

HEALTH CARE

Is AI Designed to Sell More Drugs?

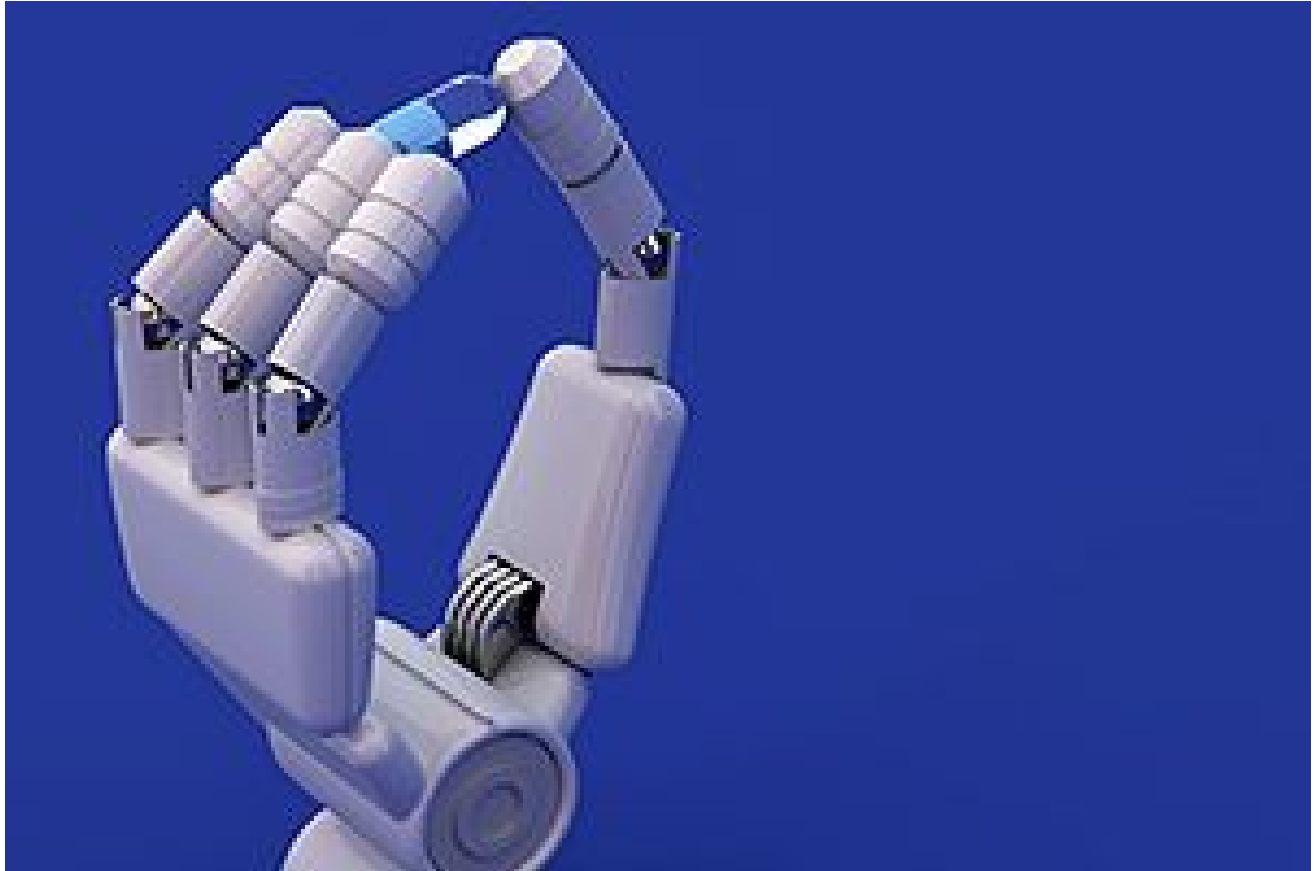
Donald M. Petersen Jr., BS, HCD(hc), FICC(h), Publisher

While artificial intelligence (AI) currently has limited application in chiropractic, the same cannot be said for medicine. The [most recent study](#), published earlier this year, demonstrates the superiority of AI in evaluating breast cancer screening.¹ Not surprisingly, the lead authors were connected to Alphabet companies Google Health and DeepMind, which was purchased by Google in 2014 and completely taken over by Google in 2019.²⁻³

With a valuation of nearly \$1 trillion, Alphabet is [the big dog](#) in the AI world.⁴ Its DeepMind company is at the forefront of AI development in health care; so much so that it is considered [a threat](#) to traditional pharmaceutical companies.⁵

According to a recent KPMG study, when it comes to adoption of AI, "[M]ost respondents still wish their organizations would be more aggressive in adopting AI technology." And while half (52 percent) of health care insiders believe AI is currently more hype than reality, that is expected to change in the near future.⁶

AI in Health Care: The Dangers



A report published last year by the National Academy of Medicine discussed some of the potential pitfalls inherent in utilizing AI for health care, including ethical use, equity and transparency. As reported, "[T]he scaling possible with AI might further exacerbate the considerable existing inequities in health outcomes at a monumental scale. A single biased human or organizational impact is far less than that of global or national AI."⁷

In addition, several worrisome factors come into play when considering AI for the delivery of health care:

- *Privacy* - Names can be removed from large datasets, but people can be re-identified by their genetic code.⁸
- *Drug Development* - With its ability to manage large amounts of data, AI is also speeding drug development.⁸
- *Lack of Oversight* - "Legislation passed by Congress in 2016 - and championed by the tech industry - exempts many types of medical software from federal review, including certain fitness apps, electronic health records and tools that help doctors make medical decisions."⁹
- *Venture Capitalists* - "AI in healthcare funding skyrockets in Q3 (2019): Healthcare AI companies raised almost \$1.6B across 103 deals."¹⁰

Did Google Start It All?

You can't really blame the venture capitalists for investing billions of dollars a year on health care AI. They are just following [Google's lead](#). Google began investing in Pharma in 2009, ramping up to more than \$400 million in 2016.¹¹ Google's parent, Alphabet, is [also investing](#) in health insurance startup

Oscar.¹²

Changes Are Coming - Fast

Interestingly enough, the medical profession appears to be under the notion that AI will not impact the number of health care jobs, but will ultimately free physicians and others to spend more time with patients. They are apparently unable to recall how technology has impacted travel agents, taxi drivers and the retail industry as a whole.

An early example of the coming change are the [Forward clinics](#) popping up in major cities. Not surprisingly, these were started by a former Google executive.¹³

Looking more like an Apple store than a traditional medical clinic, patients check in, scan themselves on the patented body scanner and head to an exam room, all without any human interaction. The body scanner provides initial tests required by the attending doctor, including a thermal body map, heart rate, blood oxygenation, body composition, resting metabolic rate and EKG. This information is sent to the exam room, as well as the patient's mobile app. An assistant takes the patient's blood, with the results shown on the exam-room big screen in 12 minutes.

Forward touts itself as "a new type of doctor's office providing preventative primary care with world class doctors supported by the most advanced medical technology." Most of the Forward clinics only have 1-3 MDs (one has four) with limited staff. The cost is \$149 per month.¹⁴

Drawing Some Conclusions

As these pieces are placed next to each other, there are some obvious conclusions to be drawn. First, Alphabet and other investors are not pouring money into AI without expecting some substantial returns. Second, the ability for AI to help create new drugs faster puts tech companies at a clear advantage in the race to develop new drugs. Third, the lack of understanding of how these technological advances are progressing, let alone any oversight, is extremely sobering. There is no reason for tech companies to publish their findings unless it is to their advantage to do so.

The check-and-balance system of requiring a medical physician to decide if a patient needs a drug and the pharmacist filling the prescription has been eroding for the past few decades. The direct influence of drug companies has reached into almost every medical practice.

Health care AI presents a new model that could be the advent of a system in which a handful of AI companies drive diagnostic conclusions to physicians and patients that are to the advantage of those same companies highly invested in the drugs / solutions the patients are directed to purchase. In short, tech companies could make money on both sides of the equation, charging the patient / insurer for the diagnosis and again for the purchase of the recommended drug / solution.

Make no mistake, health care is changing ... *quickly*. As a profession, chiropractic will need to learn how to utilize technology to provide better care while maintaining our philosophy.

References

1. McKinney SM, et al. International evaluation of an AI system for breast cancer screening. *Nature*, 2020;577:89-94.

2. Shu C. "Google Acquires Artificial Intelligence Startup DeepMind for More Than \$500M." TechCrunch.com, Jan. 26, 2014.
 3. Lomas N. "Google Completes Controversial Takeover of DeepMind Health." TechCrunch.com, Sept. 19, 2019.
 4. Divine J. "Artificial Intelligence Stocks: The 10 Best AI Companies." *U.S. News and World Report*, Jan. 10, 2020.
 5. Langreth R. "AI Drug Hunters Could Give Big Pharma a Run for Its Money." Bloomberg.com, July 15, 2019.
 6. "Living in an AI World: Achievements and Challenges in Artificial Intelligence Across Five Industries." KPMG, LLP, 2020.
 7. *Artificial Intelligence in Health Care: The Hope, the Hype, the Promise, the Peril A Special Publication from the National Academy of Medicine*. Matheny M, et al. (editors). National Academy of Medicine, 2019.
 8. Weintraub K. "How AI Is Transforming Health Care." WebMD, Jan. 2, 2020.
 9. Szabo L. "A Reality Check On Artificial Intelligence: Are Health Care Claims Overblown?" Kaiser Health News, Dec. 30, 2019.
 10. Global Healthcare Report Q3 2019. CBInsights.com.
 11. "Google Is Ramping Up Pharma Activity." CBInsights, June 9, 2017.
 12. Li A. "Alphabet Invests \$375M in Tech-Focused Health Insurance Startup Oscar." 9TO5Google.com, Aug. 14, 2018.
 13. Meiling B. "Ex-Googler's 'High-Tech' Doctor's Office Forward Comes to San Diego." *San Diego Union-Tribune*, Sept. 20, 2019.
 14. Forward website: <https://goforward.com/>.
-

Read more findings on my blog: <http://blog.toyourhealth.com/> wrblog. You can also visit me on Facebook and Twitter (donpetersenjr, @donaldpetersen).

SEPTEMBER 2020