**ULI Washington Innovation + Technology Local Product Council Year-in-Review: 2023-24**

By Matt Hoffman, HousingTech Ventures, LLC

The ULI Innovation & Technology Local Product Council set an ambitious agenda for its 2023-2024 session to explore the practical applications for artificial intelligence (AI) in the real estate sector. With members spanning all asset classes of real estate, the Council convened three sessions to focus on technologies and use cases that could apply broadly to asset managers, developers, financiers, planners, and the other professions represented among the Council. Specifically, we looked at Placer.ai's solution that offers insights regarding how people relate to a specific geographic site based on their mobility, and we looked at how a large asset owner, WellTower, and the world's largest architecture firm, Gensler, are implementing AI across their platforms. Additionally, we heard from Josh Pankin from Columbia University who helped deepen our understanding about the capabilities of AI.

Understanding the Capabilities and Implications of AI

The Council commenced its exploration of AI with a presentation by Josh Panknin, Director, Real Estate AI Research & Innovation at Columbia University. Panknin provided overview of different types of AI, including classic AI, machine learning, and deep learning, explaining their distinct methodologies and applications.
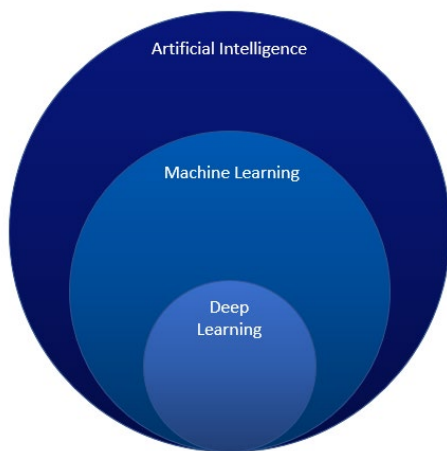
Classic AI, often rule-based, mimics human decision-making through predefined rules, whereas machine learning relies on statistical methods to recognize patterns and improve over time. Deep learning, using neural networks, processes multiple layers of information, enabling advancements in computer vision, natural language processing, and self-driving cars.

One of the key differences between AI and Machine Learning can be thought of in the following way: whereas AI will use a predefined formula to generate a result, Machine learning will find the best formula to generate a result. Panknin emphasized that AI methods are not magic, but mathematics (calculus, statistics, linear algebra); that AI can seem all powerful, but it can be extremely finicky; and that Machine Learning is extremely data hungry.

Panknin sees tremendous potential for adoption of AI and related technologies in the real estate sector, but blames the "communications gap" between real estate practitioners and the technologists. Each group comes at problems with different toolsets, vocabulary, and experiences. He cited the heterogeneity and fractured nature of the real estate market, as well as the broad but shallow data available as two of the major contributing factors to the relatively slow uptake of AI in the real estate sector, as well as the "shiny object" problem of other technologies previously falling well short of their promised revolutionizing of the sector (e.g., blockchain).

Pankin's words of wisdom to the Council included:

- Anything that is core to your specific business strategy should be developed internally.
- You will never develop a strong competitive advantage by using the same tools that your competitors are using.
- Build crossover skills within your firm (a real estate pro and a tech pro working together is insufficient) to better vet potential opportunities
- Focus on systems instead of narrow, incremental improvements
- Focus on strategic tools instead of just operational tools
- There are no shortcuts to realizing value in tech implementation – building good systems takes time

Unlocking Real-time Place-based and Mobility Data Analytics: Placer.ai

Founded in 2016, Placer.ai has quickly become a leader in privacy-preserving location intelligence, leveraging high-quality mobile location data to deliver actionable insights about physical locations, consumer behavior, and market trends. The presentation highlighted the company's commitment to privacy, data accuracy, and the use of sophisticated machine learning techniques to analyze human movement and generate meaningful business insights.

Placer.ai's data is sourced exclusively from apps requiring affirmative opt-in, ensuring privacy and compliance. The platform integrates diverse third-party demographic, psychographic, and behavioral data sets to enhance its visitation data. By continuously validating its data against ground truth sources and employing advanced data debiasing techniques, Placer.ai provides clients with reliable, statistically significant insights that drive strategic business decisions. Placer.ai's insights can optimize operations, inform investment decisions, and improve marketing effectiveness.

[Scott Gabor](#) of Placer.ai shared with the Council how his company uses AI to provide insights into physical locations, consumer behaviors, and market trends. Placer.ai has over 3,500 clients across more than 30 industries, including retail, real estate, civic institutions, and media. The platform utilizes high-quality mobile location data and integrates diverse third-party datasets to provide a comprehensive view of foot traffic patterns, visitation trends, and demographic information, all while maintaining strict privacy standards.

Businesses and organizations use Placer.ai to make informed decisions about site selection, competitive analysis, market strategy, and audience profiling. By leveraging proprietary technology and machine learning, Placer.ai delivers actionable insights that help businesses optimize their operations, enhance customer engagement, and drive growth. The platform protects user privacy and data security by ensuring that all information is aggregated and anonymized, protecting individual user identities while providing robust analytical capabilities.
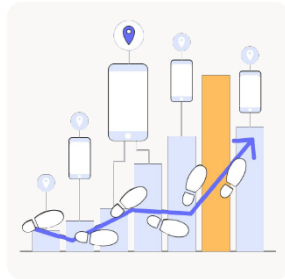
How Placer.ai Works

Placer is powered by high-quality mobile location data and best-in-class proprietary technology.

01 Observe
Human Movement

Privacy-safe foot traffic data from tens of millions of mobile devices forms an aggregated view of US commercial activity.

02 Analyze
Every Location

Machine learning accurately describes human movement throughout the U.S., from specific POIs to chains, markets, and regions.
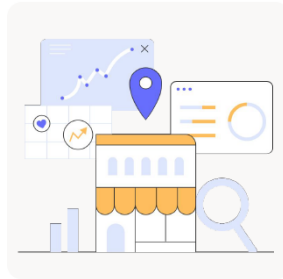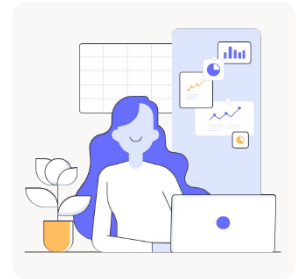
03 Enhance
with 360° Data

Visitation data is enhanced with Placer Marketplace 3rd party datasets that further describe businesses, consumers, and markets.

04 Generate
Actionable Insights

Robust, statistically significant insights into how people and places interact are presented via an intuitive UI, data feeds, or the Placer API.

The platform employs sophisticated data debiasing techniques and re-tags historical data to ensure consistency and reliability. Clients are encouraged to conduct their own validation tests, often finding high correlations with in-store counters and transaction data. By analyzing comprehensive visitation data and integrating third-party demographic and psychographic datasets, Placer.ai provides insights into market shifts, competitive performance, and audience profiles. Businesses can use this information to predict trends, identify growth opportunities, and tailor their strategies to meet evolving consumer needs.

Use Cases: WellTower & Gensler

Finally, the Council looked at how two end users are applying AI in their business models. Joseph Pawelski, Director of Investment Research at Welltower Inc., and Dinesh Prabaharan, Associate in the Government + Defense Practice Area at Gensler, provided insights into how AI is transforming decision-making processes within their respective companies. They highlighted tools such as ChatGPT for content generation and Testfit.io for early planning, showcasing how AI aids in areas like lead nurturing, automated leasing, and portfolio optimization.

The presentation emphasized three primary ways AI can be utilized in commercial real estate: gaining insights from internal data, extracting insights from external data, and structuring data from various sources. The speakers detailed the importance of data standardization and integration, illustrating the challenges of working with disparate datasets and the need for a well-

defined scope and budget. They discussed the balance between building custom AI solutions in-house versus purchasing commercial AI tools, citing Welltower's extensive data infrastructure and analytics team as a model for successful implementation.
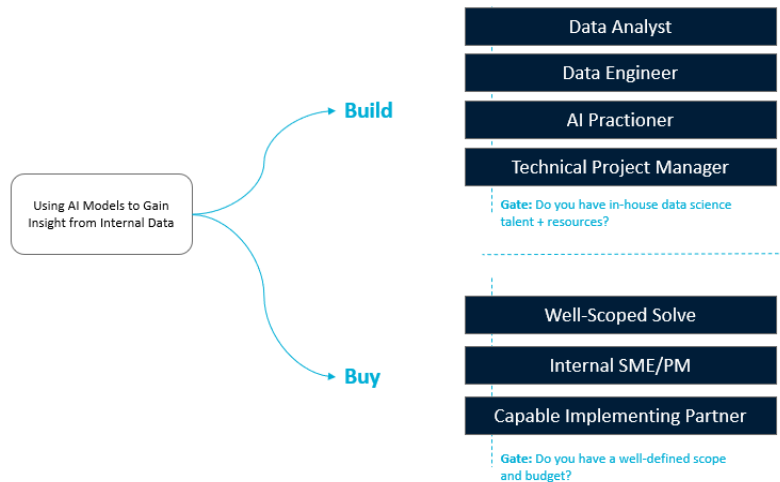
Pawelski and Prabaharan predicted that AI will continue to expand as a common tool used in all aspects of real estate, but highlighted the need for significant computational resources, specialized data science skills, and the continuous development of AI-driven tools to optimize operations and decision-making processes.

Key Takeaways from the Year

Following each of the presentations, the Council engaged in robust discussions that consistently returned to common themes and concerns shared by many Council members regarding AI:

- If I haven't started yet, what's the best way to integrate AI into my business model?
- How do I measure return on investment (ROI) with AI?
- How do I use AI without compromising my intellectual property?
- In these early innings, is it better to be a leader or fast follower?
- How much technical capacity do I need internally to manage AI integrations, even if I am hiring an outside party as the lead?
- How do I build internal muscle and communication pathways that connect the "black box" of technology and its experts, with the "in-the-trenches" players critical to the revenue and operating model?

In addition to getting exposed to some of the real estate industry's leading experts on AI, Council members articulated appreciation for the ongoing value that the ULI community of peers provides when wrestling with challenging new technologies such as AI, which can hold as much peril as promise. Looking ahead to the upcoming year, the Innovation & Technology Local Product Council is soliciting ideas for a new theme for exploration that builds on what we have learned and shared about AI. Ideas can be submitted to marc.gazda@uli.com.

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