The Intentional

CHRISTINA SHIM, IBM's Chief Sustainability Officer, is working toward the day that sustainability is so embedded in business strategy, her job no longer exists.

THE BUSINESS FOUNDED AS THE COMPUTING-TABulating-Recording Company in 1911 has remained at the forefront of technological innovation for over a century. It changed its name in 1924—to IBM. • Now Chief Sustainability Officer Christina Shim is focused on a challenge that will shape business and society for decades to come: how to make the most of AI—responsibly and sustainably. • It's a hot issue, but not one that's new to Shim. Before taking on the CSO role, she led IBM's sustainability software business and helped shape its AI ethics strategy. Brunswick's Manavi Garg and Jordan Bickerton spoke with Shim about the challenges and opportunities of AI

ILLUSTRATION: MARIA MACHULSKA

for people and the planet, and her efforts to embed long-term sustainability into decision making at every level of the organization.

Since stepping into the role of CSO at IBM, the debate on climate has shifted and AI has exploded. How has that influenced the way you shape IBM's sustainability strategy today?

To me, it has always been important that we think about sustainability interlinked with how we think about business value.

Of course, sustainability efforts are good for the climate, but they can also help find cost efficiencies, uncover innovation, identify business opportunities and benefit customers and communities with whom we work. Before stepping into this role, I actually led a piece of the IBM business, so trust me when I say that embedding sustainability into how we do things is really just good business.

There are evolving views on climate, for sure, and variations of that around the world. However, the Institute for Business Value—our IBM think tank—did a study last year that showed that organizations that fully embed sustainability were 52% more likely to outperform peers on profitability and enjoy a 16% higher rate of revenue growth. These are real data points, showing that sustainability is not just a feel-good issue about recycling and saving a dollar here and there. It can drive real, tangible business outcomes.

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The rise of AI only reinforces this. For AI to make sense for businesses, it has to be implemented with intentionality, considering its energy costs, its environmental impacts and how it's being leveraged for positive outcomes and ROI. It's all interwoven with business strategy to me. That hasn't changed.

Can you talk more about sustainability as a core part of decision making?

I view sustainability as a foundation for long-term growth. Of course, there's a compliance piece, and voluntary goals, which every major global multinational company has to manage. But that is the bare minimum of what is possible. What excites me is thinking about how we can build on that for long-term success.

Embedding sustainability into decision making is really about widening the aperture of what's being considered, so that we are using the most cutting-edge data to better mitigate risk, drive innovation, generate revenue and find cost efficiencies.

This is an increasingly risky world, with tumultuous markets, a changing environment and a lot of uncertainty. CSOs and CEOs are all thinking about how to best navigate this and chart a course for durable, long-term success. Part of what I'm working to do here at IBM is give my colleagues the highest fidelity understanding of what is going on both with internal operations and the external environment we're operating in, so that we can use data to make decisions that lead to profit, growth and a long-term competitive edge.

How do you communicate sustainability goals with other teams in a way that culminates in genuine action?

I like to tell my team that we should assume nobody cares about sustainability. Many actually do, deeply, which is great! But if we assume the worst, it pushes us to continually and clearly make the business case as to why this should be part of decision making—and then we'll have more impact. We do that with messaging, collaboration and celebration.

It is critical not just to consistently communicate with colleagues, but to do so in a language they understand. I am fortunate to have experience in different areas—this is actually the first internal role that I've taken—which has been incredibly helpful in speaking to people in a way that resonates, whether they come from nonprofits, finance, marketing, et cetera.

I've also shaped my team to support value-add collaboration across the business. We have three pillars: compliance and client requests; cost efficiencies around climate, energy and environment; and then a new function focused on innovation, partnerships and emerging technology. This has let us more seamlessly insert team members into R&D, corporate functions, product development and business development. And by helping these teams drive forward shared goals, our colleagues see my team as adding value versus raising any sort of barrier.

For example, we're lending technical expertise to improve how IBM products are being built. We're supporting data collection and standardization. And we're using our own technology to build virtual assistants. This helps advance our own goals—both business and environmental—and can serve

as an example of how our customers can advance theirs too.

Finally, celebrating success inspires even more support. We recently launched a Sustainable Innovation Prize, which is meant to really urge IBMers to think about how their work intersects with sustainability and drive new and creative quantification efforts across the business. I talked about cutting-edge data, and we're hoping this helps uncover some of that. The winners will also get to ring the bell at the New York Stock Exchange, which will be really cool.

How is IBM navigating responsible AI development?

Thank you—this question is not discussed enough. I am a very proud member of IBM's AI ethics board, which was created over five years ago, well before the issue exploded in the media. From the beginning, IBM has been advocating for AI transparency, explainability and openness. And these traits are really critical in guiding the broader AI community to best innovate for long-term success and be mindful of impacts along the way.

Our ethics board has three main principles. First, we believe AI should augment human intelligence—not replace it. Second, the data that feeds into AI and the insights that come out of it belong to the creator. And third, these technologies have to be transparent and explainable. You can see that this fits cleanly with IBM's reputation of being very, very open and open source.

Our acquisition of [open-source software manufacturer] Red Hat is a big piece of this too, as we think about what our work means to the open-source community. We are doing the same with our AI models—making sure that we're able to share them and get open-source community feedback, that innovations are collaboratively building on each other, and that transparency and explainability are built in.

I can't overstate how critical governance for AI ethics is. We need to all be aware of the fact that there are risks, mitigate them and be intentional about it. At IBM, this is about understanding how technology is being used and making a recommendation to the business on the use case. And, because we ask questions that maybe the business hadn't thought about, I think we have a strong influence.

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AI's energy demands are a key part of sustainability conversations. How can companies make energy efficiency an essential element of their AI and sustainability strategy?

One word. Intentionality. If you're intentional about how you are using AI, you will think about both its energy consumption on the bottom line and the outcomes its delivering on the top line.

Here we think of mitigating AI's environmental impact across the full stack, involving everything from the power source, the chips and infrastructure, to the models themselves, and then the applications.

AI efficiency innovations are happening incredibly fast, so businesses and organizations have a lot of levers to pull. They can reduce their impact by choosing smaller and more efficient models, being thoughtful about where and how they're doing their processing, and using the most energy efficient infrastructure.

Survey after survey keeps showing that organizations are ramping up their use of AI, but at the same time the underlying infrastructure has simply not kept pace. To be clear, enormous strides are being made in developing infrastructure that is both increasingly energy-efficient and custom-tailored for AI workloads. But if the infrastructure that's being used is even just seven to 10 years old—that's almost a decade's worth of innovation and energy efficiencies not being included.

So, there are a lot of levers to pull for businesses and organizations if they act intentionally to mitigate the cost and emissions associated with AI. And on the flip side, the applications of AI are so powerful that we're approaching a world where you can accelerate the lifecycle of a problem—solving it that much faster and significantly reducing waste, inefficiency and energy costs.

Is there a particularly exciting use case or application that's helping you reduce the energy intensity or solve some of the potential climate challenges?

The GPT Group, a property group in Australia, used our data and analytics solution Envizi to consolidate water and energy data into a single platform and enhance their reporting and monitoring. They have seen remarkable outcomes as a result—they reduced energy intensity by 52% across their portfolio and have seen annual savings of $20 million on energy and water costs.

We also have a recent partnership with L'Oréal that uses AI to create more sustainable chemical formulations for cosmetics, and another project that helps organizations identify PFAS—the forever chemicals—within their supply chain.

How can companies use AI to drive real climate action and reduce their environmental footprint across the business?

I'll share another example of how we use it internally. My team has built a virtual assistant—AskSustainability—that we're pulling data from throughout the enterprise to offer quick and customized Q&A on sustainability-related issues.

That helps in three ways. First, it drives growth because it helps our sellers get information they need to respond to their clients in a standardized and centralized way. Second, it improves efficiencies and accelerates outcomes for my team. Third, this helps us put hard data behind the "book of business" for sustainability.

Most organizations still have hundreds of data sources that they must pull from to make sense of what they want to do. But having a single source of truth and using it to drive real climate action, reduce the environmental footprint and increase sustainability outcomes, is critical. It's also enlightening. My team gets pulled into a lot of conversations but didn't always understand the business impact we were having—how we improve efficiencies and take action in certain areas where we didn't previously have data.

What if we could do this across every single company around the world that has a global footprint? You're talking about a massive impact at scale, on both cost and business value, as well as the real climate and environmental footprint.

Technology's an enabler. I'm never going to say it's the solution to everything, but it'll make our lives easier, and it should help ensure that we are amplifying and accelerating the journey.

What setup do you think helps a CSO make the most impact, and what does real influence look like in the role?

The modern-day CSO should disrupt, inspire and drive measurable outcomes for a business, its clients and communities. That starts with communication.

If you're able to communicate the importance of sustainability across different functions and why it's relevant for them and how they should be brought into it, I think that's what real influence looks like.

I have to work closely with our CIO, our CFO and comptroller, our marketing and communications, procurement, sales and business units. My team and I will not be effective if we cannot work across all these different groups.

Recently, I even heard from a very forward-leaning CEO that they see their CSO as their replacement. They said the reason was because sustainability should be talked about across every function, and so, successful CSOs are able to speak to every function. They really understand how each of the different functions work.

This gels with my own view that, if I'm successful, my job shouldn't exist in five to 10 years. Not because I don't want to be working at IBM, but because if I fully embed what I'm doing across every function—be it marketing, finance, legal, operations—then what do you need me for? Ideally, that's the case. It just becomes part of how everyone does their job.

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When you talk about the legacy you want to leave, what do you hope your work in AI and sustainability stands for?

My job is to help IBM, our clients and our partners both survive and thrive over the long term. That means focusing on the business today, as well as tomorrow's partners and long-term business value. Conversely, this intersection of business, sustainability and ethics is so challenging because of short-term thinking—the next quarter's earnings, what their stock looks like, how the market is reacting and their conversations with investors.

But the long-term value and innovation we're talking about is something that takes longer than six or 12 weeks. It's also something that needs to be embedded as part of our business, culture and mindset. And that takes time.

What I'm working toward is the end of my role. I want to embed sustainability and intentionality in processes and decision making, so that when core business decisions are being made they are mindful of long-term value for a business, its employees, shareholders and customers. That's what I'm working toward. ◆

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