

Good morning , ladies and gentlemen

You are welcome to join our workshop on the Future of Media.

I believe It will be great if I can share some exciting news at the opening of our workshop. As many of us are aware, there is a fresh announcement of a Primetime Engineering EMMY Award for the JPEG group, a collaboration of both ISO/IEC JTC1 and ITU-T SG16 for development of the original JPEG image coding standard, developed around 1992.

Of course it is not the first time for ITU-T and ISO/IEC to be awarded an famous international award for technical standardization work in the areas of media technologies.

You may all remember we and MPEG were given a Primetime Engineering Emmy in 2008 and a Technology & Engineering Emmy in 2009 for H.264/AVC (Advanced Video Coding), and a Primetime Emmy in 2017 for HEVC (High Efficiency Video Coding). And more importantly , I don't think it will be the last time for such a great fame to be conferred upon us!

In the age of 5G, AI , cloud and edge computing, the boundary of media is dynamic and changing fast to give us an ever expanding territory to work on.

What is media? Media for whom? They are all deep and thought-inspiring questions which take time to answer and are to be answered by the industry and academia with their bold conquests and advancing progress.

Some developments have provided partial answers and propel us to think and act.

For one thing, will media represent only audio and video as many are still believing today? I would like to say such a notion is somehow out -of-date and needs to be refreshed.

Like another term data, the word media is also constantly absorbing new things. With great delight, I see the topic of neural network compression in our program. Fundamental technical work is now being carried out in MPEG. Their results will probably have potential for SG16 in its various intelligent multimedia services and applications standards.

Video for humans only? Probably not. We are Homo Sapiens, this is true! But some other forms of intelligence embodied by machines are just on the rise. Machines also need and consume video. Recent work in MPEG on “Video Coding for Machines” (VCM) is very interesting and is attracting attention and many contributions. We are looking forward to an excellent presentation on VCM from our MPEG experts.

Immersive media related work has been conducted in SG16 for quite some time and the progress is steady with useful outputs. It is also a hot topic in MPEG. It will provide an opportunity for us to see how the work on ILE in SG16 and the work on immersive metadata in MPEG can be linked with some sense of synergy.

Video coding is always the core of our media work in both SG16 and MPEG, our Crown Jewelry! This area is still full of life and producing exciting things. It can be anticipated that SG16 and MPEG will jointly produce the next generation of video codec VVC in mid 2020. As its name indicates, versatility is one of the biggest selling points of this new video codec. With versatility to fit in a very wide variety of applications settings, VVC is like an all-weather fighter jet. It is another major breakthrough in compression efficiency, and also further broadens the range of applications. This good tradition is continuing. There are also several other new standardization projects in MPEG and JPEG; these include new kinds of immersive media and new schemes for compression encoding, and we will learn about those today as well.

AI for Good is our vision and slogan. But how can we turn vision into reality with our work in media standards? AI can be used for good in most cases, AI can greatly enhance those features of multimedia applications and

services for people with disabilities , therefore accessibility is always an intrinsic aspect of our requirements work in bringing AI to our multimedia services and applications. AI with applications to medical imagery can bring us great potentials of AI for Good in the health areas. Any useful results of this kind will also benefit our work in FG AI4H which is a common brainchild of ITU-T and WHO.

However, AI, if in the wrong hands, can do evil things! How can that be prevented using technologies? Probably, understanding how AI ,especially deep learning can be misused to produce ugly things like fake media can be a good starting point.

There is a high-value domain never to miss : applications of media in vertical industries like industrial automation and automotive, etc. For one thing, A wide range of media technologies like AR/VR and video for machines, when combined with 5G and AI, will profoundly transform today's manufacturing industry into tomorrow's world of smart digital factories.

JPEG is a technology born in early 1990s, but it is not old. On the contrary, this area is full of new progress, thanks to my great friend Touradj , chairman of JPEG and his team. Some latest developments in the area of JPEG standards will be demonstrated by him. The Emmy Award is given for JPEG's historical achievements,

JPEG's continuous growth will give us hopes for new experiences with our digital photography applications on mobile phones, pads and other devices.

The success in media technologies and standards always hinge on close collaboration and seamless synergy among a number of SDOS, SG16, MPEG and JPEG (both belongs to ISO/IEC JTC1 SC 29). This is a standing tradition we should cherish and care for forever.

Beyond 5G, 6G is emerging on the horizon, though still very blurry and hazy. We all need to think what the implication will be out there for us in media technologies.

Wish all of us a very successful workshop!

Thank you very much!