



THE CHINESE UNIVERSITY OF HONG KONG
 Institute of Network Coding
 and
 Department of Information Engineering
Seminar



Quality of Experience in Multimedia Communications

by

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Time : 11:00 am - 12:00 pm

**Venue : Room 833, Ho Sin Hang Engineering Building
 The Chinese University of Hong Kong**

Abstract

High quality and mobility are key elements of today's media experience. People expect the same level of quality on their portable devices as on their desktop computer or home entertainment system. Under these stringent requirements, the value of media services is no longer confined to the face value of the end products delivered to the customers, but in the level of satisfaction and experiences they provide. Hence, the ultimate measure of the value of media services is how the end user experiences them. Thus the customer's Quality of Experience (QoE) must become the ultimate baseline for delivering new media products. The term Quality of Experience can be considered relatively new to multimedia understanding. Different flavours of QoE definitions are stated throughout the literature. Generally QoE could be defined as "the overall acceptability of an application or service, as perceived subjectively by the end-user". The term QoE has been coined to differentiate between user perceived quality and technical quality measures relating to data transport, commonly denoted Quality of Service (QoS).

Today the ultimate challenge faced by the service providers is to deliver the maximum Quality of Experience to end-users with an optimal encoding scheme under transmission constrains such as bandwidth and other limitations. To achieve this, the video services need to be continuously monitored to ensure that users experience them as being of adequate quality. These quality monitoring procedures must necessarily be automated, since it would be obviously impracticable to have test persons continuously evaluating an entire delivery chain from content provider to the end-user. Thus requirement of quantifiable quality measurements are understandable.

In this tutorial we will discuss the motivations behind the QoE and its impertinence for future multimedia services, existing objective based metrics, current situation with the QoE reaserch, the hypothetical models and limitations, Quality of Service (QoS), Quality of Business (QoB), their relationship to the application provider/content provider and the user and maximising the quality and revenue, practical solutions and some of the potential application domains. We further focus on cost efficient delivery of rich interactive media services in real-life environments by jointly addressing user perceptual experience and quality/resource trade-offs. This would allow for a supplier independent interoperable multimedia network and service infrastructure that focuses on the users, focuses on their needs and expectations and allows for a seamless, personalised, trusted and, most importantly, satisfying experience.

Biography

Anil Fernando (SMIEEE) leads the Video Codec group at the University of Surrey, UK. He has been working in video coding and communications since 1998 and has published more than 250 international refereed journal and proceeding papers in this area. Furthermore, he has published more than 110 international refereed journal and conference papers in multimedia communications. He has contributed to several international projects and currently he is leading 3D video communications work in two large scale projects funded by the European Union on Media communications.

****ALL ARE WELCOME ****

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