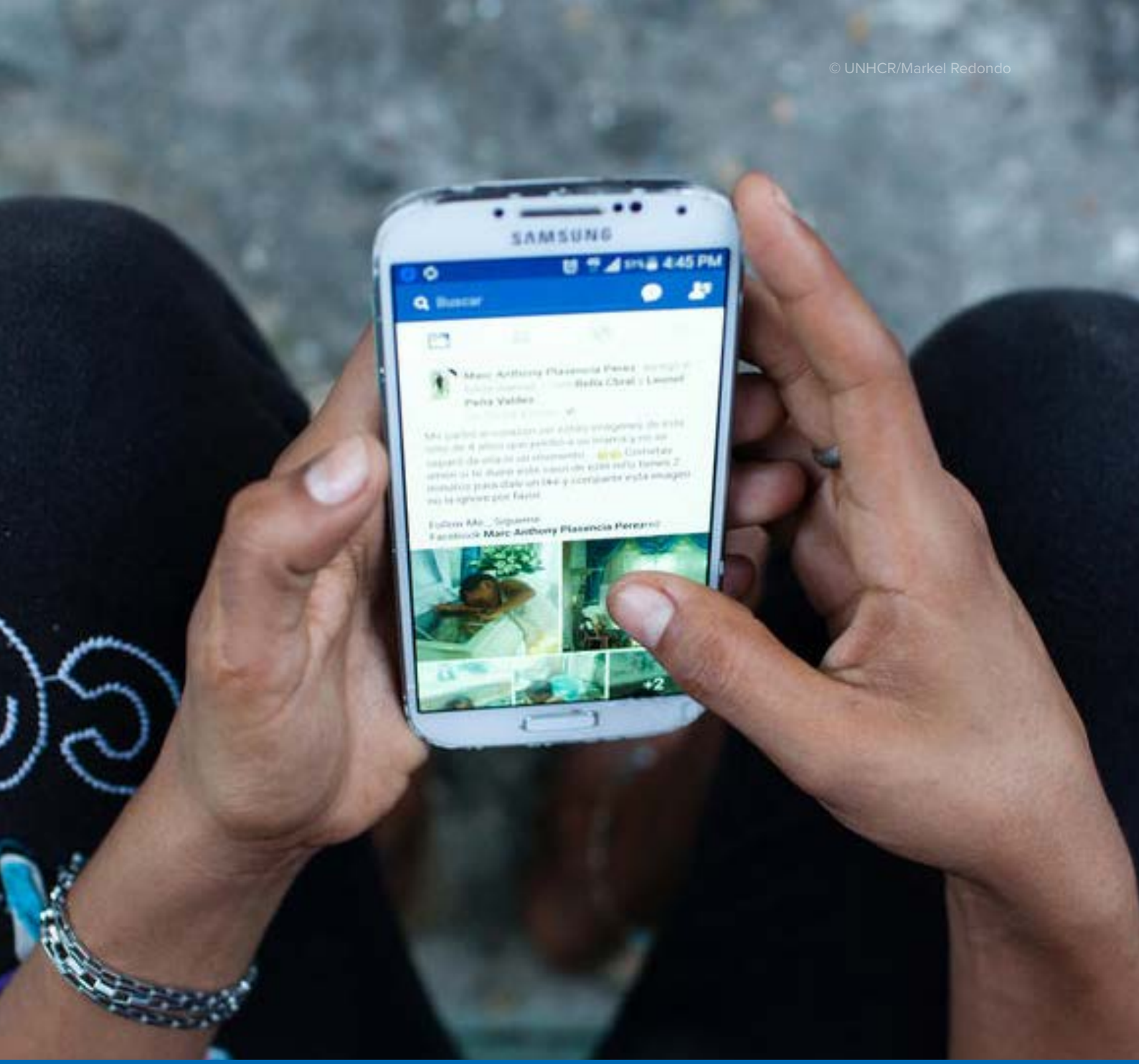


Using social media in CBP - Chapter 9

Social Media Analytics

Introduction

This chapter looks at how to use Social Media Analytics to inform campaigns, strategies and engagement assessments. It helps you use insights from Social Media data to get a better understanding of how to engage communities and adjust your programmes.

In this Guide, the term "Social Media Analytics" refers to the systematic computational analysis of data or statistics from a Social Media account/channel. Typical SM analytics include for example number of individual engagements (retweets, likes, comments) and audience demographics (by age, gender, location).

Social Media is by definition a real-time means of communication. Regardless of whether you post something today and I read it tomorrow, people using Social Media expect an almost instant response.[114] For this reason, it is important that the admins of Social Media are able to respond immediately and adapt their channels in near real-time. Analytics are one of the best ways to keep track of fast-moving, real-time conversations, providing data and analysis that can inform engagement strategies, community management and management of reputational risk.

Social Media Analytics for Protection can be used for various purposes:

1. Situation Analysis

Often Social Media platforms have embedded tools that perform some basic analysis of the data on your channel. Depending on the platform, additional analytical capacity can be built into the channel or it may be possible to extract data with an Application Program Interface (API). You should always have a way to track and measure your Social Media presence, no matter what you are using it for.

Data held by Social Media companies can help UNHCR and partners better understand key issues related to a situation, such as: the demographics of certain groups, their geographic distribution, and displacement trends; public sentiment; and who UNHCR is reaching on Social Media (which helps us assess if we are reaching the right/targeted audience). Such data contributes to improved situational awareness and response, and we can also use it to conduct our Social Media Situation Analysis (see Chapter 1). Remember that situation analysis does not involve or require collecting personal data.

114 According to a study by The Social Habit, 42% of consumers expect a response on Social Media within 60 minutes. On Facebook, 85% think up to six hours is reasonable while on Twitter, 64% want an answer in an hour. Source here

Example

This paper, published in 2017, is the result of an experimental project conducted by the UN Global Pulse and UNHCR's Innovation Service. It used data from Twitter to monitor protection issues and the safe access to asylum for refugees and migrants in Europe. The project looked at interactions among refugees, between refugees and host communities, and between refugees and service providers along the way to Europe. Find more information here.

2. Knowledge creation and Transfer

A wide range of datasets generated by Social Media analytics can be combined and analyzed to generate new insights that can be used by decision makers. This is particularly true when Social Media data is combined with other sources of data to generate a more complete picture of the issue at hand.

Example

In 2014, the United Nations Millennium Campaign and the Water Supply and Sanitation Collaborative Council partnered to deliver a comprehensive advocacy and communication drive on sanitation. Their efforts gelled with the UN Deputy Secretary General's Call to Action on Sanitation to increase the number of people with access to good sanitation. Global Pulse analyzed Social Media to provide an insight on the baseline of public engagement and explore ways of monitoring a new sanitation campaign. By showing how the volume and content of public discourse about sanitation changed over time, the study made it possible to monitor the reach and effectiveness of the communications campaign. Find more about this project here.

3. Service Design and Delivery

Social Media analytics can open up previously inaccessible data sets, improving decisions about response strategies and helping to guide service delivery based on reliable evidence.

Example

Between May and August 2016, when Zika was a big issue in Brazil, Facebook and the data consultancy firm ActionSprout conducted surveys of local Facebook users and analyzed what they were saying to better understand the public conversation about the virus. The two organizations anaysed the data to find out who was posting information about Zika and what they were sharing to determine their concerns. This allowed UNICEF Brazil to tailor their Social Media ads and provide better services to communities to help them with Zika prevention.

4. Prediction and Forecasting

New predictive models made possible by access to Social Media datasets can help UNHCR conduct forecast analysis to anticipate problems or avert crises.

Example

In 2017, University of Warwick researchers looked at photographs and key words posted online to see if they could signal weather risks developing in specific locations. For example, posts about water levels rising could alert the authorities to a potential flood. The researchers tracked photos and videos with tags (such as river, water or landscape) on Flickr between 2004 and 2014. The findings showed that tracking certain words used on Social Media around the time of an extreme weather event allows information to be collated to predict which areas will be affected. You can work out how serious the threat to life and infrastructure will be and create an early warning system of unprecedented accuracy.

5. Impact Assessments and Evaluation

Access to Social Media datasets can help UNHCR monitor and evaluate the impact of government refugee policies and UNHCR responses. Thus, the design of programs and services can be constantly improved.[115]

Example

In 2014, to coincide with the United Nations Climate Summit, UN Global Pulse developed a real-time Social Media monitoring system to explore online discourse about climate change. The monitor was accessible to the public and daily analyzed tweets in English, Spanish and French to show the volume and content of comments about climate change in relation to the economy, energy, etc. By comparing interest levels between topics and regions, and monitoring the success of climate-related communications and events, the monitor could measure awareness, further public engagement and support climate policy-making. Access the Twitter monitor here.

While some of the examples above are Big Data[116] projects, the analysis of Social Media data does not necessarily require Big Data. Inevitably, when digital platforms are used, data is generated both by UNHCR and end-users and shared among various parties, including the platform provider. The data can be directly generated by the interactions on Social Media and/or come in the form of metadata i.e. data about the data generated.

115 See Chapter 11 for more information on how to use Social Media for M&E of UNHCR Social Media activities.

116 The UN defines Big Data as the large amount of passively collected data deriving from everyday interactions with digital products or services, including mobile phones, credit cards and Social Media.

With data analytics, certain data protection concerns need to be considered:

- Big Data and data analytics may not involve the processing of personal data or personally identifying data. But with enough information, it may be possible to generate a profile of a user type and his/her habits;
- On Social Media platforms, consent, when sought, is often not fully informed or specific, and data submitted for one purpose may be reused out of context for unrelated purposes. So we have to be very careful about what Consent means and make sure it covers the range of the data we are managing and processing.

While using information from Social Media can support our protection objectives, it is important to know the risks of doing so. People can be harmed as well as helped by data (and decisions based on data), so we must ensure the necessary measures are taken to prevent and/or mitigate these risks. In the case of personal data, this can be done, for example, by conducting a Data Protection Impact Assessment (DPIA)[117] (see Chapter 2).

It is also important to remember that data from Social Media platforms and Messaging Apps are typically not representative of a population beyond the users of the particular channel. Lack of coverage, under-coverage, self-selection and differing response rates all introduce biases when we estimate the extent of interest from Social Media data. Such biases should be taken into account before undertaking data analysis. Check sample distributions in demographic variables against population distributions from censuses, registration data and other representative data sets. Statistical techniques such as multi-level regression with post-stratification (MRP), can be used to correct differences between the Social Media sample and population distributions.

117 See the template in the Guide for the UNHCR Data Protection Policy and Chapter 5 of the ICRC Handbook on Data Protection in Humanitarian Action (2nd edition/2020).

1. Social Media Analytics: Key Tips

TIP 1: Become familiar with the insights options of your chosen Social Media platform.

Almost all of them have one. If yours doesn't, there may be an option to download and analyze your data independently. Make sure you involve Information Management and PI/Communications colleagues before you start your Social Media analysis, so they can support you in the design and planning of the analysis process and its outputs.

TIP 2: Understand the operational context and protection challenges and be clear why you are doing the analysis.

The context and purpose will help you decide what types of data — and at what unit of measurement, granularity and frequency — will help you meet your objectives. What other types of information can be paired with the real-time Social Media data for a more comprehensive analysis and/or to triangulate the findings?

TIP 3: Use the metrics below to determine ways of improving your intervention, be it content, response time, etc.

What is your target audience looking for? How do they engage with and respond to your online activities? Metrics include:

- Age, gender and diversity-disaggregated data about your users;
- Their overall level of engagement on your channel;
- Topics people respond to/topics that attract less attention;
- Most popular format of your posts;
- Time of the day when your audience is most online.

At this stage, identify performance indicators for the objectives of your Social Media presence (e.g. number of likes and shares) and connect them with protection outcome indicators (e.g. better access for PoCs to UNHCR's and partners' services). The indicators should be measured at the lowest geographic level at which the program operates (or that is needed for the analysis). This step is crucial to connecting your Social Media presence to your overall protection goals.

Resources

See Chapter 11 for more on Social Media and Monitoring and Evaluation practices.

TIP 4: Identify the mechanisms, systems, processes and/or decision points into which Social Media data can be integrated.

You can only do this if you have mapped what information is available and being used to design programs/activities, draw conclusions and make decisions. Bear in mind the limitations of Social Media as tools for reaching certain groups and make sure the technology and age/gender gap is accounted for.

Real-Time Data for Adaptive Management

Real-time data systems employ digital technologies (computers, tablets, mobile phones, sensors, etc.) and specialized software to accelerate the collection, sharing, management, analysis and reporting of data, with the aim of facilitating quick and effective decision-making. Real Time Data for Adaptive Management helps integrate monitoring, evaluating and learning with program implementation, a necessary condition for an adaptive approach. It is critical for organizations like UNHCR to make sense of data during implementation, test the hypothesis at the heart of a program and formulate a new one, if necessary. Source: USAID

TIP 5: When trying to meet the needs of different stakeholders, be aware of trade-offs between speed and data quality.

There are clear differences between the characteristics of Social Media data and the requirements of quality data. To be of value, the raw data generated by Social Media often needs to be sorted, cleaned and triangulated. This can slow down the flow of data and lessen its potential value. Weigh the advantage of speed against other factors. Adaptive management in complex situations often requires interpreting a variety of data to spot emerging trends. Instantaneous Social Media data may not be the best source of information to support evidence-based decision-making. Each program must identify the decision points and the speed of feedback that is necessary to inform the decisions. Having right-time, quality data may be more important than having real-time data.

TIP 6: Be agile if you want to meet the needs of adaptive programming.

Because Social Media platforms are built on regular, fast cycles of action, analysis and adaptation, any system they rely on that will also need to be agile and capable of improvement over time. Protection programs using Social Media data must undergo course corrections to stay aligned with the human, social and technological processes that happen during an intervention. Make sure this data is combined with other evidence that is used to inform the adaptation of programs.

TIP 7: Review, adjust, test, iterate.

Study your metrics consistently and regularly. Some of the analytics systems embedded in your Social Media platform will let you create targeted reports, where you can choose which metrics to look at and send regular reports to other people. Some will allow you to download your data and analyze it independently. No matter how you do it, make sure you do a periodical review of the data, with frequency determined by the purpose of the analysis and the needs of the end-users. The review should involve all the admins of your Social Media channels as well as the project manager, protection staff and all those who create content. The review may lead to adjustments to your Social Media strategy. It is also a way to track progress and look at the effect of specific UNHCR and partner activities.

2. Tools for Data Analytics

Important

When deciding about technology and what tools to use, reach out to colleagues in UNHCR's:

- Division of External Relations, Digital Engagement Service
- DIMA Units in Regional Bureaux
- UNHCR's Innovation Service

The table below shows **Data Analytics** tools embedded into the most commonly used Social Media platforms:

Social Media Channel	Data Analytics Dashboard/Tool
Facebook	
Facebook Page Insights	Facebook Page Insights give you detailed analytics for your Facebook page, so you can learn how people interact with your content, note what works and improve your results.
Facebook Audience Insights	Facebook Audience Insights help you understand your Facebook audience, so you can better target ads and create more relevant content.
Twitter	
Account Home	Account Home is the Twitter report card, with high-level statistics tracked month to month. It's also a gallery of the account's greatest hits. It has a spotlight of the top-performing tweets and reveals the influencers in your network.
Tweet Activity Dashboard	The Tweet Activity Dashboard is where you can find metrics for every single tweet. The dashboard tracks how many times Twitter users have seen, liked, retweeted and replied to each tweet.

Instagram	
Instagram Insights	Instagram Insights tell you about followers and the people interacting with an account on Instagram. They can provide data about the audience, like gender, age range and location. The system also allows you to see which posts and stories the audience engages with most. Insights and metrics about an Instagram account include paid activity as well. Reach, accounts reached, impressions and impressions day by day reflect both paid and free activity.
You Tube	
The Watch Time Report	The Watch Time Report compiles data from your YouTube channel, the individual videos on the channel and any engagement from YouTube's mobile apps.
Revenue Report	The Revenue Report shows how much money an account is making using ads within a given period, and where the revenue is coming from.
Interaction metrics	The most important Interaction Metrics are subscribers, likes/dislikes, comments and shares; in other words, all the ways viewers can tell you directly how they feel about your videos. Studying this data will show you the best way to reach and cultivate relationships with your subscribers.

You can also use a third-party tool to analyze your social media data and get insights on your Social Media presence.[118] The table below shows some third-party Data Analytics tools commonly used to analyze SM platforms:

Platform	Description
Brandwatch	Brandwatch Consumer Research delivers instant insights about an account,services, users and trends by providing live and historical data from across the web. Brandwatch is a paid system that: • Collects and analyzes billions of conversations; • Measures the impact of your marketing, content and social activity; • Uncovers insights to improve your strategy.
Meltwater	Meltwater helps you sift through thousands of news sources using sophisticated search monitors. A paid system, it finds everything relevant to a customer's operation, both locally and globally. Its media monitoring function offers the world's largest source base, including 300,000 news sources from 205 countries in 87 languages. Meltwater also offers dashboards that can be customized to analyze metrics by date, geography, language and opinion/sentiment.
Pulsar	Pulsar aims to help clients find the story in the data. Their social listening and audience intelligence platform bring all digital audiences together in one place. Their analytics suite also allows you to gather data-driven Social Media insights by leveraging the power of AI & data visualization, using their media analytics, trends and social listening tools.
Sysomos	Sysomos is a paid system. It allows for: • Social Listening. The social research and monitoring engine has unlimited data and no cap on the number of queries on over 200 billion social conversations; • Social Monitoring. You can engage, publish and monitor news and Social Media from one platform; • Social Influencing. Search 900 million profiles and 60k categories to find and manage influencers across the world; • Reports & Services. You can optimize social strategy with access to a wealth of social reports or build what you need with customized reports and social API access.

118 The UNHCR Global Social Media Team and the UNHCR GCS Analytics Team have paid contracts with some of these companies and can advise country offices wanting to invest in them.

Third-party tools allow you to achieve a higher degree of customization and work on larger datasets. But if you want to use them, there are some considerations:

- **Language:** Not all third-party tools can detect and translate scripts. This may be a problem if the community uses Arabic, Chinese, Russian or any other language with a non-Latin script;
- **Data Protection and Security:** When assessing the risks associated with these tools, always engage with ICT colleagues on data security and with Data Protection colleagues on data protection;119
- **Resources:** Third-party tools are normally more sophisticated and complex than embedded tools. This means staff will have to be trained and it could take weeks before you are able to take advantage of all the functions of the dashboard;
- **Customization:** Being able to customize third-party tools is what makes them appealing. But users sometimes choose tools that are too complicated for their needs. Your analysis should be guided by the needs of the intended decision-makers to ensure it is not more complex or in-depth than what is necessary to meet those needs.

There is a third way to gather and analyze data and that is via an Application Programming Interface (API). Social media services like Twitter, Facebook and Google have all opened up their products to outside developers via APIs. These enable outside parties to build a product or app off an existing service. TweetDeck for Twitter, MySpace apps, Facebook Connect and WhatsApp's Turn.io are just some examples of social APIs. With an API, you can use an existing app, or build one, to take the data stream from a Social Media channel and reorganize or interact with it on a different dashboard. UNHCR colleagues can reach out to the Digital Engagement Service in the Division of External Relations for more support.

Example

In "Using Social Media for Research, Monitoring and Evaluation in the MENA Region: World Food Program Case Study" DFID looked at how news about WFP's reduction/cancellation of food deliveries to Syrian refugees spread across Twitter in 2014/15. Researchers from the University of Cardiff loaded 24,000 tweets into Cosmos, a free-for-research data analysis software developed by the university. They then ran network and frequency analyses over the sample and tried to classify topics, sentiment and locations or origin.

119 Remember that a DPIA is required when the collection and processing or transfer of personal data is likely to be large, repeated or structural (i.e. where data is shared with an Implementing Partner or third party over a certain period of time). See more on the UNHCR Policy on Data Protection.

3. Tools for Resource Maximization

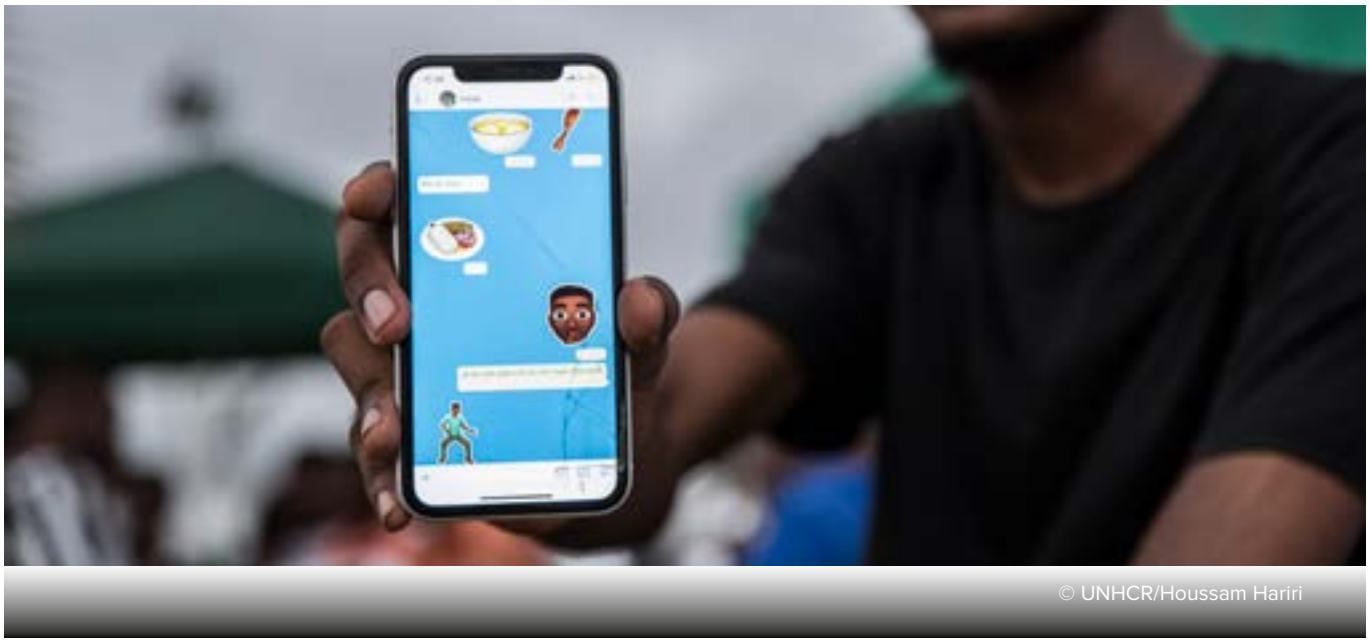
Managing Social Media is time consuming because of the sheer volume of conversations/interactions and the need to respond quickly. For an organization like UNHCR and large operations, staff may not be able to deal meaningfully with the flood of requests.

To manage FAQs or handle a large volume of questions, you may think about using a third-party tool that automates some actions staff would otherwise perform. Below we list some options. Consult regional and HQ colleagues before deciding to pursue any of them:

Tool	Description
AI	Artificial Intelligence is the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making and translation between languages.
Chat Bots	A chat bot is an artificial intelligence (AI) program that simulates interactive human conversation by using pre-calculated user phrases and auditory or text-based signals. Chat bots are used frequently on social networking hubs and for instant messaging (IM). They are also often included in operating systems as intelligent virtual assistants. A chat bot is also known as an Artificial Conversational Entity (ACE), a chat robot, a talk bot and a chatter bot or chatterbox.
IVR	Interactive Voice Response (IVR) is a technology that allows a computer to interact with humans through the use of voice and Dual Tone Multi Frequencing (DTMF tones) put in via a keypad. In telecommunications, IVR allows callers to interact with an organization's host system via a telephone keypad or by speech recognition, after which services can be inquired about through IVR dialogue. IVR systems can respond with pre-recorded or dynamically generated audio to direct users on how to proceed.

If you are thinking about using any of these tools, bear in mind the following:

- AI or use of algorithms may have serious data protection and privacy implications. A DPIA[120] is required before implementing the system;
- Automated response can be very frustrating for the person at the receiving end, especially if they are in distress or not familiar with the language used. The best option is always to pair an automated system with a human who can respond appropriately;
- Not all situations are right for these tools. It is important you design and test these systems with Persons of Concern and involve them in subsequent monitoring and evaluation;
- Some AI technologies are in their infancy. While they may be promising, are they proportional to your needs? And have they undergone a security audit and a Data Protection Impact Assessment (DPIA)?



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120 New technologies or systems, tools, modules, or data processing platforms, including inter-operable or shared databases, which are perceived or expected to carry inherent privacy risks should, as a matter of principle, undergo a DPIA. This includes for example the collection of biometric data, cloud storage, big data analytics, artificial intelligence, drones, automated decision-making systems, two-way communications using social media, smartphones or bulk SMS. See more on the UNHCR, Policy on the Protection of Personal Data of Persons of Concern to UNHCR, 2015.

Resourcing

While Social Media Analytics may not fall directly under the duties of Information Management Officers (IMOs), it is always a good idea to involve them at the outset, both in developing the SOPs for your Social Media strategy/project generally and, more specifically, in defining your data analytics strategy for Social Media. IMOs will be able to advise on data flows, roles and responsibilities, and relevant data processes, methods and tools. They can also ensure that any relevant links are made between the Social Media project and the operation's Information and data management strategy. Also keep in mind that collecting personal data outside the anonymized analytics provided by each SM platform may put at risk the protection of PoCs and should therefore be carefully evaluated with the Data Controller.
Information Management (IM) is a specialist function in UNHCR but other staff also have expertise in generating, analyzing and using data.[121]

Consider these factors when resourcing for Data Analysis in your Social Media project:

- **Involve M&E experts:** Monitoring and Evaluation experts can help you understand how to link protection performance and outcome indicators to Social Media metrics during the analysis. They will be pivotal in linking your Social Media data analysis to data collected from offline activities. In other words, they will help you bridge your online and offline protection strategies;
- **Don't reinvent the wheel:** The type of technology or tool you choose for data analysis will determine the resources you will have to put into the system. Look first at data analytics tools embedded into your Social Media account. If they don't do the job, contact IM and M&E colleagues to explore how best to analyse the data for your purpose;
- **Think about your purpose to ensure tailored and effective data analysis and use:** Sometimes when a large amount of data is available, we want to use it all to create ever more sophisticated data analysis products. Make sure you focus on the data you need to make certain decisions (i.e. the purpose and objectives of the project identified at the outset) and let this guide your analysis. Present the findings of the analysis in products that are fit-for-purpose to those objectives and meet the needs of the end-users.

121 For more information on UNHCR's vision for data, see the UNHCR Data Transformation Strategy 2020-2025

Do's

DO always identify what data you have access to and understand how it will enhance your programs, rather than duplicating data collection.

DO set up a periodical review of the findings of your Social Media data analysis that involves all staff and partners in the project (Protection, Program, IM, M&E, and others).

DO institute flexible systems that allow you to adapt your activities quickly based on the findings of your analysis.

Don'ts

DO NOT use metrics that count interactions. Quality matters more than quantity. As one of the metrics, you can use the number of "likes" received but they should not be the sole indication of the quality of your engagement.[122]

DO NOT use metrics without placing them in the local context. Look at offline events or changes in policies that could affect the interactions people have on your Social Media channel.

DO NOT think of analysis as a stand-alone activity or of Social Media Analytics as a reporting mechanism. Data analysis is just one of a chain of steps to meet the information needs related to your objective. You need a decision-making process that leads to actions.

122 See more on measuring community engagement in Chapter 10

Checklist

- [ ] Have you identified your purpose and the end-users of the analysis of Social Media data, and adjusted your approach accordingly?
- [ ] Have you familiarized yourself with the data analytics tools that are embedded in your Social Media channel?
- [ ] Have you decided which data you need to bring together for analysis in order to support your objective(s)?
- [ ] Did you involve all relevant colleagues from the outset, including Protection, Program, and IM, as well as partners and end-users of the findings?
- [ ] Do you have a clear process and timeline for analyzing the data and presenting the findings?
- [ ] Have you made sure that you are only collecting the data you need, and never sharing personal information in the context of data analysis?
- [ ] Have you involved other colleagues (i.e., in DER in HQ or DIMA in your regional bureau) that can help you understand how you can use data analytics from your Social Media projects in a safe and responsible way?

Case Studies

UN Global Pulse and UNHCR Innovation Service, Social Media and Forced Displacement: Big Data Analytics & Machine-Learning, White Paper, 2017

UN Global Pulse, Analyzing Social Media Conversations to Understand Public Perceptions of Sanitation, 2014

DFID, Using Social Media for Research, Monitoring and Evaluation in the MENA Region: World Food Program Case Study, 2016