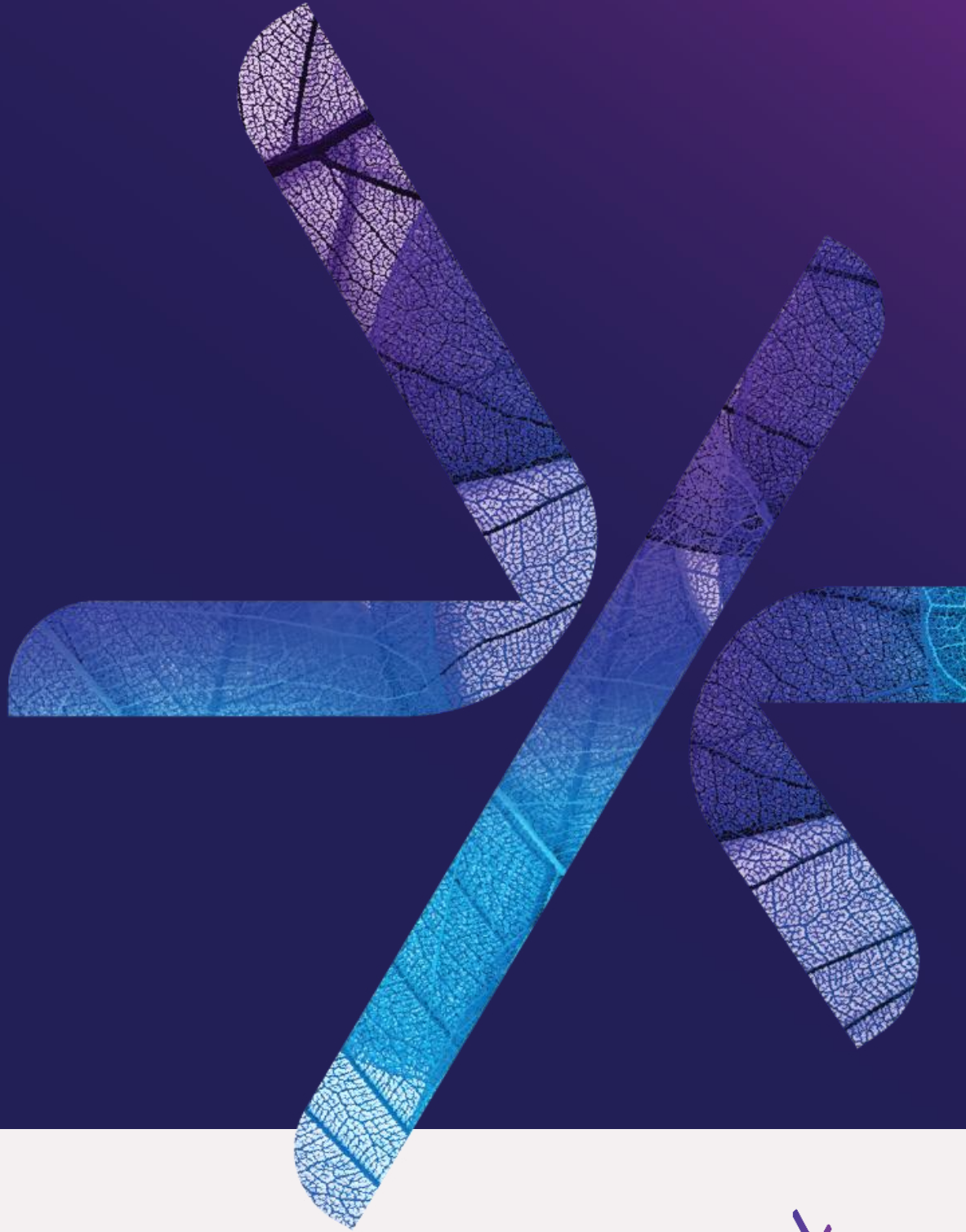


Bricks, Bytes, and Legal Rights - How AI can shape the 2032 Brisbane Olympics

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Hamilton Locke was pleased to contribute to The Society of Construction Law Australia's 12th National Conference, which took place in Brisbane earlier this year. The two-day conference program explored the theme of "Faster, Better, Cheaper – Brisbane 2032" and featured many eminent construction industry experts who are passionate about showcasing the best of Brisbane. With recent advancements in artificial intelligence rapidly transforming the way people work and how projects are delivered, our Construction experts Elena Stojcevski and Veno Panicker were keen to explore the opportunities that these tools will bring to the delivery of the 2032 Olympic and Paralympic Games and Queensland more broadly.

Around the world, artificial intelligence (AI) is rapidly transforming the way that people work. In recent years, AI has been introduced into most sectors playing a large role in automation and making drastic improvements in productivity. Despite these benefits, its uptake in the construction industry remains slow, marking construction as one of the least digitalised industries.¹

This is thought to be largely a result of attitudes that are resistant to change and a lack of knowledge surrounding its usage.² Subsequently, building and legal practitioners are more inclined to want to complete work manually. This view is counterproductive and ultimately, will negatively impact the construction industry. The lack of use of AI, automation, and technology, has been established as one of the key culprits that continues to draw out project timelines, budgets, and project complexities within the industry.³ It has also been linked to poor quality performance, and inadequate health and safety.⁴

Mega projects, including the Olympic Games, are no exception, with the issues encountered having large scale consequences on the project. To worsen matters, the Australian construction industry is plagued with low levels of productivity.⁵ Over the last 20 years, the industry has only experienced a growth rate of 1% annually, trailing significantly behind the 2.8% growth rate in the world economy.⁶

In addition to this, Australian mega projects are rife with disruptions and issues. A recent Crux Insight report from October 2024 found that over 40% of Oceania's projects were affected by design challenges.⁷ This was mainly attributed to changes in scope, late appointment of subcontractors and a lack of planning. Additionally, in an effort to win more work, contractors were inclined to shortcut crucial processes and timelines. For engineering, procurement and construction contracts, as different parties are responsible for managing and coordinating different aspects of the work, the increased scope for misunderstanding and miscommunication significantly contributes to design challenges.

Further, as climate change continues to become more prevalent, it is no surprise that 41.1% of Oceania's projects were negatively affected by environmental issues.⁸ There has been a rise in disputes as a result of increased energy costs, more contaminants, and the tightening of environmental laws and regulations.

The Crux Insight report also found that in these mega projects, extensions of time (EOT) were claimed on average for an amount totalling 41.8% of the project's originally planned duration.⁹ The principal reasons for the EOT claims were changes in scopes, site access issues, and design information being issued late.

¹ Damali Young and Kamallesh Panthi, 'Challenges involved in Adopting BIM on the Construction Jobsite' (2021) 2 *EPiC Series in Built Environment* 302, 302.

² Ibid.

³ Sururah A Bello et al, 'Cloud computing in construction industry: Use cases, benefits and challenges' (2012) *Automation in Construction* 1, 2.

⁴ Athanasios Nikas, Angeliki Poulymenakou and Panagiotis Kriaris, 'Investigating antecedents and drivers affecting the adoption of collaboration technologies in the construction industry' (2007) 16(5) *Automation in Construction* 632, 632-3.

⁵ Meiske Sompie, 'Addressing the Construction Industry's Productivity Problem', *TBH Project Delivery Experts* (Online article, 19 June 2024) <

⁶ Ibid.

⁷ Crux Insight, 'Changing the Narrative: An analysis of claims and dispute causation on engineering and construction projects' (Seventh annual report, October 2024) 36.

⁸ Ibid 52.

⁹ Ibid 50.

Changing the script

Throughout their history, the Olympic Games have experienced similar project issues. Examples include:

- in 1976, Montreal suffered a reported budget blowout of approximately \$1billion;¹⁰
- the 1994 Lillehammer Winter Olympic Games had a large emphasis on sustainability. However, there were numerous reported issues between the organising committees and the environmental activist groups. It is considered that these environmental matters are responsible for the significant cost overruns of 277%;¹¹
- the Sydney 2000 Games were recorded to be 90% over budget;¹²
- the Sochi Winter Games 2014 faced significant planning, geographic, and feasibility issues that amassed a total cost of US\$55billion, higher than its original budget of US\$12 billion;¹³
- the 2016 Rio Games heavily invested in the construction of infrastructure. At the conclusion of the Rio Games, this infrastructure was to be used to benefit struggling communities. Today, however, reports suggest the specially built infrastructure is largely abandoned. In total, Rio Games ran 352% over budget;¹⁴ and
- the 2026 Melbourne Commonwealth Games were cancelled, reportedly after poor planning and consultation that led to a budget blow out of billions of dollars.

Brisbane secured the 2032 Olympic and Paralympic Games on the strength of a compelling and future-focused proposal: that much of the infrastructure required to host the Games was already in planning or underway as part of broader city and regional development strategies. This 'Games-as-a-catalyst' model offered a new approach - one grounded in long-term community benefit and fiscal responsibility. Unlike past host cities burdened with abandoned or underutilised infrastructure, Brisbane 2032 represents an opportunity to flip the narrative. With legacy baked in from the start, the Games will accelerate projects that were already needed, ensuring they serve generations long after the flame has gone out. In addition to this, the 2032 Brisbane Olympic Games (the **Games**) provide an opportunity for project management and productivity to be done differently. The Games sit on the cusp of an AI boom, with new generative AI (**Gen AI**) at the forefront.

AI, especially recent breakthroughs in generative or "Gen AI", has the potential to positively transform the construction industry. Gen AI is a type of AI that leverages deep-learning models that can be used to generate information, text, images, sounds, and other content, making it a highly valuable tool. It can automate and optimise the industry, improve the way that processes are undertaken and generate enhanced solutions. It also has proven ability to improve productivity, safety and design processes. This paper will explore the ways that AI can be used to significantly improve the Games throughout its entire lifecycle and will provide some examples of AI that already exist, which could be utilised with great success.

How can AI be used in the pre-construction and construction phases?

Design processes

Gen AI can transform design processes. Through automation, Gen AI can produce numerous design alternatives efficiently and cost-effectively that can satisfy various input requirements. These requirements can range from compliance with certain environmental and sustainability regulations to venue capacity requirements.

In circumstances where AI has data regarding the materials and manufacturing process, it can provide information on the most optimal material efficiency and production speed. McKinsey's 2023 report illustrated how Gen AI is being used to design buildings and to create urban landscapes.¹⁵ This empowers designers to manipulate AI-created designs; the designer sets certain parameters, and the software produces a design prototype that fits.

It has also proven powerful in graphic design. For example, Nutella used an algorithm that created 7 million unique labels for a Nutella campaign that were printed on jars and sold across Italy.

¹⁰ International Olympic Committee, 'The Economics of Montreal 1976', *International Olympic Committee News*, (Online article, 18 April 2024) <<https://www.olympics.com/ioc/news/the-economics-of-montreal-1976>>.

¹¹ Flyvbjerg, Budzier and Lunn (n 10) 29.

¹² Ibid.

¹³ Martin Müller, 'After Sochi 2014: costs and impacts of Russia's Olympic Games' (2014) 55(6) *Eurasian Geography and Economics* 628, 628.

¹⁴ Flyvbjerg, Budzier and Lunn (n 10) 29.

¹⁵ McKinsey, 'The state of AI in 2023: Generative AI's breakout year' (Online Report, 1 August 2023).

Spacemaker AI (which was recently acquired by Autodesk) has already developed this design tool, which empowers designers to create high-quality site proposals by providing insights into factors such as sun and wind.¹⁶ Spacemaker AI analyses data taken from site conditions and imposed regulations to provide the user with 3D models of the site and project. Indeed, the Finnish developer T2H used Spacemaker AI for their site acquisitions, allowing the company to assess their project sites more accurately, efficiently and faster, resulting in a 50% reduction of time spent on feasibility studies.

Timeline and costs

AI also has a proven ability to improve project timelines and budgets.

When planning and constructing a project the size of the Games, there is not much room for variability or flexibility. Therefore, when items are not accounted for, or things do not go to plan, the timeline and budget can be drastically thrown off. AI has the power to change this narrative. Through machine learning, AI can better predict potential disruptions to timelines, such as changes in third-party procurement of goods or services or weather events. Therefore, it can construct a dynamic timeline in which these impacts are accounted for. Alternatively, at project conception, AI can generate multiple project plans for various potential risks that could arise, allowing for the project's path to remain fluid and efficient regardless of the events encountered.

Technology can be used to streamline the supply chain and procurement method. In relation to the Games, Gen AI has the power to analyse the complex supply chain, identify the specific project requirements and potential inefficiencies. As a result, it can proactively address issues to ensure minor setbacks do not snowball. For example, if faced with material shortages, Gen AI could identify other suitable suppliers or subcontractors. Additionally, using predictive analysis, AI may be able to determine the effect of climate change, adjusting the timeline accordingly.

Another example of construction-based AI is ALICE Technologies, which has created an AI program that can generate and analyse thousands of potential construction timelines. This will enable contractors to determine the most efficient, cost-effective and risk-reduced path for their project. Clearly, the Games would significantly benefit from the use of technology like this.

The Games, like any other significant infrastructure project, risks going massively over budget. As such, significant focus should be on ensuring the total cost remains as close as possible to the anticipated costings. In this regard, AI software already exists that allows for the provision of rigorous cost estimates. One such example is Buildxact, which provides advanced functions for estimating, job scheduling and management.¹⁷ It assists users to effectively and efficiently generate, manage, and track expenses, allowing for more realistic cost estimates and providing an appropriate budget.

Drafting and contracts

Through technology such as natural language processing and machine learning algorithms, AI can be used to draft and automate construction contracts. This is commonly seen in 'Smart Contracts'.

Smart Contracts are tailored to project requirements and can be programmed to be triggered when predetermined conditions are met.¹⁸ The use of Smart Contracts is not limited to simply contract administration; but can also be used to automate payments, transfer ownership of certain materials, and maintain intellectual property rights.

AI can also be used to complete contract reviews and to analyse legal documents, highlighting any weaknesses and inconsistencies. This has the potential to save a significant amount of time, especially in the context of the Games where there will likely be a large volume of complex legal documents. Identifying these issues at contract formation will be productive for dispute resolution, reducing the likelihood of unnecessary contractual disputes down the line.

Wastage and recycling of resources

Waste from construction projects increases each year from the overestimation or change of scope of materials during construction, unnecessary maintenance, and unused infrastructure (as seen in the Rio 2016 Summer Olympics). For a project the size of the Games, it can be assumed that if resources are not managed correctly, there is potential for huge wastage. In addition to this, if sustainable practices are not implemented, construction processes could potentially inflict harm upon the environment.

¹⁶ Autodesk, 'Spacemaker: Early-stage planning, reimaged', *Autodesk* (Online article) <<https://www.autodesk.eu/content/autodesk/global/en/products/spacemaker/overview.html>>.

¹⁷ Buildxact, 'How improving AI tech avoids common construction estimation mistakes' *Buildxact* (Online blog) <<https://www.buildxact.com/us/blog/ai-tech-estimating/>>.

¹⁸ International Business Machines Corporation, 'What are smart contracts on blockchain?' *Think* (Online article) <<https://www.ibm.com/think/topics/smart-contracts>>.

Building Information Modelling (**BIM**) is an AI software that assists with this. BIM states that it is a collaborative software that creates and manages a project through its entire lifecycle.¹⁹ BIM allows multiple stakeholders to collaborate on the same project model simultaneously. Not only does this improve communication by ensuring all parties are up to date, but it also helps with resource allocation, ensuring efficient project execution.

Through its ability to analyse a diverse data set, BIM enables individuals to make informed decisions regarding materials that minimise waste generation and maximise resource reuse and recycling. This promotes sustainability and circular economy principles.²⁰ BIM is also important in facilitating and improving decision-making at the deconstruction stage.²¹

BIM is already being widely used, with recent figures reporting that approximately 40% of Australian construction companies are using BIM.²² This is primarily on large projects such as the Northwest Rail Link Project, displaying its compatibility with the Games.

Caterpillar Inc. has found another way for AI to reduce wastage. Caterpillar has implemented AI into its machinery to improve maintenance and efficiency.²³ This system analyses data to anticipate when its machines require maintenance and downtime. Resultantly, this increases the lifespan of the equipment, reducing the need for replacement and unnecessary maintenance. If technology like this can be implemented into the Games, the lifecycle of infrastructure will likely be extended, reducing the need for additional materials and costs.

Safety on site

Like with any mega project, numerous parties will be collaborating on site, ranging from tradespeople to project managers. This means that safety and hazard minimisation must be a top priority and integrated seamlessly into site. AI can increase safety on-site and equip workers with the knowledge and training required to respond to risks.

During both design and construction, Gen AI can use analytical data from weather events, machinery, and schedules to predict potential risks and hazards. By informing managers and health and safety representatives early on, the correct mitigation tactics can be implemented. AI can automate and streamline relevant 'Safe Work Method Statements', applications, and permits, increasing compliance with regulations and codes.

By monitoring real-time data from site, Gen AI can identify near misses and check for correct PPE compliance. This improves safety on site and can direct those responsible to areas that may require their attention.

Another way this is being achieved is through AI-generated, virtual training and simulations. Engaging workers in these realistic situations can improve their response time and decision-making skills if faced with a risk or emergency. Resultantly, this decreases the likelihood of an incident either occurring or escalating. These trainings can be conducted off-site, reducing costs and boosting productivity.

Everguard.ai is a platform that analyses computer vision and real-time data to monitor safety on site. It ensures that workers are following safety requirements while detecting potential risks and hazards before an incident occurs.

Other digital technologies, such as BIM, are able to identify risks and hazards prior to construction. Companies that incorporate this technology are 50% more likely to see a decrease in safety incidents.²⁴

In the lead up to the Games, this technology should be implemented to improve the safety of workers on site.

Data duplication

Historically, legal practitioners have had to manage very large volumes of documents and subsequent document versions. As a result, data and documents can become duplicated which can significantly impact productivity and slowdown processes. This also gives rise to the risk of individuals working on incorrect versions, amounting to miscommunication. Resultantly, the cost and time of tasks is increased, and the quality of data and processing is reduced.

AI has the power to combat data duplication. Through advanced searching and scans, AI can identify potential duplicates, even in situations where the datasets are extremely large, and the documents are not an exact match. This would allow lawyers to reduce the time spent looking for documents, organising files, all while improving data and version accuracy.

¹⁹ Autodesk, 'Design and Build with BIM: Building information modeling' AEC (Online article) <<https://www.autodesk.com/solutions/aec/bim>>.

²⁰ Farzin Maghibalsadati, 'Temporal evolution and thematic shifts in sustainable construction and demolition waste management through building information modeling technologies: A text-mining analysis' (2024) 369 *Journal of Environmental Management* 1, 1-2.

²¹ Arghaban Akbarieh, 'BIM-Based End-of-Lifecycle Decision Making and Digital Deconstruction: Literature Review' (2020) 12(7) *Sustainability* 1, 2.

²² Deloitte, *The State of Digital Adoption in Construction Report 2023* (Report, 2023) 1.

²³ Caterpillar, 'The Future of Artificial Intelligence (AI) at Caterpillar' *Feature Stories* (Online article, 16 April 2024) <<https://www.caterpillar.com/en/news/caterpillarNews/2024/future-of-ai-at-caterpillar.html>>.

²⁴ Deloitte, *The State of Digital Adoption in the Construction Industry 2025* (Report, 2025) 6.

Law in Order provides an AI software in Australia that has the power to identify duplicates, significantly reducing the volume of data.²⁵ Similar software would be integral in the leadup to the Games and would prove advantageous in file management and organisation.

Productivity

The above capabilities and benefits demonstrate AI's ability to transform the poor productivity cycle within the construction industry. Leaders in the construction industry who have adopted technology into their practice found that they were saving approximately 1.5 days a week due to the '*more uniform data environment*'.²⁶

The ability for AI to generate designs, safety simulations, and automate many routine tasks will drastically save time and costs. Using AI increases the chance of completing a project on schedule by 0.59 per cent points and under budget by 0.81 per cent points.²⁷ Ensuring that the Games finish on time is imperative, and therefore, any software that can increase these chances should be implemented.

One example of a construction firm adopting technology is Aurecon. Previously, Aurecon has used AI to help construct bridges. This technology offers practitioners design recommendations and other suggestions regarding costs, maintenance considerations, and material choices.

Currently, Aurecon is collaborating on a Gen AI software that will address complex challenges within the industry. Aurecon's Group Director, Dave Mackenzie, has stated that introducing AI into the company systems shall 'expedite and streamline' processes, allowing practitioners to focus on the more pressing and complex issues.²⁸

This proposition is supported by a recent report that found that Australian construction companies that use integrated AI software have recorded increased productivity levels of 34%.²⁹ This report also found that companies that used this technology recorded improvements in customer experience of 33% and increased staff safety by 33%.³⁰

If similar technology is used in the lead-up to the Games, there is potential for there to be massive savings on operational costs.

How can AI be used during the Games?

Internationally renowned sports marketing expert, Professor Burton,³¹ stated that Brisbane will be on the 'cutting edge of the technological delivery of the Games'.³² He discussed that not only would AI be integral in the planning and development stages of the Games, but would also play a pivotal role in the way the Games were experienced and broadcasted all over the world. This directs the conversation to the way AI can be used during the games.³³

Technology could also be used for traffic control systems. Through analysing data taken from live road traffic, weather conditions, and the pressure placed on public transport systems, AI can optimise traffic lights and the traffic flow. If used correctly, this would reduce traffic congestion and improve efficiency. As individuals have likely travelled to see certain events, it is important that they are able to arrive on time, as predicted.

Previous Olympic Games hosts have reported increased costs due to wasted resources. There are AI-driven sustainability tactics that have the power to optimise energy and water consumption. By monitoring the needs of the crowds, AI can analyse resource usage and make adjustments where possible. This would replace manually adjusted or pre-set energy efficiency methods. Not only would this save costs, but it would also better align the Games with achieving sustainability goals.

Honeywell and Cisco Leverage AI have collaborated to create software that can adjust features such as room temperature, lighting and ventilation.³⁴ This is via AI and machine learning that monitors assets based on factors such as

²⁵ Law in Order, SmartDeDuper, (Online page, 2024) <<https://www.lawinorder.com/au/smart-deduper/>>.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Aurecon, 'Aurecon collaborates on AI tool to support renewable energy transition' *News* (Online news article, 13 March 2025) <<https://www.aurecongroup.com/about/latest-news/2025/march/aurecon-electranet-ai-enablement>>.

²⁹ Deloitte (n 22) 2.

³⁰ Ibid.

³¹ Professor Burton was also the US Olympic Committee's Chief Marketing Officer during the 2008 Beijing Olympic Games
³² The University of Queensland, 'The cutting-edge Games: why technology will be Brisbane's greatest legacy' *UQ News* (Online news article, 11 February 2025) <<https://www.uq.edu.au/news/article/2025/02/cutting-edge-games-why-technology-will-be-brisbane%E2%80%99s-greatest-legacy#:~:text=Brisbane%20will%20be%20asked%20to,to%20be%20the%20technology%20Games>>.

³³ See, eg, Adrian Schrinner, 'AI Initiatives to Maximise the 2032 Brisbane Olympics' *Curam AI* (Online article, 26 August 2024) <<https://curam-ai.com.au/ai-initiatives-to-maximise-the-2032-brisbane-olympics/>>.

³⁴ Honeywell, 'Honeywell and Cisco Leverage AI And Automation To Help Reduce Building Energy Consumption' *Press & Media* (Online news article, 29 August 2024) <<https://www.honeywell.com/us/en/press/2024/08/honeywell-and-cisco-leverage-ai-and-automation-to-help-reduce-building-energy-consumption>>.

real-time occupancy and environmental sensors. As a result, the environment can be optimised for comfort and productivity while minimising wasteful energy consumption. Costs could be minimised while minimising the environmental footprint of infrastructure.

Technology similar to this would prove extremely beneficial during the Games, optimising comfort and increasing sustainability.

As can be deduced, the potential of AI is immeasurable. While only a handful of examples were explored, it illustrates the sheer diversity of this technology and the many capabilities and benefits that the Games can reap from it.

Issues and complexities associated with the use of AI

Like with anything new and different, there are complexities and concerns that arise. It is important that the challenges associated with AI are addressed. Some potential examples are addressed at high level below.

Hallucinations

In 2023, a lawyer from New York made headlines for the misuse of ChatGPT in a legal case. The lawyer conducted legal research for the case using ChatGPT and failed to fact-check whether the cases it had cited were real or not. Unfortunately for the lawyer, the judge checked the cases cited and discovered that ChatGPT had fabricated one of the cases cited. The lawyer was fined \$5,000.

Gen AI is at a stage in development where it has the potential to 'hallucinate' information. In the context of AI, hallucination refers to a fictitious piece of information that AI states to be factual; this can be as result of AI collating inputs from unreliable data sources. This has led to many individuals branding these large language models as distrustful and unreliable. Consequently, it may be argued that using Gen AI for research is counter-productive and poses a very real threat of fabricating information.

To overcome this, certain Gen AI should be accessed with diligence and thoroughness. For the time being, these platforms can be viewed as a highly productive assistant that has the potential to generate ideas and research recommendations.

The role of a lawyer

As AI continues to advance, there are concerns that the role of a construction lawyer, specifically front end, could become redundant. At this stage, AI has the power to present generic advice, to assist with standard drafting and contract reviews, and basic research. However, complex projects and contract advice depend upon highly strategic, trained thinking and a thorough understanding of the context. By working in conjunction with AI, lawyers are able to tailor their time and effort into work that is more valuable for their client.

Therefore, the role of a lawyer to interpret and apply the law, assess risks and to produce personalised legal advice remains invaluable.

Similarly, as the use of AI becomes more prevalent in projects and construction, it can be expected that certain clauses regarding the use of AI will begin to appear in contracts. There is much to be explored in regard to risk allocation and the use of AI, for example who bears the risk of AI producing an unusable design or 'hallucinating' information regarding materials? It will be the role of a front-end lawyer to devise clauses that pertain to the use of AI in design and construction processes.

In the future, this particular role will likely be more common, and practitioners may be expected to articulate clauses that detail when and how AI may be relied upon.

This position is reflected in the Chartered Institute of Arbitrators recently published 'Guidelines on the Use of AI in Arbitration (2025)' (**Guidelines**).³⁵ This provides guidance on the use of AI in a allows practitioners to reap the benefits of AI while also preserving the integrity and role of a lawyer. While these Guidelines are published for the purpose of arbitration, the principles discussed may be applied to other construction contracts. For example, the Guidelines set out ways for parties to disclose to one another the manner in which they may use an AI tool and the extent to which their work relies upon it.³⁶ This promotes transparency, ensures a fairer allocation of risk and provides opportunities for parties to collaborate on agreed upon software.

³⁵ Chartered Institute of Arbitrators, Guideline on the Use of AI in Arbitration (2025) (Online guidelines, 2025).

³⁶ Ibid 13-4.

Skills gap in digital literacy

Many technical challenges have arisen in integrating AI with current construction practices. One reason for this is a consequence of the skills gap between practitioners and the knowledge required to navigate and capitalise on AI. Around 58% of businesses believe that their digital maturity skills are higher than their subcontractors.³⁷ This means there is an incompatibility that can obstruct digital implementation. As a result, the industry seems unwilling to put the required time and costs into adapting its practice to one entwined with AI.

To assist in closing the skills gap, there must be a willingness to share resources and knowledge. Companies can also share training opportunities, outsource, and partner with software providers to ensure that AI becomes accessible for all and is successfully integrated into projects. While this may not seem manageable for all projects, it is likely that the Games will have the resources and funds required to integrate this technology.

Implementing AI into construction practices

Similarly, with the rapid development of AI, it is understandable that many construction companies are unsure of how to effectively implement advanced technology. A recent report by Deloitte highlights critical factors needed to overcome this hesitation. One of the most important factors for success is a strong and effective change management team to lead this implementation. Other activities critical to successfully implementing AI are:

- clearly communicating the advantages of new technology to employees;
- piloting new technologies;
- allocated budget to support the transition; and
- having company leaders use and endorse AI.³⁸

Therefore, in the planning stages of the Games, there should be effective change management and time dedicated to ensuring that workers are informed of the benefits of any new technology. It is also important that those leading the Games are accustomed and comfortable with the technology.

Choosing appropriate software

It is difficult to be able to fully comprehend what AI will be capable of in the wake of the Games. Additionally, due to the magnitude of the Games, it is difficult to gauge what programs will be appropriate for use. However, in determining what programs to use, it can be said that the chosen AI programs must be highly adaptable and reliable. It is therefore reasonable to argue that the software implemented should be one that has been rigorously tried and tested to ensure its compatibility. Additionally, it must have the capacity to facilitate multi-party collaboration and a multitude of design parameters and considerations.

The ethics of generating designs

As AI's design capabilities continue to expand, there is growing concern that human touch will be lost, causing significant cultural and environmental considerations to be overlooked. To prevent this, it is integral that AI receives its data from sources that are inclusive and transparent, as this will allow it to create designs that are free from biases and insensitivity.

On a positive note, it is reported that 76% of industry leaders now trust AI, while nearly 80% are convinced that it has the potential to improve industries.³⁹ This is a promising statistic. To ensure that this trust continues to build, it is integral that companies develop realistic and accessible AI policies, support staff in the transition to a more digitalised work environment and promote digital literacy.⁴⁰

It is critical to understand that implementing AI does not mean that practitioners let go of the reins. Instead, this is an opportunity for collaboration and for AI to be integrated into construction procedures. When the computer was first invented, it did not mean that the human operator became redundant. Rather, it equipped the user with the tools to be more knowledgeable and productive. We propose that AI is used in conjunction with practitioners, advancing the way they conduct their practices and allowing them to focus on the more interesting parts of their job.

As the world watches, Brisbane has the opportunity to emerge as a leader in technology. AI is an important tool that, when paired with the expertise and skill of legal and building practitioners, has the potential to efficiently and innovatively deliver the Games. With this vision, AI has the power to shape Brisbane's legacy and to write the Games into the history books as a benchmark for unparalleled creativity and efficiency.

³⁷ Deloitte (n 25) 7.

³⁸ Deloitte (n 23) 6.

³⁹ GHD, *Generative AI: Transforming the AEC Industry* (Report, 13 September 2024) 7.

⁴⁰ Ibid.

Thank you



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