, or who engage with them given the high level of personalisation of the messages. Research using Instagram data is very difficult to make at scale, and more academic approaches are currently the only way to explore this platform’s influence.

One problem with monitoring YouTube is its use of an algorithm to recommend similar content, which may create a filter bubble or favour sensationalistic content, such as videos containing conspiracy theories. YouTube API allows for the collection of a video’s title, date of publication, comments, views, likes and dislikes, but transparency on how content suggestion on the platform works is still not easy to monitor.

The analysis of messaging platforms - WhatsApp, Telegram, Viber, Facebook Messenger - is made difficult by the encrypted character of its design. A few analyses have been carried out using data from public groups in WhatsApp. Others have used traditional methods such as surveys and focus groups. Importing data from users in public groups on a platform where users assume that their privacy is respected raises ethical questions, but so far there are not many best practices for research on encrypted platforms.

Other platforms - Reddit, Vkontakte and Gab, among others, while providing insights, will not be explored in detail in this methodology given the lower number of users in comparison with the other platforms described above. This should not discourage research, as some of these platforms may serve as coordination tools for groups aiming to conduct disinformation/ harassment campaigns.

---

38 See here for details: https://developer.twitter.com/en/docs/basics/authentication/guides/access-tokens.html
39 Instagram allows data access to: a. Apps that help individuals share their own content with 3rd party app. b. Apps that help brands and advertisers understand and manage their audience and media rights and c. Apps that help broadcasters and publishers discover content, get digital rights to media, and share media with proper attribution. Read more at: https://blog.rapidapi.com/how-to-navigate-and-connect-to-instagrams-api/#three-use-cases
40 Apps that help individuals share their own content with 3rd party app.
Assessment on data collection:

After selecting the most important platforms to analyse (section 3.1), consider the constraints and possibilities based on the data access perspective.

3.2.2. What tools are available for data collection and analysis?

Tools owned by social media platforms: Gnip and Crowdtangle

While Twitter provides more direct access to researchers via its API (or via Gnip, a Twitter owned API aggregator company), Facebook allows only select partners to get access to some of the public data it displays via Crowdtangle. It shows how many interactions a specific link received and which pages were most shared. Access to Crowdtangle allows fact-checking organisations to easily spot content that goes viral and check whether it contains false information or not. To date, Crowdtangle is the most advanced platform to perform social media monitoring on Facebook, but access to researchers has not yet been widespread.

43 AlgoTransparency provides data to scrutinise the choices of the YouTube algorithm, and despite being incomplete, can provide some insights for analysis on the platform: https://algotransparency.org/.
46 WhatsApp public groups can be accessed using a link. Public groups have been used in political campaigns to spread messages from parties and candidates, but also to spread false information during electoral periods.
49 The social media analytics solution bought by Facebook in 2016. It provides more detailed information about how content is being shared across Facebook, Twitter, Instagram and Reddit. A free of charge version allows the analyst to monitor relevant actors spreading a specific link in their social media pages
When it comes to social media analysis, data must tell us a story. Data processing, analysis and visualisation is thus a key aspect. **R** and **Python** are open source statistical software that allow different sorts of data analysis, from data collection, cleaning and analysis to visualisation. They are two different statistical languages that can be used for the same purposes. Many analysts prefer Python for social media analysis. Such as for any language, the process of learning how to use them can be quite long. A social media analyst should have such knowledge.

**R** and **Python** are the most commonly used programming languages for statistical analysis. Both software are open source, meaning that any user can develop them and contribute with new data analysis methods, ensuring that they are constantly updated to reflect newly emerging data analysis needs. Social media analysis is one of the tasks that can be performed by such software. **R** and **Python** are the most demanding tools to learn in order to perform social media monitoring, but are those that have the most comprehensive analytical capacity.

With **R**, Twitter data can be processed using the RTweet or TwitteR packages. These packages make it possible to capture up to 3200 of the most recent tweets from a specific user timeline, or tweets with a specific hashtag in real time (no limit). It also allows tweets to be captured using geolocation, or those mentioning a specific user. Exploratory analysis can be performed on this data using simple methods such as frequency analysis or correlation analysis, or more complex methods such as cluster or sentiment analysis – or bot identification. Ggplot2, plotly, wordcloud, ggmap and shinyapp can be used to visualise the data.

The same can be done using **Python**. Like the packages from **R**, **Python** works with libraries – visualization/including the visualisation libraries ggplot, plotly, matplotlib, bokeh and geoplotlib, among others. The Tweepy library allows users to capture tweets and information on a users’ followers, their tweets and others. Both packages and libraries from **Python** and **R** to access Facebook data (Facepy and Rfacebook, respectively) lost their relevance after the API changes.
Engagement tracking/content analysis tools: Newswhip and Buzzsumo

Buzzsumo and Newswhip allow analysts to look for content that goes viral on social media referring to a specific topic. After entering specific keywords, the tools return data collected from different social media platforms, with the number of times a specific link about a given topic was shared. This makes it possible to track whether links containing false information or videos are being widely shared on social media. Newswhip also predicts the impact of a given link using past interactions as a proxy to predict future popularity.

Such tools are effective to look into the message but using them in association with the free web browser version of Crowdtangle is a good way to track the messenger as well. The free version identifies who the most relevant actors (public pages) sharing a specific news piece across Facebook and Twitter are. An association between content analysis tools and Crowdtangle can be effective in identifying networks of disinformation or actors coordinating the spread of propagandistic content.

Off-the-shelf listening tools

A number of social media listening tools exist on the market, which are mainly used for business purposes. They can be helpful for monitoring political content but do not provide detailed information that is useful in this sort of analysis. Talkwalker, Sysomos, BrandWatch and Visibrain are just a few examples.

This non-extensive list of tools shows us that there is no one-size-fits-all tool to facilitate and optimise data collection and analysis for political purposes. The adaptation of business intelligence tools demands not only knowledge on how to use them, but creativity to combine them with other tools to gather relevant insight in an electoral context.

Choice of tools:

✓ Consider what type of data may be accessed with each tool.
✓ Consider the level of technical knowledge demanded to use different tools: some are easier to use than others.
3.3. Analysing data: how to monitor each phenomena

This section provides inspiration for monitoring efforts, defining possible approaches and referencing examples of work done on social media monitoring by different organisations working in this field. Data analysis offers different possibilities to explore phenomena such as disinformation and hate speech or for the identification of narratives, inauthentic behaviour and other online threats.

When it comes to phenomena to monitor, some appear easier and more obvious toanalyse, while others may be more complex.

Figure 19:
Phenomena and complexity of monitoring them
The above phenomena - political ads, bots, hate speech and disinformation - may be better understood in the context of the 3Ms (Messaging, Message and Messenger). Both political ads and bots affect the distribution of a message by giving artificial prominence to certain content. On the other hand, hate speech and disinformation are a particular type of harmful message, and the messenger of this content matters.

**Messaging** distribution via **Political ads** (monitoring and analysing data on political advertising) and the use of **automated methods of attention manipulation** (bots) can be assessed and analysed in the following ways:

Ad libraries collect all ads of national importance and make it accessible so that researchers can have a better picture about how campaigns are spending money on social media.

**Figure 20:** Ad Library

---

50 DRI looked into the use of political ads by the top contestants during the Ukrainian presidential elections in 2019: [https://democracy-reporting.org/de/social-media-ukraine-elections/](https://democracy-reporting.org/de/social-media-ukraine-elections/)
With the data available, researchers can assess how much each candidate, party page or any other public page is spending, whether they conform to campaign limits, what messages they are sending and to whom. Beyond the ad libraries, third-party initiatives such as Who Targets Me\(^{51}\) and ProPublica provide additional data that can be combined with data provided by the Ad Library in order to understand the impact of political advertising during campaigns.

SOCIAL BOTS

Social bots can be assessed using specific packages on R/Python or websites that provide a probability of an account being automated (only available for Twitter). There are several ways to check bot activities on Twitter, be it through adding an extension to your browser (Botcheck.me, for example) or using more complex algorithms via an R package (BotOrNot). The research on bots is an evolving field and bots are a moving target (they become more sophisticated), so conclusions using such software must be balanced with other findings.

Facebook claims that its algorithm is very effective in identifying and completely taking down automated accounts within minutes of their creation, but it is less effective in cases where humans control more than one account and only partially use automation with them. There are currently no means to identify these types of account from an external perspective, only Facebook has the data to do so.

The message content and messenger source of hate speech and disinformation can be approached in the following ways:

MESSAGE

When taking the message as the focus, the observer may take a topic-based approach and look for hashtags or false messages that have gone viral. This is what fact-checkers usually do, trying to debunk false stories in real time. This is also the most common type of analysis, facilitated by the ease of collecting data on Twitter. A topic-based approach can also be adopted using Crowdtangle, Buzzsumo or Newswhip.

Most studies look at the content shared around elections and try to measure disinformation or hate speech looking at the number of times links, articles or posts containing problematic content were shared. A topic-based approach can also lead to the identification of the actors sharing them, or identify hate speech against a specific group\(^{54}\).

---

51 Some of Who Targets Me findings can be found here: https://medium.com/@WhoTargetsMe
52 Stiftung Neue Verantwortung, 2017: https://www.stiftung-nv.de/sites/default/files/fakenews.pdf
Oxford Internet Institute, 2019: https://comprop.ox.ac.uk/research/eu-elections-memo/ and https://comprop.ox.ac.uk/research/india-election-memo.
54 A gender perspective was taken to analyse users reactions to male vs. female politicians posts: https://digitalrightsfoundation.pk/wp-content/uploads/2019/01/Booklet-Elections-Web-low.pdf
When focusing on messengers, the monitoring exercise aims to identify the source of the message. The point of departure is then the identification of actors and their narratives. In electoral contexts, this can be focused on registered political parties and candidates to assess their messages and their reach. Alternative approaches could include accounts of media pages, in order to assess the coverage of various candidates and themes and engagement on election themes. The definition of media pages can be narrow, focusing only on those with the biggest online reach, or include pages with unclear or false affiliation, pretending to be media pages (more in figure 17). The accounts of major influencers (celebrities who regularly express political opinions, opinion-makers such as journalists, academics, activists and businesspeople, and state institutions like the army or the government), can also be monitored.

More specifically on hate speech, a good knowledge of the political context may indicate which social, ethical and religious tensions may be explored on social media to target one specific group. However, knowing the fault lines is only one step. The analyst needs to be able to search for groups, pages and other actors (often unofficial or anonymous) that are spreading hate speech via social media.

Most social media analysis works with a combination of all these approaches. Often political ads can be used to spread disinformation or hate speech using bots. Hate speech can also be a ‘natural’ reaction from one group to another or can be the result of a coordinated campaign of a number of actors aiming to manipulate the debate. The examples above are non-exhaustive and can serve as inspiration for the analysis.

**Phenomena to be analysed:**

- Select the phenomena to be monitored based on the scope analysis, and select which methods and tools are available to conduct the analysis.
- Social bots and political advertising are ways of generating attention to certain topics and agendas, and it is a messaging problem.
- Hate speech and disinformation can be monitored by looking at the message or the messenger.

---

55 This approach was followed by Avaaz to spot and report networks of disinformation ahead of the 2019 European Parliamentary elections. More information on their activities can be found here: https://secure.avaaz.org/campaign/en/eu_elections_reportback_may_2019/
CHAPTER 4: MAKING AN IMPACT WITH SOCIAL MEDIA MONITORING

4.1 Publishing reports in real time vs. weekly or monthly

Any civil society organisation wishing to monitor social media should consider from the beginning when and how to publish its findings.

Classical election observers usually only report systematic findings after the election day. They want to avoid becoming the discussion during the campaign, which would make them part of the process they observe. Given that the integrity of the electoral process is often controversial, any statements made by observers (whether positive or not) are likely to be used by political actors. Observers also try to avoid issuing partial findings that may become obsolete a few days later; for example, that an election is peaceful, only for violence to break out the next day. That is why most observers offer a comprehensive overall assessment of an electoral process after the elections. They often go public one day after the voting, when interest in their findings is the highest. The major observation missions usually issues a 'preliminary statement’, followed by a much longer and more detailed report some months later.

Given that manipulation on social media discourse is a relatively new phenomenon with many new challenges, there may be merit in reporting before elections, especially when massive problems are observed, such as foreign interference, disinformation campaigns or incitement to violence. Hence, domestic and international observers may issue interim reports prior to elections. If issued appropriately, they could prevent issues once the election takes place. Following an election, observers may report on systematic problems. Organisations that go public need to be prepared, however, to become part of the political debate if they publish early.

Civil society organisations can also steer a middle course between complete silence and publishing before election day. They can inform authorities (where appropriate) and tech companies of problems without going public. These decisions need to be ultimately made by each organisation based on its mandate and the national context.

Organisations should keep in mind that gathering, organising and assessing data is time-consuming and once completed, findings need to be explained in language that a wider public can understand. They should therefore think twice before committing to a tight schedule of public reporting (i.e. weekly reports) and assess their experience and resources.
4.2 Addressing ethical questions

Social media research requires the use of public data while maintaining user anonymity during the research. Once an appropriate set of data has been selected, the researchers need to ethically manage the data and provide a clear privacy policy to the public. Traditional election monitoring principles should also be taken into consideration.

4.2.1 How to use the data: maintaining user data anonymity during research activities

User data privacy is a key concern for social media researchers. A key distinction should be made between public and private social media data.

An example of public data would be a public post by a politician, official campaign or media organisation. A politician consents to joining the public sphere and knows that any posts will enter the public record. However, sometimes the distinction between what is actually public versus private becomes difficult. Private individuals, even with aspects of their profile visible to the public, would not consider themselves as public individuals. In order to distinguish between what is public or private, researchers can consider whether an individual user knowingly posted a public message and actually wanted to participate in a public discussion. An identifying factor may be whether or not a user included a hashtag demonstrating that they were joining a specific discussion.

Another indication to distinguish between public vs. private data may be the purpose of the platform. Public Twitter posts are different from a password protected Facebook group. WhatsApp users who post in public groups may still consider their messages private because the app is an encrypted platform. This public vs. private distinction may sometimes be a grey area, and researchers must think critically regarding users’ intention for sharing data.

Data should be made anonymous and untraceable. Even public data, “when revealed to new audiences might expose a social media user to the risk of embarrassment, reputational damage or prosecution”[58]. Anonymity means stripping data of its association with an individual user’s name or identifying qualities. This may also be done by taking large aggregates of data so that the result cannot be traced back to one user. However, with so much additional user data floating around the internet, it

---


---
may be possible to trace data to identify the user. This might be particularly dangerous when data is considered a high "risk to user". For example, if a user publicly Tweets a controversial, anti-authoritarian message and a researcher cites this quote directly, this public Tweet may be easily tracked back to the original user, regardless of whether a name is blocked out, and bring unwanted attention to an individual. As a recommendation, avoid direct text quotes that may be easily traced back to the user and analyse content for its risk to users.

4.2.2 Managing data and developing a privacy policy

Researchers should make data use and management transparent when publishing their studies. Firstly, this should include when and how the data was collected. Researchers should only collect the necessary data pertaining to their research question. Secondly, this should include how the data is analysed and provide a clear methodology that may be replicated. Thirdly, researchers should store data safely to avoid leaks or abuses and explain that it is doing so.

Based on these principles, an organisation should develop and publish its own privacy policy on its website. Facebook’s Platform Policy for developers provides a helpful guideline on what a researcher’s own privacy policy may include and how social media data should be used, displayed, shared or transferred appropriately. In order to ensure full accountability, the organisation should set up clear channels of communication to answer any questions regarding its policy. Individual researchers may set up a professional Facebook page as a channel of communication.

Ethical considerations for social media research:

- Identify whether any aspects of the data pose a ‘risk to users’.
- Ensure the data is anonymous and untraceable.
- Collect only necessary data pertaining to the research question.
- Disclose when and how data is collected.
- Disclose how data is analysed with a clear replicable methodology.
- Store data safely to avoid leaks or abuses.
- Develop and publish a privacy policy with clear communication channels to answer any questions from the public.

---

59 Moreno et. al, “Ethics of Social Media Research: Common Concerns and Practical Considerations”, Cyberpsychology, Behavior and Social Networking, Sep 2013
60 Moreno et. al, “Ethics of Social Media Research: Common Concerns and Practical Considerations”
63 Moreno et. al
4.2.3 Traditional election monitoring integrity applied to social media reporting

Some aspects of traditional election monitoring ethics are applicable to social media monitoring.

The public should be confident that researchers and their activities have clear, non-partisan intentions. If the intentions are partisan, this should be clearly stated. Social media monitors should have a transparent objective of observation so that the public can trust the findings as unbiased. The researcher’s process should also be clear with a clear methodology for replicability and accountability.

Researchers should make an unbiased presentation of their findings and conclusions. This requires avoiding any exaggeration that paints a false picture of reality. Even if data is well analysed and true, the way it is framed and presented to an audience may impact their interpretation. For this reason, findings should maintain a neutral and objective tone. Additionally, researchers should specify when information is incomplete. For example, an organisation should not claim that it is conducting comprehensive social media monitoring activities when only focusing on Twitter. In situations of international election observation, issuing a judgement without sufficient information or without having carried out a credible observation may actually add to existing problems within a country.

Furthermore, observers of elections should be impartial and describe and report on positive and negative phenomena alike. For example, if legitimate voices in election campaigns could not be heard in official media, but managed to be heard in social media, that is a fact worth reporting.

The reporting timing should not interfere with an election process, so in general it may be better to avoid reporting until the end of polling. However, reporting on serious problems early enough may help to resolve possible problems in advance. The timing of reporting is a difficult decision that should be made in view of the particular context.

Ethical considerations for election observation and social media:

- Transparent objective of observation.
- Clear methodology for replicability.
- Avoid any sort of exaggeration.
- Specify when information is incomplete.
- Report on positive and negative phenomena.
- Ask what is actually illicit and reportable.
- Consider how publication may affect an upcoming election and long-term trust in democratic institutions.


65 Administration and Cost of Elections Project, “Election Integrity: International Election Observation”
This guide has been prepared with the financial assistance of the European Commission. The views expressed herein are those of the consultants and therefore in no way reflect the official opinion of the European Commission.