Sometime soon in an Attorney's future: Retaining and Working with Experts in Disputes and Litigation over LLMs and AI

By Dr Stephen Castell

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Abstract

New AI and LLM products, services, tools and systems have arrived. And where there is new technology, there will be faults and contention, with associated allegations of failures and damages, and the seeking of just redress. This article briefly addresses the issue of retaining and working with experts in disputes and litigation over LLMs and AI. What are the questions lawyers should ask their experts to achieve a shared understanding before proceeding?

Introduction

AI and LLM products, services, tools and systems are here, now, with rapidly escalating spread and penetration into and across essentially all areas of the economy, industry, education and society as a whole. Disputes and litigation over LLMs and AI have already arrived, and their growth, in number, scope and scale, will be inevitable.

Just one example that is likely to become a widespread concern is in the medical disputes arena, where expert assessment will doubtless be required in regard to: "Who is liable for an incorrect AI diagnosis that leads to the wrong treatment or injury of patients?". And this question can readily be extended generally, replacing 'patients' with 'customers', 'users', 'investors', or just 'people', any of whom may legitimately seek to sue when the application of AI and ML, and Autonomous Automated Decision Systems (AADS) – and in the near future, doubtless also general purpose autonomous, self-adapting utility robots – leads to faulty, unreliable or deficient outcomes, inadequate performance, improper treatment or injury, and/or material consequential financial damage.

The new challenge for attorneys is that due and appropriate legal assessment and landing of liability and causation may be difficult forensically where AI is involved or embedded in the provision of such goods and or/services. The sort of forensic questions that arise include:
- Was the damaging process, act or incident caused by, and to the liability of, the autonomously operating AI software; or the humans managing and responsible for that software; or a combination, or someone/something else entirely – how to tell?
- Are there any recognised technical or other 'fail-safe' standards for the construction or operation of such new intelligent devices and services, which, if followed, could have avoided that damage; and, even if there are, what professional obligation does a software writer have to know about them, let alone be compliant with them?
- Will existing Professional Indemnity Insurance Policies cover AI, LLM and AADS liabilities, or will wholly new forms of cover have to be developed – and when?

However, by contrast to these legal analysis challenges, from an ICT expert witness professional perspective, the forensic investigative techniques and the ICT standards and

methodologies applying (not least in regard to preservation, disclosure and presentation of the relevant crucial computer software and systems **digital evidence**) are well-established. They apply as much to AI systems, products, provision, operation and use as to any other computer systems – 'algorithmic data objects' all. As forensic ICT expert professionals say: "It's not different just because it's AI". Attorneys need to understand this fundamental truth and work with professional ICT expert witnesses to achieve a well-founded common insight into the most appropriate and productive approach to identifying, investigating and analysing the key technical issues in any given AI dispute scenario, however complex.

For Attorneys: a Question of When (Soon!), not Whether

It is clear that AI is truly one of the most dramatic current evolutions of computer technology, with rapidly developing transformative impact across all human personal, employment business and professional activities and pursuits. I have identified that it is a case of 'Eat Or Be Eater By AI', **EOBEBAI**! How to become an AI eater, rather than chewed up by AI and spat out, is the question facing everyone, with no clear answer (if any) at the moment. But somehow everyone needs to consider harnessing AI to assist them, not trying to compete with AI. You won't win, it will out-perform you.

Here is a key expert early warning concerning 'AI Ethics': there will be a fundamental problem with trying to obtain credible professional technical expert support to land an action for damages related to 'unethical' use of AI. In my much-cited 2018 paper in Computer Law & Security Review, I revealed the truth "You cannot construct an algorithm that will reliably decide whether or not any algorithm is ethical". So, first learning point: when issues of 'bias' or 'ethics' are raised in disputes over the consequences of use of algorithmic decision-making systems, legal and all other professionals must properly examine these subjective concepts within the processes of the humans who specified the Requirements for the algorithms, together with the human project management and oversight of the computer programmers who built the application, and not expect experts to find technical evidence of presence or absence of 'ethics' in the delivered and operational computer code itself.

From the beginning, computer software has always assisted humans and/or, equally, replaced them. First it replaced humans carrying out 'mechanical' tasks, for example in accounting and bookkeeping, assisting those who employed them to reduce headcount and costs. Now it is on the brink of replacing knowledge workers and those offering expertise, or creativity – and, again, financially assisting those employing them. For example, Buzzfeed reportedly laid off 12% of its staff after trialling using ChatGPT for a month; and a major scifi publisher is said to have ceased accepting any new manuscripts because it could no longer tell who actually wrote what, whose copyright, what provenance, and so on.

Clearly, whatever anyone's subjective ideas on 'ethics', or 'bias' may be, humans like the fruits of this New AI World, the cheap and fluid economy of an infinite multiplicity of attractive, flexible, instant, useful, quality DeepFake, Fantasy, products and services, with the hard graft and heavy lifting done by LLMs and robots. And, where such new products and services are introduced, there will be mismatched expectations, failures, victims, damaging consequences – and thus disputes and litigation.

So, with already widespread impact of LLMs and AI like this, litigation over poor, unprofessional, contentious or unacceptable use of AI is already on foot and involving trial lawyers in the forensic challenges of researching the technical facts and issues (using

appropriate professional ICT experts), identifying a clear basis for cause and claim, and preparing the Statement of Case and other Pleadings.

Issues Arising in Disputes over AI, LLM, Digitalisation and Robotisation, and how the ICT Expert Witness Professional can assist in their Resolution

Media and Copyright: Media companies and content producers have already filed lawsuits against Generative AI software companies such as OpenAI (maker of ChatGPT), Microsoft, Midjourney, Stability AI and DeviantArt, many of the lawsuits involving alleged copyright infringement, where the complaint is that AI companies illegally train various large language models (LLMs) on copyrighted content from media companies:

- December 27, 2023: The New York Times sued Microsoft and OpenAI for alleged copyright infringement, claiming that the AI tools divert Internet traffic that "would otherwise go to the Times' web properties, depriving the company of advertising, licensing and subscription revenue, the suit said," according to The Wall Street Journal.
- August 2023: The U.S. Copyright Office issued a notice of inquiry (NOI) in the Federal Register on copyright and AI. The Office will use gathered information to "advise Congress; inform its regulatory work; and offer information and resources to the public, courts, and other government entities considering these issues."
- February 2023: Stock photo provider Getty Images sued Stability AI in the United States, alleging that it had infringed on Getty's copyrights, Reuters reported. Getty Images filed a similar suit against Stability AI in Europe in January 2023.
- January 2023: A group of visual artists sued AI companies such as Stability AI, Midjourney and DeviantArt for copyright infringement, Reuters reported.

In these types of cases, the computer expert witness can assist with Requests for Information designed to ensure that full disclosure of all the relevant digital evidence is made, in particular the requirements specification, design documentation, coding development records and workings, training and testing data, results and logs, pertaining to the production and deployment of the subject AI application software system.

Financial Services: Use of AI and Machine Learning (ML) in the deployment of AADS, with computer software-implemented algorithms, or 'algos', now spreading widely in financial trading and other systems, inevitably mean that new financial risks are arising from such increasing reliance on digital finance. Disputes over the use, and potentially damaging consequences, of AADS are thus likely to escalate, and ICT expert witness professionals will where appropriate become involved in forensic assessment of such algorithmic disputes.

They can assist with looking at and giving opinion on such key issues as:

- Technical tracing of the 'causation and evidence trail' in regard to the automated decision-making and execution processes that were involved in the financial investment and trading transactions that were carried out.
- Identification and assessment of the components and patterns of relative causations and liabilities, as between and among responsible AADS and humans, probing alleged poorly-designed, negligent, inexpert or inept execution of damaging transactions.
- Modelling and quantification of the financial consequences of damaging transactions, and what quantum of damages or other compensation would be justified, reasonable and appropriate taking account of all the relevant technical circumstances and considerations.

As an experienced software and systems expert witness, I have been instructed on hundreds of cases and given oral testimony on dozens of occasions (including acting in high-profile patent infringement cases, and in the longest and largest software development contract actions in the English High Court, and Sydney Supreme Court). I have in particular already given sworn expert testimony covering the above issues in a US FINRA Arbitration over an AADS.

The Legal Profession: The use of LLMs within law firms themselves may also increasingly pose a number of issues in that legal work deals with high volumes of confidential documents and information. This may lead to disputes involving intellectual property infringement, privacy, and data breaches. The world's first defamation lawsuit against ChatGPT was recently filed by an Australian mayor, claiming ChatGPT published false and defamatory statements about him on social media, causing damage to his reputation and career. The lawsuit is expected to raise legal and technical questions about the liability of AI models for content they generate.

In such LLM disputes, there is likely to arise the need for ICT expert witness professionals to be retained for forensic assessments and to provide expert opinion, assistive to the courts, concerning, for example:
- How exactly were the algorithms determining the creation and functioning of the LLM conceived, specified, designed, built and tested.
- What Software Development Quality Assurance Methodology was used to check that the LLM creation project produced a fit for purpose, legally and technically reliable product.
- How were the critical Training Data, using which the LLM was fashioned, chosen, sourced, audited, verified, cleaned and tested to ensure that the LLM produced was legally and technically traceable, deterministic, reliable, non-infringing of relevant rights and/or statutory obligations, and fit for purpose.

Computer Industry: AI is in particular being increasingly used in software development itself, in design and coding of software apps, packages and systems, and especially in the essential and crucial software and systems testing prior to commercial operational release of a software product or service. The key issue of evidential transparency arises over delivered software products, in regard to completeness of delivery, adequacy of functionality and/or performance, and overall fitness for purpose.

I can foresee that I may be involved sooner or later in a litigation where, in the context of 'the usual' claims and counter-claims over a failed software project or implementation, one of the critical technical issues that will feature will be that the software in question was developed and delivered using AI-assisted testing. Instructing attorneys will need to understand that there will be questions relating to the vital evidential 'legal transparency' – to availability of documentation of AI testing completeness and coverage, 'find and fix' fault logs, the whole 'fitness for purpose' evidential/proof perplex.

Conclusion

Disputes and litigation over AI, LLMs, Autonomous Road Vehicles (ARVs), AADS, AI-Assisted Software Development, robots and cyborgisation look likely to become a whole new area –

or minefield – of legal and technical disputes, demanding forensic investigation, advice and opinion for a wide range of clients, across almost all sectors of society and the economy. Trial attorneys and experts need to achieve a common understanding and insight of the key technical issues involved. From an ICT Expert Professional technical perspective, 'the fundamental things apply': Forensically, it's not different just because it's AI.

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