

Detecting Spamming Stores by Analyzing Their Suspicious Behaviors

Ji Chengzhang*, Dae-Ki Kang**

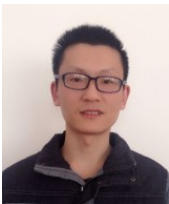
**Weifang University of Science & Technology, Weifang 262700, China*

***Dongseo University, 47 Churye Ro, Sasang-Gu, Busan 617-716, Republic of Korea*

jcz8888@163.com, dkkang@dongseo.ac.kr

Abstract— The purpose of this paper is to detect the stores with spamming behaviors. We identify suspicious behaviors of these stores to detect spamming stores. These suspicious behaviors are from the two following observations. First, spamming stores may target quantity of sale and product reviews to influence consumers' decisions. Second, they tend to deviate from the other stores in quantity of the sale and reviews. From those observations, we propose a novel scoring methods to find spamming stores, and they are applied on AliExpress dataset. Our experiment results show that our proposed methods are effective in finding spamming stores.

Keywords— Spamming behavior, spamming store, detection method



Ji Chengzhang He received the B.S. degree in computer science and technology from Linyi University, Linyi, Shandong Province, China in 2005, and received the M.S. degree in computer application technology from Ocean University of China, Qingdao, Shandong Province, China in 2010. He had been working as an Assistant or Lecturer in Weifang University of Science & Technology, China from 2005 to 2015. Currently he is a doctoral candidate in machine learning at Dongseo University, Korea. His research interests include machine learning, data mining, spam review detection.



Dae-Ki Kang is an Associate Professor at Dongseo University in Korea. He was a Senior Member of the Engineering Staff at the Associated Institute of Electronics & Telecommunications Research in South Korea. He earned a PhD in Computer Science from Iowa State University in 2006. He received a Master of Science degree in computer science from Sogang University in 1994 and a BE in Computer Science and Engineering from Hanyang University in 1992.