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|  | Moving Picture, Audio and Data Coding by Artificial Intelligence  www.mpai.community |

**Public document**

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**MPAI publishes a record three Calls for Technologies, four new Standards for Community Comments and one Reference Software Specification**

Geneva, Switzerland – 15 May 2024. MPAI – Moving Picture, Audio and Data Coding by Artificial Intelligence – the international, non-profit, and unaffiliated organisation developing AI-based data coding standards has concluded its 44th General Assembly (MPAI-44) with an unprecedented display of productivity.

Three Calls for Technologies:

* *Context-based Audio Enhancement* (MPAI-CAE): [Six Degrees of Freedom (CAE-6DF)](https://mpai.community/standards/mpai-cae/6df/v1-0/) to develop an ambitious standard that will enable users to have the spatial experience of a remote audio environment by “walking into it”. [Register](https://us06web.zoom.us/meeting/register/tZYode6spjstGteimCIlFFSlN_ME4UT4buA_) for the online presentation on 2024/05/28 16:00 UTC.
* *Connected Autonomous Vehicle* (MPAI-CAV) – [Technologies](https://mpai.community/standards/mpai-cav/tec/v1-0/) to extend the existing MPAI-CAV – Architecture standard by supporting reference to specific technologies that are the target of the Call. [Register](https://us06web.zoom.us/meeting/register/tZwufumqqTwrGNBWpddRW36yhskugpxi2FbE#/registration) for the online presentation on 2024/06/06 16:00 UTC.
* *MPAI Metaverse Model* (MPAI-MMM) – [Technologies](https://mpai.community/standards/mpai-mmm/tec/v1-0/) to extend the existing MPAI-MMM – Architecture standard by supporting reference to specific technologies that are the target of the Call. [Register](https://us06web.zoom.us/meeting/register/tZYrc-yupjorE9N9qs2h0bqaK5Dzg1L--i53#/registration) for the online presentation on 2024/05/31 16:00 UTC.

Four new Standards published with a request for Community Comments:

* [*Object and Scene Description*](https://mpai.community/standards/mpai-osd/v1-1/) (MPAI-OSD) V1.1 includes a new Use Case for automatic audio-visual analysis of television programs and new functionalities for Visual and Audio-Visual Objects and Scenes.
* *Context-based Audio Experience* (MPAI-CAE) [Use Cases](https://mpai.community/standards/mpai-cae/usc/v2-2/) (CAE-USC) V2.2 supports new functionalities in Audio Object and Audio Scene Descriptors.
* [*Multimodal Conversation*](https://mpai.community/standards/mpai-mmc/v2-2/) (MPAI-MMC) V2.2 introduces new AI Modules and new Data Formats to support the new MPAI-OSD Television Media Analysis Use Case.
* [*Portable Avatar Format*](https://mpai.community/standards/mpai-paf/v1-2/) (MPAI-PAF) V1.2 extends the specification of the Portable Avatar to support new functionality requested by the MPAI-CAV and MPAI-MMM Calls.

One Reference Software Specification:

* [*Context-based Audio Experience*](https://mpai.community/wp-content/uploads/2024/05/Reference-Software-Context-based-Audio-Enhancement-MPAI-CAE-V1.4.pdf) (MPAI-CAE) Use Cases (CAE-USC) V1.1.

MPAI’s scope of activities is quite wide as shown by its 11 already published standards that include 18 Use Cases and some 75 AI Modules, and 65 Data Types shared across different standards. MPAI has succeeded in developing a common layer of technologies supporting a variety of application domains.

MPAI is continuing its work plan that involves the following activities:

1. [**AI Framework**](https://mpai.community/standards/mpai-aif/) **(MPAI-AIF):** developing open-source applications based on the AI Framework.
2. [**AI for Health**](https://mpai.community/standards/mpai-aih/) **(MPAI-AIH):** developing the specification of a system enabling clients to improve models processing health data and federated learning to share the training.
3. [**Context-based Audio Enhancement**](https://mpai.community/standards/mpai-cae/) **(CAE-DC):** preparing new projects.
4. [**Connected Autonomous Vehicle**](https://mpai.community/standards/mpai-cav/) **(MPAI-CAV):** Functional Requirements of the data used by the MPIA-CAV – Architecture standard.
5. [**Compression and Understanding of Industrial Data**](https://mpai.community/standards/mpai-cui/) **(MPAI-CUI)**: preparation for an extension to existing standard that includes support for more corporate risks.
6. [**End-to-End Video Coding**](https://mpai.community/standards/mpai-eev/) **(MPAI-EEV):** video coding using AI-based End-to-End Video coding.
7. [**AI-Enhanced Video Coding**](https://mpai.community/standards/mpai-evc/) **(MPAI-EVC)**. video coding with AI tools added to existing tools.
8. [**Human and Machine Communication**](https://mpai.community/standards/mpai-hmc/) **(MPAI-HMC)**: developing reference software.
9. [**Multimodal Conversation**](https://mpai.community/standards/mpai-mmc/) **(MPAI-MMC):** developing reference software and conformance testing and exploring new areas.
10. [**MPAI Metaverse Model**](https://mpai.community/standards/mpai-mmm/) **(MPAI-MMM):** developing reference software specification and identifying metaverse technologies requiring standards.
11. [**Neural Network Watermarking**](https://mpai.community/standards/mpai-nnw/) **(MPAI-NNW):** developing reference software for enhanced applications.
12. [**Portable Avatar Format**](https://mpai.community/standards/mpai-prf/) **(MPAI-PAF):** developing reference software, conformance testing and new areas for digital humans.
13. [**AI Module Profiles**](https://mpai.community/standards/mpai-prf/) **(MPAI-PRF)**: to specify which features an AI Module supports.
14. [**Server-based Predictive Multiplayer Gaming**](https://mpai.community/standards/mpai-spg/) **(MPAI-SPG):** developing technical report on mitigation of data loss and cheating.
15. [**XR Venues**](https://mpai.community/standards/mpai-xrv/) **(MPAI-XRV):** developing the standard enabling improved development and execution of Live Theatrical Performance.

Legal entities and representatives of academic departments supporting the MPAI mission and able to contribute to the development of standards for the efficient use of data can [become MPAI](https://mpai.community/2022/11/02/seven-good-reasons-to-join-mpai/) members.

Please visit the [MPAI website](https://mpai.community/), contact the [MPAI secretariat](mailto:secretariat@mpai.community) for specific information, subscribe to the MPAI Newsletter and follow MPAI on social media: [LinkedIn](https://www.linkedin.com/groups/13949076/), [Twitter](https://twitter.com/mpaicommunity), [Facebook](https://www.facebook.com/mpaicommunity), [Instagram](https://www.instagram.com/mpaicommunity/), and [YouTube](https://www.youtube.com/c/MPAIstandards).