Applications of AI in Healthcare a Key Focus at HIMSS

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Since its inception in 1962, the Healthcare Information and Management Systems Society (HIMSS) national convention has served as a pivotal event in the industry, drawing together key players in a dynamic trade show setting. With hundreds of software vendors vying for the attention of technology buyers, primarily hospitals and health insurers, HIMSS has become a cornerstone gathering for networking and innovation.

While Health Catalyst Capital (HCC) participates in various large-scale conferences, including recent ones tailored to investor meetups, our presence at trade show conferences like HIMSS holds particular significance. It provides us with a unique platform for engaging in vendor-customer discussions, facilitating our proprietary investment and thematic research, and staying abreast of industry trends such as the evolving applications of artificial intelligence (AI) in healthcare. These conferences also offer valuable opportunities to identify new investment prospects and support our portfolio companies by connecting them with potential customers.

At the 2024 HIMSS event in Orlando, HCC was among the 35,000 attendees who converged to explore the latest developments, with AI emerging as a focal point of discussion. The timing of the conference allowed vendors to align their strategies with the latest advancements in AI technology, coinciding with significant updates to our own proprietary research on its myriad applications within healthcare.

We welcome the opportunity to engage in meaningful dialogue and explore potential avenues for collaboration.

Below are more detailed key takes specifically from a special AI Forum we attended as part of the broader HIMSS conference.

HIMSS 2024 AI Forum Takeaways

Below we share key takes from the AI Forum we attended, but first some broader industry observations:

1. Electronic Medical Record (EMR) vendor Epic continues to expand their solution set and dominance in the market (estimated at 47.6% of hospital beds in the U.S.[1]). Smaller software vendors are filling gaps in Epic's offering by building solutions on top of the EMR to enhance user experience and collection of specialty information such as genomics data but taking business away from the EMR giant is a fight many smaller players don't want to pick.
2. Health system buyers are prioritizing software solutions that provide immediate cost savings, with a focus on back-end opportunities like workflow automation and supply chain. ROI payback period requirements have shrunk from 24-36 months to <12 months. Some CIOs have learned their lesson that automation of certain tasks is costlier than maintaining manual processes because it requires IT support people to manage the new software.
3. Cybersecurity expertise was in high demand as most exhibit-floor talks on the topic were standing room only. The Change Healthcare cyberattack only highlighted the ever-growing problem of healthcare data breaches and the industry's overreliance on antiquated system

architecture. As the costs of security breaches continue to rise, so too will the investment required to prevent them.

Now on to the AI Forum, which began by highlighting some impressive use cases for the frontier technology...

1. Detecting Lyme disease through a single photo
2. Diagnosing a rare disease that could not be identified by 17 doctors over three years
3. Sketching what people are picturing in their minds from brain waves in an fMRI machine

...but the conversation quickly turned to more bearish views on the risks of using AI...

1. ChatGPT is currently being used by medical residents as a source of reference when treating patients. Yes, the same ChatGPT that fabricates citations for why regular opioid use is beneficial for the prevention of heart disease.
2. From one participant whose provider organization built internet firewalls to prevent the use of Large Language Models on site: "We are afraid of them and think we are right to be"
3. And from one physician who is tired of hearing about AI: "We are already starting down the trough of disillusionment [in the Gartner Hype Cycle]"

Following the highs and lows of the topic du jour, participants were treated to practical advice on preparing their organizations for the AI wave:

1. Your people will use AI at work whether you want them to or not. It's best to give your staff the tools to experiment in a sandbox environment by partnering with AI vendors you trust. This reduces the risks presented by general-purpose AI models, which do not have guardrails and are at risk of fabricating information.
2. Surveys show that leaders put data estate and governance low on the list of priorities for AI transformation. In fact, they are foundational and will drive your organization's ability to properly implement AI solutions. Now is the time to start talking about secure and mature data transformation.
3. Get all stakeholders involved early. When implementing a new solution, you may be solving a problem on the operational side but creating a problem on the clinical side (or vice-versa).
4. Don't find applications for AI. Instead, find problems and use AI to solve them. Overdoing it on AI can be detrimental to your organization. For example, using AI to over-predict patient risk can cause unnecessary anxiety for the patient and uncertainty for the provider.
5. Today AI can aid the creative thinking process but is not yet reliable for accuracy and precision. This is a step change from the past 50 years, where humans have been using computers to eliminate errors. We need time to play around with AI and get better at using this new tool in a different way from its predecessors.

Sources:

1.   Becker's Hospital Review. EHR Vendor Market Share in the US. Giles Bruce. May 23, 2023.