SEMINAR NOTICE:

Measuring Media Quality: The Trouble with Mean Opinion Score

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Abstract:

Most media professionals have the desire to express quality in a way that is commonly understood and that facilitates comparisons across different algorithms, different organizations, and time. Mean Opinion Score (MOS) has emerged as the most popular descriptor of perceived media quality. The 5-point MOS scale (excellent, good, fair, poor, bad) in particular is widely used.

MOS has had great success in the domain of speech quality, and consequently it has also been used for other modalities such as audio, video, and audio-visual content, as well as numerous applications, from lab testing to in-service monitoring. MOS is used not only to express the results of subjective tests ("subjective MOS"), but also as the output of objective measurement algorithms that provide an automated alternative to subjective tests ("objective" or "predicted" MOS).

While there is a clear benefit to such a "reference quality indicator" and its widespread acceptance, MOS is often applied without sufficient consideration of its scope or limitations. In this talk, I will critically examine MOS and the various ways it is being used today. I will highlight common issues with both subjective and objective MOS and discuss a variety of alternative approaches that have been proposed for media quality measurement.

Biosketch:

Stefan Winkler is Principal Scientist and Director of the Interactive Digital Media Program at the University of Illinois' Advanced Digital Sciences Center (ADSC) in Singapore. He also serves as Scientific Advisor to Cheetah Technologies. Before that, he co-founded a start-up, worked in several large corporations, and held faculty positions at two universities.

Dr. Winkler has a Ph.D. degree from the Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland, and an M.Eng./B.Eng. degree from the University of Technology Vienna, Austria. He has published over 80 papers and the book "Digital Video Quality". He is Associate Editor for the IEEE Transactions on Image Processing and the IEEE Signal Processing Magazine. He has also contributed to quality measurement standards in ITU, VQEG, ATIS, VSF, and SCTE. His research interests include video processing, computer vision, perception, and human-computer interaction.