UCONN SCHOOL OF BUSINESS
REAL ESTATE CENTER

View Program

Faculty & Research

November 2024

Artificial intelligence gains momentum in Connecticut architecture

Generative artificial intelligence is just beginning to creep into the architecture field, but top Connecticut developers have begun dabbling with it in some of their most ambitious projects.

In East Hartford, AI helped develop a conceptual vision for transforming 28 acres of the Founders Plaza office park into a large-scale, mixed-use development featuring about 1,000 apartments, condos, an expanded riverside trail system and 400,000 square feet of restaurant, retail and entertainment space.

Nicholas P. Michnevitz III, president of West Hartford-based MBH Architecture and a partner in the "Port Eastside" development, said AI applications allowed his firm to generate hundreds of potential design images for the first apartment building in two days, a task that otherwise would have taken up to two months.

That increased speed allows MBH to consult clients on preferences and alternatives much sooner, granting them far greater flexibility and input on final designs, Michnevitz said.

"It's allowed our clients to engage in a project earlier than ever before, and be

Daniel Horowitz, director of the graduate architecture program at the University of Hartford, said AI can be a huge labor saver and help spark creativity by providing different variations of a design on-demand. For now, it's one of many tools for trained architects, who are needed to curate, refine and execute concepts, he said. Horowitz mused that AI, like past innovations, could take over some work performed by people, but also create new tasks.

"When you're on the development side of a project, you're always trying to look at how do I get to the end of the line spending the least amount of money possible, right?" Horowitz said. "And sometimes when one does that, one forgets about the intangibles, about urbanism and what the built environment does and what kind of effect it has on people in intangible ways. You can't always quantify that in the short term. And I think that maybe some of those aspects and some of the value that we place in architects might become devalued, unfortunately."

Feasibility studies

Developer Randy Salvatore, founder and CEO of Stamford-based RMS Cos., agreed more involved in the design and look," Michnevitz said.

Port Eastside was announced last year as an $841 million development. The partnership has since acquired all privately held properties needed for their plan.

Growing importance

Michnevitz said his 26-person firm began dabbling with AI programs around the start of 2024, and has used them for six ongoing projects, including the design of a new office building along the Farmington River, and a 150-bed, 225,000-square-foot skilled nursing facility planned for New Haven.
So far, two MBH employees have trained on four AI-enabled platforms – including ChatGPT, Adobe, Midjourney and LookX AI Cloud. The latter is the most frequently used by MBH, as it allows a design concept to be fed into the system, and then generates design variations based on prompts.
The firm is spending about $5,000 annually for AI product subscriptions, Michnevitz said. He imagines that cost, as well as investments in staff training, will rise as AI products become more refined.

On the Port Eastside development, AI has only been used to imagine the outside envelope of buildings. However, Michnevitz said he expects the programs to eventually be able to offer more sophisticated and detailed drawings.

It's a technology in its infancy, but likely will become an industry-standard tool within five years, he said.

"As architects, we are always aspiring to create better environments," Michnevitz said. "We are always looking toward the future and looking at what the built environment is going to be. We went from hand drawing for thousands of years, to CAD (computer-aided design), and now, through all the other software, to advancements in AI."

Even so, architecture will always require human hands and brains to double-check math and guide concepts, he stressed.

Time is of the essence

Christopher Reilly, president and CEO of Hartford-based multifamily developer **Lexington Partners**, said generative AI has begun to make its potential impact felt in architecture and development over the past nine months or so.

that AI-generated conceptual renderings save time, money and lead to greater flexibility for developers.

He used Virginia-based Lessard Design as the architect for "The Pennant," a 270-unit apartment building he completed across from Hartford's Dunkin' Park in 2022, and a 228-unit project underway nearby.

Ulises Montes De Oca, Lessard's vice president, said AI architecture applications are still experimental, but will inevitably become common tools.

Los Angeles-based Zenerate offers an AI-powered application that helps identify potential building sites based on development goals like budget, square footage and unit count, Montes De Oca said. The application even generates a basic architectural design, he said.

"We work for real estate developers that do mass production of homes all over the country, and the first thing that has to work is the numbers and the unit layout," Montes De Oca said. "So, even before we imagine a beautiful building, we have to make sure the numbers work, and those are the tools we're focused on finding."

Benji (Bongjai) Shin, CEO and co-founder of Zenerate, said his company launched two AI applications this year. Zenerate Modular produces real-time feasibility studies for factory-built housing developments, including design options and financial analysis.

Zenerate App provides basic site plan design options for multifamily housing, which can then be downloaded into more traditional design software for fine-tuning.
Zenerate launched in 2020 as a technology-driven consultant for large general contractors and development firms. It developed its AI applications using $4.9 million in investment capital, Shin said. Currently, it has about 400 users.

As the application is refined and gains traction, Shin said he aims to tap into around 5% of the roughly 250,000 developers, designers and architects in the U.S.

"I can guarantee in the next five years everybody will be using AI-powered software for their feasibility studies," Shin said.

Article published in the HBJ (November 11, 2024)
Article written by: Michael Puffer

AI can flesh out a building design sooner, saving time and money, and provide greater design flexibility, he said.

"By being able to have something that gives us multiple options, multiple choices, even down to the skin color of the building, it will have an impact on the future of projects," Reilly said. "It's so interesting and it really is very inexpensive. We used to pay architects $10,000 or $20,000 for one of those renderings. And now, AI does it and my bill might be $300 or $400."

New York Industry Visit and Alumni Reception

Mark your calendars and save the date!

On Thursday, February 20, 2025, UConn Real Estate students will be travelling to New York for an Industry Field Trip. The students will participate in site visits, have beneficial opportunities to network, and will attend panel discussions from a variety of industry professionals.

In the evening, we hope you'll join us for our annual, can't miss, Alumni & Friends Reception.

Stay tuned for registration details!

Holiday Hours

Data, judgement and analysis

The following falls into the category of Broadly Generalizing, but the issues need to be discussed. This isn't the first time the subject has been discussed in this column and it's probably fair to say that the writer believes that it can't be discussed enough.

Economic behaviors are often the result from decisions based on 1.) no knowledge and no sound basis for action; 2.) limited and possibly incorrect, unconfirmed or lightly confirmed, information; 3.) selective, subjective data that confirms a preconceived idea (confirmation basis). Real estate behavior is no exception and investment decisions are not always based on sound logic or accurate data.

Technology and human nature make for a potent combination in producing illogical and incorrect results and aiding in self-fulfilling prophesies. Feed enough data into a program and something in bound to result to make sense to somebody.

Real estate market observation can be like that too. The data is the data but the human element - the interpretation of the data - the "last mile" in understanding markets. It's important to know what others

Investment real estate markets are long term. A quarter or two of bad economic news isn't going to affect the bricks and mortar...Assets lack the immediate liquidity that is available in the stock and bond markets. While that may be a good thing, it also means that investments should not be entered lightly; getting in is easier than getting out, most of the time. Given the heights of CRE markets achieved post-COVID and the resulting deceleration, it's clear that growth and decline are cyclical., and that each sea change is caused by a new set of events that are different in terms of their weighting in each cycle.

The foundation of more than one real estate bust has been built on running with the herd, relying on technology driven forecasts, and overlaid by the facile conclusions of media and prognosticators. What may really be going on may have to be read "in between the lines," reading trends and forecasts as useful data points and adding the intelligence gathered from being "on the street", blending both big data and reliable anecdotal, primary information.

The best investors seem to understand the think of the data; what is it saying to them? Considering the source is critical in evaluating anecdotal data in order for it to be part of the empirical research. Does the source fall into any of the three categories in the first paragraph?

Despite all the data analysis tools available, real estate markets still consist of relatively sparse data points. They operate in sectors that have slow dynamics with changes coming slowly, and are subtly nuanced with the results of changes not often immediately apparent. Large scale events - say COVID - have plenty of potential ramifications that may not become apparent. While stocks markets respond to events somewhat reflexively, the long horizons of real estate may not even twitch in the short terms. Longer term, the moves may be huge.

asset, both quantitatively and qualitatively, and are willing to pay a fair price for it. Once the decision is made, after the fact analyst can punch up appropriate support. The best investors turn down far more deals than they accept.

Much pessimism seem to exist in commercial real estate. That's not entirely justified: ongoing pessimism is as bad as "irrational' optimism. The economy is not in bad shape, even though many think it is.

Residential markets are a cause for concern. Tight supply limits buyers' choices. High rates have decreased affordability. Price appreciation continues in most markets. Buyers are conditioned to pay over asking. The GSEs are working hard to make home ownership more affordable, perhaps at the expense of prudent lending.

Article published in the nerej (Nov 8, 2024 edition)
Written by: William Pastuszek, Shepherd Associates

Stay Connected with the Center!

The goal of this group is to offer a platform for UConn students and alumni across all geographies and disciplines of the real estate community to connect with one another. If you are a current UConn student or Alumni and would like to be added to the group, please click here!

Student Placement - 2024

Has your firm recently hired a UConn Real Estate Center Intern or graduating Senior? We want to know about it!

Don't forget - the Center continues to offer a Resume Book of students looking for internships and fulltime placement in the real estate industry.

To share your recent hire or for more

information and to receive a copy of the 2023 resume book, please send an email to: kathryn.oleary@uconn.edu or call her at 860-486-3227.

Recent placements, student internships and full-time, include:

Aetna, AvalonBay, Bozutto, Calare Properties, Inc, CBRE, Charles Schwab, Charter Diligence Group, Cigna Healthcare, Citizens, Colliers, FactSet, J.P. Morgan, Goman + York Property Advisors, LLC, Hillwood, HIMCO, Kerin & Fazio, LLC, Lexington Partners, LLC, Marcus & Millichap, NatWest Capital Markets, Point72, PurchRock, PwC, Quartz Properties, Raytheon Technologies, and UBS.

Center for Real Estate and Urban Economic Studies

2100 Hillside Road, Unit 1041RE
Storrs CT 06269

860-486-3227

UCONN
SCHOOL OF BUSINESS
REAL ESTATE CENTER