

Machine Learning 2018: Cyber performances, technical and artistic collaboration across Internet- Jiri Navratil -CESNET

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CESNET might be an exploration association with investigate concentrated on systems administration and video handling. We additionally assume a job of the National Research and Educational Network (NREN) giving e-foundation (rapid system, processing administrations and information storerooms) to scholarly clients in the Czech Republic. The CESNET system might be an a piece of the skilnet European system GEANT, which interfaces every single scholastic system in Europe and gives numerous connects to Asia, Africa, South America and along these lines the US. It makes an ideal situation for coordinated effort in numerous ways of science or culture. CESNET throughout the years has created two innovations that permit transmission of HD video over a system - UltraGrid as a product based arrangement and 4K Gateway as equipment quickened FPGA-based arrangement. The 4K Gateway was initially intended for 4K video commitment. Because of its exceptionally low included inactivity, it are regularly utilized for a way more extensive scope of uses like remote access to logical perceptions, for clinical meetings interfacing working venues with auditoriums and gathering scenes and for eCulture occasions and cooperation. It has been effectively used in different applications, which require top quality and low inertness transmissions. Over the most recent quite a long while we introduced a few joint chamber shows in 3D vision or shows with remotely playing artists close by neighborhood entertainers and furthermore exhibited associations with remote control of 3D models to get to the national social legacy. In this meeting we'll show a few models how ongoing coordinated effort among nations are regularly sorted out that prompts social digital exhibitions. The primary model is an exhibition named "Dancing past Time" that

included approx. 100 individuals in three mainlands. The occasion occurred at the 36th APAN Meeting held in Daejeon, Korea on 21 Aug 2013. The group included system specialists and analysts, various media experts, software engineers, artists, artists, scene architects and choreographers, with certain individuals spreading over numerous territories. The occasion started at the same time in Salvador, Brazil (BR), Prague, Czech Republic (CZ), Barcelona, Spain (ES) and Daejeon, Korea (KR). The music execution was caught by a 4K camera and conveyed from HAMU to KAIST by a couple of FPGA-based 4K Gateway gadgets, which additionally gave a retrogressive HD channel from KR to CZ for stage checking. Sound channels were moved installed inside the video channel, which ensured a perfect video to sound sync in KR. The 4K video was sent uncompressed to safeguard high caliber. The subsequent model is an exhibition introduced at the APAN meeting in Nantou (Taiwan). In this exhibition partook groups from CZ, US, ES and TW. The test of this exhibition was in synchronization of commitments everything being equal. With encounters of this we could proceed with such occasions on significant worldwide occasions, festivities and meetings. The most recent occasion was a join organ show of well known Norway and Czech organists from Trondheim and Brno introduced on TNC16 in Prague.

Our objective was to verify whether modern computer network and audiovisual technologies can enable collaborative work between performing artists when they are distributed across large distances and what the requirements and limitations are. Such distributed collaborative environments will bring new opportunities both for the artists and the audience.

Biography

Jiri Navratil received his PhD in Computer Science from Czech Technical University at Prague in 1984. He worked for 30 years at Computing and Information Center of CTU in different positions linked with High Performance Computing and Communications. During his several sabbatical leaves he worked in Switzerland, Japan and USA in the field of networking. Since 2006 he started work for CESNET - Czech Education and scientific Network as leader of group supporting special research applications using high speed Internet. In last years he participated on several multimedia performances organized in frame of large international cooperation in different fields.

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