

Social Media Intelligence

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I. INTRODUCTION

Social media intelligence is the concept of turning social media data into actionable insights for brands. A social media intelligence definition can be simply stated as "using social tools and solutions to understand consumers and serve them better"¹. Social media intelligence allows one to utilize intelligence gathering from social media sites, using both intrusive and non-intrusive means, from open and closed social networks².

A. Social Media: A valuable resource

3.96 people around the globe use social networking sites. Sherpa Marketing found that more people follow brands on social media than follow celebrities. On Instagram alone 80 percent of people follow at least one business and 60 percent of Instagram users say they have discovered new products on the platform. Social media makes a brand more tangible, more real and keeps them in the top of user's minds. It also provides the company with required relevant data like influencers to partner with, target consumer bases, customer behavior and trend and a medium for instantaneous crisis management. As social media is already a critical part of the information ecosystem, and social media platforms gain wide-spread adoption with unprecedented reach to users, consumers, voters, businesses, governments, and non-profit organizations alike. Interest in social media from all sectors has been rocketing for both application and research perspectives.³

B. Social Media Analytics

Profit seeking brands and businesses tap social media as both a rich source of information and a business execution platform. Without social media intelligence, businesses cannot leverage the power of their social data. Social media analysis is concerned with developing and evaluating informatics, tools and frameworks to collect, monitor, analyze, summarize and visualize data, usually driven by specific requirements. From a technical perspective, social media analytics faces several challenges.³

i. Social media contains an enormous amount of metadata that has not been treated systematically in data and text

mining literature, like tags, subjective opinions, insights and perspectives in both explicit and implicit social networks.

ii. Social media being a prominent example of human-centered computing, issues such as context-dependent user profiling as well as various kinds of human-computer interaction considerations raise.

iii. With web-based information processing, issues like semantic inconsistency, conflicting evidence, and lack of structure, inaccuracies and difficulty in integrating different kinds of signals are eminent.

iv. Social media has dynamic streams of rapidly increasing data. The nature of such data and their sheer size pose a significant challenge.

Making use of the growth experienced in the field of Artificial Intelligence and Machine Learning, with the existing solution frameworks and toolsets from social media analytics, social media intelligence aims to derive actionable information in context-rich application settings, develop corresponding decision making or decision aiding frameworks and provide architectural designs and solution frameworks for existing and new applications [1].

C. Social Media Monitoring and Social Media Listening

Social media intelligence is an expansion of social media monitoring and social listening. Social media monitoring is monitoring the social media for messages directly related to your brand and responding to those messages appropriately whereas Social media listening is accessing the full spectrum of conversation around the concerned industry, brand, and any topics relevant to it. Social media intelligence is extracting and analyzing social media data related to these business (Sensing), and utilizing external intelligence gained from social media monitoring for specific business initiatives (Seizing) [2]. Today, social media intelligence is a crucial layer on top of social listening. It is a relatively new area in digital marketing and plays an essential role in how to use social data more effectively.

In the essence of it, social media intelligence takes the needs and wants of customers and addresses them.

D. Social media surveillance

Social media surveillance refers to the collection and processing of personal data pulled from digital communication platforms, often through automated technology that allows for real-time aggregation, organization, and analysis of large

¹<https://www.synthesio.com/>

²<https://www.synthesio.com/blog/social-media-intelligence-definition/>

³<https://www.theguardian.com/technology/2012/apr/24/former-spy-chief-laws-snooping>

amounts of metadata and content. Broader in scope than spyware, which intercepts communications by targeting specific individuals' devices, social media surveillance cannot be dismissed as less invasive. Billions of people around the world use these digital platforms to communicate with loved ones, connect with friends and associates, and express their political, social, and religious beliefs. Even when it concerns individuals who seldom interact with such services, the information that is collected, generated, and inferred about them holds tremendous value not only for advertisers, but increasingly for law enforcement and intelligence agencies as well [10].

Advances in artificial intelligence (AI) have opened up new possibilities for automated mass surveillance. Sophisticated monitoring systems can quickly map users' relationships through link analysis and assign a meaning or attitude to their social media posts using natural-language processing and sentiment analysis and infer their past, present, or future locations. Machine learning enables these systems to find patterns that may be invisible to humans, while deep neural networks can identify and suggest whole new categories of patterns for further investigation.

Methodologically, social media monitoring can be performed in the following two ways. The first involves feeding the algorithm with a string of keywords, which leads to "producing an overview of the instances of online communication and their locations (forums, Facebook pages, Twitter accounts, etc. as shown in Figure 1) in which these keywords are used". The second way entails directing the algorithm towards a specific set of discussion forums and social networking sites, and to search them for a number of keywords

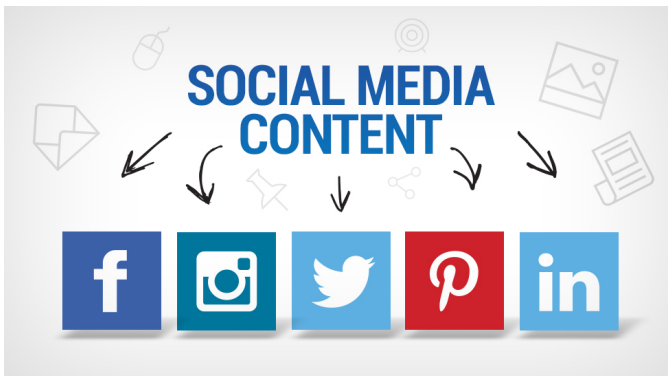


Fig. 1. Social media surveillance on different applications

II. COUNTER ARGUMENT

A. *Argument-I:*

Social Media Intelligence is not only a tool for improving and analyzing aspects of the social media experience and/or business advancement and reformation but also the means of automation and self-sustenance of these networks. However, at present this is a farfetched idea. Various social media platforms on Internet such as Twitter, Tumbler (microblogging websites), Facebook (a popular social networking

website), YouTube (largest video sharing and hosting website) and Blogs and discussion forums are being used to analyze customer behavior and market trends but the same can backfire on a massive scale as almost any of these can and are being misused by extremist groups for spreading their beliefs and ideologies, promoting radicalization, recruiting members and creating online virtual communities sharing a common agenda [3]. Popular microblogging websites such as Twitter are being used as a real-time platform for information sharing and communication during planning and mobilization of civil unrest related events. These trends and agendas, if acted upon can lead to huge social and political issues and thus need to be dealt with conscience and care.

For example at present, we can go online and purchase a lot of t-shirts that are made out trending memes or jokes on social media, messages that have gone viral and spread across the globe but the same cannot be done with other types of equally popular messages or trends like those spread by violent groups like ISIS or ISIL [4].

B. *Argument-II:*

Social Media Intelligence is increasingly considered relevant and cost efficient information, and the exploitation of social media information in the name of security and public safety is generally regarded as unproblematic. We will critically scrutinize this claim and argue that the exploitation of such information by Intelligence and Security Services raises new ethical concerns. Drawing on recent moral discussions about privacy, we will argue that individuals have an interest in privacy in public spaces, including online spaces. We will discuss the role of such public privacy interests and argue that the systematic surveillance of social media platforms by security authorities potentially entail a negative chilling effect.

The social media surveillance tools that have appeared in democracies got their start on foreign battlefields and in counterterrorism settings, designed to monitor acute security threats in places like Syria. Many US data-mining companies received seed money from the Central Intelligence Agency through its In-Q-Tel venture capital fund [11]. While authorities in the past typically justified the use of these tools with the need to combat serious crimes such as terrorism, child sexual abuse, and large-scale narcotics trafficking, law enforcement and other agencies.

Intelligence and security agencies have always tried to intercept public (as well as private) life in order to gather intelligence about possible events and actions.[12] When public life moves into the realm of social media and digital platforms it is no surprise that intelligence services and practices follow suit. The question remains the same: should we have privacy in public spaces? The nature of public and private spaces has changed in the 'digital age', and it has become even more unclear where the distinction between private and public spaces should be drawn when it comes to online spaces, which are non-physical and mediated by a digital device.6 Consequently, a clear-cut notion of when and why online privacy should be respected is likewise difficult to capture.

For instance, all activities on social media such as Facebook and Twitter are meticulously tracked and stored all the time – as far as we know for good.

C. Argument-III:

Being an internet user of the twenty-first century, you would be shocked to learn about the social media and associated tools misconceptions that advertisers believe in. Any of these myths have the potential to harm their own company. It's interesting to see so many businesses feel that social media marketing is a waste of time and money. For those who reluctantly engage in social media ads, or at least claim to do so, are not completely serious in their attempts. Apart from that one such myth that customers and more likely company believes in is being involved on social media means introducing yourself to a wide variety of users, some of whom may or may not be interested in talking about or seeing your brand. With the internet more available than ever before, there are still those who want to damage one's image by putting on some negative feedback or comments. If your company is new or just getting started, you're more likely to be targeted. Apart from these facts, many companies think that making the use of social media intelligence or marketing on social media won't increase their sales, hence would lead to low Return on Investment. Apart from that many brands have a thinking that just focusing on most renowned social media platforms like whatsapp, Instagram and facebook, are important to market their products, rather than targeting variety of platforms that can actually complement their product.⁴

D. Provide supporting information for counter claims

'The opportunities that the explosion of social media use offers are remarkable. SOCMINT must become a full member of the intelligence and law enforcement family'. [13] This is one of the concluding remarks by Sir David Omand, Jamie Bartlett, and Carl Miller in a paper from 2012 on the use of social media intelligence (SOCMINT). The paper depicts a 'rapid growth of interest by law enforcement in intelligence derived from social media' and calls for a methodological and ethical framework for its use.[13] The need for such a framework seems more pressing than ever. Recently, social media data has been used for case management within the Danish tax system as well as by insurance companies in order to uncover fraud,[13] and the potential for intelligence and security services has been deemed massive and cost efficient.[13] For decades, the promise of big data analytics has been alluring as well as severely criticized. The recent scandal concerning Cambridge Analytica's exploitation of Facebook user data and the public outcry that followed show some of the potential for gathering information on social media platforms as well as the expectations of the average platform user.

Another example, is from the United States claiming that its power to conduct warrantless searches extends within a 100-mile radius of any US border, DHS has effectively

asserted extrajudicial surveillance powers over 200 million people. CBP has even purchased technology from Cellebrite, an Israeli company, to bypass encryption and passwords and enable quick extraction of data from phones and computers, including social media content. There has been a spike in device searches at the borders in recent years; the number of such searches, normally limited under the Fourth Amendment of the constitution, increased by huge percent, between fiscal year 2015 and fiscal year 2018.⁵

E. Give evidence for argument

Presumably, what Cambridge Analytica did was to affect the 2016 US presidential election by targeting Facebook users with customized political ads based on personal information harvested through tests and quizzes on Facebook (at least that is what they say they did). Cambridge Analytica exploited Facebook's business model and they exploited the consent given by users when taking the test or quiz. The legal problem in the Cambridge Analytica case was not that they gathered information from and targeted the users who had taken the tests and quizzes. It was that they also gathered information on and targeted the users' friends, who had not consented to the use of their data by Cambridge Analytica. Morally speaking, there may be problems with both types of information gathering. Further, the public outcry shows that people in general do not feel comfortable with systemic gathering of their personal data and information.

The value and importance placed on information from open sources in intelligence analysis is old news. There is a saying in the intelligence community that about 80 per cent of available and relevant intelligence is derived from open sources.[13] Social media platforms such as Facebook, Google+, Twitter and Instagram are increasingly essential elements of our social lives, and unsurprisingly they are considered significant sources of information in the context of security and public safety.[13] The public's intense use of social media in all areas of their lives creates new possibilities for police authorities. Security and safety authorities use social media information in various ways. For instance, social media information can help the police obtain a timely and detailed impression of a particular event before arriving at the specific location – for example, a riot or a crime scene in a public place. Additionally, social media platforms are important sources of information gathered to detect specific committed crimes, and thus serve as important sources for reactive crime detection.[13] Anderson emphasizes the importance of information derived from social media profiles in the prosecution of terrorist offences in the United Kingdom:

In the United Kingdom, for example, London police reportedly monitored nearly 9,000 activists from across the political spectrum—many of whom had no criminal background—using geolocation tracking and sentiment analysis on data scraped from Facebook, Twitter, and other platforms. This information was then compiled in secret dossiers on each

⁴ www.genylabs.io/busting-the-common-myths-about-social-media-intelligence/

campaigner.⁵

III. OWN ARGUMENTS

A. Assert point of own claims

This is where the term 'intelligence' comes in. Social media has drawn the attention of a number of interdisciplinary fields of study apart from information technology and computer science, ranging from political science, social science, psychology, criminology to digital marketing and management just to name a few. Social media intelligence provide perfect tools to gather and analyze data and draw meaningful patterns for each of these fields. Natural Language Processing tools are used to evaluate customer behavior, assessing comments and posts. Trending tags and keywords fished using a web crawler can be used to search ongoing trends or evaluate popularity while subjectivity and polarity (Sentiment Analysis) used to evaluate a user's perspective [5]. Neural Networks are used to evaluate influence and homophily in network for effective marketing and data circulation [6]. Advances are made on recommendation systems not just for products but even to connect highly similar people [7], or to show relatable advertisements, recommend books, shows, music and display relatable posts and news feed. AI is also used to identify and classifying images. It also works in powering realistic chatbots and text recommendations [8] like those provided in LinkedIn social network. It works to better security and surveillance on these social networks as well which is illustrated in the following sub sections. The study in the field of Social Media Intelligence is still relatively new and still in its growing phase despite the growing attention from businesses and other communities. All these above mentioned implementations are yet to take over completely [9].

B. Opinion

Social media is a conversational, distributed mode of content generation, dissemination, and communication among communities. Different from the traditional broadcast-based and industrial media, social media has torn down the boundaries between authorship and readership, while the information consumption and circulation process is becoming intrinsically intertwined with the process of generating and sharing information. Working with the information overflow, yet utilizing all that benefits and knowledge social media has to offer can be achieved only if we handle social media with intelligence. Implementation and utilization of social media intelligence is still in its infant stage yet its effectiveness and benefits cannot be questioned.

C. Assert point of own claims

Social media have a kind of dual nature: they are public but often feel private, and information from social media is therefore situated in a 'grey zone' between public and private.[13] Although the information can easily be accessed, the pressing question is whether and under which circumstances it is

morally permissible for government authorities to gain access to personal social media accounts and exploit the information for safety and security issues.[13] Actual practice shows that, for the moment, we cannot expect any kind of privacy on social media, but that does not mean that we do not have an interest in such privacy both now and in the future. However, even if we agree that social media platforms are public spaces (at least to some degree), the gaining of access by government authorities to information available on these platforms would equal surveillance of public spaces – especially if the access is gained systematically. Thus, the moral permissibility of systematically exploiting such information becomes more questionable, since surveillance of public spaces often entails intrusion on the privacy of the affected individuals.

At the very least, social media surveillance must come under greater oversight. The use of such programs must be transparent, including sustained dialogue between law enforcement and affected communities. Public civil rights assessments should be conducted, and authorities should be held accountable when tools are misused and offer remedies for any victims. Online surveillance technology should not be used to proactively monitor the planning and organization of peaceful protest activities or individuals' involvement in nonviolent political groups.⁶ And governments should swiftly amend existing privacy legislation to address the proper use of this technology.

Thanks to the development of AI-assisted tools, governments now have a greater capacity for surveillance than ever before. Given their potential impact on fundamental rights, policymakers and citizens must ask themselves whether these new tools are necessary or desirable in a democratic society. It is time to move beyond outdated arguments that individuals "should have nothing to hide" or do not have a reasonable expectation of privacy in public areas. The survival of democracy requires vibrant public spaces, both offline and online, where individuals can collaborate, organize, and go about their personal lives without fear of constant surveillance.

D. Providing support/proof using more than one source

The market for social media surveillance has grown, giving intelligence and law enforcement agencies new tools for combing through massive amounts of information. At least 40 of the 65 countries covered by a report on social media surveillance⁶ have instituted advanced social media monitoring programs.

1) China is a leader in developing, employing, and exporting social media surveillance tools. The Chinese firm Semptian has touted its Aegis surveillance system as providing "a full view to the virtual world" with the capacity to "store and analyze unlimited data." The company claims to be monitoring over 200 million individuals in China—a quarter of the country's internet users.⁶ The company even markets a "national firewall" product, mimicking the so-called Great Firewall that controls internet traffic in China.

⁵<https://freedomhouse.org/report/freedom-net/2019/crisis-social-media>.

⁶<https://freedomhouse.org/report/freedom-on-the-net/2019/the-crisis-of-social-media/social-media-surveillance>

2) Russia has used sophisticated social media surveillance tools for many years. The government issued three tenders in 2012 for the development of research methods related to “social networks intelligence,” foreshadowing how intelligence agencies would eventually master the manipulation of social media at home and abroad.

3) Monitoring projects are under way in Africa as well. The government of Nigeria allocated 2.2 billion naira (6.6 million dollars) in its 2018 budget for a “Social Media Mining Suite,” having already ordered the military to watch for anti-government content online.

4) In 2011, the Danish Tax Agency used the Facebook profile of an employee to gain access to personal information about a Danish citizen (whom we shall call S), in order to check whether she had informed the Tax Agency correctly about her financial situation. When S realized this, she complained to the Danish Ombudsman, arguing that her right to privacy had been violated. The Ombudsman’s conclusion was that S’s privacy was not invaded in a problematic way and that the method used by the Tax Agency was not legally problematic – either according to the Danish Act on Processing of Personal Data or according to Facebook’s guidelines. In the conclusion, the Ombudsman emphasized that S’s Facebook profile was open to all Facebook users (i.e., public) and referred to Facebook’s ‘Statement of Rights and Responsibilities’ from 2011, which states that: 368 K. V. RØNN AND S. O. SØE When you publish content or information using the Public setting, it means that you are allowing everyone, including people off of Facebook, to access and use that information, and to associate it with you (i.e., your name and profile picture).[13]The additional fact that the Danish Tax Agency did not use a fake Facebook profile to gain access led to the conclusion that the authority could not be criticized for applying this method.

5) A similar case recently occurred in the Danish media, when an insurance company used publicly available information from a running app and a Facebook profile in order to contest a client’s claim of compensation for a neck injury.[13] The case created a lot of attention and debate about the permissibility of accessing social media profiles. However, the conclusion in this case, as in the tax case, was that the insurance company did nothing illegal since the information was publicly available and accessible. In the wake of this case, the Danish Consumer Council stated that more public awareness on the nature of social media information is needed, since posting on social media is apparently similar to publishing the information in a public newspaper.[13] The complaint by the targeted individual in the Danish tax case illustrates to some extent that people do not necessarily feel comfortable with the fact that governmental authorities can gain access and use information from personal Facebook accounts in order to prove a case against them. This resistance towards official use of social media information could suggest that some social media users do not expect such exploitation of their social media profiles and that they have not accepted these types of actions. The question is whether this lack of public acceptance should

play a role when determining the permissibility of accessing social media information.

E. Assert point of own claims

Considering the first myth that companies or brands believe in that marketing is a waste of time, rather it’s a fantastic way for the company to reach out to a vast number of customers who are involved in your goods or services. Social media’s potential to target vast crowds is a major benefit. It allows the company to find more leads that are interested in your goods or services. There are number of U.S. adults who use social media services online or on phones, according to Pew Research Center and the numbers are:

- YouTube: 73%
- Facebook: 68%
- Instagram: 35%
- Pinterest: 29%
- Snapchat: 27%
- LinkedIn: 25%
- Twitter: 24%

Many of these pages are popular with American adults, providing excellent ways for the company to reach out to potential customers.⁷ Second such source of claim is as follows : With 1.97 billion monthly users as of April 2017, Facebook holds the enviable status of being the world’s most popular social media platform (Statista 2017). In addition to tweets, social networking networks are inundated with photo and video uploads; according to latest figures, Snapchat receives about 400 million snaps every day, and about 9000 images being posted every second. Two million companies use Facebook ads, amid the fact that 50 million businesses have Facebook business accounts. [14] Apart from that another source shows that you are greatly mistaken if you feel that social media ads and the metrics associated with it are unimportant. The following facts are enough to contradict such counter claim:

- If they have a good social media service connection, 71% of consumers suggest they would suggest a company to others.
- 90% of social media users connect with advertisers and businesses across the platform. ⁸.

Considering the fact that many people post unreliable or wrong/fake information regarding some new businesses that can disrupt their reputation and all these comments can sometime not be taken care of if considered manually, Artificial intelligence in social media can help in taking care of such comments according to one of the article written in forbes which says that “The pace at which bots can detect and delete this form of content until it has an effect or influences someone is a benefit of letting bots handling it”. It could also be a way to discover more extremist information based on a greater interpretation of it than a person could possibly have. AI would

⁷www.webfx.com/internet-marketing/social-media-marketing-advantages-and-disadvantages.html

⁸www.genylabs.io/busting-the-common-myths-about-social-media-intelligence/

be able to target a particular range of keywords, minimizing the amount of time Facebook or any other social media spends actively checking published content.⁹. Saying that ROI will be low while considering Social media intelligence is not true in every case. You may use social media marketing to affect instant purchases, but the most successful use of social media marketing is to build brand interactions that contribute to long-term consumer engagement and sales. As a result, your return on investment can be postponed (of course, you might also hit a home run with a viral post). Now you already have a loyal customers under your brand name, then the return on Investment will not low as there are high chances of your post getting viral leading to huge profit than expected.¹⁰.

IV. CONCLUSION AND TAKING POSITION

There are many definitions of social media around, each with a slight variation of words but preciously the same meaning – “Social media are interactive digitally mediated technologies that facilitate the creation or sharing/exchange of information, ideas, career interests, and other forms of expression via virtual communities and networks.”, yet none of the arguments in this paper nowhere paraphrase social media or social media networks to anything as simple as this. Maybe this was the idea two decades ago when the world was just being introduced to this birthing concept but today, considering the arguments in this paper, a lot has been added to it. On one hand we argue how certain individuals and organizations are ignorant towards the power of Social Media and what it has to offer, on the other hand we unveil the threatening, daunting aspects of it. Social Media is no doubt a valuable resource with petabytes of data which if used to our advantage, can favor us with unimaginable breakthroughs and Social Media Intelligence is the tool that can take us there as it is the only way we can utilize, or even begin to make sense of this huge pile of raw information. It is true that Social Media Intelligence is still in its infancy in comparison to the degree of advancement we are hoping to achieve, however, like the two faces of a coin, the probable benefits here are to be faced down with greater challenges. “Knowledge is power” and the dual nature of power has to be dealt with before we dive head first into this new world. Being in its early phases itself, social media intelligence has put to a lot of diverse and even questionable uses. Politics, religion, culture, customs and beliefs- all sensitive aspects of an individual’s life stand at a risk of being attacked, not to mention the invasion of privacy done in the name of research or supervision. All the claims, arguments, and counter arguments presented in this paper can be interpreted in multiple ways- effects of social media intelligence; how it will or has affected fields like marketing or management or politics or even law and order; or how advances are made in this field but above all, it is a bell, a cue that referring to the current events, just like the aforementioned

definition of the term “social media”, our understanding and the way of dealing and handling this upcoming era of “Social Media Intelligence” including the present law is all equally outdated and if we want better outcomes from these technical tools of enormous significance, we should better learn how to control them first.

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¹⁰www.psprint.com/resources/social-media-marketing-pros/