

Kluwer Arbitration Blog

The Power of Information in a Cyber-Physical World: Insights from the Swedish Arbitration Days 2025

Anna Salomonsson · Thursday, April 17th, 2025

In both the world of arbitration and the fast-evolving landscape of 6G technology, information is power. The Swedish Arbitration Days 2025, themed “Information in Arbitration”, was bookended by two thought-provoking keynotes: [Chiann Bao](#), Independent Arbitrator and former Secretary General of the Hong Kong International Arbitration Centre, emphasised the transformative role of information in arbitration, while [Pernilla Jonsson](#), Head of Consumer & Industry Lab at Ericsson, offered the audience a glimpse of the future of information in a 6G world—a world powered by next-generation wireless technology delivering ultra-fast speeds, near-instantaneous latency, networks driven by artificial intelligence (“AI”), and immersive technologies like extended reality (“XR”).

From the way data is processed and presented to the challenges of managing its quality and quantity, information lies at the very heart of arbitration. However, the world is moving into the 6G era in which AI, XR, and related (cyber) threats are redefining our interaction with information. It is now for the arbitration community to ask: How do the technological advancements of the 6G era transform the way we manage information in arbitration?

“If Data is the new Gold, then Information is Power”

At its core, arbitration is an information system and, as Bao suggested, “*if data is the new gold, then information is power.*” Bao highlighted that information is not just raw data. It is instead data—be it emails, contracts or witness statements—that has been processed, filtered, interpreted, and transformed into meaningful information that drives decisions. A single piece of data, if properly contextualised, may sway an arbitrator’s decision. For instance, a transcribed voice note from a WhatsApp chat may become a key piece of evidence. Similarly, a contractual provision, interpreted pursuant to the applicable law, can impact the outcome of a dispute.

Nevertheless, like any other system, arbitration is not immune to the challenges brought by fast evolving technology and the modern information age. Misinformation, cognitive biases, and information overload are just a few of the issues that need to be navigated by arbitrators and practitioners. As Bao emphasised:



“the omnipotence of information in international arbitration warrants reflection on how we use and design that information, in order to maintain its utility in resolving modern day disputes.”

Challenges in a Digital World: The Quality and Quantity of Information

In today’s world, anyone can create and broadcast their own perception of the truth, shattering the traditional monopoly on facts and ushering in an era where facts are everywhere. Quality of information thus becomes one of the most pressing challenges in arbitration. Bao referenced Hans Rosling’s scholarship, noting that humans have natural instincts, such as the “gap instinct” (dividing everything into two distinct groups) or the “blame instinct” (seeking to simplify reasons for complex problems), potentially leading to the distortion of information and its interpretation. These instincts and cognitive biases, may lead to unfair or inaccurate decisions if not properly managed. The quality of information, therefore, plays a key role in mitigating these instincts and biases. In other words, high-quality, accurate, and comprehensive data can help counteract the tendency to oversimplify or misinterpret complex issues.

Another challenge is the quantity of information. With the rise of digital communication tools, we are witnessing an explosion of data in arbitrations. While more information can, theoretically, assist in uncovering the truth, it may also lead to information overload. Arbitrators, like all humans, have limited cognitive capacity. When faced with voluminous submissions, they may resort to mental shortcuts or heuristics, which are likely to compromise the fairness and accuracy of their decisions.

Approaches to Resolving Information Challenges

In order to address these challenges, the arbitration system must evolve. Bao proposed three solutions: (i) taking an interdisciplinary approach to information, (ii) regulating the power and responsibilities that come with information, and (iii) leveraging the power of information technologies.

First, we must take an interdisciplinary approach to information by incorporating insights from psychology and cognitive science into our understanding and processing of information. For instance, scheduling cross-examinations of quantum experts after fact witnesses may not be the most effective way to present complex information, as it may lead to cognitive fatigue (decrease in cognitive resources over time on sustained cognitive demands) or anchoring bias (relying heavily on the first piece of information one receives). By understanding how we process and interpret information, arbitrators and other legal practitioners can design more effective and efficient procedures.

Secondly, in the interest of procedural fairness, distributing and balancing the power and responsibilities related to information is key. Unlike litigation, where in civil law systems magistrates gather evidence, and in common law systems parties handle disclosure, arbitration gives the parties the option to choose their own process. This does not prevent challenges in document production: Well-resourced parties may exploit disclosure by overwhelming opponents,

such as dumping or fishing for information, while weaker parties may struggle without mandatory disclosure. It is therefore crucial to strike a balance to ensure fairness, especially as data volumes grow and technology reshapes how information is managed. How that balance should be struck remains up for discussion, as Bao did not propose a specific approach to regulation.

Thirdly, it is essential that we leverage technology, especially AI, to manage information overload. Arbitrators can draw on the assistance of AI-powered tools to distil large volumes of data into actionable insights. This would not only reduce the cognitive burden on the decision-maker but also level the playing field for parties with limited resources.

The 6G World: A New Era of Information

The 6G world promises to revolutionise how we interact with information. As Jonsson emphasised, AI and XR are here to redefine communication, data processing, and human-machine interaction. AI, in particular, is not just a tool for automation; it is a powerful engine for analysing and interpreting vast amounts of data. Meanwhile, XR, which includes augmented reality (“AR”) and virtual reality, may offer new ways to visualise and interact with information, from immersive communication to real-time data overlays.

Jonsson characterised the 6G era as being ubiquitously connected. Sensors, actuators, and other devices are seamlessly integrated into one cyber-physical continuum. This means information is no longer confined to screens; it is embedded into our physical world, creating a dynamic interchange between the digital and physical realms.

Where Challenges Lie, Opportunities Await

Nothing comes without its challenges; neither does the 6G world. One of the most pressing issues is the sheer volume of data that connected devices generate. Jonsson characterised this issue as *“data is not gold – it’s the new cost.”* Managing this data deluge requires a robust infrastructure and advanced algorithms, with a particular focus on their trustworthiness and security. AI and XR will, naturally, also pose ethical dilemmas. As these technologies keep evolving and become more pervasive, questions of privacy, bias, and accountability will become increasingly important.

On the other hand, the 6G world offers, without a doubt, immense opportunities. AI and XR have the potential to transform industries ranging from healthcare and education to entertainment and retail. Jonsson gave AR glasses as an example, showcasing how an everyday accessory can revolutionise how we navigate the world, providing real-time information overlays and enhancing our interactions with the environment. Likewise, AI-powered systems could enable more efficient decision-making, from personalised recommendations to predictive analytics. The 6G world may also democratise access to information and technology, leveraging AI and XR, and creating more inclusive and accessible systems.

When Arbitration Meets 6G: AI, Innovation, and the Future of Dispute Resolution

The technological advancements brought by the 6G era offer promising solutions to the challenges faced by arbitration. [AI could be used to automate routine tasks in arbitration](#), such as document review and data analysis, enabling the arbitrator to focus on more complex issues. AI could also be used to identify patterns and trends in case law, providing arbitrators with valuable insights to inform their decisions. In a similar manner, XR could reinvent how we present evidence in arbitration, as discussed in [this post](#): imagine a hearing where parties are able to use AR to visualise complex data or even recreate events in a virtual environment. This would be an incredible way to make arbitration proceedings engaging.

Moreover, AI may enhance fairness and efficiency in arbitration. Through automated data processing and analysis, it may reduce the risk of cognitive overload and bias while ensuring that the arbitrators have access to the most important information. However, we must not forget to strike a fair balance between automation and human judgment. As Bao noted, “*final decisions often require human contextual judgment*,” even where much of the data processing is automated.

Conclusion

Swedish Arbitration Days 2025 brought into focus the vast opportunities that the 6G world could bring to arbitration. At the same time, it is crucial to acknowledge the challenges it presents. It is important to remember the core objectives of arbitration such as justice, fairness, due process, truth-seeking, the minimisation of time and costs. All of these require arbitration to maintain a human element, ensuring that the process is fair, transparent, and accessible.

To make sure you do not miss out on regular updates from the Kluwer Arbitration Blog, please subscribe [here](#). To submit a proposal for a blog post, please consult our [Editorial Guidelines](#).



2024 Future Ready Lawyer Survey Report

Legal innovation:
Seizing the
future or
falling behind?

[Download your free copy ->](#)

 Wolters Kluwer



This entry was posted on Thursday, April 17th, 2025 at 8:28 am and is filed under [Arbitral Tribunal](#), [Arbitration Procedure](#), [Arbitrator Bias](#), [Artificial Intelligence](#), [Document Production](#), [Technology](#). You can follow any responses to this entry through the [Comments \(RSS\)](#) feed. You can leave a response, or [trackback](#) from your own site.