The future of arbitration: New technologies are making a big impact — and AI robots may take on "human" roles

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Will new technologies influence the way cases are arbitrated? That was the topic of a debate that included members of the ICC International Court of Arbitration and Hogan Lovells partners Winston Maxwell and Laurent Gouiffès and senior associate Gauthier Vannieuwenhuyse. They met at the firm's Paris office on 16 January 2018 to evaluate how artificial intelligence (AI), blockchain, and other technologies are changing the process of arbitration.

In this hoganlovells.com interview, Winston Maxwell, Laurent Gouiffès, and Gauthier Vannieuwenhuyse discuss what new technologies mean for the future of arbitration — and whether humans or robots will play the primary roles.

What is the overall impact of AI on the legal market?

Gouiffès: AI builds greater efficiency and accuracy into the legal system with capabilities that include natural language processing (NLP). Blockchain's highly secure distributed ledger feature can transfer information or property without third parties, and this has had an impact on contract law, with the development of smart contracts. Capabilities like these spawned the LegalTech trend, which started in the United States and is now a fixture in Europe, and supports services such as automated contracts and online case management. But new technologies also create new challenges: compromised confidentiality, issues of due process, and more.

What types of technologies can be applied to arbitration, and in what ways can they be useful?

Maxwell: One technology is artificial intelligence. What AI knows how to do really well, because of natural language processing — and that's very important — is to analyze and extract meaning from thousands, tens of thousands, or hundreds of thousands of documents that may be relevant for litigation. This has been around for a long time, in terms of e-discovery. But previously, AI was limited to looking for keywords, whereas now, it can actually extract meaning from written materials, e-mails, and voice conversations. So the most basic use of AI in arbitration or litigation is to help manage massive amounts of documentation that previously had to be reviewed and checked by junior lawyers.

The second thing, which Gauthier can describe, is tools called "predictive justice," where you use AI to analyze arbitration or court decisions in order to statistically derive probabilities about how your own case is going to be decided.

Vannieuwenhuyse: All these technologies may impact the key actors in arbitration proceedings. Take the example of counsel, or even the arbitrators themselves. When they use digital tools such as document management tools or NLP, this can save a lot of time and money. It's especially relevant in the discovery phase. Sometimes we, as counsel, receive thousands of pages of documents, which would take a whole team a number of hours to review. But now we can have a tool or robot that can analyze the relevant data that is of crucial importance to our case.

Another example is the digitalization of the arbitration process, where you can use electronic submissions instead of sending hard copies. In arbitration cases, it is not unusual to sometimes have 300 exhibits and a brief of 200 pages, multiplied by five examples, because you need to send them to the whole tribunal, whose members may be located in New Zealand, Switzerland, and the United States, and also to the other counsel — that's a lot of documents to print.

You could also have hearings take place via a video platform. So instead of having a hearing located in Paris, the arbitrators will stay in, to take the same example, New Zealand, Switzerland, and the United States. No one is traveling, everybody stays in his or her office and uses the online platform to conduct the hearing. Of course, that saves on costs.

This is extremely interesting for arbitration institutions, because it also expands the arbitration market to lower-value disputes, which historically have not really been the subject of arbitration, because arbitration might sometimes be costly.

So arbitrators can use these tools to make the discovery phase faster and more efficient. Do you expect they will have broader impacts as well?

Maxwell: I think the most fascinating aspect of all this is whether arbitrators themselves can be robots? That gets into a philosophical question that's not as absurd as it first sounds.

With the development of blockchain, you have what they call "smart contracts," which automatically perform themselves. It is quite possible that you could agree, in a smart contract between Gauthier and myself, that if we have a disagreement, it will be referred to an outside artificial intelligence robot to resolve. So that raises a fundamental question: is arbitration necessarily a human activity?

Many of us have wondered whether AI could someday take over our jobs and replace us. But could robots do an arbitrator's job better than the arbitrator?

Vannieuwenhuyse: The general view is that it's extremely problematic from a legal standpoint. We can wonder whether it's even lawful to have robots as arbitrators, first because there is no legislation that expressly addresses this possibility. It is not dealt with in the existing legislation because, of course, this issue was not envisaged as a possibility at the time of their drafting. And

this raises a problem with the composition of the arbitral tribunal: in some legislations, the arbitrators are defined as persons, so by definition they cannot be robots. But in others, there's a gray area, and as such the question remains unanswered.

Then there is the question of the form and content of the decision itself. If a robot arbitrator renders its decision in the form of a code, can it be considered as an arbitral award? In France for instance, it would not be seen as a decision, because a decision needs to include legal reasons expressed in words to justify it.

There are also constitutional problems, which Winston can share with you.

Maxwell: The overall limit, of course, is our constitutions and conventions on fundamental rights. The U.S. Constitution provides for due process and we have similar rights in Europe. Due process currently means that you have a right to a fair trial, and a fair trial currently means that humans are considering your situation, because humans combine strict applications of the law with more subtle considerations of equity. And I don't think anyone would accept the legitimacy of robots as judges or arbitrators because they're not human, they don't have a heart, and they don't apply equity. So as soon as your arbitration needs to be enforced outside of the blockchain, an arbitral award by a robot currently will be considered null and void, and therefore unenforceable.

But the more interesting question right now is, what if I don't need to seek enforcement in these smart contracts? Because if the robot awards you 150 bitcoins, my account is automatically debited 150 bitcoins. It's just done. There's no court involved to enforce the award — it's completely disconnected from the judicial system and the constitution.

Vannieuwenhuyse: And in that case, you don't need to enforce anything before any court because it will have been directly enforced. So it's a completely closed circuit.

Maxwell: The chairman of the ICC International Court of Arbitration, who attended Gauthier's and Laurent's event in January, was fascinated by the question, does arbitration necessarily have to be human? He said, we're all sitting comfortably in this room, but we have to think that, in 10 years' time, people will be thinking very differently and the idea of having robot arbitrators may be considered acceptable. We're all conditioned by our own cultural and historic context, and those could evolve over time.

What challenges may arise when a blockchain-based system or another technology is applied to the arbitration process?

Vannieuwenhuyse: The challenges are not only related to blockchain, but to all new technologies. First, there is a challenge with confidentiality. It's a generally accepted principle that arbitration is confidential. However, recourse to digital technologies or AI will involve, to some extent, human input at the end. Humans, who are completely external to the arbitral proceedings, will program and handle these technologies. That's an issue that needs to be addressed by an arbitral tribunal, but a simple confidentiality agreement would be enough to protect the confidentiality of the proceedings.

Then there is the question of due process, especially with the predictive justice tools that we mentioned earlier. At present, these tools are not perfect, because they usually put the facts of the case and the reasoning of past courts basically at the same level. This might prejudice the fundamental right to be heard to some extent. Indeed, if the arbitrators blindly follow the results of the predictive justice tools, this prejudices the right of the parties to be heard, because there is a risk that the arbitrators give too much weight to the precedents compared to the actual facts of the case.

That's not only relevant to arbitration, but also generally to litigation. If the arbitrators or the judges do not pay enough heed to the specific facts of the case and the pleadings of the parties, but rather follow the precedents, that will be seen as a violation of human rights principles and the right to be heard, which is in all democracies one of the core principles of justice.

Maxwell: There's some case law on that, too. In the United States, in a criminal case — *Loomis* — the sentencing judge made use of AI algorithms to compare his own sentencing decision with a computer-generated probability score of whether a given person would be a repeat offender. That was challenged before the Supreme Court of Wisconsin, which said that the judge's use of an AI tool was permitted, because he just used the tool for information, and he did not rely on the tool for his decision. So if it was just a tool to help a judge gather information and guide his decision, then it's okay. But it obviously can't replace his own decision. The *Loomis* decision is highly controversial.

As AI tools get better, a human may hesitate to go against the AI recommendation. In dermatology, the AI diagnosis for certain kinds of skin diseases actually beats the score of human doctors. So if you've got a tool that, statistically, you know is better than you are, then you're taking a risk by doubting the tool.

Gouiffès: And that's very interesting, because one of the big challenges is the question of the control of the proceedings. Some authors have described the AI and these new technology tools as the extra arbitrator. The question is whether these tools just help you make a decision, or do they make the decision themselves and you just follow them because you trust them more than humans?

Maxwell: Paradoxically, as AI tools get better and better, the problems vis-à-vis humans will increase, because we as humans will give more and more weight to what the robot says. The robot can't be wrong!

About Winston Maxwell

Maxwell's sweet spot is where regulation hits the internet and technology: how national privacy laws, copyright, media, and telecom regulations apply to borderless digital services. He has become a trusted advisor of major internet, telecom, and media companies, and of government institutions. In 2014, he was appointed to the French National Assembly's Commission on Digital Rights, and was asked to contribute to the French Conseil d'Etat's 2014 report on fundamental rights in the digital age.

About Gauthier Vannieuwenhuyse

As a senior associate in our International Arbitration group, Vannieuwenhuyse focuses his practice on commercial and investment treaty arbitration. He brings extensive experience of arbitration under the rules of the ICC, LCIA, ICSID, and UNCITRAL, acting for companies from diverse industries as well as on behalf of States.

About Laurent Gouiffès

As a partner leading our International Arbitration group in Paris, Gouiffès is "very smart and energetic. He gets to the bottom of each issue no matter how difficult or challenging it is," *Chambers Global* 2017. Recognized on the market as an "'undisputed specialist' on technology and energy-related international arbitrations" in *Who's Who Legal* 2014, he has been described by sources as "disarmingly persuasive, knowledgeable, articulate, and poised" in *Chambers Europe*, 2012, as well as "one of the leading partners in investment arbitration and as a great strategist" by *Who's Who Legal* 2017.

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