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Artificial Intelligence and its use at Bright MLS

## Presentation Introduction

This presentation was created to educate Real Estate Associations on the impact of AI from the perspective of Bright MLS, including some of our future plans for leveraging AI in 2023. I presented it to the Northern Virginia Association of Realtors.

This version of the presentation differs from the one presented in 2023 in the following ways:

- Includes slides that were omitted during our internal review process.
- Omits any slides referring to Bright MLS product plans, strategy, or timelines.
- Some AI-generated images have been updated.
- Offers fresh perspectives on AI as of fall 2024.
- Modifies formatting to fit the layout of this presentation template.



# What do we mean by AI?

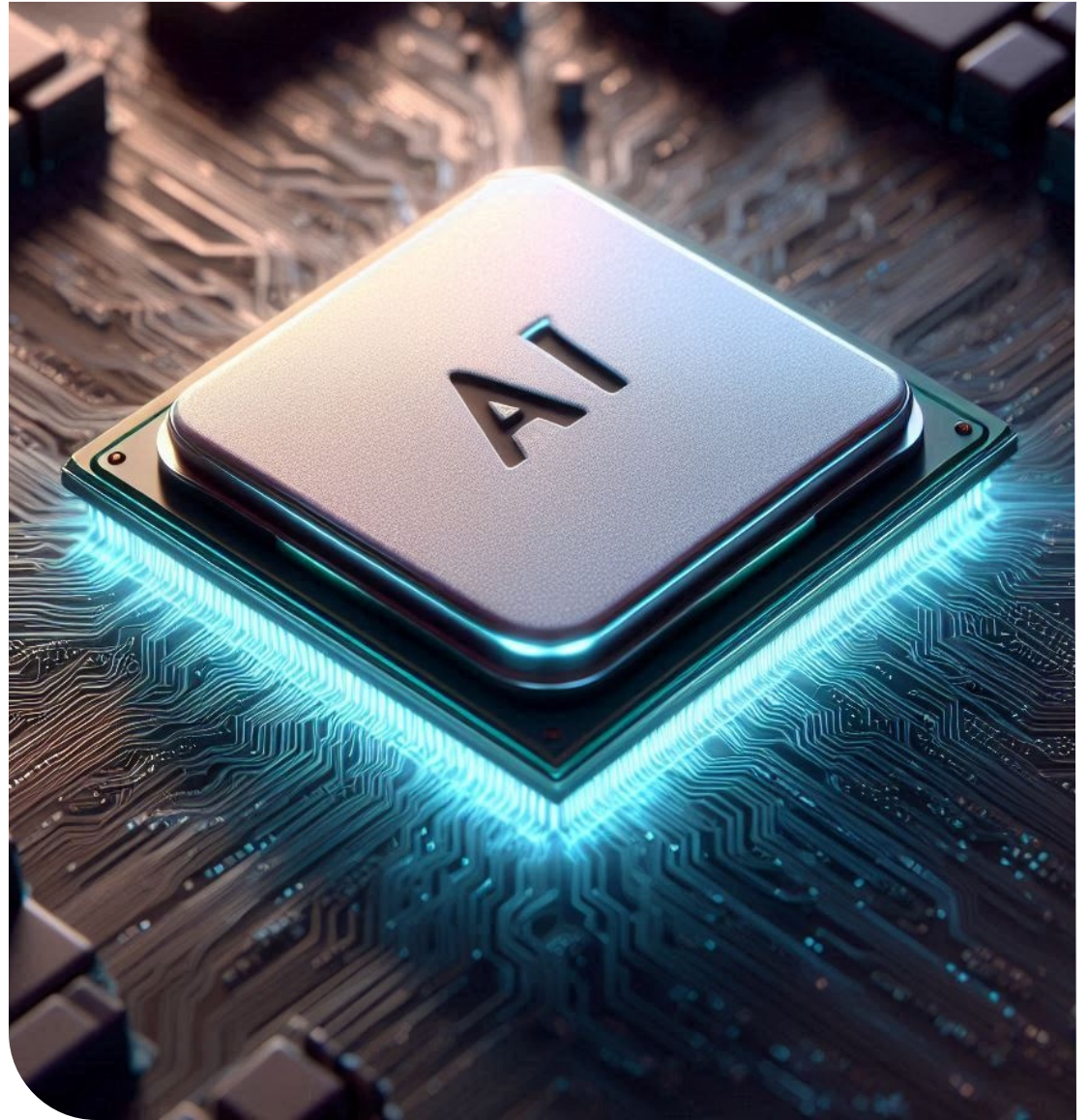


# AI can mean anything and everything

This is a problem, particularly when trying to set expectations with stakeholders or customers.

*“Anything that is vaguely automated, people apply that term to. And the term gets muddled.”*

Cade Metz, Author, “Genius Makers: The Mavericks Who Brought A.I. To Google, Facebook, and the World.”



# "AI" is not a replacement for agents

Artificial intelligence isn't intelligent, and does not have the experience of agents. It's simply code running on a computer, using existing data to complete tasks it was programmed for. Machines are not human—they don't have thoughts or feelings. They are not innately creative and can only work with the data we provide.

However, AI can be leveraged to help agents excel at what they do best.





# The ingredients for an AI system

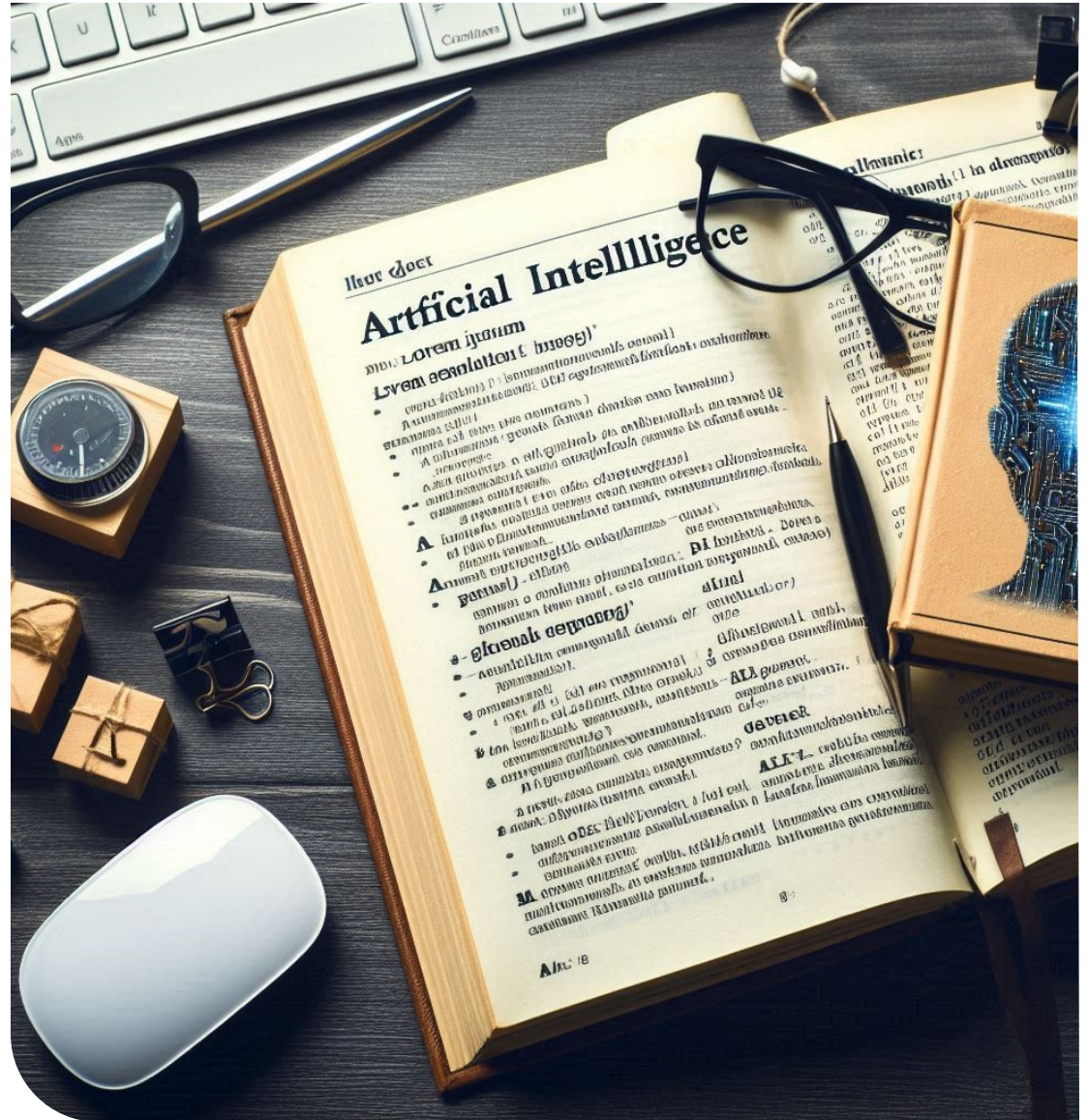
1. A Collection of Data
  - Structured & Unstructured
2. Natural Language Processing
  - Written or Verbal.
3. Image Recognition.
4. Machine Learning
  - Training data provided by an expert that serves as “ground truth” that the system builds upon.
5. Weighted evidence decisions.
6. Continuous feedback from human "experts" as it provides answers to score accuracy.



# A definition for discussion

For the purposes of this presentation, we'll define AI as:

*Any technology which can automate the generation of unique insights or data from existing data, without creating additional tasks or workload for the individual requesting it.*



Where is AI being used today?



# Image Recognition

Vendors today provide image recognition software which can identify elements of a property such as architectural details, building materials, appliances, furniture and fixtures through an api.

In the future, these keywords could be fed back into an AI generator to create text descriptions of the photo.



# Virtual Property Staging

Agents are already using virtual staging for generating images of fully furnished properties which have been vacated by their client.

Extending this to generative AI opens the door for agents to enter text prompts to select the style or aesthetic they're looking for when staging a scene.





# Property and Photo Descriptions

Writing descriptions takes time, and most agents aren't writers. Many have quickly learned they can use AI to help them be more creative and save time when crafting listing descriptions.

A valuable byproduct of generating meaningful photo descriptions is making listings accessible to all buyers, including those who rely on assistive technology to view property photos.





# What do Buyers Value?

Research from the National Association of Realtors (NAR) shows that buyers need data to make informed purchasing decisions and overwhelmingly value photos and detailed property information above all other elements.

While most listings include a robust set of photos, many descriptions are minimalist at best, and at worst, simply label the room (e.g., "Kitchen").

## VALUE OF WEBSITE FEATURES

Exhibit 3-8

(Percentage Ranking Feature "Very Useful" Among Buyers Who Used t

	All Buyers	24 to 32	33 to 40
Photos	85%	87%	85%
Detailed information about properties for sale	80	81	78
Real estate agent contact information	53	41	50
Floor Plans	49	49	49
Virtual tours	39	37	41
Pending sales/contract status	36	39	40
Detailed information about recently sold properties	35	35	39
Neighborhood information	31	30	39
Interactive maps	28	32	36
Videos	27	26	27
Information about upcoming open houses	13	14	17
Virtual open houses	11	10	10
Virtual listing appointment	9	10	11
Real estate news or articles	6	4	6

2023 NAR Home Buyers and Sellers Generational Trends

# Challenges and Risks with AI

# Biases in AI implementations

Bias can be introduced into AI systems in multiple ways:

- Selection and size of data set used as ground truth and reference material.
- Cultural bias of human reviewers
- Design of algorithms
- How and when AI is applied
- Who has access to AI systems





# AI model collapse

As more AI-generated content becomes available, it can be fed back into AI systems. AI works best when generating new content from real-world examples. However, when its data set contains too much content generated by itself or other AI systems, the output becomes corrupted and no longer reflects reality accurately.



# Ethical use of AI

The ability to generate new content from trained data presents ethical challenges, especially in situations where it could mislead consumers, either intentionally or unintentionally. Often, these ethical challenges aren't fully understood until unintended consequences arise.

The nature of the training process, who is conducting it, and where it takes place also raises important ethical questions.





# Legal and Governance Issues

The executive and legislative branches, along with the tech industry, are discussing issues related to oversight of AI use. These regulations, policies, and best practices may take years to define and implement.

For individual industries such as real estate, who should we hold accountable for content generated by an AI system, particularly in scenarios where an MLS may serve as the technology provider and policy enforcer?





# Readiness of AI Systems

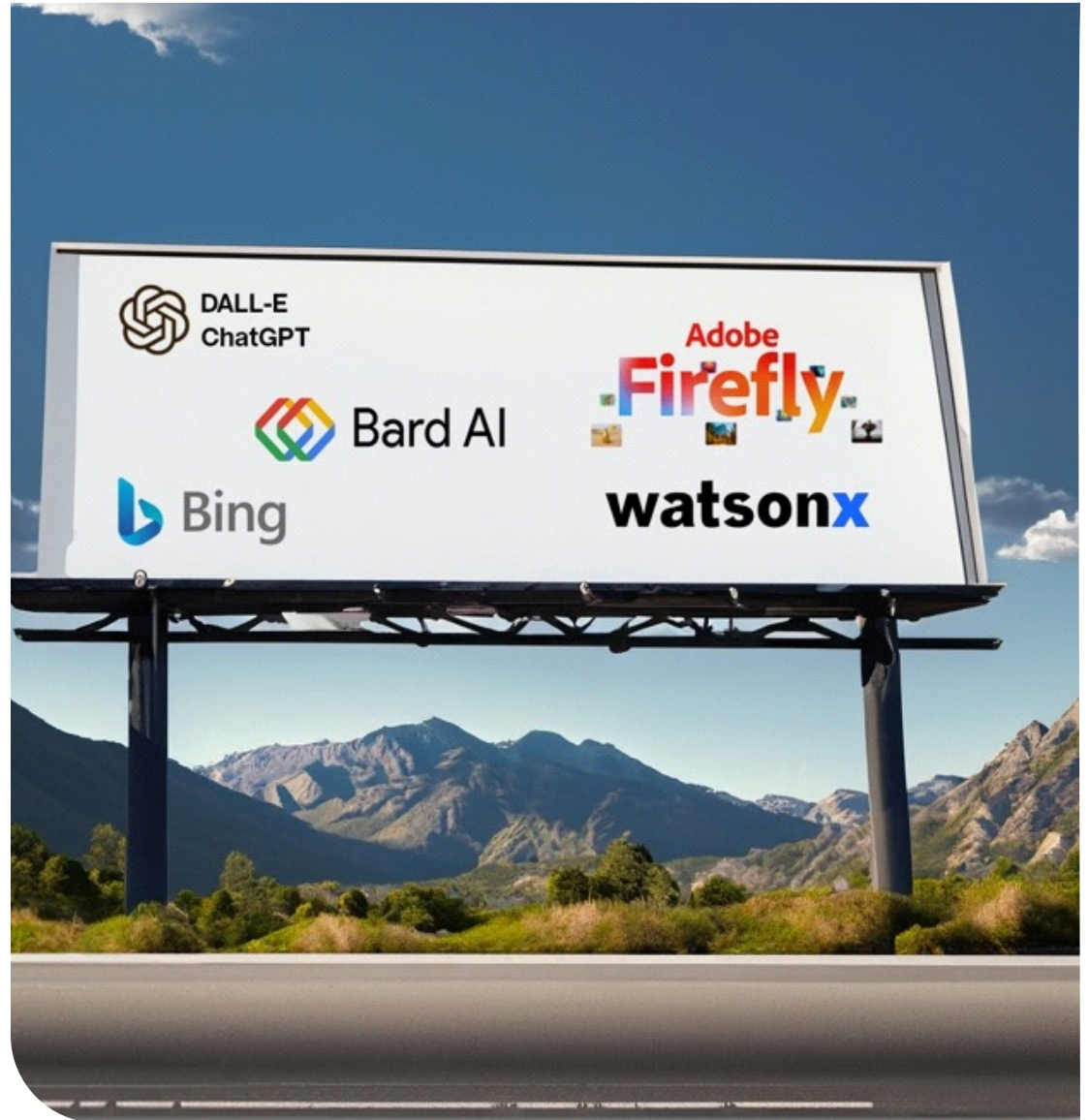
Despite the fact that content generation tools are still in their early stages of maturity, rapid improvements in the technology are being made. However, AI-generated content, including images, frequently suffers from “hallucinations” and, over the long term, will require final human review for accuracy and appropriateness before use.





# Selecting the right partners

There may seem to be a lot of players in the AI space now, but far more are trying to enter. While some, like OpenAI (ChatGPT/DALL-E), appear mature now, more time is needed to fully navigate the hype curve.



Thank You