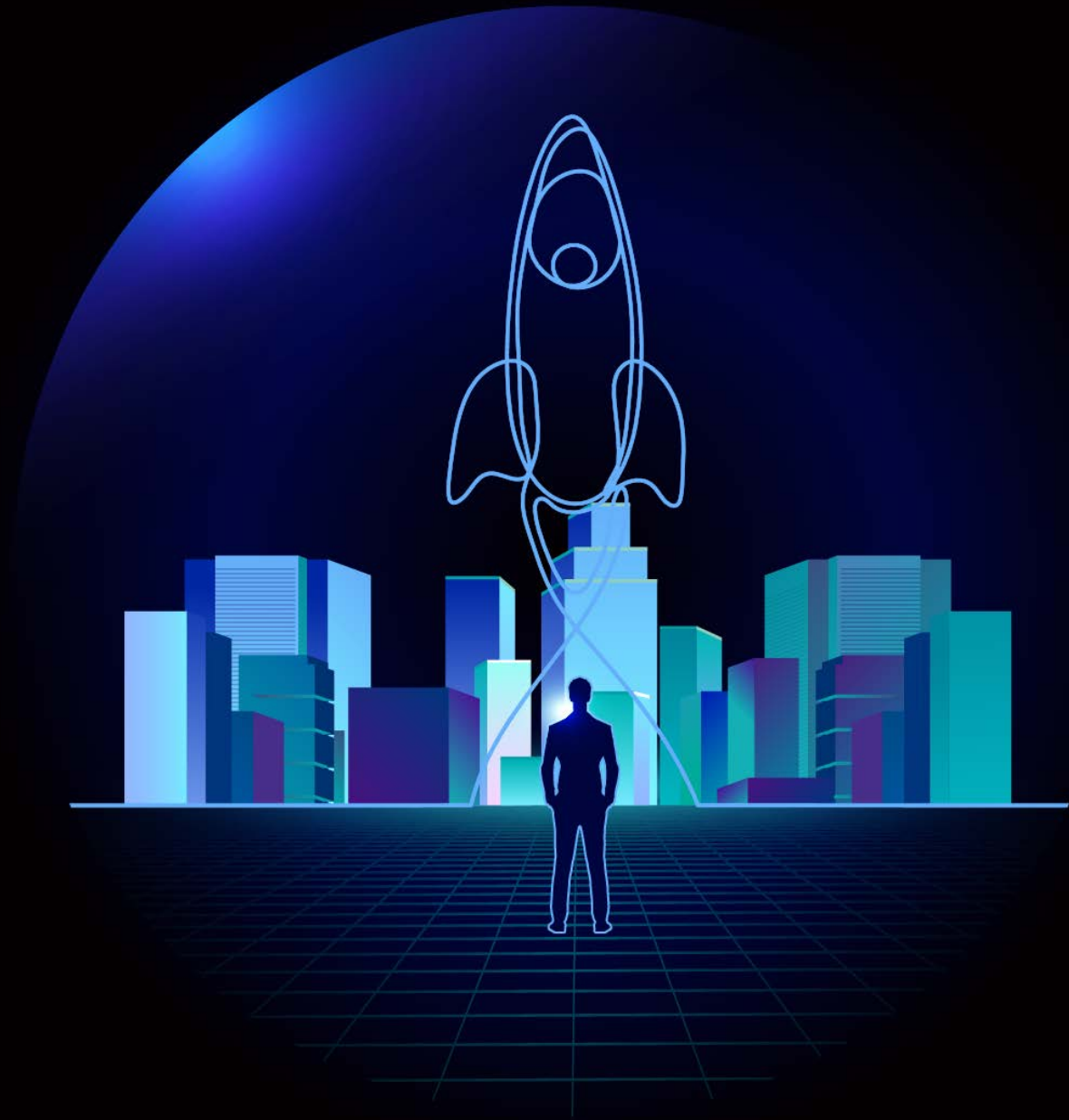


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Six ways GenAI can amplify
the impact of AI on commercial
real estate



As the commercial real estate (CRE) industry embraces the digital age, the role of Artificial Intelligence (AI) is becoming increasingly significant. Taking it a step further, Generative AI (GenAI) is set to revolutionize the way we create, manage, and value buildings. In this thought-provoking piece, we delve into six transformative ways that GenAI can amplify the impact of AI on CRE. We explore how GenAI can innovate design processes, enhance property valuation, improve tenant engagement, support smarter building management, streamline lease administration, and even enable new revenue streams. Join us as we explore the immense potential of GenAI in reshaping the future of the CRE industry.



Robust & flexible designing

Today's AI-powered generative design tools are making it possible to have data-driven and flexible building designs and plans. GenAI capabilities can help generate floor plans and high-resolution 3D renderings instantly, based on a few prompts based on the requirements. Beyond the initial design output, planning & design teams can easily restyle and edit as well.

In addition to speed and efficiency, GenAI can help architects and developers to create more robust designs by considering multiple parameters such as building codes, materials, spatial requirements, economics, feasibility, environmental considerations, and social governance, to produce innovative design alternatives. These alternatives can be tested by simulating different conditions and scenarios to create more robust designs and help reduce risk.¹ Developers can prioritize best options based on project success factors and return on investment.

More importantly, it is not a one-time exercise and planning & design teams can continually validate and scenario plan to adjust over time with integrated real-time modelling. GenAI tools can help the teams to be agile by interpreting any changes or updates which may be entered in the form of text, audio, image, and video.



Rigorous property valuation

AI is transforming the traditional ways of real estate valuation, which was based on manual processes and human judgement. AI technologies and machine learning algorithms enable automated valuation models (AVMs) which can provide unprecedented speed, sophistication, and efficiency in real estate valuations. GenAI can help in analyzing data from different sources, thereby reducing the time, effort, and error in gathering, standardizing, and managing the data and assumptions.

The valuation models can analyze and consider large datasets on diverse parameters, such as location, demographics, built quality, and amenities to provide real-time, objective fair valuations for different property types. Further, by including forecasted data on aspects such as macroeconomic factors, capital costs, and demand-supply patterns, GenAI can help to more accurately forecast asset valuations and more accurately assess potential risk factors to asset value. This can have an immense impact on acquisition and disposition decisions for CRE owners and investors as they can take better informed decisions.

3

Enhanced tenant engagement and personalized experience

GenAI can help drive a more personalized and engaging experience for tenants in many ways. Tenants' expectations have increased from a digital real estate standpoint. Our survey² showed that over half of CRE tenants are looking for more digital and personalized amenities, such as digital concierges, space personalization, digital assistants, and real-time visitor monitoring.³

GenAI-powered chatbots can offer personalized interactions with tenants, addressing queries and providing information instantly on a 24/7 basis. Based on the analysis of tenant behavior and preferences, owners and managers can provide more customized information and services, including amenities recommendations.

At a physical level, GenAI voice assistants integrated with smart building systems can enable tenants to control aspects such as lighting and temperature through voice commands, enhancing convenience. By incorporating these AI-driven solutions, CRE owners and property managers can enhance tenant experience, improve satisfaction, and foster greater engagement, ultimately leading to higher tenant retention.

4

Smarter building management

GenAI can deliver unique insights by enabling building managers to query and analyze building and market data together. For instance, it can elevate predictive maintenance by answering queries on when maintenance is required, based on different internal and external variables. Further, it need not be transactional as GenAI agents can help with continuous monitoring of building performance data to identify anomalies, enabling early detection of equipment malfunctions. This can minimize the downtime, reduces repair costs, and extends the lifespan of building systems.

While AI can ease the day-to-day operations by automating certain tasks such as work order generation, assignment of maintenance tasks, tracking spare parts and supplies, and reordering supplies when stock is low, GenAI can help to analyze operations data and provide instant answers to different performance issues. This can increase the operational efficiency and reduce inventory costs.

GenAI can help owners and managers to analyze the data about people and processes, in addition to the building data, to provide a more operational context of the built environment. It can help building managers to understand the impact of building performance on occupants. For instance, they can explore how indoor air quality impacts tenant experience and occupancy. This can be a game-changer, allowing owners and managers to make more informed decisions based on combined insights from building systems, tenant demands, and user behavior.⁴

5

More efficient lease administration

AI is automating lease administration, making it more efficient and accurate. This includes extraction and abstraction of key information in lease agreements, including lease terms, escalation clauses, and renewal options. GenAI can enhance it further by facilitating better interpretation and visualization of data.

Further, AI tools can track rental payments, calculate escalations, monitor expense reimbursements, generate invoices, and send automated notifications to property managers and tenants. GenAI can provide greater insights in automated reports on lease performance, financial metrics, and compliance status.

GenAI can also facilitate faster lease audits by organizing and retrieving the lease documents and financial data swiftly. It can analyze lease data across the entire portfolio to identify trends and opportunities and help in making more informed decisions around lease renewals and negotiations.

6

Enable new revenue streams & business models

As buildings become smarter, an integrated digital ecosystem can utilize building data in new ways and can be accessed via a single platform – essentially a marketplace accessible to different stakeholders. This platform business model has transformed many industries by connecting producers and consumers of information and services in new and innovative ways.⁵

AI can be a key enabler of new revenue streams for owners through ‘as-a-service’ models, where owners could consider expanding their rent-per-square-foot revenue model to include subscription-based services such as intelligent energy consumption, predictive maintenance

and automated work orders, and occupancy analytics. GenAI can enable many such services by aggregating and analyzing vastly unstructured buildings data and providing smart insights about asset performance and usage.

Our survey⁶ revealed that most tenants would be interested in seeing their landlords provide new as-a-service models. For instance, 56% said they would be interested in paying their landlord to monitor renewable energy or water usage, reduce waste, or harvest rainwater. Half of the tenants also indicated interest in paying for occupancy analytics so they can optimize their space usage⁷

The infusion of GenAI into CRE is a transformative force that can amplify the impact of AI across different areas of real estate lifecycle. For instance, we are seeing continuous innovation in smart glasses and AI could make them more effective by providing deeper insights and increased safety at construction sites.⁸ As GenAI technology continues to evolve, its impact on CRE will likely become even more profound, ushering in an era of unparalleled efficiency, innovation, and sustainability.

Endnotes

1. Marco Macagnano, "[Creating smarter urban environments: How AI-powered Generative Design can enhance urban and development planning](#)," Deloitte, 2022.
2. Refers to Deloitte Canada survey of top executives from 100 major Canadian commercial real estate owners and tenant companies.
3. Saurabh Mahajan & Marco Macagnano, "[Future of Real Estate: Shift to phygital](#)," Deloitte Canada, August 2023.
4. Ibid.
5. Ibid.
6. Refers to Deloitte Canada survey of top executives from 100 major Canadian commercial real estate owners and tenant companies.
7. Saurabh Mahajan & Marco Macagnano, "[Future of Real Estate: Shift to phygital](#)," Deloitte Canada, August 2023.
8. Glenn CHAPMAN, "[Meta Putting AI In Smart Glasses, Assistants And More](#)," BARRON'S, September 27, 2023



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