EURAS 2023 – Conference report

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Abstract: EURAS 2023 took place 28-30.06.2023 in Aachen, Germany. The 27th edition of the conference was heavily focused on standardisation while it also included another event called SIIT (Standardisation and Innovation in Information Technology) within its program. For 2023, the conference's main theme was "(Responsible) Standardisation for Smart Systems". The topics varied from one end of standardisation to another, and in this brief report, I will go through the content discussed at the event.

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1. Introduction

EURAS is a yearly conference focusing on the topic of standardisation. For 2023, the event gathered on the premises of RWTH Aachen University at the ComSys building, where the participants could learn the latest trends related to standardisation across the three conference days. Participants came to join the event worldwide, and the talks varied. In this conference report, I capture my takeaways from the conference within the emerging main themes. I recommend browsing the conference proceedings [Jacobs, 2023] for a complete picture.

2. Responsible standardisation for smart systems

As [Krechmer, 2023] put it, standards started from measurement. Another way to put it is that standards fix properties and allow comparisons [Krechmer, 2023]. On top of this, standards serve different purposes for different stakeholders and enable markets to develop as multiple players can enter the markets by implementing the standards. As implied by [Krechmer, 2023], standards are also about control and market dominance depending on your point of view and stance on the topic, and models have emerged to maintain a strong market position (copyright, patents, etc.).

On this background, it is good to consider what is responsible standardisation and what we mean by responsible specifically. As [Wiarda et al., 2022] puts it, responsible standardisation is a process that establishes socially desirable standards. In other words, responsible standardisation should improve the world and consider aspects such as environment, safety, and health [Wiarda et al., 2022]. A good example of where this did not happen was the case of Volkswagen as discussed by [Fried and Walgenbach, 2023], highlighting the importance of tracking the usage of standards to avoid cheating as it can have significant societal implications.

Standards are not only for companies but for consumers, as highlighted by ETSI TR 103 455, which John Ketchell discussed in his keynote. ETSI TR 103 455 is a standard that was created

specifically with consumers in mind to maintain a certain service level as physical services move to digital space. The rapid shift to smart systems poses a challenge for standardisation as it is also about defining basic expectations from the end user's point of view regarding aspects such as accessibility.

3. The geopolitics of software, AI, and open source

Standardisation is a geopolitically loaded concept as there are different takes on the topic depending on the point of view. The complexity of geopolitics was apparent in EURAS' panels, and it was interesting to note that, at times, regionally successful efforts, such as GDPR in the EU, can impact the global market. At the same time, standardisation can be used as a way of protectionism and a political tool, as potentially in the case of China [Blind, 2023]. American point of view seems to be more about commercial interests than consumer protection, like in the EU. Regardless of the viewpoint, standards enable global collaboration and common markets.

Artificial intelligence (AI) is one of the current hot topics in terms of standardisation and the EU has taken the lead in the effort in the form of the Artificial Intelligence Act (AI Act) [Ho-Dac, 2023]. There are open questions about how to formulate the AI Act as it refers to safe and trustworthy AI and its standardisation in a way that respects fundamental rights [Ho-Dac, 2023]. In other words, the AI Act gives prioritization for standardisation efforts, and it uses a risk-based approach to evaluate the impact of AI on this emerging technology. It seems the impact of legislation has to do with framing, and it will be up to standards organisations to perform their work within the frame defined by the EU.

Open-source software and standardisation serve similar purposes up to a point, but they are not the same [Blind et al., 2019]. As shown by [Gamalielsson et al., 2023], occasionally, there can be a considerable overlap as open-source implementations of a standard may be considered the reference ones. Occasionally open-source tooling may even support the development of a standard, as shown by the example of TC-39 [Vepsäläinen, 2023]. Reference implementations, even when not open source, can provide significant value for implementers of the standard in terms of validation and correctness, although there are open questions related to in which contexts reference implementations should exist [Gamalielsson et al., 2023].

4. Education about standardisation

One of the main themes of EURAS had to do with education as different standards organisations and stakeholders have their own agenda in getting more people involved as the number of people working with standards is somewhat limited. There is early evidence that especially small and medium-sized enterprises (SME) may gain a competitive advantage by getting involved with standardisation [Tošić and Mijatović, 2023]. Simultaneously, large companies can allocate specific resources towards standardisation efforts due to their sheer size [Tošić and Mijatović, 2023].

As shown by the example of [Mijatović, 2023], gamification can be one way to educate people about how standardisation works. Ultimately, it is group work, and you have to learn to compromise and consider different viewpoints and agendas. During the conference, Serious Smiling Game by [Mijatović, 2023] was illustrated in practice, and it gave the participants a concrete view of how standardisation works in the field.

5. Conclusions

EURAS 2023 provided a large variety of talks related to standardisation. Although the community is small, it seems somewhat vibrant, and overall, EURAS seems like a good conference for anyone wanting to understand the topic of standardisation in greater detail. On top of this, it is a good chance to develop international contacts within the space.

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