Implementation of Robot Journalism by Programming *Custombot* using Tokenization and Custom Tagging

Naeun Lee, and Kirak Kim, Taeseon Yoon

Hankuk Academy of Foreign Studies, Yongin, Gyeonggi, South Korea
janice.rhea@gmail.com, lecilless@gmail.com, tsyoon@hafs.hs.kr

Abstract— The paper introduces a prototype of an algorithm that creates personalized news articles about IT and technology based on each personal preference for a specific theme, criteria, or element. When provided a specific personal preference, the algorithm Custombot analyses the data, derives the most appropriate topic that contains the most elements preferred by a person, and eventually produces a one and only news article on that topic. While processing and analysing data by inductive reasoning, Custombot considers the concepts of news angle and filter bubble. Text segmentation (tokenization) and custom tagging are two of the tasks that are used for the construction of this system, allowing to make custom tags and insert matching information in appropriate places. Its result of customized news article can serve as a new service provided by news organizations to satisfy each consumer's needs, and can also be a stepping stone in expanding the role or increasing the importance of robot journalism in a broad field of journalism.

Keyword—Custom Tagging, Filter Bubble, News Angle, Personalized News, Robot Journalism, Tokenization



Naeun Lee was born in Suwon, South Korea, in 1999. This author is currently studying at Hankuk Academy of Foreign Studies in Yongin, Gyeonggi. This author has worked as a student science journalist for National Science Museum in Korea in 2016. From 2017, she will work as an IT/science journalist for Korea Youth Press Corps. Highly interested in computer science and robot journalism, she wishes to study artificial intelligence, bioinformatics, or science journalism in the future.



Kirak Kim was born in Cheongju, South Korea in 1999. This author is currently studying at Hankuk Academy of Foreign Studies in Yongin, Gyeonggi. He wishes to study computer science and engineering in the future.



Taeseon Yoon was born in Seoul, Korea, in 1972. He was Ph.D. Candidate degree in Computer education from the Korea University, Seoul, Korea, in 2003. From 1998 to 2003, he was with EJB analyst and SCJP. From 2003 to 2004, he joined the Department of Computer Education, University of Korea, as a Lecturer and Ansan University, as an Adjunct professor. Since December 2004, he has been with the Hankuk Academy of Foreign Studies in Yongin, Gyeonggi, where he is a Computer Science and Statistics Teacher. He was the recipient of the Best Teacher Award of the Science Conference, Gyeonggi-do, Korea, 2013.