## Clip Recommendation based on Topic Similarity

Wonjoo Park, Jeong-Woo Son, Sang-Yun Lee, Sun-Joong Kim

Smart Media Research Group, Broadcasting and Media Research Laboratory ETRI (Electronics and Telecommunications Research Institute), Korea

## [wjpark, jwson, syllee, kimsj]@etri.re.kr

*Abstract*— We propose a clip recommendation technology based on topic similarity. Topics of a clip can represent semantics of each contents. When the topic distributions for clips are similar, it means they are alike. In this paper, we propose a system to learn topic distributions for broadcast contents and link clips based on topics similarity of each clip. The higher the similarity is among the clips, the higher the semantic is among them. This system can be adopted clip recommendation with audiences viewing history and their interest.

Keywords- Clip recommendation, topic model, topic similarity, clip metadata, clip search



**Wonjoo Park** received her MS degrees in information and communication engineering from Chungnam National University, Daejeon, Rep. of Korea in 2000. She joined ETRI, Rep. of Korea in 2000, where she is currently principal researcher. Her research interests includes data mining, topic model, and ontology



Jeong-Woo Son received his MS and Ph.D. degrees in computer engineering from Kyungpook National University, Daegu, Rep. of Korea in 2007 and 2012 respectively. Since 2013, he has been with Broadcasting & Telecommunications Media Research Lab., Electronics and Telecommunications Research Institute (ETRI), Daejeon, Rep. of Korea. He focuses on machine learning, NLP, and information retrieval.



Sang-Yun Lee received his MS and Ph.D. degrees in electronics and telecommunications engineering from Hanyang University, Seoul, Rep. of Korea in 1996 and 2007 respectively. Since 2011, he has been with Broadcasting & Telecommunications Media Research Lab., Electronics and Telecommunications Research Institute (ETRI), Daejeon, Rep. of Korea. He focuses on embedded software, smart TV software platform, and Web technology.



**Sun-Joong Kim** received her BS degree in computational statistics and her MS degree in computer science from Chungnam National University, Daejeon, Rep. of Korea, in 1989 and 2000 respectively. In February 1989, she joined ETRI, Daejeong, Rep. of Korea, where she is currently principal researcher and director. Her research interests includes convergence service control, smart TV, content knowledge mining.