ACM Special Interest Group on Multimedia (SIGMM) is pleased to present the 2016 SIGMM Outstanding Ph.D. Thesis Award to Dr. Christoph Kofler. The award committee considers Dr. Kofler’s dissertation entitled “User Intent in Online Video Search” worthy of the recognition as the thesis is the first to innovatively consider a user’s intent in multimedia search yielding significantly improved results in satisfying the information need of the user. The work has high originality and is expected to have significant impact, especially in boosting the search performance for multimedia data.

Dr. Kofler’s thesis systematically explores a user’s video search intent that is behind a user’s information need in three steps: (1) analyzing a real-world transaction log produced by a large video search engine to understand why searches fail, (2) understanding the possible intents of users behind video search and uploads, and (3) designing an intent-aware video search result optimization approach that re-ranks initial video search results so as to yield the highest potential to satisfy the users’ search intent.

The effectiveness of the framework developed in the thesis has been successfully justified by a thorough range of experiments. The thesis topic itself is highly topical and the framework makes groundbreaking contributions to our understanding and knowledge in the area of users’ information seeking, user intent, user satisfaction, and multimedia search engine usability. The publications related to the thesis clearly demonstrate the impact of this work across several research disciplines including multimedia, web, and information retrieval. Overall, the committee recognizes that the thesis has significant impact and makes considerable contributions to the multimedia community.

Bio of Awardee

Dr. Christoph Kofler is a software engineer and data scientist at Bloomberg L.P., NY, USA. He holds a Ph.D. degree from Delft University of Technology, The Netherlands, and an M.Sc. and B.Sc. degree from Klagenfurt University, Austria – all in Computer Science. His research interests include the broad fields of multimedia and text-based information retrieval with focus on search intent inference and its applications for search results optimization throughout the entire search engine pipeline (indexing, ranking, query formulation). In addition to “what” a user is looking for using search, Dr. Kofler is particularly interested in the “why” component behind the search and in the related opportunities for improving the efficiency and effectiveness of information retrieval systems. Dr. Kofler has co-authored more than 20 scientific publications with predominant focus on venues such as ACM Multimedia, IEEE Transactions on Multimedia, and ACM Computing Surveys. He has been a task co-organizer of the MediaEval Benchmark initiative. He received the Grand Challenge Best Presentation Award at ACM Multimedia and the Best Paper nomination at the European Conference on Information Retrieval. Dr. Kofler is a recipient of the Google Doctoral Fellowship in Information Retrieval (Video Search). He has held positions at Microsoft Research, Beijing, China; Columbia University, NY, USA; and Google, NY, USA.
The award committee is pleased to present an honorable mention to Dr. Varun Singh for the thesis entitled: “Protocols and Algorithms for Adaptive Multimedia Systems.” The thesis develops and presents congestion control algorithms and signaling protocols that are used in interactive multimedia communications. The committee is impressed by the thorough theoretical and experimental depth of the thesis. Additionally, remarkable are Dr. Singh’s efforts to shepherd his work to real world adoption which has led him to author four RFCs and several standards-track documents in the IETF. This has resulted in the incorporation of his work in the production versions of the Chrome and Firefox web browsers. Therefore, it can be seen that his work has already achieved impact in the multimedia community.

Bio of Awardee

Dr. Varun Singh received his Master’s degree in Electrical Engineering from Helsinki University of Technology, Finland, in 2009 his Ph.D. degree from Aalto University, Finland, in 2015. His research has led him to making important contributions to different standardization organization: 3GPP (2008 – 2010), IETF (since 2010), and W3C (since 2014). He is the co-author of the WebRTC Statistics API. Beyond this, his research work led him to found and become CEO of callstats.io, a startup which analyses and optimizes the Quality of multimedia in real-time communication (currently, WebRTC).