

Graduate School of Science and Technology Master's Thesis Abstract

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Thesis title	A Trust Model with Personality Factors for Information Dissemination in Social Networking Service 性格要因を考慮したSNS上の情報伝播に対するトラストモデル		
Abstract			
<p> Social Networking Service (SNS) has become a new platform of information sharing and interchanging. However, users find it difficult to distinguish the trustworthiness of a piece of information on SNS and sometimes fall into the fake news, specifically for disaster-related information. While receiving a piece of information in SNS, users will calculate information trustworthiness and perform actions, such as liking, sharing, and commenting. These actions differ among users, depending on their personality attributes. We construct a model based on the trust model and big-five personality traits to understand how this mechanism works. The existing trust model consists of four general types of trust: identify-based, behavior-based, relation-based, and feedback factor. However, in this model, the information attributes are not considered, which is different from our findings in the questionnaire results. Therefore, we extend this model by implementing the information-based trust, which consists of content accuracy, number of pictures, logic, and post popularity. With the new trust model, we can develop an agent-based modeling simulation to investigate how fake news is disseminated among SNS users. In this agent-based model, we assigned users attributes according to the big-five personality and several users' aspects: knowledge level and psychopathy. With this approach, we evaluate the results of the proposed model through computer simulation, with two performance measures; the average overall trust values of all users and the number of tweets disseminated. The numerical results show that the average trust value and number of tweet generated change with different trust model and personality settings. </p>			