

Welcome to JTC 1's 3rd quarterly newsletter, for exciting activities and news from July to September 2024.

The middle months of the year bring us news from SC 24; *Computer Graphics and image processing* on standards for health and safety in relation to AR and VR, more on Artificial Intelligence and governance and a report summary from the very interesting JTC 1/WG 12 3D & 4D scanning workshop. We also bring you highlights from the SC 43; *Brain computer interface* symposium in Australia, outlines of the Dataspaces topic being developed by the Cloud computing subcommittee and a reminder that we also need to find time to think about and reflect on ourselves.

Why the world needs responsible AI governance

Artificial Intelligence (AI) has seamlessly integrated into our daily lives, influencing our decisions and actions both consciously and unconsciously. As AI continues to evolve, the need for robust governance becomes increasingly critical. Professor Touradj Ebrahimi's insightful



article, linked below, identifies three key ingredients: education, technology, and regulations. He highlights how JTC 1/SC 42 Artificial intelligence: ISO/IEC 42001, as a foundational International Standard, can play a pivotal role in regulatory frameworks for responsible AI.

Full article here - [Responsible AI Governance article](#)

Touradj Ebrahimi

Augmented and virtual reality safety

Recently JTC 1 has seen the successful publication by SC 24, *Computer graphics, image processing and environmental data representation* of ISO/IEC 5927:2024— *Augmented and virtual reality safety — Guidance on safe immersion, set up and usage*.

	International Standard ISO/IEC 5927
Computer graphics, image processing and environmental data representation — Augmented and virtual reality safety — Guidance on safe immersion, set up and usage	First edition 2024-02

This new standard is both informative and thought provoking and describes safe practices for the setup of AR and VR systems. It also goes as far as highlighting health and safety implications, risks and ethical issues when related to immersion

time, privacy, inclusion, online bullying and societal impact. A short article has been published and can be read following the link below.

Full article here - [Augmented and virtual reality safety](#)

Doug Stapleton

JTC 1/WG 12 Workshop on 3D and 4D scanning

On August 21st, an insightful workshop was hosted by JTC 1/WG 12, *3D Printing and scanning*, featuring 12 speakers from JTC 1 and ISO/IEC committees. The international panel, with representatives from the US, Korea, the UK, and Australia, spent three hours discussing the importance and impact of 3D and 4D scanning. The workshop included a brief introduction of JTC 1/WG 12 and some of its current activities, including digital twin projects, general concepts for 4D printing, real time 4D mapping from self-driving cars, assembly line verification, sport performance analysis and enhancement, and the latest technical report on the Additive Manufacturing File (AMF) ecosystem. The workshop aimed to facilitate discussions among relevant experts regarding the development potential and the role of standardization groups in these emerging technologies.

Kyu-Won Shim MD, PhD

Brain Computer Interface Symposium, Australia

The Brain-computer Interfaces (BCI) field is currently at a pivotal point in its development, showing significant potential for growth and wide-ranging applications. On September 4th, the ISO/IEC JTC 1/SC 43 (BCI) hosted a Brain-computer Interface Symposium in collaboration with the IEC Academy and Standards Australia in Sydney, Australia. The event featured a series of insightful presentations and discussions that highlighted the potential of BCI technology in treating mental and neurological disorders, as well as its broader implications for society.

The symposium brought together 14 international experts, including those of ISO/IEC JTC 1/SC 43, from China, Australia, Italy, and Korea. It created a valuable platform for attendees to exchange knowledge, encourage international collaboration, and discuss the forefront BCI standards. Discussions at the symposium focused on technological advancements, product applications, ethical considerations, legal frameworks, and standardization. Key developments include:

- BCI Technology: Progress is being made toward more channels, lower power, increased speed, long-time stable neural decoding, higher accuracy, improved adaptability and multimodal BCI.
- BCI Applications: The focus is expanding to encompass a wider array of application scenarios, deeper exploration of neuroscience, mechanism, and integration with other emerging technologies, such as ChatGPT and Metaverse.
- Standardization Efforts on BCI Data: Current standardization projects for BCI data include ISO/IEC TS 27571 ED1 *Information Technology - Brain-computer Interfaces - BCI data format for Non-Invasive brain information collection* and PWI SC 43-3 *Information Technology - Brain-computer Interfaces – Invasive BCI Multi-modal Neural Data format*. These projects aim to ensure consistency and compatibility across various BCI systems, facilitating seamless integration and analysis of data from multiple sources.

The symposium underscored the importance of international collaboration and standardization in advancing BCI technology, ensuring that it can be safely and effectively integrated into various applications to benefit society.



Dr. Avinash Singh



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Dr. Thomas Do



Prof. Young-Im Cho



Dr. Zheng Zhang

JTC 1/SC43 Brain-computer Interfaces Symposium Speakers

Kim Yan and Yuntao Yu

Dataspaces

The value derived from the use of data has become an important part of most economies and is now entrenched in every aspect of the organization and the ecosystems in which it exists – such as supply chains, marketplaces and regulatory jurisdictions. While any organization can itself maintain the levels of quality and trust of the data that it generates, much of the data it uses will be derived from other organizations. Similarly, some of the data it generates will be used by other organizations. To maintain the quality and trust of the data across the ecosystems – and to respect the rights and obligations associated with this data – a method of trusted data sharing is needed.

Dataspaces provide both multi-organizational agreements along with enabling software services to support trusted data sharing. By providing clarity on the description of the data that is available to be shared as well as the agreed uses for the shared data, both the data provider and data consumer can make clear choices about data and improve its operational management as well as its overall governance.

JTC 1/SC 38, *Cloud computing and distributed platforms* are now in the process of developing a standard on the subject of *Dataspace concepts and characteristics*, ISO/IEC 20151.

Fernando Gebara Filho

Summer hits the Northern hemisphere

The summer season is a great time to take time away from work, to slow down and to recharge your personal batteries. Lots of the northern hemisphere from East to West are doing this, so no surprise that for those still working your calendars might be a little less hectic. And while it's common to feel like everyone around us is



relaxing and having fun, while we're stuck with a never-ending to-do list, it's exhausting, and it's okay to admit that it's taking a toll on our mental health and wellbeing. Taking care of your mental health is crucial. It's not selfish; it's essential. While you work on planning things for everyone else, do also be kind to yourself.

- **Set realistic expectations**
- **Take breaks**
- **Prioritize self-care**
- **Reach out for support**

Remember, taking care of your mental health is not a luxury; it's a necessity. By being kind to yourself and prioritizing your well-being, you'll be better equipped to navigate the challenges of the holiday season.

AG 1 Communications

World Standards Day 2024 (WSD)

WSD is taking place in October, on the 15th and 16th, don't forget to register and join the workshops, look out for registration notifications. This year we're raising the question:

"How do standards enable trustworthiness?"

Trust in the age of Cloud, Data, AI and Cybersecurity

The speakers are lining up and the sessions are being finalised. We look forward to seeing you online. More details are being released on the web site: <https://jtc1info.org/wsd/>

As always, thanks goes out to all our contributors to this quarter's newsletter, the AG 1 team for getting it ready, and don't forget that you can submit articles to be included in subsequent quarterly newsletters using the online submission form at [JTC1info.org](https://jtc1info.org)

Deadline for the contributions to the next newsletter is December 9th.



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