ESG Now Podcast

"AI is Diagnosing and Texas is Burning"

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Gabriela de la Serna:

Hello and welcome to the weekly edition of ESG Now, the show that explores how the environment, our society and corporate governance effects and are affected by our economy. I'm Gabriela de la Serna and I'll be your host for today's episode. And you're in luck because even though inflation is rampant and it feels like your favorite bar of chocolate is getting progressively smaller, on today's show we'll be giving you two stories for the price of one.

Our first story will look at the potency of artificial intelligence for the healthcare industry. AI is being pushed as a cure for all the world's ills, but somehow also as the main architect of some future dystopian nightmare. And as fun as it is to play with those scenarios, we'll take a more practical look at why it matters for healthcare, how it's being applied, and what risks and opportunities that will bring for investors.

And then in our second story, we'll change things up by looking at a longer running risk, physical climate change, and wildfires specifically, because it's been five years since a series of wildfires started PG&E's legal and financial troubles. And during those five years, wildfires have started becoming a thorn in the side of electric utilities, going from an oddity to more consistent operational risk. And investors are probably keen to find out if these companies can continue to deliver stable and reliable returns in spite of this new risk. And well, so am I. So let's jump right in.

Since the launch of ChatGPT more than a year ago, artificial intelligence suddenly went from being a futuristic dream to something much more tangible. It is the new cool kid in Silicon Valley and the internet. And entrepreneurs want to know how to ride a wave and monetize it, managers want to understand how they can use it to enhance operational efficiency, and the rest of us may be wondering if it'll make our jobs easier, or redundant. AI is like modern art. Some love it, some hate it, and some just don't know what to make of it. And because there is so much that is still new and still developing, you're not really sure whether you're going to be looking at incremental gains or minor downsides, which is why I wanted to speak to my colleague Namita Nair out of our London office. In addition to covering the healthcare sector, she's also a healthy skeptic. First, I asked Namita whether AI would find a happy breeding ground in the healthcare sector and what areas make sense for its application.

Namita Nair:

What we need to understand is that there is a radical reshaping that would be necessary, especially after what we've seen and what we've experienced during the COVID-19 pandemic. There are many areas of healthcare that are under strain. For example, there is a projected shortage of nearly 10 million physicians, nurses, and midwives globally by 2030. At the same time, we are faced with an aging population, right. A lot of countries have undergone the demographic shift and a majority of their population is now older. As you age, your care needs increase. One of the things that AI can do is make diagnosis and treatment faster, and this would be something that in turn leads to better patient outcomes.

Gabriela de la Serna:

So it looks like the healthcare industry is a pretty great candidate to embrace AI disruption. First, because healthcare is expensive and in countries where universal access to free healthcare is a basic right, governments can struggle to balance tricky budgets. And making budgets balance can mean fewer workers get hired, putting more pressure on understaffed and already burned out workforces. There are also going to be demographic factors that make things trickier over time. In places like Europe, one in four people are expected to be over 65 years old by 2050, which will ask more of healthcare systems. So actually AI might be a welcome opportunity to many working in the industry, the kind of bulletproof solution that will arrive and fix all our problems. But AI is not going to arrive overnight. It is likely to first be adopted to optimize administrative tasks, the low-hanging fruit. And then as the technology gets more sophisticated, AI might shift some hospital-based care into home-based care. And ultimately it might end up fully embedded into complex clinical decision-making. However it does pan out, it's clear that there are a lot of niches that can be sprinkled with some AI magic, not only the potential for better care outcomes and efficiency of care delivery, but also breakthroughs in drug discovery and AI-driven diagnostics. With such an extensive menu of options, things can feel overwhelming. So I asked Namita to tell me which two areas she's the most excited about. Which ones are the ones in her opinion, likely to generate more opportunities for healthcare companies.

Namita Nair:

Okay, Gabby. So two areas which are my personal favorites and which I can see are exploding in real time are drug discovery and healthcare delivery. Drug discovery is basically the process of doing research and development to discover a molecule, for example, that might be effective against a particular disease, and to take this through the entire gamut of non-clinical trials, clinical trials, and finally, they'll launch much quicker and they would also be able to progress through things like the clinical trials for a drug much quicker with the help of AI.
When it comes to healthcare delivery, it's about things like the diagnosis, for example, of a disease, seeing the application of AI in things like reading of X-rays, MRI charts, even for things like symptom checking. And then again in the prescription of drugs or even the prescription of bespoke treatments that would be completely tailored to the patient who has to get them.
We've already had companies that are moving in that direction. Sanofi, for example, have got about 118 million USD invested in an artificial intelligence company called Owkin. Is a strategic collaboration for drug discovery and development for cancer. Another example would be a healthcare equipment company, Medtronic, that has actually brought out GI Genius endoscopy module, which is actually based on its collaboration with Nvidia and AI technology. So these are areas where I think there's going to be a lot of application. It's going to explode. So for example, if you think of the companies that are doing something at each phase of clinical trials, for example, in terms of things like a trial design, the launch of a trial, and the conduct of a trial, companies like Amgen, AbbVie, Gilead, for example. All these big names that have already gotten their foot into one or all of these three areas.

Gabriela de la Serna:

This all sounds very exciting. And for all of these opportunities and upside potential, we don't plan to gloss over the risks or potential downsides. After all, AI is still a nascent technology, but because it is evolving quickly, so are the risks associated with its application. And I admit it's tempting to speculate about some more far-fetched outcomes like X-ray machines that develop a personality. But as Namita told me, most of the current risks she sees for mixing AI into healthcare rest on patient data. Not only in terms of the governance and oversight processes that companies use to protect patient data, but how that data is used to train AI models to improve treatment outcomes while avoiding discrimination or bias. Namita walked me through these risks, but also which companies might be best prepared to manage them.

Namita Nair:

We are having vast amounts of sensitive health data. In many jurisdictions this is protected information. Protecting this sort of information at this scale is going to be a challenge. If your underlying data has biases, these biases would only be exacerbated or compounded by the use of AI. There will always be a question of the transparency. So how was the decision reached? So something like that is necessary and important, especially in the case of healthcare, where each decision has to be backed by scientific information, provable data, for example, and the use of AI should not result in black box decisions just because a machine told us so.
The governance of the data is really important. Many companies, there is some disclosure regarding the fact that they have some primary level of data protection policies, for example. But very few companies go above and beyond and actually talk about the processes that are in place or the systems that are in place to protect that data. For example, companies that have encryption, decryption. We looked at that for our coverage on biotech companies. Although 39% of those biotech companies actually use AI for clinical trials, they appeared relatively underprepared to manage privacy and security risks. There was only one company that had disclosed having adopted things like encryption and decryption, and only about six companies that had incident response plans. So this is an area where we feel that companies need to be disclosing better. They need to be enhancing the privacy and data security measures that they have. It is not new for companies to be targeted or be the target of hackers who want access to health information and gold mines of personally identifiable information. But I think AI enhances the risk much, much more in this situation.

Gabriela de la Serna:

So in our second segment, we're going to leave AI and healthcare behind and pick up an equally topical issue, physical risk. And more specifically, we're going to talk about the increasing risks that wildfires pose to electric utility companies. And when I say risks, I mean three things. The first is immediate risk of getting your infrastructure damaged, sometimes permanently, and not being able to recover part of that cost by increasing energy prices for consumers. The second, is the risk of being hit by lawsuits from customers or local authorities who want compensation for property damage. And

the third risk, perhaps a more recent one, is the impact that these recurring events can have on valuations.
Historically, power companies have been perceived as safe and reliable assets to hold, but that's changing. In the past five years, extreme weather events have contributed to a quarter of credit rating downgrades in the industry. The latest major incident started in February this year in Texas, the Smokehouse Creek Fire was the state's worst wildfire on record, burning more than 1.2 million acres. And lawsuits are already coming in, because landowners allege that a power pole owned by Xcel Energy was not correctly maintained. And after falling over, it started the fire.
For my colleague Mathew Lee out of our Boston office who covers utilities, this is not his first rodeo. And for him, there's a little more to this story than alleged negligence and plenty good reasons why this might not be the last utility to have to weather this kind of firestorm.

Mathew Lee:

Quite a few major US utilities, such as Con Edison, Duke Energy, or American Electric Power have sold off their unregulated power generation or renewables businesses in the last two years. This refocusing of their business on transmission and distribution only has often been viewed favorably by Wall Street as simplifying to a much more stable and less volatile revenue source. However, if wildfires become an emerging threat, this could of course upend such evaluation hypothesis. In the medium to long term, investors will want to take note not just of current hazard risk exposures in terms of physical risks, but also the deltas, the changes in a hotter world.

Gabriela de la Serna:

So as Mathew tells me, Xcel Energy isn't alone here. Wildfires are becoming a bigger and bigger headache for utilities in general, and Xcel Energy already faces nearly 300 lawsuits from a 2021 fire in Colorado. What's interesting here is that utilities are at the crossroads between climate mitigation and adaptation. For some time, utilities were mainly facing pressure to lower their emissions by investing in renewables and phasing out dirty energy sources such as coal. But now, in recent years, as wildfires become more frequent, the operational risks posed by changing climate means that utilities must also adapt by modernizing their infrastructure. And for investors, one upshot is that electricity transmission or distribution, which was maybe once a steady and stable business, is looking like a more unpredictable prospect. Which is not to say that companies cannot act on this risk. So I asked Mathew to tell me more about this. What's next for utilities? Why it matters for investors, and what can they be in the lookout for in the meantime?

Mathew Lee:

Oftentimes, the highest level of adaptation costs is where thresholds are crossed, and an area that didn't have to prepare or is not ready for a certain type of hazard now needs to be. So a region that is currently seeing abundant rainfall and doesn't see dry conditions, but could have that developed in the next 10 or 20 years are actually the region that may be of most concerned because utilities right now do not have the infrastructure to prepare for a wildfire and manage it. It's good to see some utilities like Portland General Electric being a bit more proactive at communicating their wildfire risk exposure and management plan, but investors may want to see this practice more broadly adopted across US utilities.

Gabriela de la Serna:

Which brings us to the end of our two-for-one special. For Namita, AI holds massive opportunities for a healthcare sector that could do with more hands, better efficiency, and more sophisticated research and diagnostics. But unleashing this tool on sensitive patient data will not be without its risks. Companies and investors are still very much at the beginning of their AI journey as they look to understand this trend.

And for Mathew, physical climate risk for utilities is now in a much more mature footing and a journey that is well underway. And yes, there are precedents, better models to measure risk and more tools to do something about it, but this also means that investors will be watching closely to see how quickly companies can roll with the punches to protect their bottom line.

And that is it for this week. Massive thanks to Namita and Mathew for their takes on the news with an ESG twist. And thanks to you for tuning in and sticking around. Don't forget to rate and review us, and if you enjoy listening to us every Friday, go ahead and click the subscribe button. Thanks again and we'll catch you next week.

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