Background on TERM

Vital Strategies' Tobacco Enforcement and Reporting Movement (TERM) is a real-time digital media monitoring system designed to track and report digital tobacco marketing through the collection and analysis of content posted to publicly accessible social media accounts and news sites. The purpose of TERM is to provide real-time insights on online tobacco marketing, which is banned in many countries and by most social media platforms, to keep public health decision-makers and stakeholders apprised of marketing strategies and emerging issues so that they can respond in a timely manner. TERM is currently in operation in India, Indonesia and Mexico.

Methodology

Obtaining data

TERM data is collected systematically through a social intelligence platform that extracts publicly available posts from social media platforms and news articles from news sites and blogs. This platform, which is operated by Radarr, tracks publicly available posts using a list of pre-identified social media accounts and through Boolean or keyword-based queries. Online news and blog items are collected by scanning LexisNexis, a database of news and business media sites, using pre-determined keywords.

The social media platforms monitored include Facebook, Instagram, Twitter, YouTube and TikTok. The accounts on these platforms that are monitored are purposively chosen by experts at Vital Strategies and at partner organizations. Specifically, a list of prominent tobacco companies and brands in each country is created and their social media pages and accounts are included in the searches. The accounts with the largest market shares in each country according to the most recent Euromonitor data are included in this list. This list may also include product retailers, tobacco company community interest groups and accounts promoting surrogate products.

For newer tobacco and nicotine products or for products with less strong brand identities (e.g., e-cigarettes or bidis, the indigenous smoking product in India), accounts for monitoring are discovered through keyword-based searches. A list of generic tobacco topics and marketing-related keywords was created after reviewing the published literature. (1-5) The list of configured social media accounts and keywords are reviewed and updated on a quarterly basis.

In addition to the accounts that are configured for regular monitoring for different tobacco products, searches using keywords and hashtags are conducted. The list of keywords and hashtags was generated based on published literature (1-5) and by reviewing posts from social media accounts and extracting frequently used hashtags.
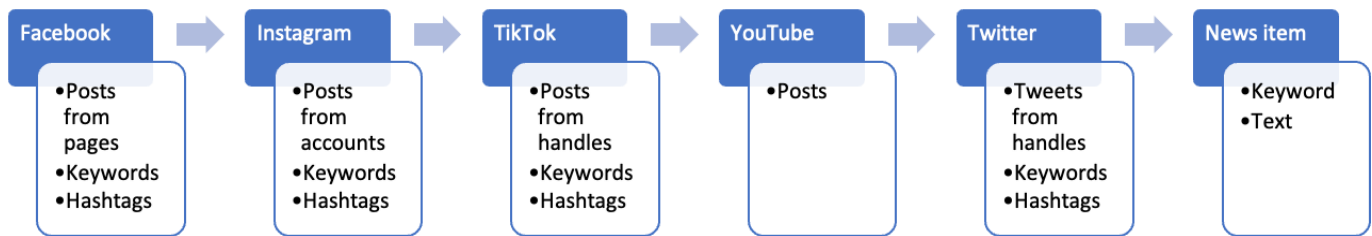
Figure 1. How data is captured from each platform

Leading newspapers (wide circulation/readership) are tracked in each country via LexisNexis. A few examples include Kompas.com, RepublikaOnline, Jawa Pos, Media Indonesia, Suara, Antaranews in Indonesia; The Times of India, The Hindu, Hindustan Times, Business Standard, Daily Bhaskar, Financial Express, Dainik Jagran, Amar Ujala, NDTV, in India; El Financiero, Associated Press-Mexico City, CNBC International, El Informador, Los Angeles Times – Mexico, Globenewswire in Mexico.

The posts and articles collected are in English (all), and in the official languages of each country: Hindi (India), Indonesian (Indonesia) and Spanish (Mexico).

The Radarr platform's data collection restrictions and privacy laws followed by social media platforms may lead to undercounting of marketing activity.

Data coding and analysis

The unit of observation is a single post with a headline and its associated image. Similar advertisements or items that are posted on the same day but on different platforms (e.g., Facebook post and online news), with different engagement metrics are counted as unique data points. Data extracted by the Radarr AI platform are cleaned, checked and by trained human coders, who also remove duplicates.

Coding of the extracted content is done using a theory-derived code frame (1-5). Codes initially applied by the Radarr platform are checked and revised by trained human coders to ensure data accuracy. This is found to be particularly crucial for the more subjective and nuanced measures in the analysis, such as message frame. To establish inter-rater reliability in the coding, all coding is undertaken in teams of at least two coders per dataset. Following independent coding of a certain proportion of the total volume of posts, level of agreement between coders is established; differences in interpretation are resolved through discussion, including with the project director and with elaboration in the codebook, as necessary; after agreement and consistency is established, independent and simultaneous coding of the remaining data continues.
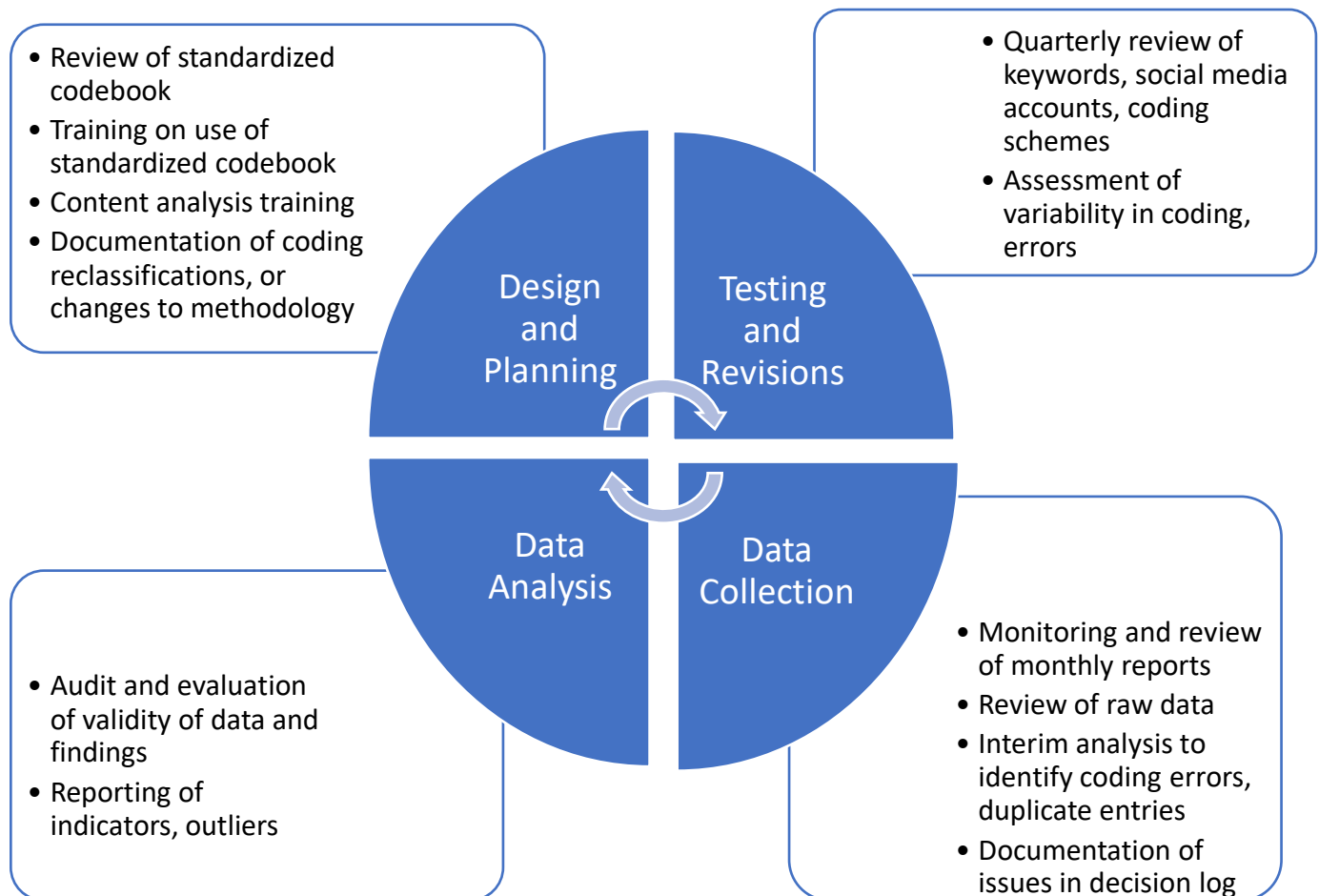
All content is coded and categorized on the following dimensions:
- Platform (social media application or digital media platform)
- Company name (name of the tobacco/nicotine product company)
- Brand name (name of promoted brand/product)
- Product type (type of tobacco/nicotine product)

- Marketing tactic (type of marketing tactic that is used to promote the product)
- Message framing (context and approach being used to appeal to the audience)
- Sentiment (tone of the post towards the product)
- Engagement metrics (measures of customer engagement)

The descriptive analyses of marketing volume, types of platforms and tobacco products, marketing tactics, and message framing is conducted in Microsoft Excel for Mac V16.61 and Stata/SE 17.0 for Mac.

Quality assurance and quality control

- Review of standardized codebook
- Training on use of standardized codebook
- Content analysis training
- Documentation of coding reclassifications, or changes to methodology

- Quarterly review of keywords, social media accounts, coding schemes
- Assessment of variability in coding, errors

Design and Planning

Testing and Revisions

Data Analysis

Data Collection

- Audit and evaluation of validity of data and findings
- Reporting of indicators, outliers

- Monitoring and review of monthly reports
- Review of raw data
- Interim analysis to identify coding errors, duplicate entries
- Documentation of issues in decision log

Ethics review

The Internal Review Board of Vital Strategies determined that TERM does not meet the criteria for human subjects research and does not require any ethics review. The project involves content analysis of publicly available social media posts and news media articles. The study does not involve any human research participants or analysis of personally identifiable information.

Dissemination of TERM data

After being collected and analyzed, TERM data is synthesized and presented in easy-to-read situation reports. These situation reports are disseminated to stakeholders via an email list, are shared with specific networks in each country and are posted to the TERM website. The TERM team also produces special issue briefs that focus on emerging trends that warrant deeper analysis. To date this has included evaluating the marketing of bidi cigarettes in India and e-cigarettes in Indonesia.

Learn more

TERM is managed by a team at Vital Strategies, which includes a core research team and team members in each TERM country, who are responsible for reviewing the dataset for accuracy. Analysts at Radarr, a social and analytics company that Vital Strategies hired, are responsible for identifying posts that meet the selection criteria set by Vital Strategies core team, and for analyzing the posts based on a standardized codebook developed by the core research team at Vital Strategies.

Please reach out to term@vitalstrategies.org if you'd like to learn more or fill out the form on our website.

References

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