A study on the distribution tendency of everyday words on online social networks using stochastic processes

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In this study, how the comments change depending on the content and the number of reports in daily news media such as “weather information” and “traffic information” is influenced by news using mathematical models of social phenomena. We thought that it might be possible to consider whether it is due to nature or not. In this paper, we considered information that is easily referred to on OSN, such as “weather” and “traffic” in Japanese, and that is easily searched and refer- enced.The results in Fig. 1 are the results and parameters obtained by fitting the results on the bulletin board (Blog: 5ch) using the mathematical model (the model approximated by the mean field) also used in [1].

D is a probability of direct propagation, and P is a parameter of the prob- ability of propagation indirectly. Also, Cadv_T indicates the probability due to TV coverage time, and Cadv_n indicates the probability due to News. During this calculation period, the results were assumed to be abruptly mentioned after June 2019 and inferred that they were indirectly mentioned due to news. Using this method, we would like to discuss the diffusion of speech on online social media using parameters fitted to the diffusion process of information related to daily life by a model using a stochastic process.

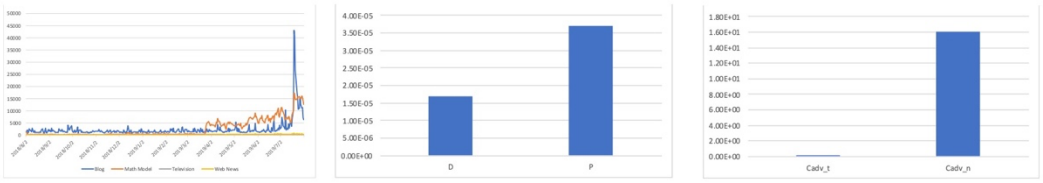

Figure 1: 2018/8-2019/7 : Number of mentions of `` weather '' on the bulletin board (Blog: 5ch) in Japanese within 2018 / 8-2019 / 7 and Fitting Parameta Result

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References

[1] Kawahata, Yasuko, et al. "Analysis of mathematical model of hit phenomena stage actors of Japan." International Journal of Affective Engineering 13.1 (2014): 89-94.