

**Leveraging AI  
In the HME Industry**

Steve Cela, Strategic Office Support

TexMEP 2023 Annual Conference & Expo

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**Steve Cela**  
President, Strategic Office Support

Steve Cela, President of Strategic Office Support, brings over two decades of experience in owning and operating DME companies and diagnostic centers. He is the owner and co-founder of Aprix Sleep Diagnostics, as well as Aprix CPAP Equipment and Supplies. He also owns a manufacturing business in Houston, Texas. Steve holds degrees in Biology and Business from Baylor University and the University of Texas in Dallas, respectively. A speaker, business owner, and consultant, he is renowned for transforming business operations and strategy, leveraging his extensive expertise in efficiency optimization. His practical insights and strategic management advice have shaped the growth trajectories of numerous businesses in the healthcare sector.

Steve founded Strategic Office Support, a revenue cycle management and remote staffing company, specifically to help HME and DME providers become more efficient, more profitable, and more patient-focused. Together with Strategic Office Support, Steve is on a mission to help all clients reclaim their time and focus on growth!

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**On November 30, 2022,  
the world changed forever.**

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**On November 30, 2022,  
the world changed forever.**

Generative artificial intelligence became accessible to the public... for free.



- Harvard Business Review**  
https://hbr.org/2023/12/changes-in-tipping-point-...  
**ChatGPT is a Tipping Point for AI**  
Dec 14, 2022 — "We're hitting a tipping point for artificial intelligence. With ChatGPT and other AI models that can communicate in plain English, ..."
- Forbes**  
https://www.forbes.com/sites/random/2023/02/18/...  
**Waking Up To The 'Art Of The Possible' in Artificial ...**  
Feb 18, 2023 — "Harvard management professor Ethan Mollick views the conversation about Chat GPT as a 'tipping point' in AI in business applications."
- The New York Times**  
https://www.nytimes.com/2023/05/01/technology/ai-...  
**How ChatGPT Kicked Off an A.I. Arms Race**  
May 3, 2023 — "The plan was to release the model in early 2023, along with a few chatbots. ... It has been endorsed (with mixed results) by news publishers, ..."

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**The AI Revolution**

The global market for AI in healthcare was **\$1B in 2017**.  
It is expected to **exceed \$28B by 2025**.

The market growth is driven by generative AI capabilities.

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**The AI Revolution**


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**Predictive AI**  
Analyzes existing data  
to predict the future

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**Generative AI**  
Generates new content  
based on learned patterns

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**Agenda**

**What** is artificial intelligence?  
**Why** should you care?  
**How** can you use it?



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**What is artificial intelligence?**



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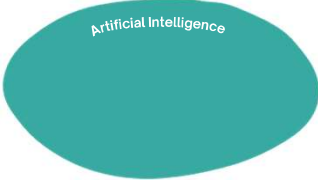
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**What is artificial intelligence?**



**Artificial Intelligence (AI):**  
Any technique that enables computers to mimic human intelligence, using logic, if-then rules, decision trees, and machine learning.



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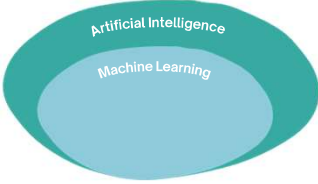
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**Machine Learning (ML):**  
A subset of AI that enable machines to improve at tasks with experience.

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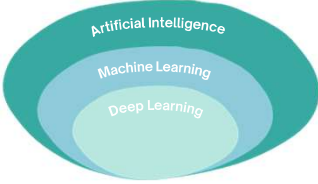
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A subset of AI that enable machines to improve at tasks with experience.

**Deep Learning:**  
A subset of ML that allows software to train itself to perform tasks, like speech and image recognition, by exploring multilayered neural networks to vast amounts of data.

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**Power of deep learning**

**In 2020, MIT announced discovery of a new antibiotic, Halicin**

- MIT used **deep learning AI** to identify Halicin out of a library of 61,000 molecules
- The AI was instructed to identify a molecule that:
  - ✓ Would be effective as antibiotic
  - ✓ Did not look like any existing antibiotics
  - ✓ Predicted to be nontoxic

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The AI identified relationships that had escaped human detection... Even after it was discovered, researchers could not articulate why!

**The AI processed data more quickly AND detected aspects of reality that humans have not, or possibly cannot, detect**

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**What is Artificial Intelligence: AI Examples**

**AI is already a massive part of modern life**

- Smart assistants (like Siri and Alexa)
- Navigation apps that reroute according to traffic
- Personalized search results and social media feeds
- TV show recommendations from Netflix
- Manufacturing and drone robots
- Disease mapping and prediction tools
- Robo-advisors for stock trading
- Conversational bots for customer service
- Spam filters on email



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**The age of AI is here.**



**What implications does AI have for the HME industry?**

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**Why should you care?**

*Three categories of AI for business needs:*

**Process automation**  
Automation of tasks, typically, back-office, administrative, and financial activities

**Advanced analytics**  
Advanced data analysis; Detect patterns in vast amounts of data and Interpret meaning

**Cognitive engagement**  
Engage employees and customers using natural language processing

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**Why should you care?**

**Top Ways Business Owners Use Artificial Intelligence**  
Forbes Advisor surveyed business owners to find out how they currently use or plan to use AI within their business

Category	Percentage
Customer service	56%
Cybersecurity / Fraud management	53%
Digital personal assistants	52%
Customer relationship management	48%
Inventory management	42%
Content production	37%
Product recommendations	37%
Accounting	37%
Supply chain operations	37%
Recruitment and talent sourcing	37%
Audience segmentation	24%

Source: Forbes Advisor + Deloitte | Forbes ADVISOR

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**Why should you care: AI in healthcare**

*Potential Future Applications of Generative AI in HME*

Patient

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**Why should you care: AI in healthcare**

**Potential Future Applications of Generative AI in HME**

**Improved physician notes and orders**  
Generative AI could automate extraction of medically relevant info from discussion recordings, summarize the interaction, and integrate notes into EHR systems

**Continuity of care**  
Summarize discharge information and follow-up needs for post-acute care; generate care summaries for referrals; Scheduling appointments

Patient

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**Continuity of care**  
Summarize discharge information and follow-up needs for post-acute care; generate care summaries for referrals; Scheduling appointments

**Payer efficiencies**  
Auto-generation of approval and denial letters for prior authorization requests and claim requests to improve speed and effectiveness. Create custom coverage summaries for specific benefits questions

**Value-based care**  
Improve documentation accuracy; Create patient education videos, images, and summaries; draft value-based care contracts and carve out contracts based on market characteristics

Patient

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**Value-based care**  
Improve documentation accuracy; Create patient education videos, images, and summaries; draft value-based care contracts and carve out contracts based on market characteristics

**Reimbursement**  
Develop prior authorization documentation for payers; generate a list of current conditions and potential codes from voice, EMR, text & other data

**Business functions**  
Draft contracts; Generate reports and KPIs; Create purchase orders based on supply levels; Create customized SOPs; Create education for new hires

Patient

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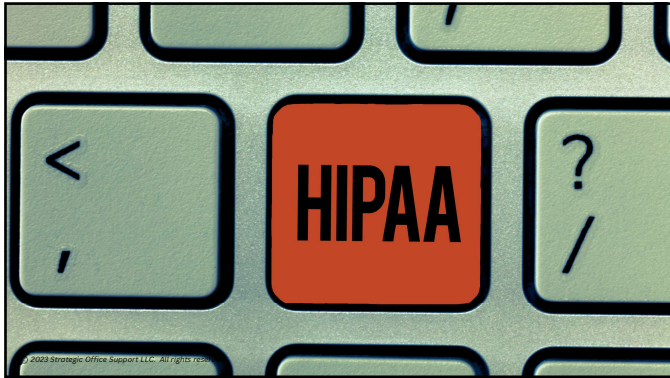
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Why should you care: HIPAA compliance

**ChatGPT and other popular AI tools  
are **not** HIPAA compliant.**

**Any tool used in healthcare must protect patient health information (PHI):**  
The terms of service for ChatGPT outline they "may automatically collect information" and states that they "review conversations to improve our systems." ChatGPT would need to change its terms of use and privacy practices, incorporate safeguards at its data centers, and encrypt data both in transit and at rest. And, as with any service provider, they would need to provide covered entities with a signed business associates agreement (BAA).

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Why should you care: HIPAA compliance

**PROTECTED HEALTH INFORMATION (PHI)**  
*List of HIPAA Identifiers*

Patient Names	Social Security Numbers	Vehicle Identifiers
Dates	Medical Record Numbers	Website URLs
Geographic Identifiers	Health Insurance Beneficiary Number	IP Addresses
Phone Numbers	Account Numbers	Biometric Identifiers
Fax Numbers	Certificate & License Numbers	Facial Images
Email Addresses	Device Identifiers	Any Other Unique Identifiers

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**Why should you care: HIPAA compliance**

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**Strategies for HIPAA Compliant AI Use**

- Secure Data Storage and Transmission**  
*Encrypting data at rest and in transit and ensuring AI model is hosted on compliant infrastructure such as private clouds, on-premises servers, or HIPAA compliant cloud services.*
- De-identification**  
*De-identify or anonymize data to minimize risk of breaches. AI models should be trained to recognize and redact any personally identifiable information before processing the data.*
- Access Control and Auditing**  
*Implement robust access control mechanisms to limit access to PHI. Ensure that only authorized personnel can interact with the AI model and sensitive data. Regularly audit the system for vulnerabilities.*
- Data Sharing and Consent**  
*Ensure that use of AI models aligns with data-sharing agreements and patients' consent. Collect, process, and store data in a way that adheres to these agreements and follows HIPAA guidelines.*

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**How can you use AI?**

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**How can you use AI?**

- Write SOPs and training documents
- Draft letters and emails
- Design a website
- Create SEO-optimized blog posts
- Create video scripts or social media posts
- Automate data analysis
- Transcribe and summarize meeting notes
- Edit video footage
- Create images and logos

...and much more!



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**Interactive Workshop**

*Marketing demonstration*  
*Performance review demonstration*

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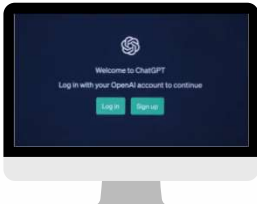
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**Marketing Demonstration**

- *Design a marketing campaign*
- *Write a video script*
- *Write a LinkedIn post*
- *Write an Instagram post*



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**Prompt Writing: Tips & Tricks**

**Marketing Demonstration Prompt:**

You are the executive director of TexMEP association. You are also the best marketer in the world. The TexMEP members are home medical equipment companies and durable medical equipment companies in Texas. TexMEP stands for Texas Medical Equipment Providers Association. You want to exponentially grow your association and get more members. Generate five ideas for Instagram content that would resonate with potential members. Include a Call To Action which is to become a member.

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**Prompt Writing: Tips & Tricks**

**Frame ChatGPT's thinking:**  
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**Prompt Writing: Tips & Tricks**

**Frame ChatGPT's thinking:**  
 → You are the executive director of TexMEP association. You are also the best marketer in the world.

**Explain relevant background information:**  
 → The TexMEP members are home medical equipment companies and durable medical equipment companies in Texas. TexMEP stands for Texas Medical Equipment Providers Association.

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**State the overall objective:**  
 → You want to exponentially grow your association and get more members.

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**Specify the output:**  
 → Generate five ideas for Instagram content that would resonate with potential members.

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**Specify the output:**  
 → Generate five ideas for Instagram content that would resonate with potential members.

**Utilize your own expertise!**  
 → Include a Call To Action which is to become a member.

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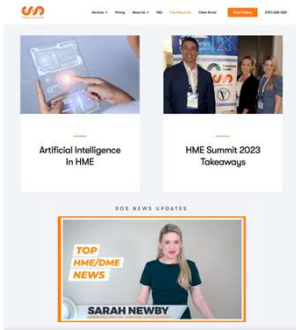
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**Download Free Resources!**

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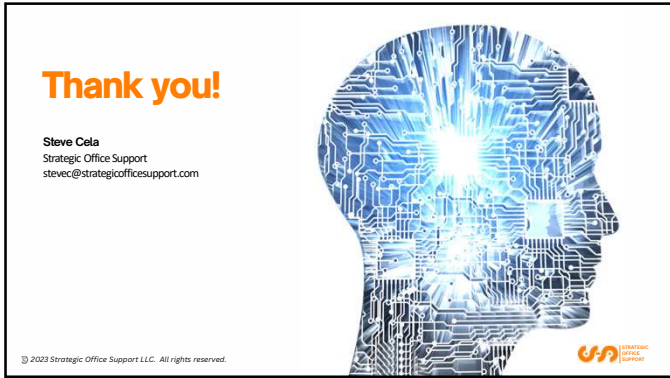
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