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Generative AI for Property Professionals and Researchers

Reflections from the keynote speech at the 32nd PRRES Conference, Adelaide, Australia, 2026

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Abstract

Generative artificial intelligence (GenAI) has rapidly shifted from a specialist technological development to a mainstream consideration across professional, educational and organisational contexts. For property professionals and researchers, this development raises important questions about capability, judgement, ethics, governance and the future of professional work. This reflective article is based on the keynote presentation "Generative AI for Property Professionals and Researchers" delivered by Dr Biyanka Ekanayake at the 32nd Pacific Rim Real Estate Society Conference (2026).

The article discusses emerging uses of GenAI in the property sector, barriers to responsible adoption, professional capability development and prompt engineering. It argues that GenAI should not be understood merely as a productivity tool, but as a transformative development reshaping professional capability. Effective adoption requires critical evaluation, contextual judgement, responsible use, robust organisational governance and attention to property education. The article also highlights the next phase of AI development, where GenAI is moving from a responsive tool towards AI agents that can observe, decide and act within defined environments.

Keywords: Artificial Intelligence; Generative AI; Property Professionals, Property Research, Property Education, Professional Judgement

Introduction

The central argument of the keynote was that property professionals, researchers and educators need to understand GenAI. However, this understanding cannot be developed without first establishing conceptual clarity. Dr Ekanayake highlighted that in practice, terms such as artificial intelligence, generative AI, large language models, GPT and ChatGPT are often used interchangeably, creating confusion about what these technologies are and how they differ.

Artificial intelligence, or AI, broadly refers to computer systems that can perform tasks usually associated with human intelligence, including reasoning, problem-solving and learning from experience (Gil de Zúñiga et al., 2023). Generative AI, or GenAI, is a subset of AI that creates new content, such as text, images, audio or video, by identifying and reproducing patterns from existing datasets (Sengar et al., 2025). Within GenAI, large language models, or LLMs, are specifically designed to understand and generate human language. These models use large datasets, advanced machine learning methods and deep neural networks to produce coherent text, respond to questions and perform a range of language-based tasks (Peykani et al., 2025). Generative Pre-trained Transformer, or GPT, refers to a family of LLMs developed by OpenAI using transformer architecture to generate language outputs from user prompts.

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ChatGPT is an application of GPT and, like Microsoft Copilot, can be understood as a GenAI tool used to support conversational interaction, drafting, summarisation and other language-based activities (Abdullah et al., 2022). Such GenAI tools can process large datasets, assist with decision-making, and enhance customer experiences. Thereby, the keynote highlighted that applications of GenAI tools are valuable in the property sector, which is traditionally reliant on manual processes (Chui et al., 2023).

Emerging uses of GenAI in the property sector

In reflecting on the role of GenAI in the property sector, Dr Ekanayake highlighted its practical relevance across a wide range of professional activities with examples of GenAI tools. These include drafting and editing reports, preparing summaries, developing stakeholder communications, generating marketing content, supporting visualisation, organising meeting notes, preparing presentation material, assisting with workflow coordination and converting unstructured information into more usable formats.

In property development, GenAI tools can assist with concept communication, stakeholder engagement and preliminary scenario generation. In asset and facilities management, they support inspection summaries, maintenance communication, contractor briefings and risk documentation. AI-powered chatbots and virtual assistants can also enhance customer service by responding to tenant queries in real time, while predictive analytics offers potential for proactive maintenance, resource optimisation and cost control (Topraklı, 2025).

In investment and valuation, GenAI tools can help synthesise market commentary, structure committee papers, prepare investor-facing summaries and process large volumes of market data to support risk assessment, opportunity identification and decision-making (Szumilo & Wiegelmann, 2024). In marketing, AI-generated content, targeted campaigns and virtual tours can help real estate agencies communicate more effectively with prospective buyers, tenants and investors.

These applications suggest that GenAI is not confined to one part of the property sector; rather, it has the potential to influence customer service, operations, valuation, investment, marketing and strategic decision-making. Importantly, this influence extends beyond professional practice into research, where GenAI tools support literature searching, idea development, coding assistance, editing, translation, abstract refinement and the preparation of summaries.

Barriers to responsible GenAI adoption

While these applications demonstrate the potential of GenAI across property practice, Dr Ekanayake reflected that GenAI adoption should be approached with caution. The Australian property sector still faces significant barriers to fully realise GenAI adoption. One of the important challenges is the quality and consistency of data. Property data is often fragmented, incomplete or held across different systems, which can limit the accuracy and usefulness of AI-generated outputs (Australian Property Institute, 2023). This is a critical issue because GenAI outputs are only as reliable as the data and assumptions on which they are based.

There are also practical challenges associated with implementation. Many property organisations continue to rely on legacy systems that may not integrate easily with newer AI

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platforms. As a result, adopting GenAI is not simply a matter of introducing a new tool. It requires investment in infrastructure, interoperability, staff capability and organisational change (Szumilo & Wiegelmann, 2024).

Another important consideration is the human response to AI. Resistance to change, concerns about job displacement and uncertainty about return on investment may slow adoption (Koroleva & Souza, 2023). These concerns should not be dismissed. For many property professionals, GenAI represents a shift in how work is performed, how expertise is valued and how decisions are supported. Therefore, successful adoption will depend on whether organisations can build trust, provide training and clearly communicate the role of AI as a support for professional judgement rather than a replacement for it.

Ethical and legal issues remain central to the conversation. Data privacy, algorithmic bias and regulatory compliance are not peripheral concerns as they are fundamental to responsible AI use. A tool that can produce fluent language may appear more knowledgeable than it is. This creates a risk that users may trust AI-generated outputs simply because they are well-written, even when the content may be inaccurate, unsupported by evidence, or inappropriate for the specific context. On the other hand, for the researchers, the use of GenAI can raise concerns relating to credibility, transparency, bias, misuse and human replacement.

In this regard, a human-centred approach to AI integration is especially important. The Property Council of Australia (2023) emphasises the need to balance automation with human judgement, which aligns with Dr Ekanayake's reflection in the keynote. GenAI may assist property professionals, but it should not remove accountability from human decision-makers.

As such, GenAI represents a new catalyst for change. It challenges how property professionals work, how property students learn, how property researchers produce and communicate knowledge, and how organisations manage information, expertise and risk.

The professional capability development

Dr Ekanayake highlighted that the development of three capabilities is important for the effective use of GenAI. Property professionals, educators, researchers and students need to understand what GenAI can and cannot do, how to evaluate its outputs, and when human judgement must override machine-generated suggestions.

First, it is important to understand the potential and limitations of GenAI tools. This capability involves recognising that GenAI can assist with tasks, but it also requires users to understand that GenAI does not "know" in the same way that a human expert knows. GenAI tools generate responses by identifying patterns in data and predicting likely sequences of text, which means their outputs can appear fluent and authoritative even when they are inaccurate, incomplete or unsupported. This is especially important in the property sector, where professional advice often depends on current market evidence, legal context, regulatory requirements and site-specific information. Understanding GenAI's limitations, therefore, includes awareness of bias, hallucination, data privacy, confidentiality and over-reliance.

While the first capability is about understanding GenAI before and while using it, the second capability is about assessing a specific GenAI output after it has been produced. Dr Ekanayake emphasised the need to critically evaluate AI outputs. GenAI can produce text that is coherent,

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confident and persuasive, even when the underlying content is incomplete or incorrect. This is specifically problematic in professional settings where outputs may be used in reports, recommendations, client communication or decision support. Critical evaluation requires disciplinary expertise. A property professional who understands valuation, asset management, planning, investment, facilities management or property law is better placed to detect errors than someone relying only on the output.

Dr Ekanayake explained that the second capability is about evaluating the output yourself. However, the third capability is about knowing when the issue is beyond your own authority or expertise and needs to be escalated. In a property organisation, AI-assisted outputs should not proceed directly to a client, tenant, investor, regulator or stakeholder. These outputs require review by a senior professional, legal adviser, compliance officer, technical expert or academic supervisor. This is specifically relevant where AI is used for risk assessment, lease interpretation, valuation-related commentary, investment advice, safety documentation and policy drafting.

The broader implication is that GenAI does not reduce the importance of professional judgement. It increases it. The ability to ask informed questions, provide context, evaluate outputs, recognise limitations and identify risk becomes more valuable, not less.

Prompt engineering as structured professional thinking

Having established the need for professional capability development, the next question is how property professionals can put these capabilities into practice. One practical way is through prompt engineering. Dr Ekanayake explained that prompt engineering is not simply a technical skill, but a form of structured professional thinking that helps users define the task, provide context, set boundaries and specify the quality of output required.

In the keynote, Dr Ekanayake introduced the R.I.S.E. framework (Role, Input, Steps and Expectation) as a practical method for structuring prompts. This framework is useful because it reflects how professionals approach well-defined tasks. A property professional would not brief a consultant by saying "write me a report" without context. They would specify the purpose of the report, the intended audience, the available information, the required structure, the standard of analysis and the constraints. The same logic applies when working with GenAI.

For example, a weak prompt might ask: "Prepare a building condition report." A stronger prompt would define the role of the model, identify the building context, specify the inspection information, request categorisation of issues by risk level, require attention to compliance and safety implications, and define the expected report format and audience. The quality of the output improves because the quality of the task framing improves.

Some property tasks are well-suited to AI assistance through well-structured prompts, such as summarising meeting notes, improving report clarity, preparing communication drafts and generating alternative phrasings. Other tasks require caution, especially where they involve professional judgement, current market evidence, legal interpretation, confidential information or regulated advice. Prompt engineering is therefore not only about getting better answers. It is also about understanding task boundaries.

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Implications for property education

If GenAI use depends on structured thinking, contextual judgement and critical evaluation, then the capabilities need to be developed before graduates enter professional practice. GenAI, therefore, creates significant implications for property education. This challenge is intensified by the fact that students are entering a professional environment in which AI-assisted work is likely to become normal.

Referring to Dr Ekanayake's Property Technology sub-major at the University of Technology Sydney (Ekanayake & Friel, 2026), she highlighted that property educators face two linked responsibilities. The first is to maintain academic integrity and ensure that students continue to develop genuine knowledge and capability. The second is to prepare students to use GenAI tools responsibly in professional settings. The solution is not simply to ban GenAI or to ignore it. Rather, property education needs to teach students how to use AI critically, ethically and transparently.

Changes to the curriculum and assessment are needed. Generic written assignments may become less effective if they can be completed with minimal student engagement. More authentic assessments requiring students to evaluate and improve AI-generated outputs and assessments with applied case studies, oral defence and simulations are needed. Students should be asked not only to produce answers, but to justify decisions, identify limitations, assess risks and demonstrate professional reasoning.

GenAI also creates an opportunity to teach property students about the changing nature of professional work. Future graduates will manage AI-assisted workflows, review automated outputs and communicate with AI-supported systems. AI literacy should therefore be considered part of graduate capability, alongside technical property knowledge, communication, ethics, sustainability, data literacy and professional judgement.

Implications for property organisations

A further reflection from the keynote is that GenAI adoption cannot be left entirely to individual experimentation. Many professionals are already using AI tools informally. While experimentation can be valuable, unmanaged use creates risks. Organisations need policies, approved tools, training, review mechanisms and clear accountability.

Governance should address when AI can be used, what tools are approved, what data can be entered, how outputs should be checked, whether AI use must be disclosed, and who is responsible for final decisions. Data security and privacy are especially important in property contexts, where professionals may handle personal information, tenant data, commercial lease terms, acquisition strategies, valuation information and confidential client material.

Ethical use is equally important. AI-assisted communication should be reviewed for tone, fairness, inclusivity and bias. Legal and compliance issues also need attention, including copyright, privacy, record-keeping, professional standards and organisational accountability.

Many risks arise not from the technology itself, but from users misunderstanding it. Staff need practical training in prompt design, output verification, data protection and ethical use. Organisations also need continuous evaluation because AI tools are changing rapidly. A

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policy developed today may need revision within months as tools, regulations and professional expectations evolve.

The future: from tools to agents

The next phase of AI development is moving from GenAI as a responsive tool to AI agents that can observe, decide and act within defined environments. This shift has major implications for the property industry. An AI tool may help draft a report when prompted. An AI agent may monitor a workflow, identify missing documents, schedule meetings, generate reminders, compare data sources or initiate draft correspondence.

In large property portfolios, this could be valuable. Property work often involves repeated coordination across owners, tenants, contractors, consultants, and internal teams. AI agents may assist with task tracking, document control, compliance reminders, maintenance workflows and communication management. However, greater autonomy increases the need for stronger guardrails. The more an AI system can do, the clearer the rules must be regarding approval, access and accountability.

The property discipline should therefore engage with agentic AI early, rather than waiting for tools to become embedded without sufficient oversight. Questions of liability, professional standards, trust, transparency and governance will become more important as AI systems move from generating content to initiating actions.

GenAI will not remove the need for property expertise. Rather, it will place greater emphasis on the quality of human judgement. The professionals who benefit most will be those who can define problems clearly, provide context, evaluate outputs critically and understand when human oversight is essential. The opportunity for the property discipline is not simply to adopt GenAI, but to shape its responsible use in ways that strengthen professional practice, research quality and education.

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