

WNM 2016 Keynote

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YouTube Popularity Dynamics and Third-party Authentication

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Abstract

This talk will present some of our measurement-based work on video popularity dynamics and third-party authentication. Video dissemination through sites such as YouTube can have widespread impacts on opinions, thoughts, and cultures. However, not all videos will reach the same popularity and have the same impact. In this talk, we first present some of our work on modeling video popularity dynamics and assess, both qualitatively and quantitatively, the impacts of various content-agnostic factors on video popularity. Second, we present an analysis of the third-party authentication landscape, including a comparison with the third-party content delivery landscape, a longitudinal study of current trends, as well as an evaluation of cross-site information leakages and privacy risks associated with these increasingly used services. If time permits, we may also discuss current personalization trends, and briefly introduce our novel design and implementation of an interactive branched video player solution that allows users to select their own paths through a branched multi-path video, while ensuring seamless playback even when the users defer their branch path choices to the last possible moment.

About the Speaker

Niklas Carlsson is an Associate Professor at Linköping University, Sweden. He received his M.Sc. degree in Engineering Physics from Umeå University, Sweden, and his Ph.D. in Computer Science from the University of Saskatchewan, Canada. He has previously worked as a Postdoctoral Fellow at the University of Saskatchewan, Canada, and as a Research Associate at the University of Calgary, Canada. His research interests are in the areas of design, modeling, characterization, and performance evaluation of distributed systems and networks. He actively serves on international program committees and publishes research papers in leading conferences. Current community involvement includes organizing ACM GreenMetrics (since 2009), being TCP co-chair of IEEE MASCOTS 2015, being an associate editor for IEEE Transactions on Sustainable Computing, being the current chair of IEEE STC on Sustainable Computing, and the acting secretary-treasurer of ACM SIGMETRICS.