



Digital real estate in 2022

How to succeed in a world of disruption

Space is no longer the most valuable commodity in real estate. Real estate's traditional business model of providing exclusive access to square footage is being challenged by a new model, one of providing access to services enabled by that space. And the traditional real estate company is being challenged to think like a technology company, linking service delivery and value to revenue. It's time for Canadian real estate companies to shift their mindset from being a space provider to becoming a tenant partner and service provider. This article explores how technology and data can be harnessed to build the digital real estate industry of the future.



Over the last few years, traditional operating models have been greatly disrupted across sectors due to COVID-19; however, few industries have felt it more than commercial real estate (CRE). The rise of digitalization, accelerated as a result of the pandemic, is affecting owners, occupants, and investors, and bringing each of these players closer together in their shared decision-making as a result.

Office and retail tenants are expecting more dynamic building designs, flexible leasing models, and an increased focus on the health of the people using the space. They are re-evaluating their footprints to cater to a future of flexibility, where the amount of space they occupy perfectly fits the amount of space they need. For instance, as per Deloitte’s 2021 Global Outlook survey, providing flexible leasing models was the #1 choice for office CRE owners to enhance tenant experience, followed by sustainable properties, and dynamic & reconfigurable spaces.¹ That means landlords should now consider how their tenants will use a space and then adapt the environment, potentially adjusting leases as needed.

Space is being deprioritized as the commodity of value. The traditional business model of providing exclusive access to square footage is being challenged by a new model of providing access to services enabled by that space. Those services should be focused on enhancing the experience, productivity, connectivity, etc. of the people using the space to boost the enterprise performance for tenants.

Where property and technology come together, there is often real and measurable positive impact on the bottom line. For landlords, digital services can generate new sources of revenue and increase tenant retention. Today’s real estate company is being challenged to think like a technology company, linking service delivery and value to revenue. It’s time for Canadian CRE companies to shift their mindset from being a space provider to becoming a tenant partner and service provider.

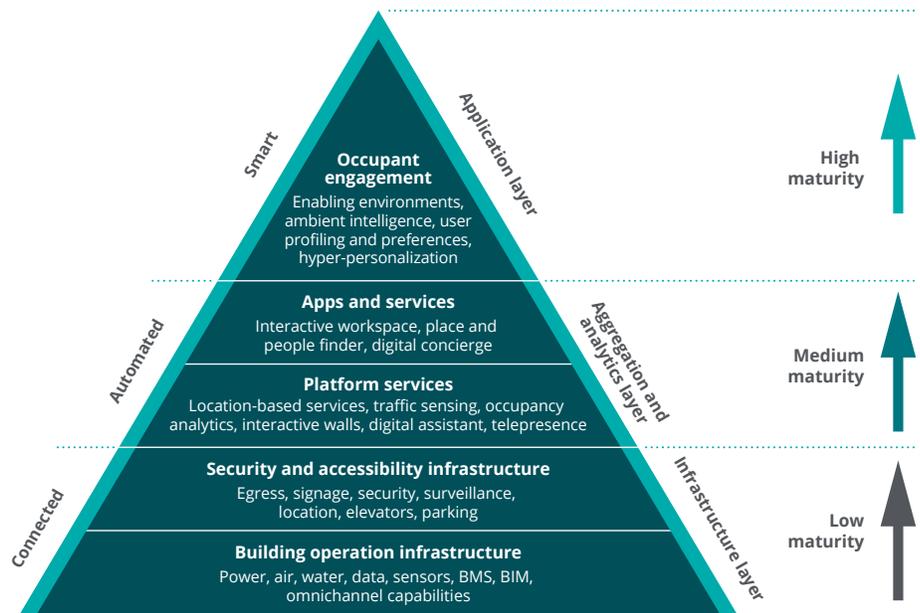
Decode the shift from location, location, location to location, insights, experience

“Location, location, location” speaks of a time when proximity and position were the principal factors in guaranteeing future value and sustainable returns on investment. The world today is a very different place, with many offices having to “earn the commute” of their employees and tenants by providing them with reasons to leave their homes in search of a centralized workspace.

Modern CRE is an engine of data generation, with buildings and their occupants generating hundreds of

gigabytes of performance data every day. Yet much of this data is going to waste as landlords and organizations fail to derive its true value. The challenge of tapping into big data is also an opportunity to shape data strategy in pursuit of profitable and tangible outcomes. Establishing smart real estate asset architecture can create new possibilities for reduced costs and increased profitability by tackling the problem from the perspectives of space, energy, and people. CRE organizations should aim to move up from data collection at the infrastructure layer to insights at the analytics layer, and finally to augmented behavior at the application layer (see Figure 1).

Figure 1: Connected, automated, and smart real-estate asset architecture



Source: Deloitte Canada Real Estate



To plan for ongoing success, it's important for CRE organizations (both occupiers and owners) to consider the following:

- **Location.** Location will always be important, but it's time to focus on developing strategies for the digital workplace (the anywhere office), accessibility, and online presence/disruption.
- **Insights.** Use data to create the right kind of insights and use it strategically for more informed decision-making: ongoing operational costs and energy consumption, maintenance, and real estate strategies tied to building occupancy and tenancy.
- **Experience.** Apply insights to generate augmented behaviour and improve how a space is being used by its occupants. In this way, the building can become a destination or magnet for certain activities—a better place to work/shop/play than anywhere else. Establishing the building as an intelligent system that learns from every interaction it enables helps create personalized user journeys and optimize those interactions moving forward.

Applying the principles above can help reduce operational overheads, including energy and water consumption, property management, and insurance costs. Automation in facilities management, maintenance, and spatial management, for instance, could not only yield immense savings in the short term, but also help improve operational efficiency and business agility in the long term. For example, Montreal-based BrainBox AI's product benefits users with its self-adapting AI technology that analyzes and optimizes HVAC systems in real time to reduce energy consumption and enhance building operations.² BrainBox's AI solution has showcased 25% reduction in HVAC energy costs, 20-40% lower carbon emissions, and 60% increase in occupant comfort.³ Landlords can also generate unique opportunities to create a new value proposition for the building as a *business enabler* by merging enterprise architecture with digital and physical architecture. Below are the key actions and benefits that CRE organizations can consider as they pursue their digital real estate journey.

Amplify capabilities to optimize the power of data

The appropriate configuration of operational and security infrastructure is foundational to the generation and collection of the requisite building data. However, a major limiting factor is that many Canadian CRE owners are largely dependent on legacy technology systems. Companies need to do more in terms of transitioning from legacy systems to not only boost interoperability and efficiency, but also improve the integration and management of data.

To build a strong foundation and realize the benefits of digital real estate architecture, companies need to deploy sensors and build capabilities that collect real-time data on factors such as heating, ventilation, and air conditioning (HVAC) systems, electricity, water usage, surveillance, elevators, and parking. Integrated building management systems (BMS) can allow comprehensive monitoring and control of all these factors and deploy digital services, such as for booking facilities, ordering food, and reserving parking spaces through smartphones.



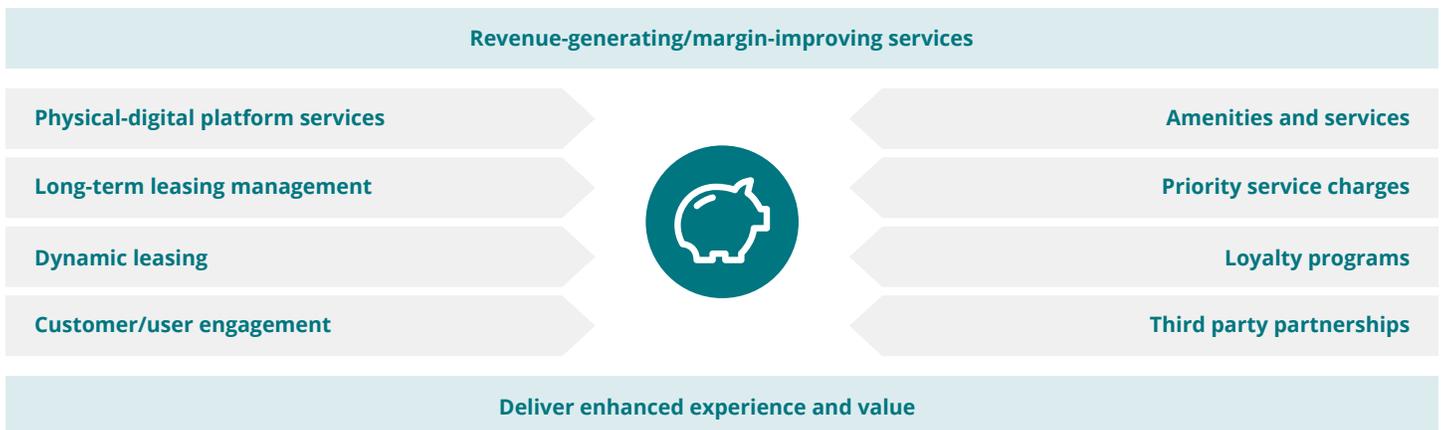
...owners can make **smarter decisions about making their buildings healthy** and charging premium rentals for office spaces that are more productive or retail spaces with higher sales per square foot.

Analysis of these kinds of proprietary building data helps owners and managers to understand how buildings are being used by tenants and other end users. Based on this information, owners can make smarter decisions about making their buildings healthy and charging premium rentals for office spaces that are more productive or retail spaces with higher sales per square foot. For instance, as per the World Green Building Council, improved thermal comfort, lighting, and air quality can enhance productivity up to 23%.⁴

According to MIT Real Estate Innovation Lab, healthy buildings get between 4.4% to 7.7% more rent per square foot compared to their peers.⁵ Owners can also generate new service income by sharing their data and insights with tenants so they can make better decisions and do more in terms of employee and customer engagement. Revenue-generating services could also include physical-digital rights management, dynamic leasing, and loyalty programs, for example (see Figure 2).

Further, disaggregation has proven to be the Achilles heel of CRE organizations. The traditional way of doing things does not allow for a full view of unstructured and structured data. Stakeholders, including owners, occupiers, managers, and equipment/service providers, need to collaborate to enable the seamless sharing of data and a new digital model for real estate.

Figure 2: Services enabled through better collection, aggregation, and analysis of data



Source: Deloitte Canada Real Estate

Activate portfolio optimization

At its core, this principle is about helping businesses understand which areas of an existing real estate footprint should be kept, modernized, or disposed of. They can then determine where investments should most appropriately be made and for what sequence of initiatives. This is one of the key challenges that CRE executives face today.

Data is the key here, as it is only when we can measure a problem that we can adequately solve it. By aggregating information across a portfolio and cross-correlating measurements about occupancy, frequency of use, state of repair, workforce location, and system and infrastructure quality, a detailed picture emerges of which properties are the most valuable and sustainable for the new normal.

CRE organizations are now empowered by their data to optimize their portfolios and footprints through the strategic investment or divestment of assets. Technologies such as artificial intelligence (AI) and machine learning can help by identifying complex patterns and opportunities and predicting future scenarios. Companies are then able to reduce their risk of overexposure and over-commitment to a particular geography.

As office tenants reevaluate their real estate commitments amid the global shift to a hybrid work model and retailers balance their bricks-and-mortar presence with online opportunities, there is an even greater need for landlords to reconsider the value proposition of their buildings—office and retail. The digital augmentation of activity makes it easier to promote higher-quality experiences, increase personalization, boost productivity, and advance dynamic leasing. Service delivery and data monetization through digital platforms will reconfigure the traditional rental business model and diversify how space can be made available to an evolving market.

Real estate companies and occupiers are internalizing the fact that the only constant is change and recognizing that **the greatest tool at their disposal is data.**

Develop properties and portfolios with precision

Considering where and what to build has always been a challenge for real estate companies, particularly as the average project incubation period from design to construction is about five years. In the context of the pandemic era, it seems almost impossible to realistically plan that far in advance anymore. The past two years have been tumultuous and clearly shown how the initial intent of a design can easily be overtaken by new market or social circumstances. This leaves designs and plans vulnerable to risk.

Real estate companies and occupiers are internalizing the fact that the only constant is change and recognizing that the greatest tool at their disposal is data. Predictive capabilities can be built with respect to changes in building designs, equipment defaults, cost overruns, and supply chain issues and be prepared with potential solutions. AI-powered generative design, for example, can swiftly analyze several internal and external factors related to a commercial development and suggest a robust design after running numerous simulations. AI and analytical capabilities can be applied at various stages of the development process to increase the resilience of projects for different scenarios. For more information on using AI-powered generative design for development planning, please refer to our last article on [creating smarter urban environments](#).

Reimagine tenant and end-user experience

Once real estate owners set up well-connected building operations and accessibility infrastructure, their attention should turn to providing value-added services to their tenants and increasing overall engagement. From an end-user perspective, companies can aggregate user data and create an environment of hyper-personalization through ambient intelligence and while considering data security. This will improve the employee experience for office properties and the shopper experience for retail centers. The range of potential services seems limitless, and might start with workplace personalization, digital signage, and personalized offers for shoppers.

From a technology standpoint, companies can build a unified, omnichannel platform that enables location-based services, digital asset tracking and inventory, and digital incident management. Companies can also aim to be revenue-accretive by increasing productivity through services such as collaborative spaces for office tenants, shopper movement analytics for retail centers, and smart parking across asset types. Security and facilities management is also an important element and can help provide safe and efficient spaces. Facilitating human-centric buildings can help companies to reimagine the occupier experience.

Design the future

Digital real estate helps owners and occupiers to extract new and better value from their physical assets through digital transformation, operational efficiency, data analytics, and solutions architecture, with the potential benefits ranging from diversified revenue opportunities, reduced overhead, and increased productivity to spatial flexibility and occupant satisfaction.

To thrive in the long term, Canada's CRE organizations will need to see their properties as evolving, agile systems that use data intelligence to make better decisions and help tenants and end users make the best use of the space. Those that do, will be well positioned to face the inevitable disruptions and to lead their industry into the future.



Endnotes

1. The Deloitte Center for Financial Services [Global Outlook Survey 2021](#)
2. Brainbox AI, [product page](#), accessed March 31, 2022.
3. Businesswire, "[BrainBox AI Unveils Real Estate Energy Savings Calculator](#)," press release, June 21, 2021.
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