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AI in 2023
Eight trends to watch for in 2023

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January 2023

Artificial intelligence (AI) is a technology that continues as a central focus for governments and businesses as a key enabler for digital transformation and innovation-driven growth. The use cases continue to expand and the value proposition is brought to life more and more every day. See the recent clamour around Open AI's ChatGPT and the multitude of uses it has been put to by everyday users.

Over the last 10 years, AI has become part of so many aspects of our society and an important part of the formation of our future. AI models are offering cybersecurity, autonomous systems, robotic process automation and many other benefits to multiple industries across the world. The majority of companies need to know about AI trends, to boost their productivity and be aware of the dangers of AI.

Here we give you our views on AI-related trends which are likely to be at the centre of the continuing evolution of AI as a central innovation and growth tool. In each instance, we provide a summary explanation of the trend and how AI is being used, together with some of the relevant issues and legal developments likely in 2023 and beyond.

1. Transparent AI

Transparent AI is one of the most discussed areas in AI and involves a wide range of issues, including the process of allowing individuals to see whether AI models have been thoroughly tested and to demonstrate why AI has made decisions. These and other functions are seen as crucial due to the complexity of AI, including addressing issues of accountability and liability should harms occur.

Data can be unbalanced. This means it may produce discriminatory outputs based on, for example, gender, race, religion, age, disability and/or health. There are several well-known examples of this, including AI used in recruiting which depicted CEOs as being male and white. The worrying bias in AI is gaining increased attention, with the Information Commissioner's Office in the UK having announced on 14 July 2022 that it plans to investigate the bias presented by AI-driven recruitment systems within its three-year strategy called ICO25.

Expect in 2023 to see additional pressure on companies and developers to utilise transparency processes. In Europe, there has been a recommendation for a Council of Europe convention on artificial intelligence, human rights, democracy and the rule of law. The proposed convention reiterates the importance of transparency. It highlights the need for procedural safeguards to ensure the use of transparent AI systems that explain the reasoning that the AI followed before arriving at a decision, both to benefit individuals and oversight authorities. In the UK, an updated version of the **Algorithmic Transparency Standard** was produced in 2022. What does the standard do? Simply, it encourages transparency. It does so by providing a framework to enable public sector bodies to share information on their use of algorithmic tools with the public and interested stakeholders.
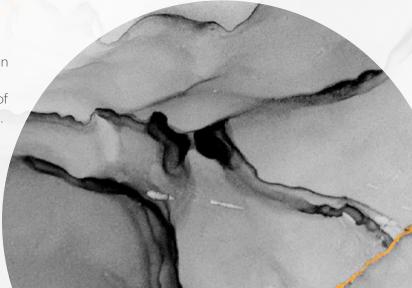
Globally, the emphasis on transparency is also shown in various examples – one can be found in Singapore, where the Veritas Initiative seeks to enable financial institutions to evaluate their AI-driven solutions against the principles of "fairness, ethics, accountability and transparency" (FEAT). A number of European, UK and US organisations are participating.

2. AI assurance

The concept of AI assurance is gaining traction. AI assurance covers a range of activities which have in common the aim of investigating, and then communicating, whether AI systems are trustworthy (these include, for example, testing bias in data and testing the behaviour of algorithms). AI assurance should increase confidence of anyone considering deploying AI as well as those whose lives may be impacted by this deployment. The more widely adopted AI becomes, the greater the need for certainty regarding the standards to which the AI has been developed. Regulators' and governments' aim will be to ensure not only that AI is functioning as intended, but also to demonstrate this to the market and to society in general.

There is a growing need for, and emphasis on, the development of AI assurance methods to keep us all, as the users of AI, safe. A bias or error in facial recognition tools could lead to fraud or false arrest. 2023 will see more and more AI assurance measures being launched and implemented.

Individuals should be comfortable that technologies they purchase or use are safe and trustworthy, and this includes AI. This is a key reason why governments across the world are developing stronger AI assurance ecosystems. There are numerous examples of this. In the UK, the Centre for Data Ethics and Innovations released a document called **The roadmap to an effective AI assurance ecosystem** in December 2021. This set out the steps required to build an effective AI assurance method. Another example is the Australian **New South Wales AI Assurance Framework** which came into effect in 2022 and which was implemented to assist agencies in designing, building and using AI-enabled products and solutions, and to help agencies identify risks that may be associated with their projects.

Assurance also comes from harmony of standards. Standards are key to ensure that, as far as possible, organisations are consistent in their approach globally in implementing measures that increase trust in AI systems. There are several standards organisations working on standards relating to AI, including ETSI (the European Telecommunications Standards Institute), ISO (International Organisation for Standardisation) and IEC (International Electrotechnical Commission). Examples of these standards are (i) ISO/IEC 38507:2022 which provides guidance for members of the governing body of an organisation to enable and govern the use of AI, in order to ensure its effective, efficient and acceptable use within the organisation and (ii) ISO/IEC FDIS 23894 which is under development and looks to provide guidance on risk management relating to AI. As part of the UK's National AI Strategy, the UK government has supported the **AI Standards Hub** which is led by The Alan Turing Institute. The Hub's mission is to advance trustworthy and responsible AI with a focus on the role that standards can play as governance tools and innovation mechanisms.

The current outlook of providing more harmonious AI regulation internationally will obviously be beneficial to organisations operating in multiple jurisdictions. Clearly, it will help compliance with various different local rules and regulations. A key benefit it brings is confidence in consistency or, in other words, trust. Trust of those directly affected by the use of AI, which is likely to increase if there is consistency across all divisions and jurisdictions.

3. Metaverse

The metaverse represents the convergence between the real world and the virtual world. It relies heavily on AI. Regulatory development is vital to answer questions such as "what liability do metaverse users have to each other?" and "what liabilities do providers of metaverse-related technology have to users?"

It is difficult to define the metaverse with any great precision. The metaverse remains largely a hypothetical but rapidly evolving idea with multiple meanings. Some suggest that the metaverse is to the world now, what the internet was to computer scientists during the 1960s.

However, in summary and to capture some of the concept of the metaverse, it is mostly a user experience generated by devices and tools. Such augmented reality allows the sensing of users' body motion and reaction to the experience, as well as being shaped by the software platforms that enable the creation of immersive experiences.

One of the key building blocks of the metaverse is AI technology. AI will sit behind all activity in the metaverse. As part of this, AI will be involved in a significant amount of content and experience creation. This includes not just images, music and videos but also synthetic media, in the form of digital experiences and objects created by AI. That raises several possible issues from an intellectual property perspective (see headline 7 on page 6).

One thing is for sure: opportunities for creativity and innovation in the metaverse have the potential to be endless. However, sceptics would highlight that the headsets required to use the metaverse are so sufficiently unwieldly that they may remain relatively niche. 2023 and beyond will inevitably witness some wider adoption and increased uses of the metaverse. The metaverse could be the key that unlocks a new world of transacting; providing and consuming goods and services; interacting (socially and professionally); researching; and much more.

4. AI in recruitment and the Equality Act

AI is being used as part of the process of filtering down applicants in the recruitment of employees. Due to current and proposed legislation, this is an area in which there is a clear liability risk for employers who use AI as part of their recruitment processes.

A context in which inadvertent discrimination through the use of AI can have the biggest impact is in employment. The use of AI has become popular when recruiting, in an attempt to filter down applicants. Depending on the data used to train the AI systems making such decisions, there is a real risk of discrimination.

Previous examples of this have included companies using AI tools found to be biased against women. This can occur when the AI used was based on résumés submitted over the previous 10 years. Since most of the applicants were men, the algorithm learned to favour men over women. This has not inhibited the increased use of AI in recruitment and that trend is set to continue in 2023. However, we expect to see measures being introduced seeking to reduce the risk of bias.

Although the risks are not unique to employment (and also apply to credit assessment, for example), any discrimination is likely to have a real, significant and personal impact on individuals and those individuals are more likely to bring a claim. In addition, Article 22 of the General Data Protection Regulation (regulations on data protection and privacy in Europe (EU, EEA and UK)) regulates automated decision-making, including profiling where there would be a "legal effect" or similarly significant effect on employees. Therefore, it is even more important that an AI's data set, algorithms, processes and ultimate decisions are monitored in the employment context for potential discrimination.

The UK Equality Act 2010 prohibits all forms of discrimination on the basis of nine "protected characteristics". These are age, race, disability, sex, sexual orientation, marriage or civil partnership, gender reassignment, pregnancy or maternity, and religion or belief. If an employment tribunal finds that an employer has discriminated under the Equality Act 2010, the financial penalties can be severe. These include compensation for loss of earnings as well as "injury to feelings", the limit for which is uncapped. In addition, there may be reputational repercussions for the organisation in general. As the use of AI has increased, so has the scrutiny placed on its decision-making processes. Where an AI system is trained using completely objective and impartial data, discrimination is unlikely to be an issue. However, given that AI systems are initially developed and trained by humans, even with relatively unbiased training data, there is always going to be a human element and therefore a risk of historic bias influencing the data set. In addition, many AI systems constantly learn and their algorithms evolve depending on how the system is used meaning that, even if not biased to begin with, an AI can develop biased tendencies over time.

5. AI face recognition

The process of face recognition uses AI to scan a face and match it to unique identifiers against a database of images. Its use can lead directly to serious harm to individuals.

Face recognition software and technology (FRST) is an excellent example of the increasing use of AI. The face detection process is an essential step in identifying human faces in images and videos. Face capture transforms analogue information (i.e. the face) into a set of digital data and vectors based on the person's facial features. There is an increasing trend to use AI face recognition technologies – for example, to prove a person's identity as part of accessing their banking app, or for age verification. This trend is likely to continue in 2023 despite significant regulatory discomfort with certain uses of the technology.

It has been one of the most heavily utilised forms of AI applied to policing and in public surveillance by enforcement authorities more generally in recent years. In October this year, database company Statista reported that the face recognition market in 2021 was valued at approximately US$5 billion, with this estimated to grow to a huge US$12.67 billion by 2028.

There is particular controversy about "live facial recognition" (LFR). In Europe, the European Data Protection Supervisor has gone as far as to say that the automated recognition of human features in public spaces, such as faces, contravenes fundamental rights to privacy and freedom, and should be prohibited. Expect to see a forthcoming EU regulation, the AI Act (expected to become law in the not too distant future), seek to regulate its use.

6. AI for healthcare

AI is used in predicting future patient needs and monitoring unwell patients' health.

The use of AI in healthcare is ever-increasing. The application of AI in the healthcare industry is far reaching. It ranges from making it easier to acquire real-time data from patient health records, to the use of thermal cameras, medical robots and drug discovery. This is likely to be a continuing trend in 2023. According to Statista, the global market for AI in healthcare was valued at approximately US$11 billion in 2021 and this is expected to rise to a huge US$188 billion by 2030.

AI is increasingly being used to analyse patient records, which is personal, sensitive, "special category" data under data protection/privacy laws. Clearly, there will need to be greater emphasis on ensuring that sufficient safeguards are in place to protect sensitive data appropriately when using the AI tech – for example, by use of de-identification, enhanced compliance monitoring and access controls, and increased training and thorough equality impact assessments. The latter as part of overall controls can be a great way to protect your organisation from claims and maximise the opportunities presented by AI to drive down bias.

Software, including AI, plays a key part in the health and social care setting. In the UK, many medical products, including software, are regulated as medical devices. Last year, the Medicine and Healthcare Regulatory Authority announced the Software and AI as a **Medical Device Change Programme**, a programme of work to ensure regulatory requirements for software and AI are clear and to ensure that patients are protected. The programme builds upon wider reforms for medical devices planned in Great Britain for 2023 and beyond.

7. AI and intellectual property rights

Training AI using personal data or protected IP is providing a challenge to legislators worldwide.

Over the coming years, organisations that create or use AI technologies which have been trained using (i) personal data and/or (ii) information/data protected by IP rights are likely to face increased regulatory scrutiny. Regulators worldwide are paying greater attention to balancing the benefits of AI against concerns about personal data and the protection of IP, and this trend is likely to continue in 2023 and beyond.

There is a form of AI called generative AI which is increasing in capability and is AI that generates text, images, speech, video and even technical inventions based on user-inputted instructions. See the OpenAI ChatGPT for a great example! Generative AI brings challenges to the current IP regulatory regimes and to developers and users of generative AI as a result. This is in part because training generative AI involves using large bodies of IP-protected works in ways that may be infringing under current legislation. Governments seeking to "unlock" the potential of generative AI may legislate to permit text and data mining of IP-protected data in order to train AI (see, for example, the UK's proposal to create a new exemption from copyright infringement to permit this). Alternatively, jurisdictions may opt to clamp down on AI training without sufficient permission or attribution of IP-protected data used in AI training.

If AI is responsible for content creation autonomously without any human input, then the question is who owns the copyright protecting such content. Traditionally, this is the person or organisation that creates the works. In some countries, such as the UK, this may be answered by the fact that computer-generated works will be owned by the person who made the necessary arrangements for the creation of the work. However, the questions remain: who is this person? Is it the person who created the software; or the person(s) who taught the software, or both? An Australian court ruled in 2021 in favour of AI inventorship (i.e. the AI system could be named as the inventor on a patent application). However, this has been overturned by the Australian Federal Court, so we expect to see lots of developments and change globally on this issue.

A further concern is how to regulate instances where AI-generated works feature IP-protected content, such as a company logo or even the image of a real person, which could raise privacy/data protection issues.

8. AI regulation

The above trends illustrate that there is clearly growing momentum to ramp up the regulation of the use of AI across various industries and jurisdictions. This trend will inevitably continue at a pace in 2023.

The UK government will outline its strategy by way of a White Paper (promised in late 2022). It has already set out its intention to provide an overarching framework with general guidance. It is keen to work with individual regulators from different industries (CMA, Ofcom etc.) to examine and monitor the use of AI within these different industries. The UK government has acknowledged that, although the use of AI will vary in each industry, the lack of clarity on how to regulate AI use is an issue. The inconsistency and overlap between different laws/regulators need to be addressed. Overall, the framework is expected to be soft-touch and on a non-statutory basis, helping it remain adaptable.

What about Europe? A more rigid approach to AI regulation is being adopted by the EU, with the proposed introduction of the EU AI Act. This will categorise AI as either being an unacceptable, high or low/minimal risk. Unacceptable-risk AI systems include, for example (i) subliminal, manipulative or exploitative systems that cause harm and (ii) all forms of social scoring (for example, AI that assesses an individual's trustworthiness based on social behaviours). The EU AI Act is expected to be finalised in 2023.

In September 2022, the European Commission also proposed a separate AI Liability Directive. This is intended to allow those who have been harmed by companies using AI to bring claims against the perpetrators. The AI Act will serve as a preventative measure to minimise the potential harm caused by AI and certain uses. The AI Liability Directive will provide for compensation in cases where harm has already occurred.

And finally, the US. Safeguarding against inadvertent consequences of AI use through increased regulation has also been prioritised there. The blueprint for an AI Bill of Rights has been introduced. This sets out five key principles for the protection of the rights of Americans regarding the impact of AI. In July 2022, the US American Data Privacy and Protection Act (ADPPA) received approval from the House Energy and Commerce Committee. The bill proposes national standards regarding personal data collected by companies and AI decision-making. Further regulation of AI decision-making is likely to see continued focus from the federal government following the publication of a blueprint for an AI Bill of Rights by the White House Office of Science & Technology Policy. Meanwhile, the UK's proposed Data Protection and Digital Information Bill is likely to include updates to the UK's data protection regime which take account of the benefits and risks of AI and personal data.

We look forward to 2023 being a fruitful year in terms of the increase in scope for AI deployment, and also inevitable regulation, with the possible exponential increase in legal disputes relating to AI.

Please get in touch with a member of Dentons' Global AI team to find out more about how we can help you address your specific AI query or challenge.

Check out the **Dentons AI: Global Solutions Hub** to learn more about artificial intelligence and its importance for your organization.

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