

OSINT & SOCMINT research ideas

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1 Suggested literature

1.1 The value of social media for innovation: A capability perspective

This article enriches organizational capability theory as it pertains to innovation, and it provides managers with guidance for implementing social media strategies in practice Muninger et al. (2019). This framework, designed to support applications of social media for innovation, sheds light on three key capabilities and related resources:

1. social media managers who orchestrate social media activities across the innovation process
2. top management that cultivates support, team empowerment, and test-and-learn cycles
3. and agile processes that facilitate rapid decision making and knowledge flows across teams

1.2 Elements of strategic social media marketing: A holistic framework

By providing a comprehensive conceptualization and definition of strategic social media marketing, this research proposes an integrative framework that expands beyond extant marketing theory Felix et al. (2017). Furthermore, managers can apply the framework to position their organizations on these four dimensions in a manner consistent with their overall corporate mission and objectives.

1.3 Handbook of Research on Integrating Social Media into Strategic Marketing

Aims to help researchers and marketing managers understand the implications of SoMe as a marketing channel Hajli (2015). It provides case studies from sport and markets outside western economics.

1.4 Social Network Analysis - Algorithms and measures to understand networks

Social network analysis is a way to understand how networks behave, and uncover the most important nodes within them.

Whether you're working with social networks, infrastructure and IT networks, or any other kind of complex connected system, these algorithms cut through noisy data to reveal nodes or clusters in the network that require attention.

Let's take a look at some of the social network analysis measures and algorithms available Intelligence (2021).

1.5 Social Media Web Scrapping using Social Media Developers API and Regex

This can be resolved with a Web Scrapping method proposed in this paper, that able to search information, combine and present it in a better way according to user preferences Dewi et al. (2019). A system is developed to implement the proposed method by using an API that Facebook Developers and Twitter Developers provided. In addition, regular expression (or Regex) which is a language construction that can be used for matching text by using some patterns.

1.6 Big Data, Collection of (Social Media, Harvesting)

Different from traditional social science research methods such as survey, experiment, or content analysis, a new set of methods are required to collect Big Data from social media Liang & Zhu (2017). In the current entry, we introduce the general procedure of how to collect social media data on content, usage, and structure via direct scraping and application programming interfaces (APIs). We also discuss sampling strategy and ethical issues involved in data collection from social media.

1.7 Social media analytics: a survey of techniques, tools and platforms

This paper is written for (social science) researchers seeking to analyze the wealth of social media now available Batrinca & Treleaven (2015). It presents a comprehensive review of software tools for social networking media, wikis, really simple syndication feeds, blogs, newsgroups, chat and news feeds. For completeness, it also includes introductions to social media scraping, storage, data cleaning and sentiment analysis. Although principally a review, the paper also provides a methodology and a critique of social media tools.

1.8 Social Media data: Challenges, opportunities and limitations in urban studies

This paper addresses the challenges and opportunities as well as some of the limitations and biases associated with the collection and use of LBSN data from Foursquare, Twitter, Google Places, Instagram and Airbnb in the context of urban phenomena research Martí et al. (2019).

1.9 Introducing social media intelligence (SOCMINT)

In an age of ubiquitous social media it is the responsibility of the security community to admit SOCMINT into the national intelligence framework, but only when two important tests are passed Omand et al. (2012). First, that it rests on solid methodological bedrock of collection, evidence, verification, understanding and application. Second, that the moral hazard it entails can be legitimately managed. This article offers a framework for how this can be done.

1.10 SOCMINT: a shifting balance of opportunity

The ubiquity of social media platforms promises greater government insight for horizon scanning, warning notice, investigations and situational awareness Dover (2020). This paper concludes that SOCMINT has utility in horizon scanning, offers limited value to warning notice and situational awareness. For the Five Eyes nations the adversary utilisation of SOCMINT is considerable and outweigh the advantages of this technology. Western powers are currently losing the information component of hybrid conflict. Consequently, capable and hostile cyber powers understand the western centre of gravity and have been able to undermine confidence in the public's certainty in facts and democratic institutions.

1.11 Social Media Intelligence (SOCMINT)

Social media intelligence (SOCMINT) is an increasingly important component of digital intelligence, itself now a major source of information for police, security and intelligence authorities on the identities, location, movement, financing and intentions of their suspects Omand (2017). The growth in use of social media for these purposes is explained, with examples of tactical, operational and strategic use. Issues around the use of data analytics and computerized sentiment analysis are explored. The legal and ethical implications of state monitoring of social media are examined critically with the example of the UK as a nation that has comprehensive legislation and oversight to ensure respect for personal privacy.

1.12 Social Network Analysis: From Graph Theory to Applications with Python

Social network analysis is the process of investigating social structures through the use of networks and graph theory. This article introduces data scientists to the theory of social networks, with a short introduction to graph theory and information spread. It dives into Python code with NetworkX constructing and implying social networks from real datasets Goldenberg (2021).

1.13 A simulation method for social networks

In this paper, we propose an effective and practical approach for simulating social networks. We first develop a social network model that considers growth and connection mechanisms (including addition and deletion) of social networks. We consider the nodes' in-degree, inter-nodes' close degree which indicates how close the nodes are in the social network, which is limited by the in-degree threshold. We then develop a graph-based stratified random sampling algorithm for generating an initial network. To obtain the snapshots of a social network of the past, current and the future, we further develop a close degree algorithm and a close degree of estimation algorithm. The degree distribution of our model follows a power-law distribution with a "fat-tail". Experimental results using real-life social networks show the effectiveness of our proposed simulation method Zeng et al. (2015).

1.14 NetSim: A Social Networks Simulation Tool in R

NetSim is an R package that allows to simulate the co-evolution of social networks and individual attributes. It can be used to study the impact of micro models that describe the behavior of individuals on the macro outcome of social networks. NetSim is based on a flexible Markov framework that enables the combination of a variety of different models Stadtfeld (n.d.).

1.15 The Four Phases of BDI Methodology

The BDi methodology consists of four phases Group (2020):

- Strategic Communication Planning (SCP)
- Target Audience Analysis (TAA)
- Campaign Intervention Strategy (CIS)
- Audience-Based Measures of Effectiveness (AB-MOE)

1.16 The Impact of the OCEAN Personality Model on the Perception of Crowds

Most current crowd simulators animate homogeneous crowds, but include underlying parameters that can be tuned to create variations within the crowd. These parameters, however, are specific to the crowd models and may be difficult for an animator or naïve user to use. We propose mapping these parameters to personality traits. In this paper, we extend the HiDAC (High-Density Autonomous Crowds) system by providing each agent with a personality model. We use the OCEAN personality model as a basis for agent psychology. To each personality trait we associate nominal behaviors; thus, specifying personality for an agent leads to an automation of the low-level parameter tuning process. We describe a plausible mapping from personality traits to the existing behavior types and analyze the overall emergent crowd behaviors. Finally, we validate our mapping by user studies that assess the perception of the traits in the animations illustrating such behaviors Durupinar et al. (n.d.).

1.17 Simulating Crowds with OCEAN Personality Traits

Most of the techniques available nowadays for crowd simulation are focused on a specific situation, like people evacuation. Even if one consider heterogeneous crowds, very few of existing methodologies consider the psychological traits of individuals in order to determine the behavior of agents. Therefore, this work aims to add psychological factor as input for agents simulation, which is going to determine their group behavior and, therefore, how individuals move and evolve in virtual environments. The proposed input is the individuals OCEAN attributes which are used to parametrize BioCrowds, a crowd simulation method. We implemented two different parameterizations to map from OCEAN to crowd parameters and compare results. Obtained results with both methods indicate a positive correlation, once they presented a similar behavior in both tested scenarios. In addition, we show how heterogeneous behaviors we can generate in comparison to original BioCrowds Knob et al. (2018).

1.18 Other Ideas for information

1. Bellingcat.com
2. AggregateIQ.com
3. Art of war
4. Intelligence services
5. Manipulasjon (book)
6. <https://i-intelligence.eu/courses/social-media-intelligence-socmint>
7. <https://github.com/topics/socmint>
8. <https://cobwebs.com/using-socmint-for-threat-hunting-in-law-enforcement-investigati>

2 Suggested research questions

1. What is SOCMINT?
2. Why is SOCMINT used?
3. Who uses SOCMINT?
4. How is SOCMINT collected?
5. How is SOCMINT analyzed?
6. How is SOCMINT applied?
7. What frameworks are there for SOCMINT?
8. What leadership frameworks are there for SOCMINT operations?
9. How to measure SOCMINT operational effectiveness?
10. Is there a similarity between SOCMINT operations and marketing?
11. Can SOCMINT be used to mitigate SoMe manipulation?
12. What ethical and legal issues are there?

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