**Individual In-depth Report**

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**Evaluated by:** [Anuranjan Dubey](mailto:adubey37@asu.edu) **Approved by:** [Gautham Vijayaraj](mailto:gvijaya6@asu.edu) **Date: September 2, 2023**

**Tasks Assigned:**

* There are a wide variety of suspicious activities that go on social media these days. Thus it is important that we study the different types of suspicious activities.
* Studied the paper “Suspicious Behavior Detection Current Trends and Future\_Directions” to answer the question What are the different kinds of suspicious behaviors that are present on social media?

**Summary:**

* After studying the paper these are some of the different suspicious activities that go on social media:
* These types of suspicious activities on social media platforms can have detrimental effects, including the spread of misinformation, erosion of trust, and manipulation of user interactions. Detecting and mitigating these behaviors is crucial to maintain the integrity and security of online social environments.
* **Social Spam**: Social spam includes unwanted user-generated content on social networking services (SNSs) like Facebook, Twitter, or MySpace.
* It also includes spam messages, comments, or tweets that disrupt the quality of user experiences on these platforms.
* **Social Sybils**:Social sybils refer to suspicious accounts that create multiple fake identities to artificially boost the influence or power of a single user.
* They often work together to appear legitimate while promoting certain content or ideas.
* Social Sybil accounts can be used for various purposes, including political propaganda, online harassment, or artificially inflating the follower count of public figures.
* **Astroturfing**:Astroturfing is a deceptive practice where individuals or organizations disguise their activities as grassroots or spontaneous behavior.
* It involves creating the illusion of widespread support or engagement when, in reality, it's orchestrated by a single entity.
* **Link Farming**:Link farming has evolved to include various graph-based schemes within social networks.
* Here Fraudsters may artificially increase followers, likes, or connections, distorting the structure of social graphs for personal gain.
* It can also include the creation of networks of interconnected accounts that engage in coordinated actions, such as retweeting or liking specific content to amplify its reach.

**Outcome:** The outcome of studying these various suspicious behaviors on social media is to develop effective techniques for detecting and preventing them using data mining and machine learning approaches. By understanding the types of these behaviors, researchers can design algorithms and models that can identify and mitigate suspicious activities on social media platforms.

**References** *(with citation)*

[1] M. Jiang, P. Cui and C. Faloutsos, "Suspicious Behavior Detection: Current Trends and Future Directions," in *IEEE Intelligent Systems*, vol. 31, no. 1, pp. 31-39,

**Evaluation of Report**

**Evaluation summary with justification.**

The text report provides a concise overview of various suspicious activities on social media, including social spam, social sybils, astroturfing, and link farming. It emphasizes the importance of studying and detecting these behaviors to maintain the integrity and security of online social environments. The text report also highlights the need for data mining and machine learning techniques to address these issues effectively. Overall, it effectively summarizes the key points and justifies the significance of the topic.

**The quality of the major result(s) with justification.**  
The result, categorizing and explaining suspicious activities on social media, is valuable due to its clarity, relevance to contemporary issues, depth of coverage, and implications.

**The usefulness of the paper to the overall project.**   
The paper on suspicious behavior detection is highly useful for the overall project. It provides foundational knowledge on different types of suspicious activities on social media, which is essential for designing effective data mining and machine learning techniques. Understanding these behaviors helps researchers develop algorithms that enhance detection, ensuring information assurance and security in online social environments.

**Other comments:**The report justifies the content and is clear to understand the gist of the paper.

**Evaluation Approval  
  
Evaluation by:** [Anuranjan Dubey](mailto:adubey37@asu.edu) **Date: 2 September 2023**

**Is the written report of the in-depth study complete with all the major result(s) of the paper(s)? If not, provide as many examples of the major result(s) missing in the written report as possible. (in bullet form). [Normally within 100 words]**

* The written report appears to comprehensively summarize the major results of the paper on suspicious behavior detection.
* The report adequately covers categories of suspicious activities, their consequences, and the role of data mining and machine learning in addressing them.
* No major results appear to be missing from the report.

**Is each section of the guidelines sufficiently completed? If not, point out what is missing. [Normally within 40 words].**

Yes

**Is the quality of this version of the written report satisfactory? If not, then why not? [Normally within 40 words]**

Yes

**Approval.  
  
Approved by:** [Gautham Vijayaraj](mailto:gvijaya6@asu.edu) **Date:** 2 September 2023 **Is the quality of this written in-depth study report and Evaluation report satisfactory? If not, then why not? (limit: 40 words)**

Yes, The report justifies the content of the paper and is clear to understand the gist of the paper.