



Connected Home Council (CHC) Webinar Meeting will commence 12:05pm ET

March 12, 2024, 12 PM – 1:30 PM (ET)

CHC Chair: Ken Wacks (Ken Wacks Associates)

Vice-Chair: Charlie Derk (Legrand)

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1. Agenda

Ken Wacks (Ken Wacks Associates)

1. Agenda
2. Call to Order, Welcome, Introductions, About the CHC
3. Administrative
4. Research Update
5. Keynote: How Generative AI Will Impact the Smart Home - Alex Capecelatro of [Josh.ai](https://josh.ai)
6. ASHB Journal
7. ASHB Whitepapers
8. ASHB Podcast
9. New Business
10. Announcements
11. Adjournment



2. Call to Order, Welcome, Intro, About the CHC

Ken Wacks (Ken Wacks Associates)



CHC Chair
Dr. Kenneth Wacks
Management &
Engineering Consultant
Ken Wacks Associates

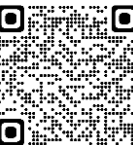
KENNETH WACKS, Ph.D.
Management & Engineering Consultant



CHC Vice-Chair
Charlie Derk
Vice President of
Strategy



Established in 2004, the ASHB Connected Home Council initiates and reviews projects that relate to connected home and multiple dwelling unit technologies and applications. The Council also examines industry opportunities that can accelerate the adoption of new technologies, consumer electronics and broadband services within the burgeoning connected home market.
www.ashb.com/chc



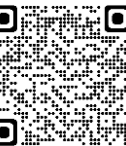
3. Administrative

Ken Wacks (Ken Wacks Associates)

3.1 Motion to approve past CHC Minutes November 29, 2023

www.ashb.com/chc

3.2 Call for CHC Vice Chairs



4. Research Update

Greg Walker (ASHB)

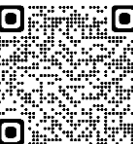
2023 CHC Landmark Research Smart Home Technology & Market Trends



Funders



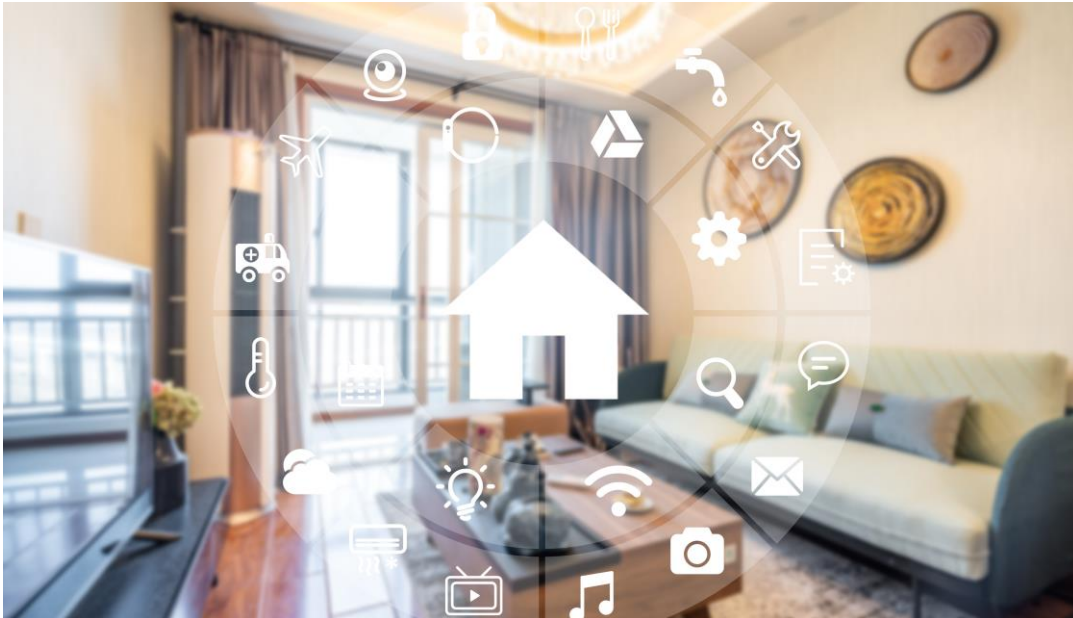
Contact Klopotowska@ashb.com to
obtain research findings.



4. Research Update

Greg Walker(ASHB)

2024 CHC Landmark Research Smart Home Trends & Technology Adoption



5. Keynote

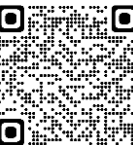
Charlie Derk (Legrand)

Keynote Speaker

Alex Capecelatro
Founder & CEO



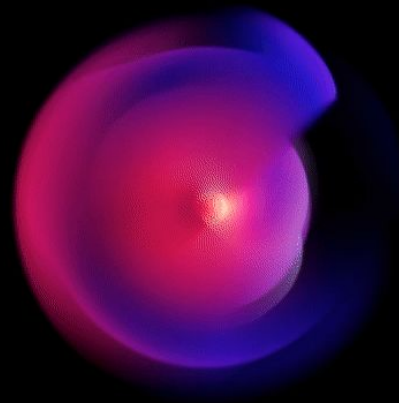
How Generative AI Will
Impact the Smart Home



How Generative AI Will Impact the Smart Home

ASHB Connected Home Council

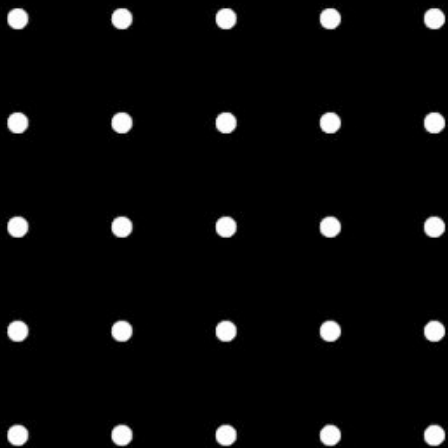
Alex Capecelatro
CEO, Josh.ai



Who am I?







A New Era Of
Smart Home Control

Introducing JoshGPT: <https://youtu.be/QbmJJ-rXkio>



AI

What is it?

Generative AI has had the fastest acceptance and usage growth of any new technology to date.

Time to Reach 100M Users

Months to get to 100 million global Monthly Active Users



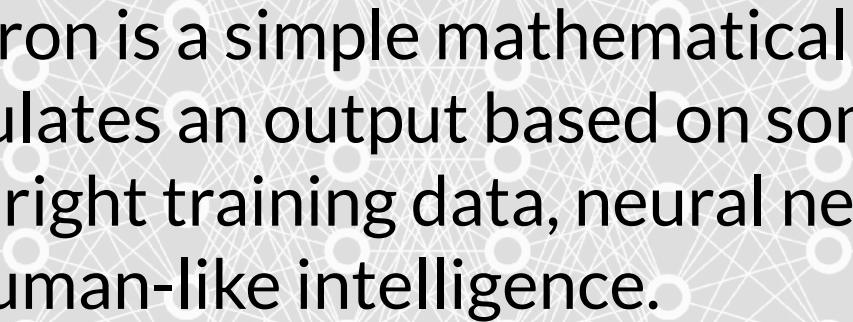
Source: UBS / Yahoo Finance

What exactly is Generative AI?

What exactly is Generative AI?

It's AI that creates new content based on past content.

Deep Neural Networks



Each neuron is a simple mathematical function that calculates an output based on some input. With the right training data, neural networks exhibit human-like intelligence.

LLM

Large Language Models use a transformer architecture, which is designed to process and generate data in sequence, like text.

An LLM effectively predicts which word should follow the previous.

The result of the training process is a neural network with hundreds of billions of connections between millions of neurons.

That said, LLMs produce text that sounds right, but can't guarantee it's right.

How much data is needed?


ChatGPT parameter count: 1.5 billion*

GPT-4 parameter count: 1.76 trillion**

Example 1:

*What can you tell me about
the art series that the
inventor of pop art made
that showcased in Paris*



 The reference appears to be to Andy Warhol's "Flowers" series, showcased at the Ileana Sonnabend's Gallery in Paris in 1965. This series marked a departure from Warhol's obsession with morbid themes and instead depicted a vibrant, modern take on nature's beauty. It's rather charming!



Example 2:

Model: GPT-4



I'm in my house. On top of my chair in the living room is a coffee cup. Inside the coffee cup is a thimble. Inside the thimble is a single diamond. I move the chair to my bedroom. Then I put the coffee cup on the bed. Then I turn the cup upside down. Then I return it to rightside-up, and place the coffee cup on the kitchen counter. Where is my diamond?



When you turned the coffee cup upside down on your bed, the diamond inside the thimble would have likely fallen out onto the bed. The diamond is now on your bed.



Watch out for...

Hallucinations

Bias

Data not real time

Is it all ChatGPT?

OpenAI – ChatGPT and GPT-4

Google – LaMDA PaLM LLM (Bard), now Gemini

Anthropic – Claude 3

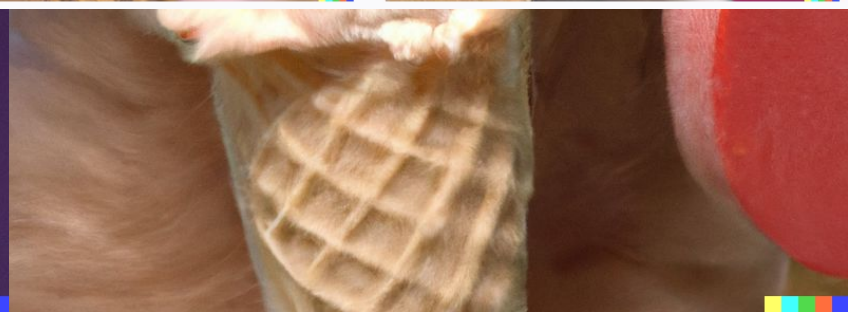
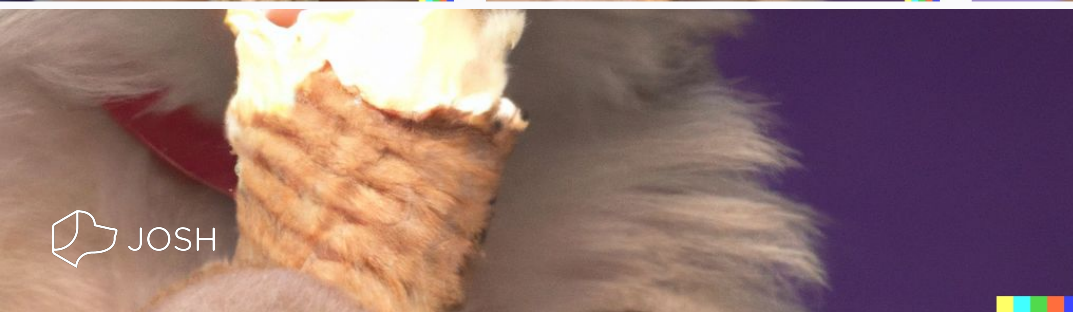
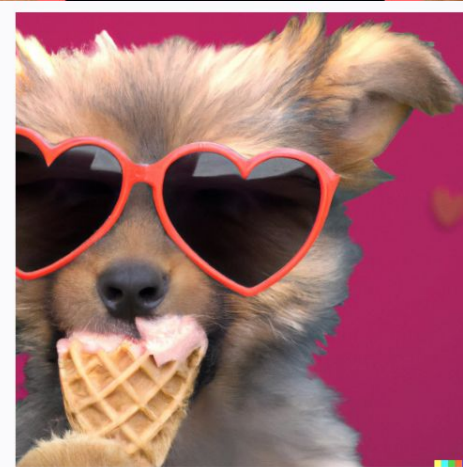
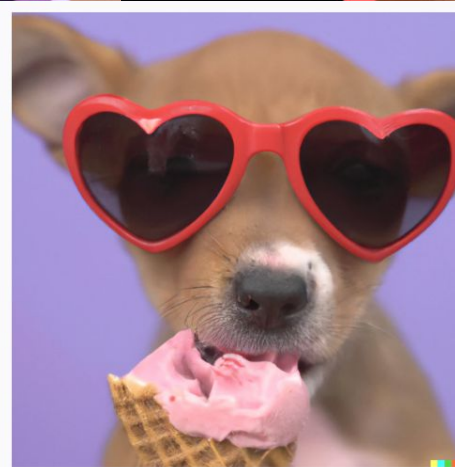
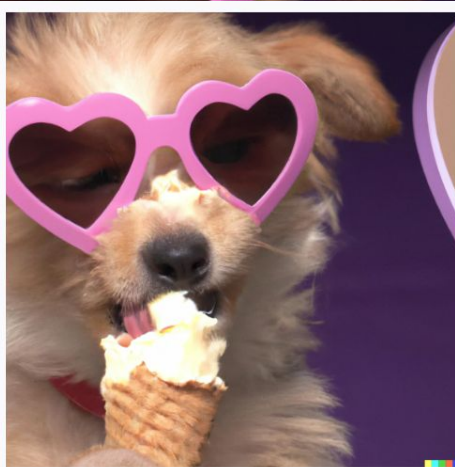
xAI – Grok

Meta – LLaMa 2



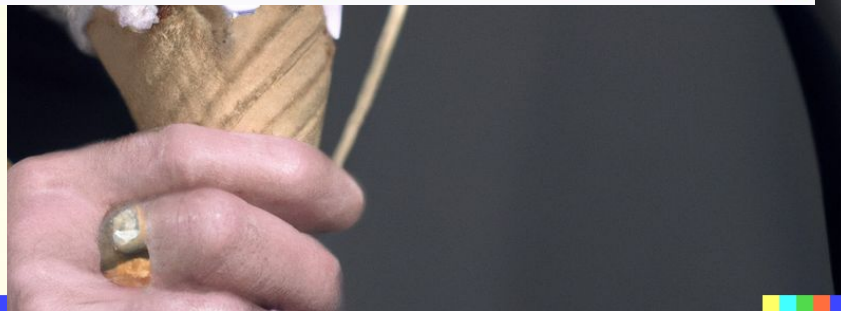
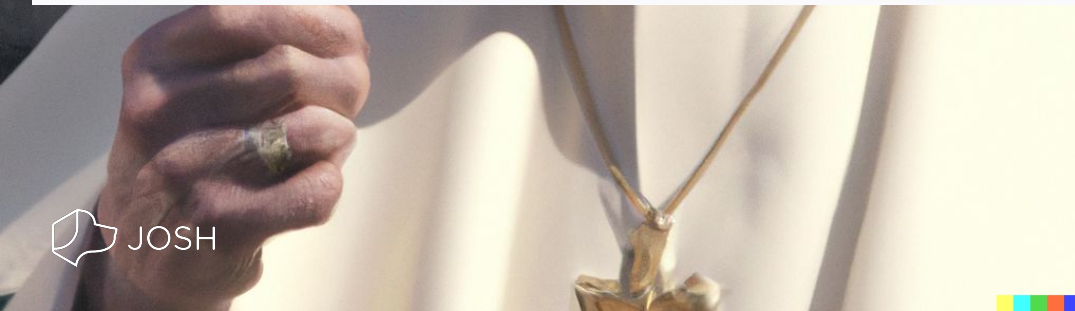
Not just about text...

“Generate a 4k photo of a puppy wearing heart shaped sunglasses eating an ice cream cone”



Or change that to...

“Generate a 4k photo of the pope wearing heart shaped sunglasses eating an ice cream cone”



How will this impact the Smart Home?

1. Automatic custom configurations
2. Content recommendations
3. Camera and security
4. Diagnostics and network management (detect issues)
5. AI assistant for tech support
6. Going beyond control (cooking, information, assistance)
7. A home that actually understands you

But also... be cautious

Deep fakes (impersonating your voice, image)



Video link: <https://youtu.be/3wVpVH0Wa6E>



BIZ & IT / INFORMED TECHNOLOGY

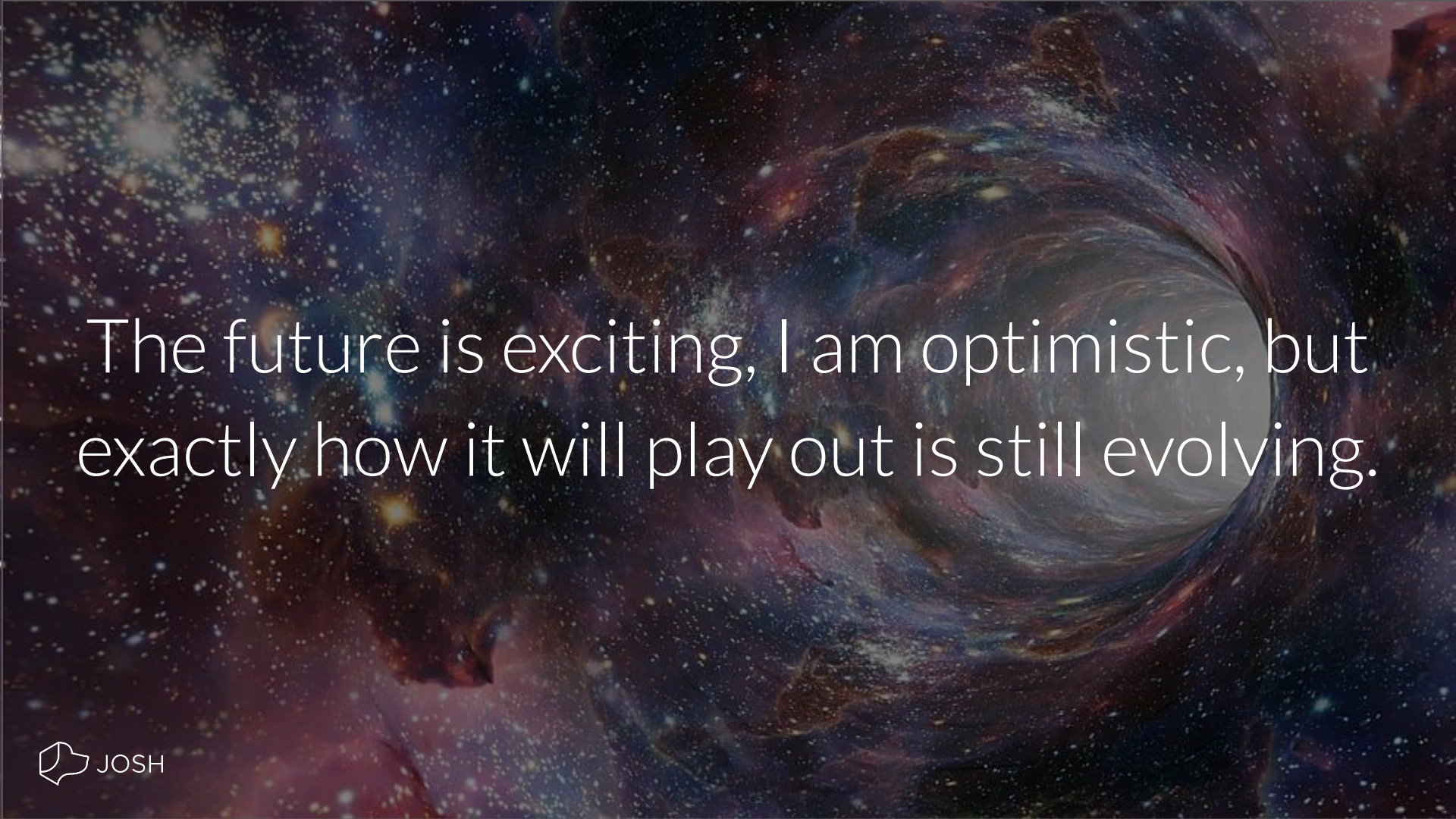
Google's best Gemini AI demo video was fabricated

Google takes heat for a misleading AI demo video that hyped up its GPT-4 competitor.

by **Benj Edwards** - Dec 8, 2023 4:33pm CET

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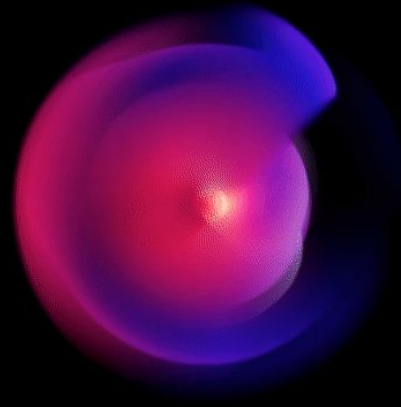




The future is exciting, I am optimistic, but
exactly how it will play out is still evolving.

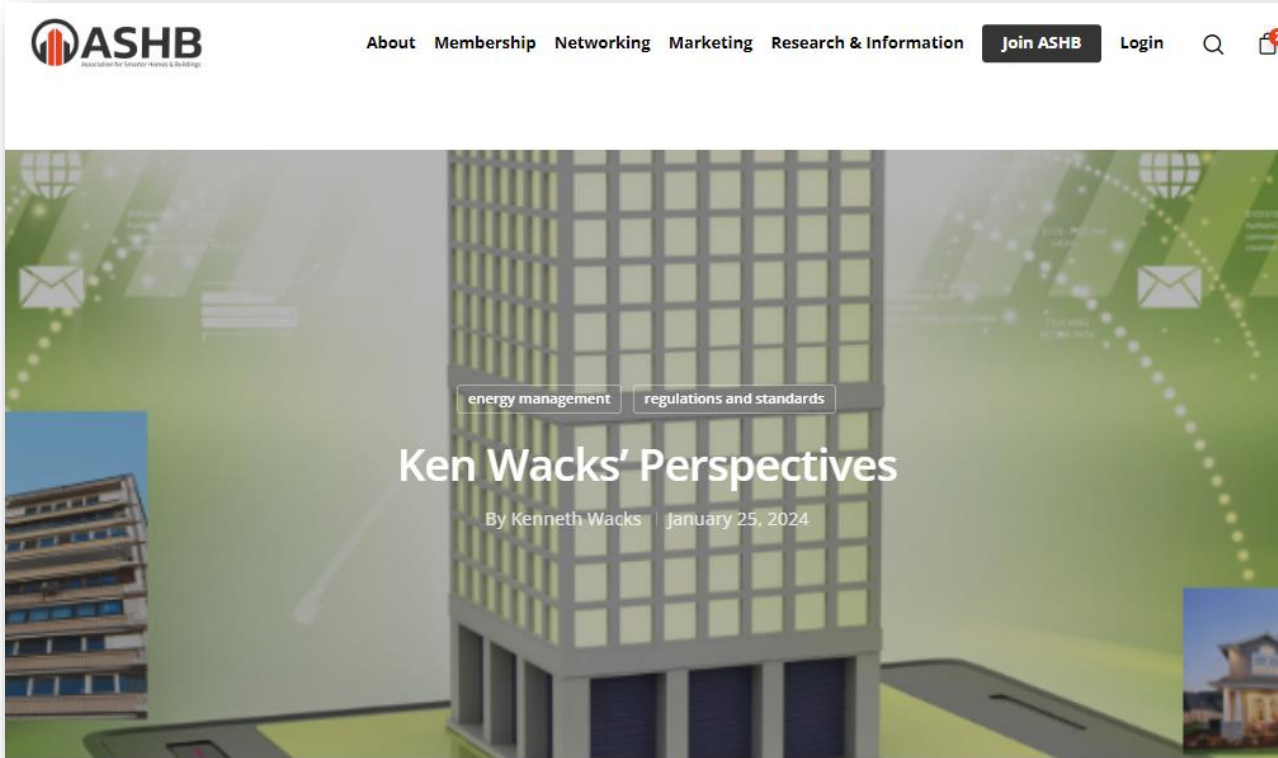
Thank you

Alex Capecelatro
alex@josh.ai



6. ASHB Journal

Ken Wacks (Ken Wacks Associates)



The ASHB Journal aims to educate and inform the ASHB membership and industry at large on emerging research, issues, challenges, and opportunities in the intelligent buildings and/or connected home sectors.

New articles are posted to the ASHB website, included in the weekly NewsBrief, and circulated on Twitter and LinkedIn.

Send proposals to admin@ashb.com

Recent posts:

- **Ken Wacks Perspectives: The Business Case for Energy Management**
- **Ken Wacks Perspectives: CES 2023: A Sampling of Product Diversity**
- **Facilio: The Relevance of Decarbonizing Goals During the Downturn**

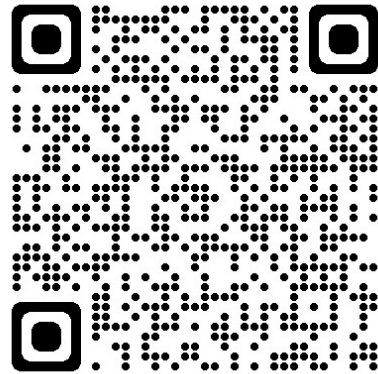


7. ASHB Whitepapers

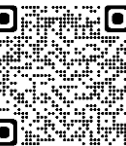
Ken Wacks (Ken Wacks Associates)

Published IBC White Papers can be downloaded at:
www.ashb.com/whitepapers

Send proposals to admin@ashb.com



ASHB
Research Program



8. ASHB Podcasts

Marta Klopotowska (ASHB)



Join industry experts and leaders from around the globe as they discuss everything smart home and intelligent buildings.



Apple
Podcasts



ASHB is looking for guests and hosts for future pre-recorded episodes. Contact admin@ashb.com for more information.

Recent Recordings:

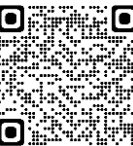
- Solar Energy is a Team Sport: When OEMs and Installers Collaborate for Quality



9. New Business

Ken Wacks (Ken Wacks Associates)

New CHC Business?



10. Announcements

Charlie Derk (Legrand)

Upcoming Events

Connections (Parks Associates)

May 7-9 | Dallas, TX

(Virtual - June 13 & December 12)

Shanghai Smart Home Technology

September 3-5 | Shanghai, China

CEDIA Expo

September 5-7 | Denver, CO

Smart Spaces (Parks Associates)

September 24-25 | Richardson, TX

(Virtual - March 21, July 23, December 12)



11. Adjournment

Ken Wacks (Ken Wacks Associates)

Next CHC Meeting: May 2024

Association for Smarter Homes & Buildings (ASHB)

admin@ashb.com | www.ashb.com | www.ashb.com/chc

Connect to what's next™



ASHB

Connected Home Council

