

Chapter 2

LITERATURE SURVEY

2.1 Introduction

In [1] **“A new approach to bot detection: Striking the balance between precision and recall,”** in *Proc. IEEE/ACM Int. Conf. Adv. Social Netw. Anal. Mining*, San Francisco, CA, USA, Aug. 2016, by F. Morstatter, L. Wu, T. H. Nazer, K. M. Carley, and H. Liu

The presence of bots has been felt in many aspects of social media. Twitter, one example of social media, has especially felt the impact, with bots accounting for a large portion of its users. These bots have been used for malicious tasks such as spreading false information about political candidates and inflating the perceived popularity of celebrities. Furthermore, these bots can change the results of common analyses performed on social media. It is important that researchers and practitioners have tools in their arsenal to remove them. Approaches exist to remove bots, however they focus on precision to evaluate their model at the cost of recall. This means that while these approaches are almost always correct in the bots they delete, they ultimately delete very few, thus many bots remain. We propose a model which increases the recall in detecting bots, allowing a researcher to delete more bots. We evaluate our model on two real-world social media datasets and show that our detection algorithm removes more bots from a dataset than current approaches.

In [2] **“Is that social bot behaving unethically?”** *Commun. ACM*, vol. 60, no. 9, pp. 29–31, Sep. 2017, C. A. De Lima Salge and N. Berente

Attempting to answer the question posed by the title of this column requires us to reflect on moral goods and moral evils—on laws, duties, and norms, on actions and their consequences. In this Viewpoint, we draw on information systems ethics to present *Bot Ethics*, a procedure the general social media community can use to decide whether